THESIS

THE OTHERING OF PETS:

PALMER, PLUMWOOD, AND PET TECHNOLOGY ETHICS

Submitted by

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ABSTRACT

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In Chapter 1, I will explore some of the central theories in the field of animal ethics, those by: Peter Singer, Tom Regan, Martha Nussbaum, and Clare Palmer. I will also examine the views of Stephen Budiansky and Gary Francione in conversation with one another to consider the wrongfulness of domestication. In Chapter 2, I will provide a brief historical account of pet-keeping. I will then look at our current practices of keeping pets and in what ways these practices are or can be harmful. Finally, I will argue that there are more subtle ways that we indirectly harm our pets, that is, through 'othering attitudes' (of polarization, homogenization, backgrounding, assimilation, and instrumentalism). These attitudes can invite harm to our pets, particularly in light of their social needs. In Chapter 3, I will consider seven animal-computer interactions (ACI) and see in what ways our pets can benefit from or be harmed by them. I will argue that these technologies reinforce, rather than eliminate, attitudes of othering and can, in this way, be harmful. Still, with moderation, a loving eye, and a spirit of "critical anthropomorphism," we can use ACI responsibly.

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To Patrick, who I was incredibly rude to as I worked to finish this.

To Pumpkin and Sam, for bringing meaning and immeasurable happiness.

DEDICATION

For Pumpkin, and Sam

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INTRODUCTION

We adopted Pumpkin from a shelter outside of Cleveland, Ohio in October of 2002. She was one and a half years old and not orange. In truth we intended on getting a dog that day but we happened to walk through the room that housed the cats, where Pumpkin climbed onto my mom's back. We took her home. Soon after, my mom had Pumpkin declawed (my mom collects antiques and, understandably, did not want Pumpkin to tear up the furniture).

I wound up taking Pumpkin with me, years later, when I moved out of my mom's house and, again, when I moved out West. Here in Fort Collins, I take Pumpkin to the vet. I fret and hurriedly tell them that she was a family cat, she's declawed but that wasn't me, I'm embarrassed and don't want them to think anything. But, of course, I shouldn't be. Declawing is a morally ambiguous thing. In some countries it is illegal, but in ours it is not. It takes some looking into or at least some mulling over to see that this surgery might be harmful. And, as Francione puts it, what is common or custom is often exempted from scrutiny[1] – so of declawing, one does not think to look into or mull over.

My mom feels bad about it now. I tell her that she shouldn't. We do things that, at the time, did not seem out of the ordinary. It is this – the ordinary – that is at the heart of my argument. It is, sometimes, or most of the time, maybe, the ordinary things we do that run counter to our pets' interests. The very nature of the ordinary, unfortunately, is her tendency to reside 'in plain sight,' as it were, so that we do not notice her.

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In Chapter 1, I will explore the field of animal ethics and examine the wrongfulness of domestication. Of one mode of domestication – pet-keeping – it is particularly challenging to prove wrong. But we do not need to conclude that pet-keeping is wrong in order to consider obligations that arise from it. Clare Palmer asserts that we have duties to not harm and to assist domesticated animals, in virtue of their dependence, vulnerability, and our causal relations with them. I will explore what these duties look like in the context of pet-keeping. I will argue that while pet-keeping generates obligations, the extent of these obligations will be shaped by the role that one plays in the institution of pet-keeping.

In Chapter 2, I will provide a brief historical account of pet-keeping. I will then look at our current practices of keeping pets and in what ways these practices are or can be harmful. Finally, I will argue that there are more

[1] Gary Francione, *Animals as Persons,* (New York, Columbia University Press, 2008).

subtle ways that we indirectly harm our pets, that is, through what Val Plumwood calls 'othering attitudes' (of polarization, homogenization, backgrounding, assimilation, and instrumentalism). These attitudes can invite harm to our pets, particularly in light of their social needs. I will argue that in virtue of these less obvious harms we have less obvious obligations to our pets; I will argue that Palmer's duties of non-harm and assistance require that we work to eliminate Plumwood's attitudes of othering.

In Chapter 3, I will consider seven animal-computer interactions (ACI) and see in what ways our pets can benefit from or be harmed by them. I will argue that these technologies reinforce, rather than eliminate, attitudes of othering and can, in this way, be harmful. Still, with moderation, a loving eye, and a spirit of "critical anthropomorphism," we can use ACI responsibly. That is, we can use ACI while upholding our duties to pets.

Throughout my thesis, I will constrain my discussion in the following senses: my focus will be not all pets but dogs and cats specifically. To be sure, in some regions of the world, dogs and cats are not kept as pets, and there is no reason that the conversation must be restricted in this way. We could just as well include the obligations that arise in keeping pet birds or reptiles, as there are a number of welfare issues that arise here, too. But it will prove helpful to narrow my focus. This way, I will better be able to consider pet technologies (technologies that are, for the most part, designed for dogs and cats) in Chapter 3. Furthermore, dogs and cats all over the world (e.g. The United States, China, Russia, the UK, France, Japan, Australia, and on) are the most popular animals kept as pets, and most of the literature focuses on dogs and cats. For all of these reasons I have chosen dogs and cats as my focus. I should also note that in exploring historical and current practices of pet-keeping, my focus will be constrained to Western culture.

I will use the phrases 'pet' and 'companion animal' interchangeably. They can, in some contexts, connote different ideas (e.g. a pet may be seen more like an object than a friend). But I will assume that they are interchangeable in my discussion, and assume that they connote those animals who we keep as pets and care for. There is one place where the distinction between pets and companions will be important, and I will make this explicit when it arises.

1: APPROACHES TO ANIMAL ETHICS

The field of animal ethics is one that works to address how animals – farm, laboratory, wild, companion – ought to be treated. The literature examines whether or not animals can or do have interests, rights, or intrinsic value and, if so, in what ways. A standard for the treatment of animals, though, may prove hard to settle. Some of the main approaches to animal ethics include Peter Singer's utilitarian approach, Tom Regan's animal rights approach, Martha Nussbaum's capabilities approach, and Clare Palmer's relational approach. Though this list is by no means exhaustive, it offers a sampling of different views that will help get us thinking about our duties to animals. Ultimately, I will use some of the ideas suggested by Palmer to frame my discussion of the obligations that we have to our pets. But, before I can do this, I must walk through the approaches that came before, starting with one of the first moral philosophers to develop a theory of animal rights, Singer.

1.1 Peter Singer

Singer takes a *hedonistic utilitarian* approach to animal ethics.[2] To understand what this means we can start with Singer's utilitarian *theory of the good* – that is, his theory of what is valuable or what is most desirable. What is most desirable for Singer is utility, which is defined as welfare or well-being. There are different ways of understanding well-being, for a number of things can make one better off. Some have argued it is satisfying one's preferences that is best for one. For Singer, well-being is defined in terms of what is *experienced* or *felt*– what feels good is good, what feels bad is bad. This is the hedonistic part of Singer's theory.

Now that we have identified what Singer thinks is valuable, we can turn to what Singer thinks we should do about it. Singer's *theory of the right* – how he thinks we should respond to the facts about what is good in the world – is that we ought to minimize as much pain and suffering as possible. While a hedonistic utilitarian says that we should maximize happiness and minimize suffering, in the context of animals Singer focuses exclusively on the minimization of suffering and does not discuss maximizing happiness; Singer's focus is on negative outcomes, on minimizing that which feels bad: pain and suffering. We might wonder how bad something must feel in order for it to be disvaluable, for it to be worth accounting for and trying to minimize. In our lives, the

[2] Singer later revises his position to preference-satisfaction utilitarianism. I will focus here on his original position.

spectrum of suffering can range from minor inconveniences (like the stress you feel sitting in traffic) to more concrete sufferings (like the pain of breaking a bone). Any and all negative experiences are disvaluable and calculated into Singer's theory of welfare; there is no suffering too small to be altogether left out of the equation. However, beings that do not suffer do not have interests according to Singer's view, and so will be left out.

Though Singer thinks that we should act in such a way that is good by minimizing pain and suffering, he is not merely concerned with minimizing the pain of any *particular* individual (person or animal). It is a much larger picture that interests Singer – the action that is right is that which will minimize the greatest *overall* suffering. We should note also that Singer's utilitarianism is a consequentialist theory, meaning that what is valuable is not what *has* happened but what *will* happen, what outcomes will come about. It is in this sense that Singer's theory is forward-looking.

Imagine we are faced with a decision to prevent the suffering of one hundred dogs or of one person. After doing the calculations, suppose we find that the possible combined suffering of the dogs would be much greater than the possible suffering of the person (after accounting for some of the differences between the suffering of a dog and that of a human). On Singer's account, we should choose to prevent the dogs' suffering and, consequently, allow the person to suffer. For it is the *amount* of suffering that is morally relevant, full stop. We should not opt to prevent the suffering of fellow humans in virtue of them being members of our species. This qualification is not morally meaningful for Singer. Here we can think back to Singer's theory of the right – what is right is to minimize the most suffering overall as is possible. Choosing to help the person, then, in this example, is wrong. There is a better option.

Through this example we can see how Singer's theory of the right might function. The example also reveals a further feature of Singer's utilitarianism, namely Singer's *principle of equality*. Singer assigns equal weight to the sufferings of all beings. Singer holds that suffering must be counted equally with like suffering.[3] This is slightly different from the standard conception of equality in ethics, which expresses that all *persons'* interests matter equally. Under this standard equality claim, abhorrent practices of giving more or less weight to the interests of certain types of people based, for instance, on class, race, or gender are rendered immoral. All

[3] Peter Singer, *Animal Liberation* (New York, Random House Inc., 1975), 8.

people's interests must be counted equally. Singer's principle of equality shares this sentiment; it differs from it, though, insofar as it goes a step further. Singer is concerned with the equal moral consideration of all beings, not just people. Singer suggests that the principle of equality must include *any* being with the capacity to suffer. Equal moral consideration is guaranteed not just to all humans but to many nonhuman animals, too. Singer's *principle of equality* is, then, as follows: the suffering of all sentient beings must be counted equally, independent of the species membership of the sufferer. It is because Singer assigns equal weight to the suffering of all beings – both human and nonhuman animals – that we can in the above example come to the conclusion that we should allow a person to suffer.

We may find it troubling that in promoting the minimization of overall suffering we must in some cases allow humans to suffer. Indeed, even if this person is to us a stranger, we may feel something pull within us, a need to save them because they are a fellow human. But if we consider human suffering more important because it is happening to a human, and the sufferings of other animals to be less important because they are happening to nonhumans, we arbitrarily place one species above another. We must remember that for Singer, "the evil of pain is, in itself, unaffected by the other characteristics of the being who feels the pain."[4] To act on the reflex that we must prevent the suffering of the person and not the dogs would be to Singer speciesist.

Singer's principle of equality does not guarantee equal treatment to all beings (i.e., animals, as far as we know) that can suffer. Singer suggests only that the suffering of all animals must be given equal weight. In some situations it is moral to do something that causes animals to suffer, whereas treating humans in the same way would be impermissible. This is because under certain circumstances animals may be treated the exact same way as humans and, overall, suffer less than humans would. This asymmetry is by Singer elaborated in the following way: because the skin of a baby is more sensitive than that of a horse, a slap far less forceful is required for a baby to experience pain than for a horse. It is, then, "worse to slap a baby than a horse, if both slaps are administered with equal force." [5] Equal treatment can in this way lead to different degrees of suffering. To account for the same amount of suffering in the baby and the horse (though the precision of this will be difficult to be sure) would require a stronger slap to the horse and a softer slap to the baby. Because Singer's theory of

[4] Ibid., 20-21.
[5] Ibid., 15.

the right is concerned not with the minimization of certain kinds of treatments (e.g. slapping *per se*) but with the minimization of suffering overall, there is no reason under Singer's theory to treat all sentient beings equally.[6] That Singer cannot ensure the equal treatment of animals is not, in his eyes, a problem. Singer notes that he is not trying to ensure equal treatment. It is equal moral consideration that Singer is after, which does not depend on nor guarantee equal treatment.

Having laid out these aspects of Singer's theory, we can turn to some concerns we might have. Foremost, Singer maintains that what is right is a matter of what minimizes suffering. Our actions on Singer's approach will reflect this principle. But this principle seems off-kilter. Sometimes what is right depends on more than the minimization of suffering. Rightness may be affected by more than just the consequences that follow; past events can shape our obligations, too.

While ultimately promise-keeping may not be relevant to the discussion of animal ethics, it is an example worth considering if only to explain the way in which past obligations can affect what actions are right or wrong. Keeping a promise that you make to a friend to meet them for lunch seems right, breaking it wrong. The wrongness of breaking this promise to your friend isn't simply a matter of the pain it will cause them in the future, but also the fact that a promise was made in the past. Even if the person to whom one made the promise to would not be harmed by one's breaking it, would not be hurt or disenchanted with the practice of promise-keeping, still it is wrong to break it, considerably so if one has no good reason to break it. There was an obligation taken on in the past and this is important. You made the promise, so you ought to keep it.

Indeed, when the wrongness of a broken promise is understood only in terms of how much suffering it products, as the utilitarian supposes, we get strange results: suppose that you do not promise to meet your friend, but say instead that you will maybe meet her if you finish work early. As it turns out, you are unable to join up.

[6] There are other ways that unequal treatment can arise. For example, the suffering of some animals may be a means to *overall* minimization of suffering. Singer is concerned with quantities of suffering as opposed to mistreatments in general. Singer's theory lacks exceptionless rules, like "it is always wrong to kick a dog." Indeed, it may be right to kick a dog, depending on the context. If only by kicking a dog one could prevent ten dogs from being kicked equally hard, one ought to perform this act of dog-kicking. Or, suppose we decide to test on mice new medical treatments for cancer. To be sure, the mice will suffer. But once we add up the pain and suffering of cancer patients, the suffering of the mice may seem relatively small in comparison to, for instance, the horrors of chemotherapy. In this way, what is right might be to allow animals to suffer, as it might be the best choice available in order to minimize the overall quantity of suffering in the world.

On the utilitarian account, if an equal amount of suffering is created, you have done something equally wrong here as you did when you broke a promise. A clear promise and a tentative plan to meet up are indistinguishable here for the utilitarian; in both cases you leave your friend hanging, in both there is equal suffering, and both are wrong. The mere fact that in the one case you violated a past obligation does not add an extra level of wrongness to your action. This is because, for utilitarians like Singer, what is wrong or right is determined by forward-looking considerations – future events that shape what is at present right. What is right is whatever *will* minimize overall suffering; past obligations have no independent moral weight.

But it seems like backward-looking considerations, past events that shape what is at present right, are something that should matter to a moral theory. Consider the act of adopting a pet. In choosing to keep a pet, we incur certain obligations. This is because we have chosen to keep a creature with wants, needs, and interests, a creature who is greatly dependent on us to meet these. For instance dogs as social creatures need social interactions. Dogs confined to our homes usually depend on us to meet these social needs. Perhaps we should be obligated to assist our pets in meeting these needs, regardless of how the pleasure-pain calculation of Singer's approach turns up. We make our pets dependent on us when we adopt them. This past action has moral weight.

In order for an animal ethic to account for the independent importance of these obligations, it must view what happened in the past as relevant to what is at present right or wrong. Singer's theory cannot account for the independent moral importance of past events, such as our decision to adopt a pet. This is something that we will see Palmer try to fix later on.

1.2 Tom Regan

In response to Singer, Regan develops a *rights view* of animal ethics. The rights Regan discusses are moral rather than legal. He identifies three features that distinguish moral rights from legal rights: first, moral rights are universal – like individuals have the same rights; second, these rights are applied equally – rights are possessed in full, in equal degrees, not in part by all who have them; third, moral rights are not created, not manmade, as legal rights are.[7] Regan proposes that in addition to humans, many nonhuman animals have moral rights, too.

[7] Tom Regan, *The Case for Animal Rights*, (Berkeley, University of California Press, 1983), 267-268.

In order to understand why Regan thinks nonhuman animals have moral rights, we can appeal to a concept central to his theory, that is, a *subject-of-a-life*. A subject-of-a-life is defined by Regan as a being with a "unified psychological presence." This unified presence is composed for Regan of dispositions and desires, such as pleasure and avoidance of fear,[8] as well as beliefs, perceptions, memories, emotions, and an interest in one's own welfare – that is, an interest in what happens to one.[9] For Regan, nonhumans and humans alike can and do qualify as subjects-of-a-life.

Building from this term, we can understand Regan's *theory of the good* – i.e., what Regan takes to be valuable – as follows: all beings who are a subject of a life are inherently valuable. By this Regan means that all subjects-of-a-life are valuable *in themselves*, independent of what they can offer to others and, specifically, to humans.

Regan's view that subjects-of-a-life are inherently valuable is incompatible with Singer's approach. Singer asserts that beings are valuable merely instrumentally, in terms of the happiness or suffering that they contain or cause. The utilitarian adds up the 'happiness units,' subtracts from this the 'suffering units,' and calculates. Regan suggests we think of it in terms of a cup – the liquid inside may be sweet or bitter, and this sweetness or bitterness has value, but the cup itself has none.[10] We are the cup. To see individuals as mere 'receptacles' for happiness or suffering may require the hedonistic utilitarian to carry out acts that we normally think abhorrent, such as killing, in cases where doing so will minimize the greatest suffering overall. Ultimately, Regan finds this implication troubling and escapes this problem by asserting that one is valuable in oneself.

There is an important feature that must be drawn out to this claim that all subjects-of-a-life are inherently valuable. It is that all beings with inherent value have it equally. For Regan, a (human or nonhuman) subject-of-a-life's experiences, successes, failures, happiness, and sufferings are irrelevant to her inherent value; such considerations do not affect the "quantity," as it were, of inherent value. We might wonder how we ought to treat those that have inherent value. Let us consider Regan's *theory of the right*. Appropriate treatment of subjects-of-a-life include, for Regan, a duty to respectful treatment, a duty to non-harm, and a duty to assist. Before

[8] Tom Regan, *Defending Animal Rights*, (Urbana, University of Illinois Press, 2001), 43.
[9] Regan, *The Case for Animal Rights,* 243.
[10] Tom Regan, "The Case for Animal Rights," from *In Defense of Animals,* ed. Peter Singer (Malden, Blackwell Publishing, 1985).

undertaking the specifics of each duty, let us note that for Regan all duties are *direct* as opposed to indirect. Direct duties can be distinguished from indirect duties insofar as direct duties are duties *to animals themselves*, whereas indirect duties are duties *involving* animals, but not duties *to* them.[11] Let us also note that while my discussion will be about animals and our duties to them, all of Regan's claims apply to people and animals in the same way.

Let us start with Regan's first direct duty, that all subjects of a life have a "basic moral right to respectful treatment."[12] Regan posits the following *respect principle*: "we are to treat those individuals who have inherent value in ways that respect their inherent value."[13] In short, for Regan we should respond to the good by respecting it. Again, Regan's theory differs here from Singer's. Regan does not suggest that we bring about as much inherent value as possible, that we maximize inherent value, as we would minimize overall suffering for Singer. We are not on Regan's account obligated to procreate or assist other animals in procreation in order to increase overall inherent value. Let us look at what qualifies as respectful treatment, then.

To treat subjects of a life as mere means to an end is incompatible with respectful treatment for Regan. One way that we use nonhuman subjects-of-a-life as mere means is when we dissect animals in education. Using animals in this ways is to treat them as mere receptacles – killing and dissecting beings in order to teach students about animal physiology.[14] Though it is true that the use of animals in education can be helpful in the acquisition of knowledge, it is not necessary (there are other ways to learn about animal physiology) and, more importantly, Regan suggests that "the value of knowledge does not by itself justify harming others."[15] Cost-benefit ways of justifying harmful practices are not acceptable under Regan's theory. Such justifications assume that harm is permissible when we consider the "best aggregate consequences for everyone affected by the outcome of such

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[11] Regan gives the following example: to say that one has a direct duty to preserve Siberian tigers means that one has a duty to *the tigers themselves*. Such a duty may arise, as it does for Regan, in virtue of their inherent value. Alternatively, if one has an indirect duty to Siberian tigers, one may preserve the tigers for humanity, for a concern for future generations, a concern for one's kids being able to admire and appreciate Siberian tigers, for instance (*The Case for Animal Rights*, 151). To preserve the tigers with this in mind is to value the tigers only secondarily and indirectly. Regan finds these indirect reasons objectionable. A duty merely involving one – as in the case of preserving Siberian tigers because humanity values biodiversity – does not respect the inherent value of the Siberian tiger.

[12] Regan, *Defending Animal Rights*, 43.

[13] Regan*, The Case for Animal Rights*, 248.

[14] Ibid., 365.

[15] Ibid*.,* 365.

treatment."[16] But this sort of justification assumes that harm can be "made up for" or "compensated" by the overwhelming benefits that come from harmful treatment. While for Singer, the best aggregate consequences are an essential component to right action, to Regan this reasoning flawed.

Here we can think back to Singer's theory – where one may be no only permitted but *required* to harm, even kill, another, if doing so will minimize the greatest suffering overall. Regan finds this possibility abhorrent. Regan suggests that "no individual who has inherent value may justly be treated as a mere receptacle in order to secure optimal consequences for all affected by the outcome."[17] Treating subjects-of-a-life as if they lacked inherent value is morally objectionable, violating Regan's theory of the right in general and Regan's respect principle in particular. This is rendered on Regan's account disrespectful and wrong because the inherent value of a subject-of-a-life is reduced to that subject's utility. Respectful treatment begins, then, with respecting the inherent value of a subject-of-a-life.

Other ways to respect a subject-of-a-life include not harming her and offering assistance when appropriate. In this sense, the duties to not harm and to assist are implied by the duty of respectful treatment. Let us explore each in turn. Deriving from the respect principle is *the harm principle*, i.e., that we have a "direct *prima facie*[18] duty not to harm individuals."[19] This duty is, first, direct insofar as we owe it to the individuals *themselves* not to harm them. That this duty is direct respects Regan's claim that subjects of a life have inherent value – for it is not merely a duty *involving* one, but a duty *to* one.[20] Second, this duty of non-harm is *prima facie* insofar as it can, under justifiable circumstances, be overridden. For Regan, an example of circumstances that call for this principle to be overridden may be self-defense. It is appropriate to violate the duty of non-harm if one is going to be mauled by a bear, for instance.[21]

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[16] Ibid., 249.
[17] Ibid., 249-250.
[18] That is, we have *a* reason not to harm subjects-of-a-life, but this reason (and so duty) may be overridden by extenuating circumstances (e.g. life or death). This is usually referred to as a *pro tanto* duty, but Regan uses the term *prima facie* instead.
[19] Ibid., 187.
[20] Ibid., 150.
[21] On Regan's account, to override the harm principle is something exceptional, where the burden of proof is placed on one who overrides it. In cases where one is justified in using self-defense, we are restricted, says Regan, by a principle of proportionality: "we are entitled to use force, but not excessive force, to defend ourselves…" (Ibid., 289).

Much the same as Regan's respect principle, the harm principle is able to avert some of the downfalls of Singer's approach. For Singer, one is morally required to kill if it will secure an "optimal *aggregate* balance of pleasure over pain,"[22] regardless of just how ordinary the circumstances. Suppose one's dog had a piercing bark that caused physical pain to one's ear as well as mental pain and fatigue to one's psyche. Suppose one could kill this dog with no one finding out about it, no one missing it. To drop it off at the shelter would be less optimal, for then others would suffer the same physical and mental pain. It might be morally required for one to kill their dog, then. Regan does not accept this conclusion.

So far, we have looked at respect in terms of negative actions, i.e. in terms of what we should *not* do. Now we will turn to a positive aspect of respecting inherent value, as suggested by Regan. This is Regan's *duty to assist*. Specifically, to respect the inherent value of a subject-of-a-life we must offer assistance when an animal is the victim of an injustice – that is, when an animal's rights have been *violated*.[23] Not any harm qualifies as a violation of an animal's rights, however. On Regan's account a violation necessarily originates from a *moral agent*. Regan defines a moral agent as a normal adult human being with the ability to choose to act in accordance with or counter to what morality requires.[24] Regan suggests that a moral agent has the ability to choose to act in a way that runs counter to what morality requires, and so can violate another's rights.

In contrast, infants, nonhuman animals, and some adult humans are *moral patients,* for they "lack the prerequisites that would enable them to control their own behavior in ways that would make them morally accountable for what they do."[25] The actions of moral patients cannot be right or wrong because their actions are not freely chosen. We should also note that, much like moral patients, nature itself cannot violate rights – Regan suggests that "what happens as a result of natural laws happens; it is neither just nor unjust, fair nor unfair…".[26] An animal's rights are not violated when a tornado strikes her den, for instance. On Regan's account, "only people, and only some of them, have the ability to violate rights and so act unjust."[27]

[22] Ibid., 203.
[23] Ibid., 249.
[24] Ibid., 151-152.
[25] Ibid., 152.
[26] Ibid., 272.
[27] Ibid., 152.

What this means is that nonhuman animals *can have their rights violated*, but *cannot themselves violate* another's rights. In cases where an animal's rights *are* violated, we have a duty to assist.[28] We have a duty to assist a dog who is, for example, abused. Perhaps we see someone act violently toward her. Our assistance could come in the form of reporting this injustice so that the dog can be rehomed.

There is a worry that arises for Regan. Clare Palmer, building off of Dale Jamieson's critique of Regan, raises a concern that suggests that the moral agent/ patient distinction in Regan's theory generates strange moral requirements. We may have no duty to assist in cases where it seems we should. For instance, suppose we have the foreknowledge of a tsunami about to flood thousands of coastal settlements.[29] On Regan's approach there seems to be no duty to set off an alarm or to alert the inhabitants. This is because a tsunami is not a moral agent. A tsunami is part of nature; it cannot act in ways that are just or unjust. It seems that we are not obligated to warn. This conclusion is strange.

Ultimately, Regan's theory suggests we may not always have a duty to assist when moral patients cause harm. This concern is, for my purposes, important when viewed in the context of pets. Suppose that one's dog is out in the backyard where she is attacked by a coyote; the dog manages to escape, with somewhat substantial injuries, and the coyote runs off. The dog is seen limping through the neighborhood; her owner is not home. Does the fact that this event occurred 'naturally,' i.e. without a moral agent, mean that bystanders are not obligated to assist the dog? It seems that they should be obligated to assist. The dog is a subject-of-a-life after all, and is suffering.

It is possible that Regan's account provides us with a duty to assist the dog. Past considerations matter to Regan; perhaps the historical context would be enough to guide us, would establish some "fault" here. We might imagine that in some distant, indirect way, all of us are responsible for this suffering, given the role that

[28] This duty prevents the profoundly unfair treatment that comes with Singer's utilitarianism. Reflecting back to Regan's objection to Singer, we recall that for Singer, an individual may be harmed (even killed) if such an act will minimize overall suffering. We can easily imagine ourselves as the one who is killed, in order to feel the unfairness here. In this sense, Regan seems to do a better job mapping onto our experiences of justice and injustice, of morality in general, than Singer; a moral theory that not only permits but requires one to kill another, that cannot see the injustice here, is a strange moral theory indeed. Regan's approach, unlike Singer's, is able to render this treatment unjust, something that Singer's approach cannot do. For Regan, we have a moral obligation *to* the inherently-valuable individual, to not harm them.

[29] Clare Palmer, *Animal Ethics in Context*, (New York, Columbia University Press, 2010), 38.

humans play in domestication and in the perpetuation of a pet-keeping institution. But this solution is inconclusive. It is unclear whether or not domestication and pet-keeping have violated an animal's rights. If it turns out that no rights have been violated by e.g. keeping a pet, we can wiggle our way out of obligations to animals. This seems troubling. Regan's account gives us a thin notion of positive duties or ways to respect inherent value. Regan is concerned primarily with our duty to *not* harm, less so with our duty to *assist* valuable individuals.

Regan does not fare much better than Singer as far as obligations to pets are concerned. Singer's theory is necessarily forward-looking and so cannot account for obligations that stem from past actions, such as one's decision to adopt a pet. Regan's duty to assist takes some backward-looking considerations into account; namely, we have a duty to assist when an animal's rights have been violated. We *might* have duties to assist pets if it turns out that owning a pet has violated the animal's rights. But it does not seem that pet ownership is necessarily a violation of rights. Regan's duty to assist seems to be too narrow in its scope. We will see a broader range of backward-looking considerations (and a stronger duty of assistance) in Palmer's theory.

To summarize other differences between Regan and Singer: first, what is valuable for Regan is not the state of non-suffering, but the subject-of-a-life. That is, Regan values *individuals* (those that are subjects-of-a-life) where Singer values *experiences* (those of felt pleasure or pain). As such, Regan is able to sidestep the concern he raises for Singer, that Singer's account denies the inherent value of the individual and instead treats her as a mere means. Regan has a thicker notion of injustice and respect, which requires better treatment of individuals.

1.3 Martha Nussbaum

Nussbaum's' capabilities approach will be able to resolve the concern that we have for Regan, that his theory offers a weak duty of assistance. Under Nussbaum's approach to animal ethics, what is valuable, i.e. the *theory of the good*, are the lives of individual beings. The lives of animals are for Nussbaum not valuable instrumentally or in relation to something else but intrinsically.[30] By intrinsic, Nussbaum means that the lives of animals are valuable in themselves and not, for instance, in what they can do for humans. The value of animal

[30] Martha Nussbaum, "The Capabilities Approach and Animal Entitlements," in *The Oxford Handbook of Animal Ethics*, ed. Tom L. Beauchamp and R.G. Frey, (Oxford, Oxford University Press, 2011), 239.

lives is not contingent upon their use or assistance or that they are beautiful – animal lives would be intrinsically valuable even if people had never come into existence.[31] This should sound familiar, as Regan holds a similar view (though for Regan, it is subjects-of-a-life who have intrinsic value). There is one caveat. Nussbaum limits her theory of the good in a way similar to Singer. Nussbaum suggests that "the capacity to feel pain is the boundary of moral considerability."[32] For Nussbaum, then, what is inherently valuable is not any individual life, but the life of a sentient being.

Central to Nussbaum's theory of the good is an aspect of individualism. For Nussbaum, it is *the living creature*, not the species, that is intrinsically valuable. Thus, only an individual creature can be the subject of justice or injustice, can be worthy of our protection.[33] The species is not for Nussbaum the subject of ethical concern. This is not to say that species membership is morally irrelevant for Nussbaum. As she notes, and as will be addressed later on, species membership can be useful in determining the "appropriate benchmark" in judging an individual's potential for flourishing. Nor is this to suggest that Nussbaum is content with the extinction of species *per se*. When extinction is impacting the "well-being of individual creatures,"[34] Nussbaum thinks it a case of injustice and appropriate to assist.[35]

We know what is valuable for Nussbaum; let us turn to what we ought to do about it. Nussbaum's *theory of the right* consists in the negative duties to, first, not impede the functions or flourishing of a sentient individual's life and, second, not violate the dignity of a sentient living organism.[36] Nussbaum's theory also gives us the positive duty of beneficence. Nussbaum describes these duties as a merging of Aristotelian and Kantian ideals, with Nussbaum making some additions of her own.

Starting with the first duty, Nussbaum suggests that we should not impede the flourishing of a sentient being's life. Impediment will be different for different species, as Nussbaum maintains that flourishing is species-specific. Each creature has a unique way of flourishing that is distinctive to its species. This view of

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[31] Ibid., 239.
[32] Palmer, *Animal Ethics*, 40.
[33] Martha Nussbaum, *Frontiers of Justice*, (Cambridge, Harvard University Press, 2006), 358.
[34] Ibid., 357.
[35] Nussbaum's individualistic approach seems to commit her to deeming cases (if there are such cases) of endangerment or extinction where a species can go out of existence without impacting the well-being of individual creatures, morally irrelevant. This may prove to be a problem for her theory.
[36] Ibid., 306.

flourishing has an Aristotelean tone – like Aristotle, Nussbaum suggests that "each creature has a characteristic set of capabilities, or capacities for functioning, distinctive of that species, and … those more rudimentary capacities need support from the material and social environment if the animal is to flourish in its characteristic way."[37] Dogs, for instance, have the ability to form social bonds with one another and with humans. This ability is important to the flourishing of each dog. We should not, then, impede this ability needed to flourish by, say, placing a dog in isolation. The material and social environments should enable, not inhibit, the formation of social bonds.

Nussbaum suggests that capabilities for certain functions are important and good, inhibiting these functions a waste and a tragedy, a kind of death.[38] In human terms we can think of the capacity for language. In order to flourish, one might argue that for all humans who have the capability for language, exercising this ability is essential – our lives are fundamentally social and rely on communication. Preventing the development of a person's language abilities causes indirect psychological harm, loneliness for instance. To impede a person's language abilities is a psychological violence, an impediment to that person's ability to flourish.

That two individuals share a capability does not entail that in both cases this capability is essential to flourishing, though; it may be essential in one case and not the other. We can consider a chimpanzee and a human, both of whom have the capability for language. For humans with the ability, language is, as previously mentioned, essential to flourishing; but for chimpanzees, language is often superfluous. Chimpanzees' "mode of flourishing in their own community" depends on *communication* to be sure, but not language.[39] Language and communication can be distinguished: we might think of communication as a much simpler version of language – for instance, babies cry in order to communicate to us some need of theirs. Similarly, chimpanzees communicate to one another through different calls or sounds, facial expressions, and gestures, to name a few. This kind of communication is essential to chimpanzee flourishing. Less essential (or entirely unnecessary, arguably) to chimpanzee flourishing is engaging their capability to learn language.

[37] Nussbaum, "The Capabilities Approach and Animal Entitlements," 237.
[38] Nussbaum, *Frontiers*, 305.
[39] Nussbaum, *Frontiers*, 364.

Consider the pursuit of a chimpanzee learning sign language. It is true that chimpanzees do have the capacity to do this – for instance, the chimpanzee Washoe was taught sign language and over time her "acquisition of sign language parallel[ed] the acquisition of spoken language by children" (generalizing the meanings of signs and using signs in combination).[40] But because Washoe can learn sign language does not therefore mean that this ability is needed in order for her to flourish. Rather, not teaching chimpanzees sign language does not seem to impede their well-being; chimpanzees who communicate, though do not use language, exhibit all of the important functions that come with their flourishing.

We may pause here in order to note that species norms give us important context. The norms of humans are different from the norms of chimpanzees and for this reason we flourish differently. Species norms can tell us "what the appropriate benchmark is" for judging what it means for an individual to flourish."[41] Here, species membership can be a useful guide; Nussbaum does caution, though, that it should not be relied on without evaluating the particular circumstances and flourishing of the *individual creature* (for example, it is possible that for *Washoe specifically*, having already been taught sign language, the continual use of it may in fact be essential to her flourishing, unlike the majority of other chimpanzees).

If, generally, language is to chimpanzees superfluous, is not an appropriate benchmark, what is? What are the relevant species norms? There are many. For example, chimpanzees need open space to move about. And, as highly social creatures, chimpanzees need to live with other members of chimpanzee communities. So, when we place chimpanzees in isolated captivity without much room for movement, we impede their flourishing and violate Nussbaum's first duty. Like the impediment of learning a language for humans, isolated captivity is not openly violent (to be sure, a chimpanzee can *survive* here), but it is clear that a chimpanzee cannot *flourish* under such conditions. Isolated captivity is a source of cruelty insofar as it inhibits chimpanzee flourishing.

One's characteristic flourishing can be impeded in more straightforwardly violent ways, too, the most obvious of these being to kill an individual. When, for instance, one kills a young deer for sport, one permanently inhibits the deer's ability to flourish. Killing as such is incompatible with flourishing. This is not to say that killing is never justified. For instance, when the only option available is to live a "painful and undignified life,"

[40] R.A. Gardner and B.T. Gardner, "Early Signs of Language in Child and Chimpanzee," *Science*, Feb. 1975, 752.
[41] Nussbaum, *Frontiers*, 365.

killing seems to Nussbaum morally justified.[42] Nussbaum thinks this to be the case particularly so for nonhuman animals, for whom "pain and decrepitude" make life not worth living.[43] Options for flourishing in these cases have been exhausted. But, when options for flourishing have not, to kill is a harm, in conflict with flourishing.

In addition to a duty not to impede another's flourishing, we have a duty not to violate another's dignity. This is the second obligation that Nussbaum mentions. According to Nussbaum, the lives of animals are intrinsically valuable and, fortunately, we are attuned to this value, can see and appreciate it.[44] The natural pursuit of an end by another creature produces in us a sense of awe. We may think here of the excitement we feel when we happen by sheer luck to see a predator catch its prey, the coyote catch the rabbit. To see this firsthand may stir emotions in us, perhaps sadness or disgust even, but alongside these is wonder. Nussbaum suggests that this wonder stems from an animal's worth or dignity.[45] In order to respond to such worth or dignity with an appropriate sense of wonder, says Nussbaum, we must be ethically concerned "that the functions of life not be impeded…"[46] Passive admiration of animal life is not enough, for this does not demand anything from us. We could just as easily point to the scene of the coyote in excitement and the next day ourselves hunt and kill a rabbit.

Nussbaum proposes that we must actively appreciate an animal's dignity by becoming attuned to the ways in which dignity must not be violated. This involves allowing animals access to the following: "adequate opportunities for nutrition and physical activity; freedom from pain, squalor, and cruelty; freedom to act in ways that are characteristic of the species; freedom from fear and opportunities for rewarding interactions with other creatures of the same species, and of different species; a chance to enjoy the light and air in tranquility."[47]

Our obligation not to violate another's dignity can be summed up in the following Kantian idea: that "we must respect each individual sentient being as an end in itself, not a mere means to the ends of others."[48] So, for example, we might selectively breed dogs like pugs to meet breed standards that we find aesthetically

[42] Ibid., 385.
[43] Ibid., 385.
[44] Nussbaum, "The Capabilities Approach and Animal Entitlements," 239.
[45] Ibid., 240.
[46] Ibid., 240.
[47] Nussbaum, *Frontiers*, 326.
[48] Nussbaum, "The Capabilities Approach and Animal Entitlements," 237.

pleasing (e.g. screw tails) despite the fact that breeding for this trait puts the dog at risk of spina bifida (inhibiting their ability to walk). To do this is to treat dogs merely as a means to our own ends. Nussbaum draws on this Kantian element as it best captures how we should treat all valuable creatures, human or nonhuman, respect their dignity, and allow them to pursue their specific ends. Nussbaum of course tweaks Kant's ethics here, as Kant excludes nonhuman animals; he does not view them as ends in themselves.

There are parallels here between Nussbaum and Regan, as both suggest that to treat beings as a mere means is disrespectful. Much like Regan, Nussbaum rejects the idea that individuals can be reduced down to their experiences of pleasure and pain, as done in Singer's approach. Perhaps, out of sheer luck, a pug does not develop spina bifida, is not in pain and does not lose her ability to walk – this does not make such treatment appropriate on Nussbaum's account. The act of selectively breeding this pug was done for our own interests and at the risk of the pug's – that this harm did not occur does not get us off the hook: dignity can be violated without an accompanied experience of pain. Likewise, that which is painful is not necessarily in violation of dignity; there may be things, such as a necessary surgery, that do cause animals pain in the present but that are not in themselves bad, for they will be beneficial to flourishing in the future.

Dignity is also violated when we refuse to give support or assistance to an animal's or person's efforts to flourish. This is rather straightforward in interpersonal relationships. If a friend is troubled and needs my help, and I tell her no, not because I am busy with my own projects but because I simply cannot be bothered, I violate my duty in refusing to give my friend the assistance that she needs. Insofar as living creatures are not self-sufficient, to refuse assistance to them is in fact to inhibit their flourishing and so to violate their dignity.

Things become more difficult when communication is not much of an option, as in the case between us and nonhuman animals. Perhaps we come across a cat that is tangled up in a wire fence and it is evident that this cat cannot get out without our help. Suppose we are simply in a mood, are not up to help detangle this cat from the obstruction. In a sense, we are not *refusing* support (it was never asked of us). Nussbaum's capabilities approach still demands something here. Our negative duty not to violate one's dignity is in turn connected to the positive *duty of beneficence*. Here is a third duty that a capabilities approach gives us. Much like humans, many nonhuman animals are not self-sufficient; they require support. We have a duty to support them, as we have a duty to support anyone (nonhuman and human alike) who is not self-sufficient. If we let the cat be, stay stuck

tangled up in wire, this is wrong – it is wrong not just because we are permitting the impediment of the cat's ability to flourish, but because we violate the cat's dignity. This cat is an end, and deserves our kindness and assistance.

Nussbaum is able to capture the complexities of species-specific flourishing. In doing so, Nussbaum escapes a concern that we raised to Regan – that on Regan's view we have a weak moral duty to assist (in those cases where harm is not caused by moral agents). On Nussbaum's account, we have a strong duty to assist. This is because Nussbaum does not rely on the moral agent/ patient distinction as Regan does. Instead, Nussbaum states that "what happens to the victim is the key issue, not who does the bad thing."[49] It is not morally relevant under Nussbaum's capabilities approach who or what is causing harm; we should assist no matter what.

There is an implication here, though, that is concerning. For Nussbaum, a vulnerability is a vulnerability, and we have an equal duty of beneficence, to offer assistance, whether we have or have not caused the being to be in need. It is morally irrelevant to Nussbaum how the vulnerability came about, who caused it. In general, this is troubling. What *caused one* to need help is sometimes morally important. For instance, suppose you are involved in a car accident – you misjudge the speed of oncoming traffic, make a left, and the front of your car rams into the side of another. You are, somehow, unscathed, but the passenger in the other vehicle has been injured. At the same time, you notice, on the other side of the road, another accident unfolds. The injuries are equally bad in both cases. By Nussbaum's principle, your duty to assist those involved in the other accident is equal to your duty to assist the person that you yourself hit (legal considerations, like not leaving the scene, aside). To be sure, all are in need of assistance, but your causal role in the one case seems to give it priority, even if it simply means assisting first the person that your car injured, the other people next. In this way, our obligations seem to be shaped not only by who needs our help, but how those in need got there.

In terms of specially bred pets, we see the same concern arise. For Nussbaum, there is nothing special about a vulnerability caused by us or a vulnerability that comes about in some other way, say by a force of nature. There is not any additional obligation added when one is causally responsible for a harm or vulnerability. But perhaps there should be; maybe we ought to prioritize the needs of those pets who we have specially bred over

[49] From Nussbaum, *Frontiers of Justice*, 379; in Palmer, *Animal Ethics*, 42.

the needs of (most) wild animals, whose need of assistance we are not causally responsible for. For Nussbaum, the need of a wild and a selectively bred animal is equal – if both are in need simultaneously, it seems a toss-up as to who we should assist first.

The problem is that many selectively bred animals live with new vulnerabilities that we created. Past considerations of what *we*[50] have done must matter; these considerations generate obligations of assistance that are not generated to (most) animals in the wild.[51] Here is one place where, it would seem, selectively bred and wild animals should give us different duties. But a capabilities approach does not capture this – we cannot prioritize the needs of those we have made vulnerable; the difference between the *origins* of such vulnerabilities goes unrecognized. Clare Palmer's relational approach, as we will see, is able to escape this worry.

1.4 Clare Palmer

Palmer's *theory of the good* is that individuals with the ability to have *experientially aversive states* are intrinsically valuable. States can be *aversive* insofar as they cause physical pain sensations, and/or affective pain, like the pain that comes with fear and with desire frustration. Aversive states are *experienced* by the individual, both physically and psychologically, as something to be avoided.[52] Palmer's theory of the good may seem similar to Singer's insofar as both find a being's capacity of sentience or ability to suffer as necessary in order for her to be harmed. But we must note that Palmer drastically diverges from Singer by placing the locus of value in the individual. It is the individual experiencing these states, not the states themselves, that are valuable. In this sense, Palmer is similar to Regan and Nussbaum.

For Palmer, an animal's ability to experience aversive states provides a basis for an account of well-being.[53] The animal has a well-being in the sense that "things can go better or worse" for her.[54] Palmer explains that "persistent or intense pain, or extreme fear, reduce experiential well-being; the frustration of animal desires is experientially aversive and therefore harmful to well-being."[55] For an individual with a well-being, what

[50] Who counts as part of the "we" will be discussed at the end of section 1.4.
[51] Of course, sometimes we do make wild animals vulnerable, e.g. sometimes we destroy their habitats. In such cases, obligations are generated from this vulnerability, too.
[52] One may experience physical pain without affective pain, and vice versa, or one may experience them both together.
[53] Palmer, *Animal Ethics*, 19.
[54] Ibid., 18.
[55] Ibid., 18.

happens to one *matters* to one; one has *interests*, has an interest in what contributes to her experiential well-being and in avoiding what detracts from this.[56] The role that experience plays in Palmer's account of well-being is important. Palmer, like Singer, accepts an experiential account of well-being: for something to negatively affect one's well-being, to be harmful to one, it must be experienced by one. On an experiential account of well-being, to chop down a tree, for instance, is not bad for the tree, because the tree does not experience the chopping. Palmer notes, too, that experiential well-being must be evaluated over time, for there are painful experiences that are momentary and we do not view them as wrong or harmful, such as the pain associated with child birth or the pain that follows from a necessary surgery.[57]

An animal's capacity to have experientially aversive states means that she can be harmed and, in turn, generates duties to her. Interestingly, despite the fact that two animals may have the same interests, the way we are to go about responding to these interests may differ, depending on the circumstances. Before identifying the specifics of how we ought to respond – the duties that Palmer's relational approach lays out for us – let me first explain the role of circumstance in Palmer's *theory of the right*.

For some, like Nussbaum, we have a duty to assist all animals who need our help; what happened in the past does not matter. For others, like Palmer and Regan, our duties are shaped by what happened in the past. Let us quickly reflect back to Regan's account. For Regan, we have a duty to assist *only when one's rights are violated*; a harm may, in two distinct cases, be the same but may elicit different obligations in each. For instance, a gazelle may be injured and in pain; when the gazelle was injured by its predator, there is no obligation to assist, as there is no injustice. When the gazelle was injured by a human for sport, things are different. One history generates a duty of assistance while the other does not.

Palmer, too, takes into account history, though in a way quite different than Regan. For Palmer, it is not justice or injustice that affects our duty to assist but, rather, the *causal history of the vulnerabilities* of the individual. Specifically, Palmer suggests that we have special obligations to domesticated animals that we do

[56] Ibid., 19.
[57] Ibid., 20.

not have to animals living in the wild,[58] because we have created new vulnerabilities and dependencies in domesticated animals, and our causal entanglement generates obligations.

Palmer notes that domesticated animals are made vulnerable in two distinct ways – *internally* and *externally*. They are made vulnerable internally when they are unable to be self-sufficient because of their nature, a nature that is "human-shaped."[59] By "nature," we can think of the physical or mental characteristics of an animal, for instance an animal's brain size or temperament. These natures can be both deliberately or accidentally created, but in either case, *we* have shaped them. As such, we are in turn responsible for the accompanying vulnerabilities of such human-shaped natures. Palmer gives an example of a cat that is bred to be hairless. Because of this breeding, the cat cannot go into the sun for long, cannot fend for herself even if given the opportunity to do so. Because of the human-shaped nature of this cat, she is made vulnerable to the outside, is made permanently dependent on us for food. This newly found dependency generates special obligations of assistance. It would be wrong, for instance, for us to withhold assistance and expect the hairless cat to scavenge for her own food outdoors, as the very reason she *cannot* do this is because of our actions in the past.[60]

In contrast, an animal is made *externally vulnerable* animals when they are restrained, prevented from supporting themselves or finding support.[61] Again, this restraint is generally man-made, e.g. cages, walls, fences, and ties. Farm, research, zoo, and companion animals alike find themselves in environments that are contained. These animals cannot roam as they wish; some cannot roam at all. In this way, many domesticated animals cannot, through no fault of their own, be self-sufficient.[62] The external constraints placed on domesticated animals generate special obligations for us to care for and assist them. We should provide externally-constrained animals with food, warmth, shelter. We should also meet the basic needs that they themselves cannot meet, like needs for socialization and cognitive stimulation.

Despite the implications of internal and external vulnerabilities, we should note that *Palmer does not assert that domestication is necessarily harmful*. It is difficult to ground the claim that domestication as

[58] Ibid., 2.
[59] Clare Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," in *The Oxford Handbook of Animal Ethics*, ed. Tom Beauchamp and R.G. Frey, (Oxford, Oxford University Press, 2011), 715.
[60] Again, the scope of "us" will be discussed at the end of this section.
[61] Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," 715.
[62] Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," 715.

inherently harmful: Palmer notes that the majority of domestication does not involve the detrimental physical abnormalities of specialized breeding. Palmer says that "most domesticated animals do not undergo negative bodily experiences" *merely* because of their manmade natures.[63] The majority of domesticated animals are not, for instance, hairless cats. Nor do domesticated animals experience psychological harms, like humiliation or resentment, merely by being dependent on us (something that might exist in dependent human relationships).[64] So far, then, the dependency of domestication does not seem harmful in itself.[65]

While Palmer concludes that it is difficult to prove that domestication is itself harmful, she does not find this to be a problem. Harm or not, domestication and its accompanying vulnerabilities and dependencies, internal and external, create new obligations to domesticated animals.[66] Domesticated animals are owed assistance while (most) wild animals are not. While a wild animal and a domesticated animal may both be of equal moral value, our obligations to them may be unequal, as obligations are not, for Palmer, shaped by value alone.

There are two important points about our obligations to wild animals. First, that there is, typically, no obligation to assist animals in the wild does not mean that we have no obligations at all to wild animals. To the contrary, Palmer's view rests on the idea that we have a *pro tanto* duty not to harm *all* animals with the capacity to experience pain.[67] Here is our first duty of Palmer's theory of the right, the *duty of non-harm*. Unlike Palmer's duty of assistance, this duty is not shaped by the causal history of vulnerabilities; a duty of non-harm extends to all creatures with moral value, domesticated and wild animals alike.

Second, the absence of an obligation to assist animals in the wild does not mean that assisting wild animals is impermissible. Palmer suggests that we are permitted but not morally required to assist animals living in the wild. If we come across an animal in the wild that is injured, for instance, Palmer's view holds that we

[63] Palmer, *Animal Ethics,* 124.
[64] Palmer, *Animal Ethics*, 124.
[65] Furthermore, Palmer finds it difficult to assert that a domesticated animal is made *worse off* by being domesticated than it 'would have been otherwise.' We cannot make this claim because we cannot make the comparison; we simply do not know what the animal 'otherwise' would have been. Palmer suggests that "no animal has been made worse off by being born domesticated, because if it had not been born domesticated, that particular animal would not have existed at all" (*Animal Ethics*, 125) – thus, we cannot measure the welfare of a being that does not exist. It is inconclusive if the interests of the individual are set back (*Animal Ethics*, 125).
[66] These obligations are created without a counterfactual claim of what *could have been*.
[67] Palmer, *Animal Ethics*, 5. A duty is *pro tanto* insofar as it can be outweighed if exceptional circumstances call for it, for instance in cases of self-defense.

can offer assistance if we choose to. We can contrast this with a utilitarian view which may *require* us in some cases to assist in the wild, if we can do so effectively and if this is what will bring about the best overall outcome.

In addition to the duty of non-harm we have a second duty, a *duty of assistance*. Again, this duty applies only in cases where we have created vulnerabilities in animals, typically in the context of domesticated animals (but sometimes, too, in the case of wild animals).[68] We might wonder what exactly this assistance entails, when it is owed, or who owes it. Insofar as Palmer's approach is historical, how and when and who will be determined on a case by case basis.[69]

Because Palmer's account is contextualized, it will be helpful to look at specific examples that Palmer gives, one of which being a case of dumpster kittens: a breeder leaves a number of week-old kittens in a dumpster as they were born with imperfections and so likely would not sell. The kittens are too young to survive without assistance. Suppose you walk past and notice them; are you obligated to help? Palmer thinks that you are.

Palmer's basis is historical – the background events leading up to you finding the kittens are morally important. Though the breeder is the *direct* cause of the kittens being in the dumpster, this act can be traced back to a "larger, institutional history of domestication and pet ownership."[70] The market of pet ownership, of showing and feeding and caring for pets, affects the decision of the breeder, and most of us make up this market. Palmer concludes that though it is primarily the breeder who is responsible for the kittens in the dumpster, for their vulnerabilities and suffering, so too are humans more broadly.[71]

In support of this claim, Palmer presents a beneficiary argument. It is because almost all of us benefit from the existence of domesticated animals in general that we have an obligation to assist them in particular cases.[72] That you or I specifically did not create their existence – did not, for instance, ourselves breed the dumpster kittens – does not get us off the hook in our duty to assist. As far as domesticated animals are concerned, Palmer explains: "we eat them, wear them, live with them, are entertained by them. If we accept benefits from an institution that creates dependent, vulnerable individuals, then we should also accept the responsibility to care

[68] Palmer, *Animal Ethics*, 5.
[69] Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," 722.
[70] Palmer, *Animal Ethics*, 107.
[71] Palmer, *Animal Ethics*, 107.
[72] Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," 720.

for those individuals, to protect them from hazards…and to provide food, shelter, and medical care for them."[73] Because, for the most part, all of us benefit in at least one of these ways, we all incur special obligations.[74,75]

An upshot of Palmer's animal ethic is that causal relations shape the obligations that we have to animals. This will be important for my purposes later on, in the context of pets. For instance, at the end of this chapter I will argue that pet owners incur special responsibilities in virtue of their decision to adopt a pet. These responsibilities are not something that Singer or Nussbaum account for. And, though Regan might be able to account for *some* of these responsibilities, he is in worse shape than Palmer because his duty to assist is dependent on the occurrence of an injustice. As we noted, it is unclear whether or not we have a duty to assist when one animal harms another. But if these animals are both, for example, stray cats, a duty of assistance is something that we should want. Stray cats are members of a vulnerable group (domesticated animals) and cannot always help themselves. Palmer's account will suggest that we have a special obligation to help.

A concern that arises for Palmer's theory is that, as mentioned, Palmer supposes that domestication is not wrong *per se*. But not all animal ethicists agree that domestication is not wrong in itself. If it turns out that domestication is a wrong, Palmer's theory would need stronger duties for us.

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[73] Palmer, "The Moral Relevance of the Distinction Between Domesticated and Wild Animals," 720.

[74] It is difficult to find a clear way out of being a beneficiary. For even if a person rejects all of the benefits that come from animal domestication (does not eat animals, does not wear clothes made from animal products, does not have any pets, etc.), still there seem to be indirect benefits, e.g., that keeping pets increases overall mental health and so decreases health care costs.

[75] Palmer proposes that we adjust the dumpster kittens case, supposing it to be now urban rats that you find. Do you still have an obligation to assist? Palmer does not think so. Though it would be morally permissible to assist, you are not *obligated* to offer assistance as you are in the case of the kittens. Palmer explains that "if urban rats are dependent on humans, this is not because of any individual or group decision to *make* them that way" (*Animal Ethics*, 108). Urban rats, though living beside us, are not domesticated. Their vulnerabilities or sufferings are not caused by us. We have a duty not to harm them, for this duty applies to all animals, domesticated or wild, but no duty to assist them. That dumpster rats and dumpster cats generate different obligations illustrates the idea that our duties to animals are highly context sensitive. Interestingly, for Palmer's approach our duty of assistance cannot be generalized by species membership. Palmer explains that regarding different members of the same species we may have obligations to some members and not to others. For instance, Palmer notes that while all rats are categorized under the same species, we are obligated to assist some rats (for instance, tailless rats, a type of fancy rat) and are not obligated to assist the wild kinds, like urban rats (*Animal Ethics*, 107). To Palmer, the back-story matters. Historical elements shape our obligations. Fancy rats that are bred by us warrant our assistance; urban rats do not. In this way Palmer's approach deviates from other approaches that are capacity-oriented, that the capacities of an individual are relevant in guiding our moral duties but are not the single most important fact. If they were, all rats would merit assistance, as all rats generally have the same capacities.

1.5 Francione, Budiansky, and Domestication

Gary Francione, for example, argues that domestication is intrinsically wrong. Francione's argument rests on the claim that the process of domestication *is* one that made animals essentially worse off. As Francione sees it, within the institution of domestication, animals are essentially "animal slaves."[76] The institution of pet ownership, for instance, cultivates a far-reaching dependency in companion animals which cannot be outgrown, and this dependency is intimately tied to our conception of domesticated animals as objects. Francione suggests that domestication transforms animals into property and resources, harming them in the process. Our goal should be to abolish animal exploitation, domestication, and pet-keeping.

Better regulation or treatment of domesticated animals – something that most animal ethicists, including Palmer, strive for, is to Francione insufficient. Foremost, Francione thinks that theory and practice do not always align – we may know what duties and obligations we have to domesticated animals but better treatment still does not transpire. For instance, Francione explains that most dogs and cats in the US do not die from old age but instead are dumped, euthanized, or dropped at a shelter.[77] To suppose that humane treatment will become a norm is a misconception.

Even if better treatment could be enforced and carried out, this does not get to the heart of the problem, for Francione suggests that "domestication itself raises serious moral issues irrespective of how the nonhumans involved are treated."[78] The problem for Francione is that domestication keeps animals "stuck" in our word, dependent on us for everything, their valuation becoming something that their "owners" decide.[79] As for why dependency is something we should find objectionable, Francione does not give us a clear answer. This issue we will pick up again in the next chapter.

Stephen Budiansky disagrees. Domestication is a historical process for Budiansky, and one that includes the "voluntary association of wild animals with human beings."[80] Animals chose to engage with us for certain benefits, says Budiansky. These survival strategies were shaped by evolution to "involve cooperation among

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[76] Gary Francione, "Pets: The Inherent Problems of Domestication," *Animal Rights: The Abolitionist Approach*, https://www.abolitionistapproach.com\pets-the-inherent-problems-of-domestication (accessed Feb. 19, 2019).
[77] Francione, "Pets: The Inherent Problems of Domestication."
[78] Francione, "Pets: The Inherent Problems of Domestication."
[79] Francione, "Pets: The Inherent Problems of Domestication."
[80] Clare Palmer, "The Idea of the Domesticated Animal Contract," *Environmental Values* 6, no. 4 (1997): 413.

species throughout nature."[81] When we think of domestication, we think mainly if not only of our domestication practices, of something essentially one-sided. But Budiansky notes that these associations can be seen elsewhere in nature, for instance between "finches and wasps, ants and trees,"[82] which suggests a more collaborative picture, one with mutual benefits. For instance, dogs that partner up with humans can eat our food scraps and accept our protection. As such, they are less likely to starve or be in danger. And, of course, we benefit from them, with their protection and friendship. Budiansky's picture of domestication begins to look more like co-evolution, animals and humans influencing one another and benefiting from each other, rather than the one-sided dependency that Francione portrays. Budiansky also explains that we tried and failed to domesticate animals like gazelle and antelope, but domesticated other animals like cows and sheep with ease, suggesting that "they chose us as much as we chose them."[83]

It is in light of all of this that Budiansky sees our relations to domesticated animals as a "contract that was sealed when man and domesticated animals cast their lot together ten thousand years ago."[84] Perhaps domestication is neither as unnatural nor troubling as Francione asserts. Budiansky portrays domestication in a much more positive light, noting that "the state of dependence of one species upon another so formed is not degeneracy" but a "finely honed evolutionary strategy for survival."[85] So long as domesticated animals are not worse off in our care, Budiansky thinks that this contract is beneficial. If they are worse off than they would have been in the wild, the contract is broken.[86]

Budiansky has argued that domestication is not harmful but beneficial (if he is correct, we do not need to worry about whether or not we should have stronger duties than those suggested by Palmer, in virtue of the harm of domestication, because domestication was not harmful). Yet perhaps we do not find Budiansky's explanation of things compelling. The domestication Budiansky speaks of seems different in kind from the domestication referenced by Francione; maybe Budiansky and Francione are talking past each other. For

[81] Stephen Budiansky, *The Covenant of the Wild: Why Animals Chose Domestication* (New Haven, Yale University Press, 1992) 16.
[82] Ibid., 16.
[83] Ibid., 24.
[84] Ibid., 13.
[85] Ibid., 16-17.
[86] Palmer, "The Idea of the Domesticated Animal Contract," 413.

Budiansky, domestication is understood as a dog eating our food scraps. But for Francione, domestication is not a friendly invitation but a means of debilitation – seen best, perhaps, in the example of selective breeding. A dog whose breeding causes him to be unable to hold himself up properly on his legs is, arguably, not what Budiansky is talking about when he talks about domestication as a benefit. Budiansky admits that the domestication contract is broken when animals "are worse off…than they would have been in the wild,"[87] and it seems that the more severe cases of selective breeding may qualify on Budiansky's terms as a broken contract. At this point, the harmfulness of domestication seems an open question. While there are examples, like certain cases of selective breeding, that seem straightforwardly harmful, this suggests only that domestication is harmful *in certain cases*, not that it is harmful *in itself*.

Interestingly, for those like Francione who argue that domestication *is* harmful in itself, pets prove a particularly challenging issue, an issue that will be the focus of the following chapters. Pets are, at least in some contexts, thought to be on the receiving end of fairly humane treatment (as far as domesticated animals are concerned). For instance, pets are seen as family members (whereas agricultural animals usually are not), and so need not worry much about being eaten. Some, as we will see, have even argued that pet-keeping, when done ethically, *benefits* pets; that pets could not survive on their own, nor would they want to.[88] If we treat our pets as well as we think we do, meeting their needs adequately, it is unclear why Francione would think that pet-keeping as a form of domestication is objectionable.

But, while there are arguably a number of ways that pets benefit by living in our care, there are also ways that they are harmed by doing so. In the next chapter, I will examine such costs and benefits of pet-keeping. In order to do so, I will draw on Palmer's ideas of dependence, vulnerability, and what constitutes harm. Since I will be confining my discussion to companion animals, I will put aside Palmer's discussion of the duties that we do and do not have to wild animals.

Like Palmer, I will accept an experiential account of harm, where harmful acts are those that cause an animal to experience suffering. I will also accept that wrong must be somehow tied to harm, in the experiential sense of harm. This is to say that what is wrong is either directly harmful (causes suffering), or is indirectly

[87] Ibid., 413.
[88] This is argued for by Hilary Bok and will be further explored in the following chapter.

harmful in that it puts an animal at greater risk of harm (invites suffering). I am open to the idea that there are other wrongs, wrongs that are not tied to well-being or suffering but are wrong for some other reason, though I will not use nor defend such an account here.

In addition, I will accept Palmer's understandings of dependency and vulnerability. In the context of pets, animals are dependent on us to meet their more "basic" needs (food, water); they are usually unable to meet these needs themselves. In addition to basic needs for survival, animals like cats and dogs depend on us for a more general sense of well-being and happiness, their flourishing. They have needs for exercise, play, and cognitive stimulation. Cats and dogs are social animals and so have, further still, social needs. Our pets depend on us to meet all of these.

Animals are *vulnerable* because they depend on us for their interests, their basic needs and flourishing; animals are at risk of our neglecting these. We can say that the more control one has over another's interests, and the more another's interests are at stake in one's controlling the outcomes, the more vulnerable another is to one.[89] Companion animals are particularly vulnerable, then, insofar as "humans have almost complete control over their most basic interests" – that is, they are "wholly dependent" on us.[90] Companion animals usually are confined to our homes. Sometimes they have natures that make them unable to be self-sufficient,[91] e.g. a specially bred dog with spina bifida who cannot walk. In both cases companion animals are vulnerable to harm and suffering. While dependency and vulnerability are not always directly harmful, the "permanent, enduring, and lifelong"[92] nature of dependency and vulnerability, in terms of our pets, puts them at risk of harm (and so, we can say that these are indirectly harmful).

I will accept Palmer's (and other's) idea that we have *a pro tanto duty not to harm.* This means that we should not act in such a way that causes pets to experience suffering (e.g. by way of abuse). This duty of non-harm is a general duty that applies to everyone. Our pets have the capacity to suffer and, thus, they are included in our moral world; it is *pro tanto* wrong to harm them.

[89] This idea comes from Goodin, found in Palmer, *Animal Ethics*, 91.
[90] Palmer, *Animal Ethics*, 91.
[91] Ibid., 91.
[92] Ibid., 91.

In addition to this general duty, we have additional duties to pets, incurred by being beneficiaries of the institution of pet-keeping, an institution that perpetuates creatures that are vulnerable and dependent. Let me say a bit more about why additional duties would arise. As Palmer notes, dependence, vulnerability, and our causal relations with animals (specifically, in some instances of selective breeding *we caused* the very vulnerabilities in our pets that we must now protect against) are all of moral significance.[93] We already recognize that vulnerable groups are of special moral significance, as these groups may be prone to manipulation, as in the case of subjects of research.[94] We take special precautions to make sure vulnerable groups are treated fairly, and that the asymmetry of power present is not abused. Companion animals, too, are, like research subjects, a vulnerable group. *The vulnerability of our pets generates special duties toward them*, to make sure that they are treated appropriately. Palmer notes: "when humans deliberately create morally considerable, sentient animals who have no other ways of fulfilling their needs and are constitutively profoundly dependent on and permanently vulnerable to humans, then humans create special obligations toward those animals."[95]

Anyone who benefits from the existence of the pet-keeping institution (and, as we noted from Palmer, this is mostly everyone) has *a* pro tanto *duty to assist animals in extreme circumstances*. For instance, in the case of Palmer's dumpster kittens, essentially everyone has a duty to assist them, e.g. by bringing them to an animal shelter. Without our help, the kittens will not survive. This duty is *pro tanto* insofar as one must assist *unless* her assisting would put herself in danger, e.g., if the dumpster was on fire. We might say, then, that those of us who participate in the social structure of pet-keeping incur a *pro tanto* duty to meet all pets more critical needs, or to help pets *survive*. This duty can arise when pets are injured, starving, etc. As beneficiaries, we might also have a duty to support, or at least not interfere with, others assisting and, finally, *to work to fix the institutions and attitudes that make harm more likely*. This last duty will be addressed in more detail in the second and third chapters.

For those of us who are pet owners, there are further duties that we incur. In owning a pet, one takes on a certain kind of responsibility to assist, a responsibility *that goes beyond providing for a pet's survival*. Pet

[93] Ibid., 5.
[94] Ibid., 93.
[95] Ibid., 93.

owners must help their pets *flourish* – satisfying nutritional, psychological and social needs. We might distinguish between surviving and flourishing as follows: to survive, a starving dog must be *fed*; to flourish, a dog must not only eat but eat *well*, having her nutritional deficiencies met.[96] One might find it strange to say that non pet owners need only to help pet animals survive. Why do non pet owners not also incur a responsibility to help pets flourish? The scope of responsibility is restricted here in hopes that this moral theory not be too demanding. It seems unfair/ unrealistic to expect one to drop everything in order to sufficiently meet the needs of all pets. This is psychologically impractical; it is emotionally draining to take on the responsibility of all pets, and this could weigh on one so heavily that they in effect become worse moral agents, cannot be bothered with helping meet even the more critical aspects of pets in need.

It will be my objective, in the chapters that follow, to use the ideas of dependency, vulnerability, and relational obligations (of assistance and of non-harm), in examining the more subtle ways that we treat (and mistreat) our pets. Given what we owe our companion animals, given the circumstances they are in, given our causal entanglement, given our understanding of what it is to harm them, we must be extra cautious of our actions. We must work to meet the more commonplace needs of our pets, needs that are necessary for their happiness. Though I will not in this paper settle whether pet-keeping (or domestication broadly) is beneficial or harmful, right or wrong, I will bring to light some of the things we might think about when considering this issue (and some of the obligations that we have to our pets in spite of leaving this question open). At this point, we can turn to the practice of pet-keeping to see what our treatment of companion animals looks like.

[96] To fail to assist pets in flourishing may not be directly harmful; for instance, to feed a dog mildly unhealthy food for one meal may not be immediately painful. However, when we fail to assist pets in their flourishing (by giving them unhealthy food), we *indirectly* harm them, in that we *invite* suffering; one unhealthy meal can lead to many or every meal, and feeding a dog unhealthy foods consistently can, over time, lead to health complications.

2: OUR PRACTICE OF KEEPING PETS

In this chapter, I will discuss our practices of pet-keeping. I will begin with the history of pet-keeping: some theories on how it began, why dogs and cats are common pets, in what ways we benefit in keeping them, and in what ways their welfare is affected. Next, I will discuss the ethical debate about whether the practice of pet-keeping is justifiable. While I will not take a position on that matter, I will consider some ethical issues raised within the debate, that is, the less visible ways that we may violate the duties to pets described in Chapter 1. Specifically, I will discuss the ways that what Val Plumwood calls 'othering attitudes' can work to undermine duties of non-harm and assistance. I will conclude that in order to fulfill the duties that we have to pets, we must work to eliminate these attitudes of othering.

2.1 History of Pet-keeping

In the last twenty to thirty years, there has been what Serpell calls an "explosion of pet-keeping in the Western World," accompanied by an increase in both the money we spend on, and the emotional attachment we have to, our pets.[97] According to a 2017-2018 study, 68% of households in the US, or around 85 million families, own a pet.[98] Dogs are the most commonly owned pet by household, with 60.2 million households keeping dogs, followed by 47.1 million households keeping cats. This is a significant change from the 19th and 20th centuries, where the keeping of caged birds was the most common form of pet-keeping in the US, far more popular than the keeping of birds is today, at least in the US.[99,100]

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[97] James Serpell, *In the Company of Animals: A Study of Human-Animal Relationships* (Cambridge, Cambridge University Press, 1986), 23.

[98] "American Pet Products Association's 2017-2018 National Pet Owners Survey," Insurance Information Institute, https://www.iii.org/fact-statistic/facts-statistics-pet-statistics (accessed 5 February 2019).

[99] Christal G. Pollock, "Companion Birds in Early America," *Journal of Avian Medicine and Surgery* 27, no. 2 (2013): 148.

[100] Keeping birds is still an important part of the culture in Brazil, where there are around 38 million birds kept as pets, exceeded only by the number of pet dogs. Birds have "major social, economic, and cultural importance," providing owners with "pleasure, companionship, and ornamentation" (Alves, Rômulo Romeu Nóbrega et al., "Ethno-ornithology and conservation of wild birds in the semi-arid Caatinga of northeastern Brazil" *Journal of Ethnobiology and Ethnomedicine* 9, no. 14 (2013)). In addition, some pet owners keep rabbits, rodents, and exotic animals. Keeping rabbits as pets has become extremely popular in the US and Canada (with 98.7% of kept rabbits estimated to live in these countries) (Margo DeMello, "Rabbits Multiplying Like Rabbits," *Companion Animals in Everyday Life*, (New York, Springer Nature, 2016), 97). Hamsters are kept as pets in the US, Europe, and elsewhere, originating in America as a "modern laboratory animal" (Katherine Grier, *Pets in America* (Chapel Hill, UNC Press Books, 2006), 41). Only within the last two decades have tropical fish, reptiles, and amphibians begun to serve as

2.1.1 A Conceptual Shift

Dogs and cats were not always so ubiquitous in our homes. It is not so much one thing that caused us to start keeping pets, but rather many contributing factors that made way for pet-keeping. The practice of keeping pets could come about only after a certain conceptual shift – "historical changes in attitude, not only to pets, but to animals in general," which likely had a hand in increasing pet-keeping.[101] Both a decline in Judeo-Christian beliefs and a growing interest in nature and science prompted in part by Copernicus' heliocentric model of the universe and, later, by Darwin's theory of evolution, opened up doors to interests in animal welfare, pet-keeping, and "other non-anthropocentric pursuits."[102]

Prior to this upheaval of the way nature was conceived, Western attitudes were (and in many ways, continue to be) shaped by Judeo-Christian beliefs. In the Judeo-Christian tradition, animals are seen strictly in terms of service, in terms of what they offer to humans, for it is humans who dominate "over every living thing that moveth upon the earth."[103] Judeo-Christian thought proposed that "the Earth and the animal and plant species which inhabit it were created specifically to serve the interests of humanity,"[104] establishing "the complete supremacy of humankind over all animals…by an almighty God."[105] These understandings, of animals as things which exist only for us to rule over and to use as tools, run counter to ideas of pet-keeping today, which take pets to be members of the family.

The practice of pet-keeping posed a threat to the foundations of both religious and philosophical thinking.[106] Throughout the Renaissance, pet-keeping was considered a form of heresy, as pet-keeping "turned beasts into humans or at least semi-humans."[107] Again, the keeping of dogs and cats as pets usually involves humanizing the animal, treating him or her as a family member. Viewing animals in this way was, of course, in tension with the belief that animals are to be of service, not to be one's equal.

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pets (Rachel Grant et al., "ExNOTic: Should We Be Keeping Exotic Pets?," *Animals* 7, no. 6 (2017): 1). There was not the desire to keep exotics and, more importantly, homes in the 1900s lacked the heating system required to keep many exotics alive (Grier, *Pets in America*, 24).

[101] Serpell, *Company of Animals*, 149.

[102] Serpell, *Company of Animals*, 166.

[103] Sophia Menache, "Dogs in the Pro-Modern Period," *Companion Animals & Us*, eds. Elizabeth S. Paul, Anthony L. Podberscek, James Serpell, (Cambridge: Cambridge University Press, 2000), 44.

[104] Serpell, *Company of Animals*, 150.

[105] Menache, "Dogs in the Pro-Modern Period," 44.

[106] Serpell, *Company of Animals*, 159.

[107] Ibid., 158.

The depths of anthropocentrism present in religious thought manifest, too, in that early Christianity denied animals an afterlife.[108] That an animal died and did not become something more in the future reinforced "the notion that humans had no reason to feel morally concerned about the treatment of non-human species."[109] There would be, for instance, no apprehension that a mistreated animal could come back for vengeance in another life and, in turn, no motivation for humans to treat them kindly in this one.

It was pivotal scientific developments that helped move people away from those self-serving views which see nature as tools. The discoveries of Copernicus and, afterward, Bruno and Galileo, helped revise the understanding of the universe, and of humans' location in it.[110] In overturning an earth-centered universe, Copernicus also dislocated, symbolically of course, humanity: man became "'no more than an ant in the presence of the infinite.'"[111] It was around this time that Montaigne argued that the "differences between humans and non-humans were morally irrelevant," and that animal cruelty was wrong in itself, not because of some further fact, e.g. that it may lead to cruel treatment of humans.[112]

Around two centuries later, in the middle of the nineteenth century, Darwin's accounts of evolution and natural selection helped to further dismantle anthropocentric views. Darwin's account of organisms suggested that all beings, humans included, were "products of a natural and essentially random process."[113] As James Serpell notes, "all at once, humans, animals, plants and other organisms were flung together in the same boat, driven onwards by the inexorable pressure of natural selection."[114] Humans were no longer unique, lying outside of and above nature.

In the beginning of the nineteenth century, with scientific developments rippling through philosophical thought, animal welfare issues begin to come forward, at least in some places. By 1822, laws were passed in England to protect the mistreatment of horses and to make bull-baiting illegal on the public highway.[115] Such laws may not appear to us immensely progressive, but we must remember that just four decades prior to these

[108] Ibid., 153.
[109] Ibid., 153.
[110] Ibid., 156.
[111] Ibid., 156.
[112] Ibid., 160.
[113] Ibid., 164.
[114] Ibid., 165.
[115] Ibid., 162.

laws, Kant was writing a human-centered ethic, excluding animals in light of their irrationality.[116] Meanwhile, there was both a "growing concern for animal welfare" and "a tremendous increase in the popularity of pets…" in England.[117] England was, no question, ahead of its time in that regard.

2.1.2 Tools for Hunting

While Copernicus' model of the solar system and Darwin's account of evolution worked to dismantle the anthropocentric attitudes of the time, we can, again, see the development of pet-keeping as situated amidst a web of contributing factors. In addition to the advances in theory that helped along the development of pet-keeping, something more practical played an important role, as described by Sophia Menache in her account of dogs in the pre-modern era. Menache suggests that the act of hunting was crucial to the evolution of dogs as companions.

The practice of dog-keeping in the pre-modern period evolved gradually, beginning with the use of dogs for hunting by the upper classes. Though hunters 'kept' these dogs, the word 'pet' does not map well on to the relationship between hunter and animal. Dogs occupied an ambiguous place in European society, seen both as an essential means to subsistence and, more reductively, as tools – "the involvement of dogs in [subsistence hunting] did not free them from the instrumental perspective that characterized the approach of medieval society to the animal kingdom as a whole."[118] Rather, dogs were "merely ephemeral members of their communities…frequently treated as disposable, if animated toys, subjected to physical abuse and neglect, insufficiently fed, and either killed or allowed to die when their amusement value declines."[119] To keep dogs as companion animals during a time where dogs, and all animals, were seen as nothing more than tools for our use, would have been strange at best, sacrilegious at worst. Hunting provided a way to bring man and dog together, without raising eyebrows, as it were, or questioning the relationship's nature.

Gradually, hunting became a "socialization process," a "behavioral pattern" that worked to "differentiate between the nobility and the lower classes."[120] It is this shift in the role of hunting from a more

[116] Ibid., 162.
[117] Ibid., 162.
[118] Menache, "Dogs in the Pro-Modern Period," 49.
[119] Ibid., 42.
[120] Ibid., 47-49.

practical purpose (of subsistence) and toward a more symbolic purpose (of status) that ultimately led the way for the development of affective relationships with dogs. In other words, it was the "ennoblement of hunting as a behavioral pattern that suited monarchs and nobles" which led to dogs being kept as companions.[121] As dogs made their way into the home, now more as friends and less as 'animated toys,' laws began to be passed prohibiting dog ownership by the poor, making it illegal for the poor to keep greyhounds, for instance.[122] This way, the symbolism behind dog keeping, namely status and wealth, would be preserved. Now associated with "the noble virtues of courage and bravery" and as characterizing knighthood,[123] dog-keeping became a practice of "tenderness" and "devotion."[124] Companion dogs were not far off.[125]

2.1.3 Declining Family Structure

Shifts in theory away from anthropocentrism and the partnering of people with dogs for hunting no doubt contributed to animals like dogs becoming our companions. Another explanation, more generally, for the pet-keeping resurgence today is that pet-keeping can be seen as a response to the declining family and community structures (in certain parts of the world).[126] The thought behind this is that social changes, via technological advances of the twentieth century, "disrupted and fragmented" our "traditional family and community structures," leading us to seek out other means of social relationships.[127] Some have criticized this theory in light of the fact that in hunter-gatherer communities, social ties were strong; according to the fragmented family theory, there would have been no need to keep pets as an additional source of companionship. Yet pets were kept.[128] Still, the fragmentation of family hypothesis is interesting. This explanation would be able to account for the fact that people today keep pets for the companionship they offer, how pets are seen as part of the family,

[121] Ibid., 50.
[122] Ibid., 50.
[123] Ibid., 51.
[124] Ibid., 52.
[125] While the instrumental use of dogs led to better treatment of those dogs who were kept as pets, it must be noted that dogs were treated better not because of any intrinsic value, or because of a known capacity to suffer, but rather were treated well because of what they provided for humans: first, work; then, status. For example, the treatment of work dogs was regulated, via the development of "hunting treatises" (that provided information about how best to care for and communicate with one's dog, speaking kindly, for instance, or providing proper ventilation for one's kennel, Ibid., 53-55), but the "final goal" of these treatises "was not the dog itself, but the success of his master in hunting" (Ibid., 56).
[126] Serpell, *Company of Animals*.
[127] Ibid., 149.
[128] Ibid., 150.

and the correlation[129] of pet attachment with family cohesion. Perhaps we can factor this in to the growth of pet-keeping, alongside other (perhaps more influential) factors.

2.1.4 Dogs and Cats: Our Preferred Companions

Today, in the US, Japan, Russia, China, and in many other countries, not only dogs but cats too are incredibly popular house pets. Our selection of dogs and cats may seem arbitrary. Even though dogs were useful tools, why strike up emotional bonds with our tools? And why are dogs and cats more popular pets than, say, snakes?

Serpell describes five qualities, physical, behavioral, and emotional, of dogs and cats that lend these animals to be our preferred companions. Foremost, dogs and cats do not need to be restrained or fenced in; they can freely roam and will remain in one specific area, forming attachments to places and to people. Second, dogs and cats have evolved from their wolf and wildcat descendants respectively to be "relatively hygienic; generally depositing their urine and faeces in particular places, often on the boundaries of their territories and away from the central den area."[130] It is unlikely that we would let dogs and cats into our homes if things were different – generally, an accident on the carpet is an exception to the rule, not the rule itself (as it may be for other, "notoriously difficult to house-train" animals, like monkeys).[131] Third, dogs and cats are diurnal, and while we do keep some nocturnal pets, like hamsters, sharing schedules is helpful in developing deeper and richer relations. Fourth, dogs and cats seem just the right size, "large enough for us to view them as recognizable individuals…small enough so that the majority do not pose a serious threat."[132,133]

Lastly, dogs and cats are social animals who have mastered the exploitation of our affections.[134] With dogs and cats there is a distinct human-animal bond. We perceive "non-verbal messages of love and attachment" in the behaviors of these animals, e.g. in our dogs greeting us at the door when we return. Our pets make us feel

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[129] Bradley Smith, "The 'Pet Effect:' Health related aspects of companion animal ownership," *Australian Family Physician* 41, no. 6 (2012): 440.
[130] Serpell, *Company of Animals*, 126.
[131] Ibid., 127.
[132] Ibid., 127.
[133] Though some dogs, especially larger ones, can take on threatening roles, their "intelligence and trainability" can, with the right owner, keep the threat of aggressive behavior in check (Ibid., 128).
[134] Ibid., 128.

"liked, respected, admired," valued and needed.[135] Dogs and cats make great companions as we see them as providing us with "uncomplicated" relationships (e.g. we tend to not think that they need to talk things through[136]). From our perspective our pets love us unconditionally and without judgement[137] – "pets greet their human companions enthusiastically on the worst days; they do not notice bad hair" and they seem to us to forgive our mistakes.[138] Pets are seemingly able to play the role of listener; many pet owners confess to speaking to their dogs and cats as if they were humans, confiding in them. Dogs and cats appear to listen but cannot respond, which is to say they do not seem to "judge us, criticize us, lie to us or betray our trust."[139] Our dogs and cats, though nonverbal, seem to us to express a kind of attentiveness, responding to a shift in our mood or emotions. The ability to respond in this way leads us to perceive our pets as empathic.[140] In this way our pets may ward off loneliness.[141]

For all of these reasons we choose to keep dogs and cats in our homes, choose to allow them to roam freely, to sleep in our beds, in ways that are, by and large, unusual, when we consider how many animals with which we do not wish to share such personal space. Serpell concludes that it is these emotional bonds we are able to form with dogs and cats (and they with us) to which we can attribute the "enduring success" they have had in their role as our companions. Perhaps it is these bonds that make cats and dogs the most common animals to act as stand-in family members and friends.[142]

2.1.5 The Benefits Dogs and Cats Confer

There are other benefits that dogs and cats confer to our lives, giving us reasons to keep them. Foremost, pets may fill the role of family member in the security that they may offer, as a parental figure might do for a child.[143] Or, in reverse, pets allow us to play the role of nurturer, in that we can invest time into them as we would a child, making and feeding them meals, actively providing them with opportunities to experience new

[135] Ibid., 142.
[136] Froma Walsh, "Human-Animal Bond I: The Relational Significance of Companion Animals," Family Process 48, no. 4 (2009): 471.
[137] Ibid., 471.
[138] Ibid., 471.
[139] Serpell, *Company of Animals*, 141.
[140] Ibid., 141.
[141] Ibid., 143.
[142] One study found that 48% of people considered their dog a family member (John Archer, "Why Do People Love Their Pets?," *Evolution and Human Behavior* 18, 1997).
[143] Archer, "Why Do People Love Their Pets?," 241.

places, people, and stimuli. People keep dogs, too, for the positive effects they have on our social lives, that is, in acting as "social enablers."[144] Animals can make their owners seem "friendlier and less threatening."[145]

Another, rather different benefit that our pets confer is aesthetic delight; in some places, pets are kept, both today and in the past, in order to fulfill this desire. This can be seen, first, in the practice of keeping birds, which tend to be kept for ornamentation, cheerful sounds, and symbolism. Pedigree dogs and cats are, likewise, kept for aesthetic delight. Indeed, pedigree pets are sometimes acquired for their "predictable looks,"[146] looks that meet an 'objective' beauty standard, established via the American Kennel Club or the Cat Fanciers' Association. Pedigree pets are, in this way, a hobby or appreciation of aesthetics, "rather than a truly utilitarian activity"[147] – there is not some further utility that only pedigree pets can serve.

This keeping of pedigree pets leads into another way that we benefit from pets, that is, as objects of "conspicuous consumption."[148] In the same way that, in the Middle Ages, dogs were used symbolically to distinguish between the wealthy and the poor, purebreds are indicative of a degree of wealth – specially bred dogs are, foremost, expensive. In addition, these dogs tend to be decked out in "status-seeking accessories and luxury items."[149] People spend money on luxury animals in search of "prestige, status, and acceptance."[150] There are some ethical questions to address here (e.g. perhaps we may find it repugnant to use animals in this way, especially if our benefit comes at their expense); we will turn to this soon.

Some animals offer more straightforwardly pragmatic benefits. Up until the 1950s, cats were "crucial to urban rat control, especially around markets and stables."[151] The role of cats as exterminators was not limited to the public sphere – cats could be rented from exterminators and animal dealers[152] to kill mice.[153] Some might

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[144] Smith, "The 'Pet Effect,'" 440.
[145] Serpell, *Company of Animals*, 104. For instance, one becomes more likely to experience positive interactions and longer conversations when walking with one's dog through a park than if walking on their own or with a child (104).
[146] Grier, *Pets*, 33.
[147] Nicola Rooney and David Sargan, "Pedigree Dog Breeding in the UK: A Major Welfare Concern?," an independent scientific report commissioned by the RSPCA: 8.
[148] Grier, *Pets*, 31.
[149] Aprile M. Plemons, "Commodifying Fido: Pets as Status Symbols," Master's Thesis, Texas A&M University, 2008: 26-27.
[150] Plemons, "Commodifying Fido" 27.
[151] Grier, *Pets,* 35.
[152] Ibid., 35.
[153] However, the service that cats provided to cities and homes came at some cost. Specifically, cats would not limit their hunting to rodents; sometimes cats would eat kept baby chicks, for instance. In turn, cats held an "ambiguous position in the household" (Ibid., 35) as they could be in one sense useful and a nuisance in another. Today, cats

keep cats today for this very purpose. In addition, we use dogs as service animals, assisting people with "mobility impairments,"[154] and a wide range of psychiatric disorders, including "posttraumatic stress disorder (PTSD), traumatic brain injury, and autism"[155] as well as "panic disorder, schizophrenia" and Alzheimer disease.[156] Service dogs can also refer to "police dogs, hunting dogs, herding dogs, military dogs, and emotional support dogs."[157] Service dogs assist us in a number of ways, and the American Humane Association reports that there are about 20,000 service dogs in the US alone.[158,159]

Even without the diligent training that service dogs go through, dogs can provide humans with health benefits. Many people keep dogs, though not service dogs *per se*, for physical and mental health benefits. In some cases, animals such as (non-threatening) dogs can lower anxiety in stressful situations, providing a "relaxing external focus of attention" and "feelings of safety."[160] Additionally, there is evidence that dogs are associated with advantages in cardiovascular health.[161] Dogs can function as therapeutic assets, particularly for child therapy, as ice-breakers in getting "severely withdrawn" children to open up in therapy and may be a tool for fostering empathy, "tolerance, self-acceptance and self-control…"[162]

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occupy an essential role as companion animal and are, by cat owners at least, likely thought less of a nuisance than they once were (though, at the same time, are often prevented from hunting as much as they used to).

[154] Lindsay Parenti et al., "A Revised Taxonomy of Assistance Animals," *Journal of Rehabilitation Research and Development* 50, no.6 (2013): 747.

[155] Ibid.

[156] Ibid., 752.

[157] Ibid., 747.

[158] "U.S. Pet (Dog and Cat) Population Fact Sheet," American Humane Association, accessed Feb. 6, 2019, http://www.bradfordlicensing.com/documents/pets-fact-sheet.pdf.

[159] Cats are also used to assist people. While only dogs can be considered "service animals" under the Americans with Disibilities Act Title III Regulations (service animals need to be specially trained to perform some task), cats qualify as "emotional support animals" (ESAs do not need special training). ESA cats can be essential in bringing comfort and support, decreasing anxiety and panic. Holding a cat can function as a "physical comforter" and soothe patients during therapy – "the touching of the animal and the proximity to the animal may also represent an external degree of safety within many clients" (Aubrey H. Fine, "Incorporating animal-assisted therapy into psychotherapy: guidelines and suggestions for therapists," in *Handbook on Animal-Assisted Therapy: Theoretical Foundations and Guidelines for Practice,* 3rd ed., ed. Aubrey H. Fine (London: Elsevier, 2010), 176). It is an interesting question whether or not cats, too, could be not only ESA's but the more technical "service animals," put to work for police, or for hunting, etc.

[160] Erika Friedmann et al., "Companion animals and Human Health: Physical and Cardiovascular Influences," in *Companion Animals & Us,* eds. Elizabeth S. Paul, Anthony L. Podberscek, James Serpell, (Cambridge: Cambridge University Press, 2000): 132.

[161] Ibid., 140.

[162] Serpell, *Company of Animals*, 89.

While I have not exhausted the benefits that our pets confer, what has been discussed can give us an idea of some of the reasons we might keep dogs and cats. With this said, let us turn to some of the welfare concerns that come about in keeping these companion animals.

2.2 Welfare Issues of Pets

Concern for companion animal welfare has been around, in small doses at least, since about the 1800s, following the shift in scientific thinking as mentioned earlier. Around the late 1880s, for instance, animal welfare advocates were upset "about the common practice among city folk of turning out cats during the summer at the seaside or country house and leaving them behind when the family returns to the city for the winter."[163] Today, activists for the wellbeing of pets work, likewise, toward better treatment of companion animals and/or to challenge the practice of pet-keeping itself ("abolitionists").

One such abolitionist is Gary Francione. Francione suggests that even in the one area of domestication where we tend not to regard animals as "mere commodities," (that is, in pet-keeping) there is poor treatment, e.g. in the United States "many dogs are dumped at a pound, transferred to a new owner, or abandoned."[164] Additionally, companion animals are "senselessly" mutilated, for example, to protect material things in our homes or for aesthetic reasons. We chop ears and dock tails, as well as have "claws ripped out, which involves the painful partial removal of digits…"[165] Francione's view is that it is because our *pets are seen as property* that we are "given latitude as owners regarding how we value their interests."[166]

2.2.1 Feline Onychectomy

Such latitude comes in many forms. To give one example, as mentioned, we have the claws ripped out of our pets. This is a rather common welfare issue in house cats – the practice of performing forelimb onychectomies or declawing. The actual number of onychectomy surgeries taking place today is hard to judge due to a lack of data, but a study in 1991 found that "an estimated 25% of the US domestic cat population is declawed."[167] When we declaw our cats, we "trivialize concern for [their] welfare and psychologic well-

[163] Grier, *Pets,* 37.
[164] Francione, *Animals as Persons*, 163.
[165] Ibid.
[166] Ibid.
[167] Nicole K Martell-Moran et al., "Pain and Adverse Behavior in Declawed Cats," *Journal of Feline Medicine and Surgery* 20 no. 4 (2018): 281.

being."[168] Welfare concerns that arise from declawing surgery include: the surgery can be a painful experience for cats, both during and immediately afterward; it is possible that there will be surgical complications, such as hemorrhage, claw regrowth, wound reopening, loss of nerve function, and an increase in disease susceptibility, among others. There is also the fact that in declawing cats we are removing something that is necessary for their species-specific functions (e.g. hunting) – for this reason we might say that declawing is harmful insofar as cats are deprived from their ability (on Nussbaum's view) to flourish.[169]

Studies have found that the prohibition of onychectomies can improve cat welfare not only directly (avoiding the painful surgery) but indirectly, by decreasing the number cats that are sent to shelters. After declawing surgery was banned in Los Angeles in 2009, animals being returned to the shelter decreased by 43.3 percent. Many cats are returned to shelters for "post-declaw behavior problems, like biting and not using the litter box."[170] In fact, it is these two issues – trouble with using the litter box and aggression issues – that are the most common reasons for cats to be dropped off at shelters, "where 70 percent are killed nationwide."[171] Banning onychectomies, then, would improve cat welfare on a couple of fronts.

2.2.2 Selective Breeding

There are also welfare issues that arise in the breeding of pedigree animals. I will return to this issue again later in this chapter, but for now I will present a brief overview of selective breeding and some of the associated health issues. Selective breeding is, at base, a process of "mating within a closed population" which leads "to the development of a particular set of appearances and behaviors."[172] Breed requirements limit which animals can and cannot be considered 'purebreds.' Keeping purebreds was not popular in America until after the civil war, though things have escalated since: data from the American Humane Association reports that 16% of

[168] Michael W. Fox, "Questions ethics of onychectomy in cats," *JAVMA* 228 no. 4 (Feb. 2006): 503-504.
[169] About 42 countries, including the United Kingdom, France, Germany, and Switzerland have banned declawing surgery ("California Considers Ban on Declawing Cats," Alley Cat Allies, last modified Feb. 3, 2019, https://www.alleycat.org/california-considers-ban-on-declawing-cats/). In the United States, declawing is still mostly legal, though progress is slowly being made: the surgery is banned in eight cities in California (though not the state itself); legislation to ban the surgery has been proposed but not passed in Colorado, though in Denver it is prohibited; anti-declaw legislation is pending in New Jersey; Rhode island passed a law in 2013 prohibiting landlords from making it a requirement that tenants' cats are declawed ("Is Declawing Cats Illegal?," The Spruce Pets, last modified Jan. 12, 2019, https://www.thesprucepets.com/ states-where-declawing-is-illegal-554735).
[170] "California Considers Ban on Declawing Cats."
[171] Ibid.
[172] Grier, *Pets,* 28.

dogs kept are attained from breeders, suggesting that, on the lower end, there are 11 million dogs (or 12.5 million on the higher end) bought from breeders in the US alone. In the UK, the population of pedigree dogs is estimated at five million, or "75% of the overall dog population."[173]

Exaggerated anatomical features in pedigree dogs, done for aesthetic reasons, are associated with an extensive list of health concerns that cause suffering and an overall decreased quality of life. In the Pedigree Dogs Report, examples of health issues that result from exaggerated anatomical features include (but are not limited to): joint problems related to dogs bred to be "overly large or heavy"; spinal problems and limited mobility related to dogs bred with very short legs; issues with breathing and blockage of the tear duct associated with dogs bred to have "short skulls and flat faces"; restricted mobility and joint degeneration from the "abnormal positions of limbs"; trouble eating from the abnormal placement of teeth; "irritation, inflammation, degeneration" of the eyes, as well as prolapsing of the eye (when a mass grows beneath the eye and the eye begins to bulge out of its socket), all related to "abnormal size and position of the eyes or eyelids"; easily injured ears as the ears are selected to be abnormally large; eczema and other skin conditions because of overly folded and furrowed skins; and an inability to regulate the temperature of the body as a result of being bred hairless.[174] Pedigree dog breeding is associated, too, with an "increased prevalence of inherited disorders," such as epilepsy, autoimmune diseases, food allergies, and many more.[175]

2.2.3 Animal Cruelty

Sometimes people take latitude with the property status of their pets such that their treatment is straightforwardly neglectful and/or abusive. Dogs and cats are, in addition to horses and livestock, most commonly reported as victims of animal abuse.[176] It is, of course, difficult to obtain accurate statistics on the rate of pet abuse – as of 2011, "no national database or agency responsible for collecting and reporting statistics on the incidence of animal cruelty exists." In the United States alone, it is estimated that 20,000 animal cruelty

[173] Rooney and Sargan, "Pedigree Dog Breeding in the UK," 8.
[174] Ibid., 11.
[175] Ibid., 18-21.
[176] "Animal cruelty facts and statistics," The Humane Society of the United States, accessed April 2019, https://www.humanesociety.org/resources/animal-cruelty-facts-and-stats.

charges are filed annually.[177] But it is uncertain whether or not this estimate is accurate, given both underreporting and ambiguity in what is and is not counted as "abuse."[178]

Forms of abuse and neglect are wide-ranging. Pets may be victims of husbandry-related and/or medical neglect – in 1996, almost all complaints of animal neglect in the state of Massachusetts (4,942 total) involved either one or both of these kinds of neglect.[179] Companion animals may be subject to animal hoarding, whereby an individual takes in more animals than they can care for and fails to meet the animals' basic needs. Victims of animal hoarding are subject to insufficient "nutrition, sanitation, shelter and veterinary care—often resulting in animal starvation, illness and death."[180] It is estimated that 250,000 animals are victims of animal hoarding each year in the US.[181] Other forms of abuse may include physical violence perpetrated by pet owners, out of an interest purely in harming the pet, or as leverage in cases of domestic battery and abuse, or overworking and overuse of the animal (though this is more common in agricultural animals, it may be relevant for service dogs, police dogs, herding dogs, etc.).

2.2.4 Institutionalized Animal Cruelty

There are more institutionalized ways that dogs specifically are abused and neglected. Dogs are used in both dogfighting and racing. Both of these 'sports' leave dogs at risk to both minor and severe injuries, and sometimes death. In dogfighting, dogs often incur "severe bruising, deep puncture wounds, [and] broken bones." In addition, dogs may die during the fight, hours, or days afterward, from "blood loss, shock, dehydration, exhaustion or infection."[182] It is estimated that 16,000 dogs die each year in dog fights (while, again, the statistics are notoriously difficult to obtain, this suggests that between 1 to 2 dogs in every 4 dogs that are forced into dogfighting will die). [183] While dog fighting is illegal in every state in the US, it is estimated that there are "at least 40,000 dogfighters in America" each year, not including underreported street fighting cases.[184]

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[177] Melanie A. Benetato et al., "The veterinarian's role in animal cruelty cases," *Journal of the American Veterinary Medical Association* 238 (2011): 31.
[178] Ibid.
[179] Lori Donley et al., "Animal Abuse in Massachusetts: A Summary of Case Reports at the MSPCA and Attitudes of Massachusetts Veterinarians," *Journal of Applied Animal Welfare Science*, 2, no. 1 (June 2010): 59.
[180] "Animal Hoarding," ASPCA, accessed May 1, 2019, https://www.aspca.org/animal-cruelty/animal-hoarding.
[181] Ibid.
[182] "Dog Fighting Fact Sheet," The Humane Society of the United States, accessed May 1, 2019, https://www.humanesociety.org/resources/dogfighting-fact-sheet.
[183] "Help Stop the Dog Fighting," accessed May 1, 2019, Stopdogfighting.net.
[184] Hanna Gibson, "Detailed Discussion of Dog Fighting," *Animal Legal and Historical Center*,

Dog racing is equally dangerous. Over 80,000 Greyhounds are used in dog racing, where they are subject to a number of health risks including death – from 2008 to 2015 it was found that 11,722 Greyhounds were injured in dog racing, with "more than 3,000 dogs [suffering] broken legs and other injuries such as crushed skulls, broken backs, paralysis and electrocutions."[185] This study also found that at least 909 Greyhounds died and 27 suffered from cruelty and neglect, deprived of adequate food, veterinary care, and living conditions; 16 Greyhounds were found to have cocaine in their systems.[186] Dog racing is an acceptable (i.e. culturally normal[187]) way for dog owners to put their dogs at risk of physical injury, neglect, and in some cases, death.[188]

2.2.5 Unintentional Harms

Finally, there are more pervasive forms of bad treatment, things that we do which may not seem so straightforwardly abusive or neglectful. For instance, litter fragrancies may be unpleasant sense experiences for cats, and cat litters with silica dust have been linked to upper respiratory issues in cats.[189] Dogs are particularly social animals but we frequently leave them home alone each day while we are at work. This social isolation often incites anxiety and distress.[190] These examples are all potentially harmful but do not seem like

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Michigan State University College of Law (2005): 3.

[185] "Greyhound Racing," ASPCA, accessed May 1, 2019, https://www.aspca.org/animal-cruelty/other-animal-issues/greyhound-racing.

[186] "Greyhound Racing," ASPCA.

[187] Dog racing is still legal in nine states in the US.

[188] It may be worth pointing out, if only briefly, that there are a number of issues regarding the welfare of exotic and other small pets. One specific and particularly cruel example arises with pet birds. It is common for pet birds to be mutilated in a practice of wing clipping. Wing clipping, if performed properly, is a supposedly painless process of trimming the remiges of a bird in order to inhibit the bird's flight. Depending on the severity of the trim, the bird's flying abilities may be only impaired such that the bird's flight is restricted to indoors only, or, on the more severe end, the bird may be made entirely flightless ("Feather Clipping: Unnecessary and Unkind," PETA, accessed May 1 2019, https://www.peta.org/issues/animal-companion-issues/cruel-practices/feather-clipping/). Like the declawing of cats, wing clipping may be accompanied by negative side effects, like inhibited safety (e.g. cannot escape from danger), mental suffering such as fear, a deprivation of exercise, and a loss of the "ability to carry out natural and highly motivated behavior" (Grant et al., "ExNOTic," 2). Wing clipping of birds may be justified on behalf of "safety reasons," though as noted, safety may be diminished by the procedure. Other welfare considerations of keeping exotic and small pets include the ways that reptiles and amphibians have species-specific biological needs; they require particular temperatures, water, and diet, that owners generally are not aware of. Rabbits often are not given adequate space to roam, necessary vaccinations, or proper environmental enrichment (Ibid., 5). Pet parrots are prone to "social isolation, flight restriction, poor diet (including lack of foraging enrichment) and hand rearing (which is effectively social, parental and filial deprivation)" (Ibid., 2). I mention these issues in passing, if only to suggest that welfare concerns are not limited to our dogs and cats alone.

[189] Roddy Scheer and Doug Moss, "What are the Most Ecofriendly Cat Litter Products on the Market?," *Scientific American*, accessed May 2, 2019, https://www.scientificamerican.com/article/green-friendly-cat-litter-options/?redirect=1.

[190] I will discuss this in section 2.5.

straightforward abuse because we do not do these things in order to harm our pets and, often times, we are unaware that these actions can cause harm.

2.3 Is it Wrong to Keep Pets?

Given these stakes, we might wonder if our current practice of keeping pets is morally acceptable. Thinking back to chapter one, Palmer sees no problem with keeping pets *per se*. She suggests, though, that our pets are dependent and vulnerable. We have *caused* them to be this way and, as such, obligations are generated in terms of caring for them. But the issue of whether or not pet-keeping in itself is ethical is, to be sure, controversial: while some (Palmer, Bok, DeGrazia, du Toit) suggest that keeping pets is morally appropriate so long as the animal's well-being is accounted for, others (Francione) argue that the institution of pet-keeping is impermissible.

2.3.1 Animals as Property

One of the reasons that Francione finds pet-keeping wrong is in virtue of our pets' property status.[191] When we use animals as companions, they become our property and this, to Francione, is morally problematic: one owns a pet, and this ownership gives one the license to treat one's pet in ways (as discussed in section 2.2) that we would not find acceptable in the human case. In particular, Francione argues that because our pets are property, we can prioritize our interests over theirs, often and for trivial reasons, e.g. it is legal to select for traits (like screw-shaped tails) in our pets that are associated with health complications (like spina bifida). Here, our aesthetic interests take priority. Perhaps our financial interests take priority, too, given the profitability of the pedigree dog world. Human interests can be prioritized at the expense of our pets.[192]

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[191] In exploring why it is that we are able to categorize animals as property, Francione suggests that there must be some perceived difference between us and them, given that we find it morally reprehensible to see humans as property. Perhaps we think of animals as different from and inferior to ourselves because we see them as lacking in cognitive abilities. There are things that only humans can do, and this is taken to be relevant in obtaining moral status. Francione finds the view that animals are fundamentally different from humans to be flawed. His response here is reminiscent of Singer's. As Darwin describes, any difference in the intellectual capacities of nonhumans is a difference in degree, not in kind. Francione notes "although there are things that only humans can do… there are things that only nonhumans can do" – "nonhumans can fly or breathe underwater without assistance" (Francione, *Animals as Persons*, 180). The argument that there are uniquely human characteristics cannot ground the conceptualization of nonhuman animals as property, as there are uniquely nonhuman characteristics, too.

[192] Francione notes that "any interest that an animal has represents an economic cost that may be ignored to maximize overall social wealth…That is what it means to be property" (Francione, *Animals as Persons*, 44).

Perhaps it is legal to prioritize our own interests at the expense of pets because animal welfare laws are vague; for instance, they require that the infliction of suffering is permissible only when it is 'necessary,'[193] but what is deemed 'necessary' is highly unrestricted. We can say that the suffering our pets endure in the effects of selective breeding is necessary (for us to earn money, for the sake of 'beauty,' etc.), and as far as the law sees it, this is perfectly acceptable. But Francione does not find suffering in the name of economic gain or other trivialities to be, therefore, necessary suffering. Indeed, he suggests that "most of the suffering that we impose on animals is completely unnecessary"[194] and is justified merely "by habit, convention, amusement, convenience, or pleasure."[195] In other words, some suffering may be seen as necessary because what is common or custom is often exempted from scrutiny.[196]

For example, in West Virginia, one of 19 states ranked in the top tier[197] (number 7) for animal protection laws,[198] animal abuse is (in most cases) a misdemeanor, the law noting that "it is unlawful for any person to intentionally, knowingly or recklessly mistreat an animal in cruel manner."[199] However, dog racing tracks are not only legal but active (one of only five states left in the country with active dog racing tracks)[200] in West Virginia. For West Virginia law to be consistent, it would mean that dog racing is not recognized as cruel mistreatment. [201,202]

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[193] Ibid., 35.
[194] Ibid., 36.
[195] Francione, "Animals—Property or Persons?" in *Animal Rights: Current Debates and New Directions*, eds. Cass R. Sunstein and Martha C. Nussbaum (Oxford: Oxford University Press, 2004), 13.
[196] Francione, *Animals as Persons*, 39.
[197] States are ranked by a number of factors. There are 14 provisions that were examined in each state; examples include: "presence or absence of felony-level penalties for the most egregious types of abuse," of which many states either added for the first time or strengthened existing laws. Other issues include the addition of reckless endangerment laws, bans on breed-specific legislation, and laws offering "civil immunity for veterinarians who report suspected animal abuse" ("2017 US Animal Protection Laws Rankings," Animal Legal Defense Fund, accessed May 3, 2019, https://aldf.org/wp-content/uploads/2018/06/ Rankings-Report-2017_FINAL.pdf).
[198] Ibid.
[199] West Virginia Code §61-8-19.
[200] "Greyhound Racing in the United States," GREY2K USA WORLDWIDE, accessed May 1, 2019, https://www.grey2kusa.org/about/states.php.
[201] Despite the fact that, as mentioned, 11,722 dogs were found injured in dog racing within a seven year span and at least 909 dogs were found dead.
[202] The animal abuse statutes of West Virginia provide us with an example of what Francione calls a "moral schizophrenia." Francione is describing how "we claim to regard animals as having morally significant interests, but our behavior is to the contrary" (Francione, *Animals as Persons*, 28). While we may see animals as having the legal right to freedom from mistreatment, still we use animals in ways that are harmful to them. This dissonance in how we see animals and how we treat them can be chalked up, says Francione, to animals' property status.

Again, custom seems to play an important role – dog racing is a part of our culture as a form of entertainment, and is subsequently not subjected to scrutiny in the same way that other forms of abuse are. Francione does not want custom to shape our views of necessity.[203] Francione suggests that if "unnecessary suffering" is to have any meaning at all, we cannot confuse triviality or convenience with necessity.[204]

Francione suggests that we cannot properly balance the interests of animals with our own interests when we see animals as property and ourselves as not; we will, naturally, put ourselves first. But despite being seen as property, animals, like us, have the capacity to suffer. This, on Francione's view, means that they must be granted equal consideration.[205] Francione argues that we must challenge the property status of animals and, in accepting animals as having the right not to be treated as property, we must "abolish institutionalized animal exploitation and stop producing domestic nonhumans for human use."[206] This does not entail "releasing our domesticated nonhumans to run wild in the street,"[207] but rather that we spay and neuter our pets, and "stop producing and facilitating the production of domestic animals altogether."[208] This in turn would mean that we stop breeding domesticated animals and leave non-domesticated animals alone.[209] What Francione is calling for here is extreme. It would mean, in time, an end to pet-keeping.[210]

2.3.2 The Welfarist View

Opponents of Francione suggest that the problem raised about the institution of pet-keeping is a contingent one; we do not *need* to treat our pets like property! Property status may make us more likely to

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[203] Francione does not see the killing of billions of animals each year for food as necessary, nor does he think that it is necessary to use animals in biomedical research. He notes that in many cases of biomedical research, there may be other ways to achieve the same results without testing on animals. Furthermore, most of the testing that is done is "indisputably frivolous" or done on duplicate products as in the case of testing new household cleaners and bath products (Ibid., 176). Francione argues that only in a very limited number of cases is the use of animals in biomedical research actually necessary.

[204] Francione, "Animals—Property or Persons," 12-13.

[205] Ibid., 22.

[206] Francione, *Animals as Persons*, 21.

[207] Ibid., 13.

[208] Again, Francione does not find it wrong to keep companion animals at present; there are countless animals in existence with needs that we must meet.

[209] Ibid., 13.

[210] Francione suggests that an abolitionist approach is committed to the following: "if there were two dogs left in the universe and it were up to us as to whether they were allowed to breed so that we could continue to live with dogs… we would not hesitate for a second to bring the whole institution of "pet" ownership to an end" (Gary Francione, "'Pets': The Inherent Problems of Domestication," Animal Rights: The Abolitionist Approach, accessed Feb. 19, 2019, https://www.abolitionistapproach.com\pets-the-inherent-problems-of-domestication).

overlook the interests of animals, but the issue of property and the issue of thwarting interests are separate. It is not as though we are *incapable of* properly balancing our interests and theirs; it is merely that we do not do so. We can opt to put their interests first.

It is for this reason that Palmer does not find pet-keeping morally impermissible. That is, in keeping pets we need not necessarily harm them. And since, for Palmer, an element of harm is necessary in order for the action to be seen as wrong,[211] pet-keeping is not wrong. Hillary Bok and David DeGrazia agree with Palmer on this point. For instance, Bok suggests that "…as long as we live up to our responsibilities toward [our pets], they need not be directly affected by their status as property."[212] Bok agrees with Francione that the laws are not ideal, but does not think that it matters whether or not the laws rule out all forms of mistreatment, so long as they do not require us to mistreat our pets; and, of course, they do not. Bok et al. do not think that pet-keeping is in principle morally problematic. We may call such a view a "welfarist view," insofar as this view finds the practice of pet-keeping morally permissible on the condition that a certain standard of welfare is maintained.

Welfarist views uphold that "we can, and should, treat our pets in just the same way that we would if the laws governing nonhuman animals were exactly as they should be."[213] Nonhuman animals are unaware of their legal status as property and, in addition, they do not care about it.[214] Perhaps we should not care, either. But that welfarists do not oppose pet ownership in principle does not mean that acceptable pet ownership is without regulation. Let us examine some of the ways that we might regulate our treatment of our pets and our views on pet-keeping, in order for the welfarist account to be coherent. We can begin with Bok.

2.3.3 Bok's Welfarist View

Bok thinks that because our relationships to our pets are asymmetrical, these relationships are particularly susceptible to injustices. By "asymmetrical," Bok means that there are things that we have or that we can do for our pets that our pets do not have and that they cannot do for us. This asymmetry manifests in a number of ways: our pets depend on us for their basic needs, e.g. food, water, veterinary care, exercise, cleaning

[211] For Palmer, to harm is to act in some way that causes another to experience suffering. It does not seem like pet-keeping necessarily does this.
[212] Hillary Bok, "Keeping Pets," in *The Oxford Handbook of Animal Ethics,* eds. Tom L Beauchamp and R. G. Frey (Oxford: Oxford University Press, 2011), 776.
[213] Ibid.
[214] Ibid.

the litter box, and so on,[215] but we, of course, do not depend on our pets for these things. We are, in addition, more physically powerful than (most of) our pets, we know more than they do (like what it takes to open a door), and we understand more about the future (we can take appropriate precautions to keep our pets safe and healthy).[216]

Bok cautions that these asymmetries require our constant awareness because they can quickly turn into injustices, can shift into unjust power dynamics where we prioritize our interests over our pets, for example. What's more, our pets have few effective ways of expressing to us that they have been harmed. In light of this, Bok constructs two rules of thumb that can, alongside fulfilling our companion animals' basic needs,[217] help us to keep pets ethically: first, we must train our companion animals; second, a great deal of thought must be given to pet ownership before embarking on keeping a pet in one's home.

Bok's first standard of ethical treatment is focused on dogs specifically: we must provide our dogs with training.[218] Perhaps training is constrained to dogs (though it may not need to be[219]) because dogs have the potential to be a danger to humans in ways that cats (and other pets) usually do not. We must train our dogs for their own safety and for the safety of others.[220] Bok notes that "it is irresponsible to own a pet who is a danger to others, and it is no kindness to a dog to allow her to behave in ways that risk her death or injury."[221] Misbehaved or dangerous dogs are, at worst, euthanized and, at best, socially isolated. Social isolation should not be taken as a small consequence. Dogs, like children, "do not enjoy being disliked" – by not teaching our

[215] Ibid., 771.
[216] Ibid.
[217] Basic needs include things like: food, shelter, medical care, attention, affection, exercise, and possibly neutering or spaying.
[218] Ibid., 782.
[219] While it is often assumed that cats are untrainable, "cats have been successfully trained on a variety of auditory, visual, and olfactory discrimination tasks…and are also regularly trained for entertainment outlets worldwide" (Kristyn R. Vitale Shreve et al., "Social interaction, food, scent or toys? A formal assessment of domestic pet and shelter cat (Felis silvestris catus) preferences," *Behavioural Processes* 141 (2017): 322). Still, Bok may not see the training of our cats as necessary, in the way that she sees the training of dogs. Our cats often frequent our homes (and if they are lucky, our yards) but are not taken to parks to socialize, are not (usually) taken on walks around the neighborhood or other areas with people, and do not (usually) attack people. Cats may be less dangerous to humans in virtue of all of this, and so may be less at risk of euthanasia.
[220] Bok, "Keeping Pets," 782.
[221] Ibid.

dogs or our children what is socially acceptable, we place them at risk of profound loneliness and unhappiness.[222] Thus, Bok suggests that it is important that we train our dogs "how to function in human society."[223]

Second, Bok recommends that, before adopting a pet, we take time to think over the commitment and all that it will require of us. Bok finds it imperative that we consider whether or not we have the time and means necessary to meet the needs of the potential adoptee. She notes that "the time to discover that you do not have the time to train a puppy or cannot tolerate cat hair on the furniture is before you adopt a pet, not after."[224] Likewise, as social creatures dogs and cats need our attention and physical presence; if this is something that we cannot adequately provide, we should rethink adopting a pet, or perhaps adopt two dogs (or two cats) instead of one.

2.3.4 DeGrazia's Welfarist View

Bok is not alone in disagreeing with Francione that there are ways that we can keep companion animals that are morally permissible. As far as keeping pets goes, DeGrazia too suggests that we must fulfill the basic needs of our pets, which are, for DeGrazia, food, water, shelter, freedom from "significant experiential harm," and exercise, along with the psychological needs of the animal, including a *sense of liberty*. In providing for our animals' psychological needs, we must make sure, for example, that companion animals have "sufficient stimulation, opportunities to play, access to family or other group members, and freedom from excessively stressful situations." We must also make sure that our companion animals have a sense of liberty or a sense of movement without external constraints[225] – DeGrazia sees this as imperative.

It is worth considering DeGrazia's requirement of liberty further, as it is central to his ethical account of pet-keeping. Animals have the ability to move around, the desire to do so, and when their liberty is inhibited, this generally brings about frustration and negative feelings.[226] To meet this requirement for liberty can be as simple as installing a dog door and a fence in the backyard so that one's dog can move from inside to outside at will. Of course, sometimes restricting liberty may be necessary; we may "restrain a dog's impulses – limit [her]

[222] Ibid., 783.
[223] Ibid.
[224] Ibid., 778.
[225] David DeGrazia, "The Ethics of Confining Animals: From Farms to Zoos to Human Homes," in *The Oxford Handbook of Animal Ethics,* eds. Tom L Beauchamp and R. G. Frey (Oxford: Oxford University Press, 2011), 738.
[226] Ibid.

liberty, frustrate [her] will – in order to protect [her] from known or foreseeable dangers."[227] That is, we may take away pets' liberty for their own safety, in a way similar to our restricting the liberty of our children – we don't let toddlers walk down a busy street by themselves, since this could this lead to detriment of their well-being. [228] We keep our dogs safe by using leashes and fences to inhibit certain undesirable movements (e.g. wandering into a busy intersection).

In addition to liberty (and the mild restrictions of it), DeGrazia thinks (much like Bok) that ethical pet-keeping requires our recognition that keeping companion animals is no minor thing. For DeGrazia, "the decision to have pets imposes substantial responsibilities on human caretakers..."[229] Sometimes there are sacrifices involved. DeGrazia describes a dog who does not receive adequate exercise, stimulation, or companionship, as he is locked in the house alone while his family is gone during the day. While this dog, even still, may be better off than a stray,[230] this is not to say that the house-kept dog's life cannot be improved; indeed, perhaps it ought to be. In order to meet our pets' needs, DeGrazia proposes that the owners may fence their backyard so that the dog may spend more time outside while they are gone, they may take the dog for longer walks, they may even adopt another dog to provide social stimulation.[231] These changes will likely be costly. Still, they should not be seen as supererogatory. Dogs have basic needs that we must meet under an appropriate ethic of confinement.

On the appropriate standard of confining cats to our homes, DeGrazia suggests that in order to meet the needs for exercise and stimulation of cats, they be allowed outdoors in some sense, be it on a leash or permitted to roam freely through the yard or neighborhood. He notes that "families who are not comfortable allowing their

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[227] Keith Burgess-Jackson, "Doing Right by Our Animal Companions," *The Journal of Ethics* 2 (1998): 3.
[228] How do we distinguish ethical from unethical confinement? Unethical confinement, notes DeGrazia, is associated with physical and psychological stress – e.g. keeping a dog as a pet only to keep her crated for days on end. Such excessive restrictions on liberty are harmful, as they "significantly interfere with an individual's ability to live well" (DeGrazia, "The Ethics of Confining Animals," 740). Ethical confinement, we might say, is confinement that does not do this and in addition, perhaps, is done for the safety of the animal. As we mentioned, some level of confinement is inherent to pet-keeping. If DeGrazia is after a sense of liberty, though, would not the best thing for pets be complete freedom (i.e. to live on their own)? It does not seem so. In the case of dogs and cats, who have lived alongside us for thousands of years, "there is a strong sense in which life in a human home is natural…" (Jessica du Toit, "Is Having Pets Morally Permissible?," *Journal of Applied Philosophy* 33, no. 3 (August 2016): 331). In addition, "most cats and dogs are creatures that need to be intimately associated with humans in order to survive and really thrive," (Ibid.) given that we have bred dogs and cats to be more docile and trusting; our pets would not make great predators. Cats live on average 12 years longer under human care than they would feral. Perhaps it is wrong to let our pets have complete liberty, living on a whim, given all of this.
[229] DeGrazia, "The Ethics of Confining Animals," 763.
[230] A stray would likely be hungry, at risk of the elements and other dangers, and would likely not visit the vet.
[231] Ibid., 762.

cats to roam outdoors, or at least to take walks on a leash, should probably not have cats at all."[232] DeGrazia's perspective here is, arguably, uncommon – many cats, particularly cats who are housed in cities, are wholly unfamiliar with the outdoors; such confinement is, from a common practice point of view, understandable. But DeGrazia does not accept that 'is' is 'ought', that what is normal is therefore what we should do. DeGrazia is calling on us as pet owners to be innovative, to provide our companion animals with the necessary stimulation we may be ignoring.

2.3.5 Francione and Dependency

Given the standard of treatment that DeGrazia, Bok, and others expect in order for pet-keeping to be ethical, we might wonder if Francione's worry that stems from the status of animals as property has force. For instance, while we can take certain liberties with our property (putting our trivial interests before its more essential interests) that we do not take with humans, we of course do not *need* to take these liberties. There *are* asymmetries in our relationship to animals as property, but we can make sure that these do not ignite into injustices.[233]

But while it is true that we *can* keep pets, animals who are legally property status, in careful, ethical, and harmless ways, the question of whether we *do* or *will* keep pets according to such standards (e.g. not as property but as companions or dependents) is left open. Of course, we can follow the recommendations that DeGrazia and Bok lay out for us, but we might wonder how likely it is that all pet owners will do this. More is needed in order to differentiate the idea that pet-keeping *is* ethical (that is, that pet owners actually follow standards of pet-keeping) from the idea that pet-keeping *can be* ethical (i.e. that while these standards might exist in theory, they do not really guide our practice). If it turns out that it is unlikely for pet owners to regulate their ownership, Francione's worry lingers.

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[232] Ibid., 763.

[233] This is sometimes referred to as the "guardian-dependent" model of keeping companion animals. The animal rights organization In Defense of Animals has advocated for such a model and, in addition, this is the main model that anti-abolitionists cite. On this model, we see ourselves not as owners but as guardians, and animals not as *pets* but as *companions* (the difference here being less-property and more-family). Under the guardian-dependent model, we care for companion animals (rather than pets) in a way that resembles a parent/child relation, and so are able to exclude "the problematic elements of ownership" (Kyle Fruh and Wolodymyr Wirchnianski, "Neither Owners Nor Guardians: In Search of a Morally Appropriate Model for the Keeping of Companion Animals," *Journal of Agriculture and Environmental Ethics* 30 (2017): 56). We see "the needs, interests, and desires of the dependent as providing one with reasons" to act (Ibid., 60), such that we no longer consistently put our own interests first. Rather, we act in the best interest of our dependents. Such is just what it is to be a parent or guardian of someone.

In any case, Francione suggests that the quality of treatment is irrelevant to the permissibility of keeping companion animals. He notes that "domestication itself raises serious moral issues irrespective of how the nonhumans involved are treated"[234] and that "even if we could guarantee that all dogs would have homes as loving as the one that we provide, we would not hesitate for a second to bring the whole institution of "pet" ownership to an end."[235] Interestingly, in spite of his concerns about welfare discussed above, the quality of treatment is irrelevant to the permissibility of keeping pets, as Francione sees it. He is suggesting that the keeping of pets is wrong *in itself*. Essentially, Francione finds *the kind of dependency that is inherent to guardian/owner and companion animal relationships fundamentally wrong* and no matter how well one treats their companion animals, the keeping of them in the first place cannot be justified.[236]

Francione suggests that the way in which companion animals are dependent on us is excessive. Dogs and cats are dependent on us consistently and forever – their dependency is not a temporary thing that they will "grow out of," as most children do. For example, in being kept inside of a house, dogs and cats cannot scavenge for their own food and must wait for us to place food in their dish, as well they must wait for us to fill their water bowls. Dogs are trained to wait until they are outside to go to the bathroom, and for those dogs who live in homes without doggy doors to the outside, they are dependent on us to let them out, into the appropriate place to do this and, hopefully, at the appropriate time. And they are dependent on us to let them outside for exercise. Our pets "remain forever in a netherworld of vulnerability, dependent on us for everything that is of relevance to them."[237] What's more, given all of the health complications of selective breeding, selectively bred pets may be dependent on us in more ways than other pets, e.g. a bulldog with hip dysplasia whose movement is then further restricted. Francione concludes that to perpetuate one living under these circumstances is wrong, and so calls for the abolition of the pet-keeping institution.

It is not wholly clear why Francione thinks that to perpetuate this level of dependency is wrong in itself. One reason might be based in virtue theory, that the kind of person who is willing to perpetuate this level of

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[234] Gary Francione, "Animal Rights and Domesticated Nonhumans," Animal Rights: The Abolitionist Approach, accessed Feb. 2019, https://www.abolitionistapproach.com/animal-rights-and-domesticated-nonhumans/.
[235] Francione, "'Pets': The Inherent Problems of Domestication."
[236] In this sense, we might say that on Francione's view, pet-keeping is not harmful but still is wrong (something that Palmer's experiential view cannot say).
[237] Francione, "Animal Rights and Domesticated Nonhumans."

dependence is not the kind of person we should strive to be. But this argument seems to rely on the idea that dependence is intrinsically bad. Alternatively, we might say that there are indirect welfare concerns, that animals that are dependent on us to such a severe extent are put at a greater risk, a risk of not having their needs met due to our negligence. Dependency would be wrong, then, because it has the potential to affect the welfare of companion animals. To say that dependency is wrong for this reason does not seem like something Francione would accept, in virtue of the fact that he rejects the welfarist idea that treatment and well-being determine the permissibility of pet-keeping. Still, if we are looking for a reason as to why dependency is wrong, and do not want to argue that dependence is inherently bad, this might be our best bet.

But even this 'welfarist' reason may be difficult to support. As has been mentioned, we can, as care givers, make sure that the needs of our dogs and cats – food, water, exercise, etc. – are being met. Dependency does not need to lead to decreased welfare. In fact, it has been argued that dependency can lead to better welfare. Bok suggests that animals do not fare well when living independently – that feral dogs and cats live much shorter and more difficult lives, at risk of starvation, infection, and attack.[238] More specifically, "half of all feral kittens die without human intervention."[239] Those who manage to survive without the care of humans live, on average, a lifespan of two years. Feral dogs are likely to be euthanized. All of this suggests that the welfare of cats and dogs is better when they depend on us than it would be if they were free to live on their own.

Of course, dependency can go wrong, as when we depend on those who are not dependable, e.g. when animals depend on us for food but we do not feed them. But that dogs and cats depend on us for sustenance is not outright objectionable, as long as owners provide for the creatures that are counting on them.

2.4 Attitudes of Othering

Francione might object that his worry is not merely about dependence, but rather about domination, an unjust power relation supported by a complex of attitudes behaviors, and institutions. The question then is whether the wrongness of domination is ultimately explained in terms of its effects on welfare, or whether relations of domination are inherently wrong. In the former, these attitudes, if not harmful now, may be a reliable means of harm; that is, by inviting it. To give an example, polarizing attitudes are one means of domination.

[238] Bok, "Keeping Pets," 777.
[239] Ibid.

Polarizing attitudes will be discussed in detail below, but for now we can think of polarization as seeing another as distinct from oneself in ways that are exaggerated or untrue. These attitudes may lead us to misunderstand how important social interactions are for our pets' well-being (e.g. by thinking that dogs and cats are so different from us that they do not have the same social needs that we do). The problem is that these misunderstandings are slippery, subtle, and may reside in our blind spots. We may not always see the ways that we misunderstand our pets and we cannot stop what we cannot see. We may be more likely to harm our pets when we misunderstand them, e.g. by leaving their social needs unmet (perhaps we leave our pets home alone when we are at work or deny them opportunities to socialize with conspecifics). It is unclear whether dominating attitudes are wrong in the second way, that is, inherently. But, at least, they are wrong in the first, by inviting harm. Again, this explanation would likely be rejected by Francione, as he does not think that dependence is wrong because of its impact on welfare. However, I think that the explanation offered here could be used to support Francione's idea that pet-keeping is, in a sense, morally troubling. This is what I will work to show here. I will argue that our relationship to our pets is often a relationship of domination and that this is objectionable on the grounds of indirect harm.

To make my case, I will draw on the work of Val Plumwood. She uses the term colonization instead of domination, but the power relations she describes are the same. Colonization as Plumwood sees it is a controlling over, or a relationship where a 'dominant' culture (that of the colonizer) oppressively controls the colonized. Plumwood notes that colonization is underpinned by an understanding of progress as a "progressive overcoming, or control of" by the human or that which is rational and toward those seen as barbaric and, thus, outside the scope of ethics.[240] A paradigm example of colonization is the 18th and 19th century Eurocentric colonial system, which saw itself "as superior, bringing 'civilization' as an unalloyed benefit to the backward races and regions of the world."[241] This sort of control is characterized by a prosperity of colonizers "at the expense of the colonized,"[242] and also by a disguise that can leave both the colonizer and the colonized blind to the

[240] Val Plumwood, "Decolonizing Relationships with Nature," *Decolonizing Nature: Strategies for Conservation in a Post-colonial Era*, eds. William M Adams and Martin Mulligan (London: Earthscan Publications Ltd, 2003), 53.
[241] Ibid., 51.
[242] Ibid.

oppression.[243] And though colonization is generally discussed as a dominant group of humans taking control of a marginalized group of humans, Plumwood extends the notion of colonization further. The nonhuman world can also be oppressed through colonization, on Plumwood's view. More specifically, Plumwood argues that we can colonize nature, lands, and nonhuman animals.

In oppressing the nonhuman world, we uphold the idea of humanity and rationality as the center of value from which all other values are derived. Or, to put it another way, the oppression of nature requires that we see it as lacking inherent value. To exploit, for example, the land and other natural resources for economic gain, we must deny an understanding (and a respecting) of the land and nature as valuable in itself.[244] In order to keep such a framework of denial afloat, we employ "a range of conceptual strategies" that work to treat nature as 'other.'[245] In short, if nature and humans were (seen as) similar, we would likely have misgivings about exploiting nature. By securing a hierarchy where the value of humans is seen as over and above any value of nature, we are able to keep those misgivings we may otherwise have of our oppressing at bay. Plumwood lists five attitudes that serve to sustain the colonization of nature: polarization, homogenization, backgrounding, assimilation, and instrumentalism. These "forms of othering," as Plumwood calls them, are "the precursors of many forms of injustice in our relations with non-humans,"[246] legitimizing the oppression and the colonization of the nonhuman world.

I will describe below Plumwood's five forms of othering that establish this framework, and apply them to our practices of pet-keeping. Before I begin, I must first note that Plumwood does not explicitly argue for pet-keeping as a kind of othering Nor does she say that pet-keeping is a form of colonization. Though, I will be applying her concepts to make such a case. I will argue that the dependencies of our pets invite oppression and domination, made possible by our misunderstanding pets through Plumwood's attitudes of 'othering'. Though I cannot be certain that Plumwood would extend her idea of colonization to the institution of pet-keeping, I do not see any obvious inconsistencies in doing so.

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[243] Ibid., 52.
[244] Furthermore, when we exploit these natural resources in ways that are unsustainable, we not only deny any kind of independent value that nature may have but too deny our own dependency on nature.
[245] For if nature was not seen as 'other,' was on par with humans and rationality, then it would seem that nature too should be a center of value.
[246] Ibid., 54.

Second, it is important to note that as pet owners we likely will not view ourselves in the ways I will be describing. To be sure, those who keep companion animals often times take great care of them, show them love and attention, and may not think that they treat their pets in ways that are objectionable. But there are more nuanced ways that we may treat our pets unjustly. This is likely unintentional, the result of cognitive biases and unconscious misunderstandings. It will be one hope of mine, in bringing these forms of mistreatment to light, that we can as pet owners become more attuned to the ways that we (mis)treat our pets and do better.

2.4.1 Polarization

We can begin with polarization. By polarization Plumwood is referring to seeing ourselves as overly separate from the 'other.' In the case of our pets we may do this by exaggerating the differences between us and them, by denying overlap between ourselves and nonhumans, or by radically excluding and hyper-separating ourselves from them.

For example, we might polarize our views about cognitive abilities. We see ourselves as rational and our pets as less than, assuming that they are not as smart as us. Or, we may see ourselves as emotionally sophisticated but deny our pets a deep emotional life. We may not always recognize the overlap between our mental lives and theirs. But in seeing dogs, for example, as lower down on the cognitive hierarchy, we fail to adequately understand them. Indeed, while dogs may not be 'as rational' as us, their cognition is complex, they are highly perceptive and sensitive creatures. Dogs parallel humans in certain social, cognitive, and pathological behaviors.[247] Dogs can understand "long-distance signals that indicate where food is hidden" and then communicate this to other dogs, they have the ability to "fast-map," which is to "make deductions about object class and name without having learned them" (this is the "first stage of language acquisition in humans"[248]) and communicate this to humans, and, lastly and like humans, dogs suffer from "maladaptive anxiety,"[249] such as separation anxiety, phobias, and self-harm. All of this suggests that the minds of our dogs are not so far off from our own.

[247] Karen L. Overall, "That Dog is Smarter Than You Know: Advances in Understanding Canine Learning, Memory, and Cognition," *Elsevier* 26, no. 1 (Feb. 2011): 2.
[248] Ibid., 5-6.
[249] Ibid., 2.

An understanding of our pets as wholly dissimilar from us impacts the ways that we treat them. For instance, in assuming that dogs lack rationality, dog owners "may not touch the depth of cognition" that their dogs have within them. In turn, there is a kind of "gross negligence" on pet owners' behalves in failing to provide their pets with complex tasks.[250] This lack of practice is measurable. One study found that domesticated dogs failed basic intelligence tests passed by wolves and wild dogs.[251]

Dogs, like us, need cognitive stimulation and challenges. The average household dog does not receive complex cognitive tasks. While we may think we are doing what is best for our dogs when we straightforwardly feed them each day, we may be passing up an opportunity to acknowledge our dogs' intelligence and to make space for them to exercise it. But, of course, this needn't be the case. We can incorporate cognitive challenges into our pets' lives regularly. Rather than placing a dog's food in the kitchen, in the same spot, each day, we might find a way to create some kind of detour for them to maneuver. But we can only see to it that puzzles exist in our dogs' environments after we recognize the cognitive parallels between us and our dogs.

A second way that polarization manifests in the context of keeping pets is in selective breeding. We see dogs and cats as acceptable subjects (or objects) of trait selection, but we are far more hesitant to see humans in this way. Indeed, while there is a significant amount of support of genome editing in humans, there is equal amount of opposition. Without getting too far into the weeds here, let me quickly explore the legal and ethical landscape of genetic modification in humans. Worldwide, genetic modification regulations reflect a sense of uncertainty. Some countries (e.g. Canada, Sweden) have strict laws banning human genome editing on concerns of genome inheritance and impairment.[252,253] As for the United States, gene modification is at present not banned, but the US has "imposed a temporary moratorium" until more testing is done.[254] When or if gene modification becomes safer, the US may permit it. All of this to say that there is not really a strong consensus worldwide on the legal permissibility of human genome modification.

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[250] Stephanie Skernivitz, "Has domestication made dogs dumb?" *DVM Newsmagazine* (Sept. 2010): 1s.
[251] Ibid.
[252] Motoko Araki and Tetsuya Ishii, "International regulatory landscape and integration of corrective genome editing into in vitro fertilization," *Reproductive Biology and Endocrinology* 12, no. 108 (2014): 8.
[253] Other countries (e.g. China, Argentina) have bans that are more lax and depend on regulations that are difficult to enforce (Araki and Ishii, "International regulatory landscape," 8). For example, Argentina bans only reproductive cloning (Heidi Ledford, "The Landscape for Human Genome Editing," *Nature* 526 (Oct. 2015): 310-311).
[254] Araki and Ishii, "International regulatory landscape," 8.

What is for the most part agreed on, though, is the role that genetic modification in humans ought to or ideally would play, that is, one of "medical beneficence."[255] That genetic modification will not be used for this aforementioned purpose is a main reason for widespread concern about its use. The worry is that if genome editing is permitted "to stave off disease, it will inevitably come to be used to introduce, enhance or eliminate traits for non-medical reasons."[256] Now here is where we can begin to see the polarization in the discourse between human gene selection and nonhuman gene selection. In the selective breeding of nonhuman animals, it is legal to enhance or eliminate traits for non-medical purposes; this just is what selective breeding is for.

When we selectively breed dogs, we accentuate certain traits that we find desirable. There is incentive to select for traits in accordance with pedigree dog breed guidelines, as those "dogs that best meet their breed's standards are rewarded in the show ring."[257] The Kennel Club emphasizes breed requirements that conform to various sizes, coat colors or textures, tail shapes, and temperaments, among other trait modifications.[258] Inbreeding, or breeding between distant or close relatives, is a selective breeding practice used in order to fix the characteristics that are selected for, despite the fact that inbreeding can lead to health complications and a shorter lifespan. All of the Kennel Club breed requirements reflect traits that are aesthetically pleasing, and are not selected for with medical beneficence in mind.

In fact, breed standards often run counter to what is medically beneficial. There are a number of ways that breed standards affect animal welfare. Dogs bred to meet the breed requirements of the 50 most popular pedigree-dog breeds were, in all 50, found to be predisposed to a disorder.[259] These disorders derive from a range of traits, for instance, in selecting size or fur color. In over-accentuating the size of dogs in either direction (breeding giant dogs or miniature dogs) there is a higher prevalence of dysplasia,[260] hip and elbow for larger breeds, shoulder for smaller breeds.[261] Dysplasia makes mobility and exercise challenging and painful. Likewise,

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[255] Tetsuya Ishii, "Potential impact of human mitochondrial replacement on global policy regarding germline gene modification," *Reproductive BioMedicine Online* 29 (2014): 154.
[256] Ledford, "The Landscape for Human Genome Editing."
[257] Lucy Asher et al., "Inherited defects in pedigree dogs. Part 1: Disorders related to breed standards," *The Veterinary Journal* 182 (2009): 402.
[258] "Dog Breeds," American Kennel Club, accessed March 2019, https://www.akc.org/dog-breeds/.
[259] Ibid., 408.
[260] "Prevalence estimates have been as high as over 50%" for large breed dogs (Ibid., 406).
[261] Ibid.

certain coat colors are seen as more 'desirable' than others; Kennel Club breed standards reflect these preferences for coat color: for the Rough collie, breeders must "select against grey colouration, stating that a slate colour is undesirable."[262] In selecting coat color, though, collies become susceptible to cyclic neutropenia, "a severe condition linked with colour dilution"[263] impacting the dog's ability to fight off infection.[264]

Overall, there do not seem to be cities, states, or countries that outright ban (or instate a moratorium on) the selective breeding of companion animals, despite the numerous ailments that frequent this domain. Nor is medical efficacy the objective in the modification of these animals, as it is (or would be) for humans.[265] These facts combined speak to the ways that we other, via polarization, animals that we keep as pets in the process of selective breeding. To summarize, in seeing our pets as unlike us, as irrational, barbaric, or objects, we create a kind of distance that leads us to misunderstand them and their needs.[266] In such a framework of othering, both our failing to provide cognitive stimulation and our engaging in selective breeding seem appropriate and morally permissible.

2.4.2 Homogenization

We homogenize our pets when we conceive of them "in terms of interchangeable and replaceable units."[267] We ignore the differences between individuals, treating all members of a non-dominant group as the same. We homogenize dogs and cats in our practice of pet-keeping, first, insofar as we may treat dogs and cats the same, beneath the category of 'pet' or 'companion.' We have certain expectations of the role companion

[262] Ibid., 408.
[263] Ibid.
[264] We should note the absurdity of putting dogs' health at risk for something as trivial as color preferences or size preferences, or any of our preferences, for that matter.
[265] That selective breeding is not regulated by concerns of "medical efficacy" is not to say that the institution of selective breeding is devoid of all regulations. Some states in the US regulate the environmental conditions of animals being bred (e.g. it is unlawful "to primarily house a dog on wire flooring" in California ("State regulation of companion animal breeders and dealers," American Veterinary Medical Association, accessed March 20, 2019, https://www.avma.org/Advocacy/StateAndLocal/Documents/care_for_dogs_model_act_and_regs_backgrounder.pdf)), the sales of selectively bred animals (e.g. in California, "no pet dealer shall knowingly sell a dog that is diseased, ill, or has a condition, any one of which requires hospitalization or surgical procedure" ("State regulation of companion animal breeders and dealers," AVMA), and the purpose of the breeding (e.g. some countries have banned the breeding of animals for the use of fur).
[266] An analogy may be the way that, in the past (and still today, to an extent) men saw women as 'other.' Women, while seen perhaps more rational than animals, were seen not as fully rational, as men were. In understanding women in this way, it can then be assumed that there is no need for women to attend higher education. Here it seems clear how othering leads to misunderstanding (and this misunderstanding, in turn, to harmful treatment).
[267] Plumwood, "Decolonizing Relationships," 55.

animals play in our lives. For example, we might expect companion animals to keep us company, to be excited to see us when we get home, to offer an empathic presence. We may find it undesirable when our pets deviate from this expectation that we impose on them.

Cats have unique psychological needs that may not square easily with our expectations of what it is to have or to be a pet. For cats, an important means of coping with stressful situations as well as a way to avoid interactions with people and other cats (these interactions may themselves be stressful), is hiding.[268] This coping behavior requires, then, that cats have the space to hide and the right environment to hide in. Proper housing requirements for cats would include "resting areas where cats can retreat to and be concealed, such as high-sided cat beds and boxes" or resting areas enclosed by three sides.[269] We may not like it when our cats hide from us, and we may not think of 'hiding' when we think of the attributes that comprise our views of companion animals, but hiding may be an important behavior for cats' psyches and, as such, we must provide them with environments that are amenable to this.[270]

We homogenize dogs when we think of all dogs within a particular breed to have interchangeable needs. Specifically, the average amount of exercise a dog needs in a day, according to her breed, may be a focal point for homogenizing. While it may be true that German Shepherds need roughly two hours of exercise a day, or that pugs usually need less than an hour of exercise a day, these averages should not function as doctrine. Each dog has individual needs and requirements for exercise. For example, while most German Shepherds may need two hours a day, an older German Shephard, or a German Shephard with mobility impairment, may need less. If we push our dogs to do more than they are comfortable with, because we have grouped them into some

[268] Irene Rochlitz, "A review of the housing requirements of domestic cats (Felis silvestris catus) kept in the home," *Applied Animal Behaviour Science* 93 (2005): 101.
[269] Ibid.
[270] Another way that we may homogenize cats is when we think of a cat, we may think of a kind of pet that exists indoors. One study found that "in the United States between 50 and 60% [cats] are housed indoors" (Ibid., 100). But this needn't be the case, and may be, arguably, a detriment. We can think back to DeGrazia's suggestion that in order to meet the needs for exercise and stimulation of cats, they be allowed outdoors. Of course, some cats may not be well-equipped to go outside (perhaps they are entirely declawed and so could not defend themselves from certain threats) or may not want to go outside when presented with the opportunity. But others might prefer it. Perhaps the option to go outdoors be assessed individually (Laura Menchetti et al., "My Dog is Not My Cat: Owner Perception of the Personalities of Dogs and Cats Living in the Same Household," *Animals* 8, no. 6 (June 2018): 93). We can forget about what we think it means to 'be a cat' and, instead, let our cats tell us what they want: if the door is wide open and the cat is profoundly disinterested, and if when put on a leash she plops down on the pavement, we can interpret these behaviors as the cat's telling us she is not into it.

category that imposes onto them an arbitrary requirement, this can be harmful – a dog may hurt herself in trying to do more than she can. We cannot let our expectations of what it is to 'be a [certain breed of dog]' get in the way of the specific needs of our individual pets.

2.4.3 Backgrounding

We background companion animals when we treat them as inessential, denying the role that they play in our lives and failing to recognize the ways that we are dependent on them.[271] To be sure, there are many benefits that companion animals bring to our lives, as discussed in section 2.1.5. To name a few, companion animals bring us happiness, friendship, health benefits, self-esteem, physical fitness, and minimize loneliness and fear. We might also consider how Palmer's beneficiary argument articulates a nearly-inescapable obligation to assist dogs and cats (regardless of whether you yourself keep one) because there are non-excludable goods from the institution of pet-keeping that benefit us all (e.g. costs of health care will be lower for everyone in virtue of there being fewer health problems via the health benefits that keeping pets brings). All of this suggests just how far-reaching the benefits go in keeping companion animals.

For all that our cats and dogs offer us, there are many examples of our treating them as an afterthought. The infrastructures of our society are not set up for our companion animals to be active participants: we leave our dogs and cats at home, confined to the house (sometimes to a cage) all day while we are at work; there are laws in most states that ban animals from entering restaurants.[272] As a resuly, we may leave our pets in the car while we go out to eat, and for other errands, too.

Likewise, it can be difficult for pet owners to find apartments to rent. Many rental properties emphasize pet restrictions, either altogether, or restricting only cats, or only dogs. In addition, pet owners who are able to find a place to rent that is 'pet-friendly' must be prepared to pay more each month, as most 'pet-friendly' rentals will charge a monthly pet fee (in addition to a non-refundable pet deposit). We might note that rental properties do not (indeed, often cannot) place the same kind of restrictions or fees on properties if the prospective tenants have children, despite the fact that children may, in some cases, be louder and more destructive than pets. The difference is that children are seen as an integral part of our society while pets are not. This is so despite the fact

[271] Plumwood, "Decolonizing Relationships," 56-57.
[272] With some exceptions, e.g. if they are certified service animals.

that more households (about 47%) in the US have dogs than children (about 41%), with cats not far behind (about 37%).

Pets are backgrounded in emergency evacuations – for instance, in the midst of Hurricane Katrina, an estimated 100,000 pets were left behind, due to transportation and evacuation planning that did not take pets into consideration. Following this, the Pets Evacuation and Transportation Standards Act was passed.[273] But the primary concern for this legislation was that "accommodating pets in emergencies will improve human safety," with considerations of animal welfare "as a secondary rationale."[274] Finally, "few if any" homeless shelters allow pets.[275] We reap the benefits of pet-keeping all while treating our pets as inessential parts of our world.

2.4.4 Assimilation

Sometimes, we force our pets to *assimilate*. In assimilation, pets must fit into human social structures that are already established. To give an example of assimilation in a human context: women were 'allowed' to assimilate into society when their role expanded beyond the household and into the workplace. Women had to adapt, though, to the established norms of the workplace, a place whose norms still reflect the needs of men. For instance, most jobs in the United States do not offer a paid maternity leave as part of their employee benefits. Of course, before women entered the workforce there would have been no need to include this; the 'normal' employee was male. When women entered the workforce, though, these standards were not reshaped, did not adjust. Thus, assimilation is often at the expense of those who are assimilating.

In the same way, animals that are kept as pets assimilate to our world in a way that is useful to us and sometimes harmful to them. We force animals to assimilate by training them, breeding them, leaving them alone, and by getting rid of them. We train our dogs so that they can be 'well behaved members' of society, members that do not jump up on strangers, or bite, or bark excessively. Dogs are taught to have manners, to use the bathroom in appropriate places. Likewise, cats may be taught not to scratch furniture. And, when cats cannot be

[273] Making "availability of federal disaster assistance funds contingent on states having plans that provide for the needs of people with service animals and/or household pet" (Pets Evacuation and Transportation Standards (PETS) Act, 42 U.S.C.A. § 5196a-d (2006)).
[274] Hillary A. Leonard and Debra L. Scammon, "No Pet Left Behind: Accommodating Pets in Emergency Planning," *Journal of Public Policy & Marketing* 26, no. 1 (2007): 49.
[275] Randall S. Singer et al., "Dilemmas Associated with Rehousing Homeless People Who Have companion Animals," *Psychological Reports* 77 (1995): 856.

taught this, we may use more forceful measures, like declawing, or getting rid of the cat altogether. Pets are also required to assimilate to our lifestyles, in that we do not often shift our working hours around our pets but, instead, leave them alone for the day where they must wait for us to get home.

The assimilation of animals into society as companions is an interaction that moves in one direction. It is a "one-way" relationship "of self-imposition,"[276] where we impose onto animals our conceptions of how they "ought" to behave, control them in various ways. Yet it does not go the other way; we do not adapt to them. A dog who misbehaves, who is a danger to other dogs or worse, to people, or who disrupts the neighborhood with loud barking at all hours of the night, will more likely be subject of a legal pursuit, or of euthanasia, but not of any grave amount of empathy or understanding.[277] In cases of assimilation, one must successfully bend to the established rules or, alternatively, become socially outcast.

Selective breeding is another way that animals are forced to assimilate to human culture, preferences, etc. When we selectively breed a golden retriever to be tame, she can better assimilate into our own "self-space" or culture, "represented as the paradigm of reason, beauty and order."[278] Furthermore, we accentuate those features that we find aesthetically pleasing. We breed out traits that we deem problematic (e.g. aggression). Sometimes the selective breeding of dogs becomes a means of indicating to others one's status.[279] We breed dogs and cats as usable products or services, for aesthetic or cultural reasons, or to be 'well-behaved' pets,[280] but all of these stem from human wants and interests.

2.4.5 Instrumentalism

We instrumentilize our pets when we are motivated merely by utility, "or, in graduated form… when it becomes the main motive…"[281] It is a process in which we see others "as available for our use," but we do "not

[276] Plumwood, "Decolonizing Relationships," 63.
[277] This may, likewise, be lacking too for the woman who asks her employer for paid leave.
[278] Ibid., 58.
[279] As Walker notes, "humans have recrafted the bodies of dogs to advertise class difference and display other social signals, sculpting them through selective breeding to play into human social needs as they shift over historical time. In this way a small poodle may be bred in order to serve as a wealth-signaling accessory (Brett L. Walker, "Animals and the intimacy of history," *History and Theory* 52, no.4 (Dec. 2013): 53).
[280] A. P. F. Flint and J. A. Woolliams, "Precision Animal Breeding," *Philosophical Transactions: Biological Sciences* 363, no. 1491 (Feb. 2008): 573.
[281] Val Plumwood, "Environmental Ethics," in *The SAGE Handbook of Environment and Society* (London: SAGE Publications Ltd, 2007), 252.

like to see us as available for their use."[282] Plumwood goes on to say, too, that we instrumentalize the other "when excess over and above usefulness is not recognised or valued."[283] In instrumentalism we "deny," "discount," or "ignore" "other relevant and important features" of the other, those "excesses" which, when recognized, we may appreciate for their own sake, not for the ways that they can be useful to us.[284]

Plumwood's definition of instrumentalism manifests in the treatment of our pets, first, in terms (again) of selective breeding. In some cases of selective breeding, an animal is overtly treated as a mere means, like when breeders select for certain traits that are the exact cause of particular health problems, but are selected for nonetheless.[285] This may be done to meet breed requirements established by the American Kennel Club. There are a number of examples. Dachshunds, for instance, should be, according to the AKC, "moderately long and full muscled," with short forearms and loins.[286] But it is these characteristics that make the dachshund (and breeds of similar stature) susceptible to spinal problems like disc herniation.[287] In fact, all dogs that are bred to be chondrodystrophic (that is, to have reduced bone length) are more susceptible to degenerative spinal discs. Likewise, screw and curly shaped tails are desirable in certain breeds. AKC Breed requirements for the pug note that a double curl in the tail is "highly desirable."[288] But tails that are shaped in these fashions are associated with hemivertebrae and spina bifida.[289,290] In such cases a dog is bred merely for our preferences, with the ends of the animal herself overlooked.

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[282] Ibid.
[283] Ibid.
[284] Ibid.
[285] To be sure, it would be hard to make the case that the *only* motive of selective breeding is to use the animal for some purpose. Perhaps not every breed, as established by the KC, is associated with health concerns. But there are enough cases where there are. As it stands, our current breeding practices treat a vast number of animals as mere means, and this is enough to find the practice objectionable.
[286] "Dog Breeds," American Kennel Club.
[287] Helle Friis Proschowsky et al., "Morality of purebred and mixed-breed dogs in Denmark," *Preventive Veterinary Medicine* 58 (2003): 72.
[288] "Dog Breeds," American Kennel Club.
[289] Asher et al., "Inherited defects in pedigree dogs," 407.
[290] More examples include: the Dalmatian – while "Dalmatians with patches are less likely to suffer from deafness," the breed standards for Dalmatians discriminate against patches, and so in this way indirectly encourage the breeding of Dalmatians more susceptible to be deaf (Proschowsky et al., "Morality," 72); the Cocker Spaniel – ears should "extend to the nostrils, well clothed with long silky, straight or wavy hair" ("Dog Breeds," American Kennel Club). Both the length and the long fur on the ears of cocker spaniels make this breed susceptible to ear infections; the St Bernard and the Irish Setter – gastric dilatation and volvulus syndrome (GDV), a condition that causes a dog's belly to become over-distended and may be complicated by rotation of the stomach, is common "in dogs with long and deep chest confirmation," in large and giant breeds as well as some smaller breeds (Ami S. Bhatia et al., "Gastric Dilation and Volvulus Syndrome in Dog," *Veterinary World* 3, no. 12 (2010)). The symptoms of GDV

Plumwood also suggests that we may instrumentalize the other when we fail to value or acknowledge excess, that is, "the respects in which the other outruns our knowledge and purposes." For instance, rather than valuing our pets for their own sake, we might, instead, value them as 'our happy and loyal companions.' We may instrumentalize our dogs and cats when we see them as there merely to bring us happiness. In this sense we assume that our interests and those of our pets' converge. But we are forgetting that our cats and dogs are separate minds, have their own interests and desires.

Cats have, for instance, an interest in hunting. Hunting is for cats a species-specific behavior and for this reason may bring a domestic cat satisfaction or pleasure. We must not forget about the ways that a cat finds joy or flourishes outside or beyond our companionship with them. If we are concerned with impacts on wildlife,[291] we can make an effort to simulate predator-prey interactions with our cats, through the use of toys. But the point here is that we must recognize predatory behaviors as normal in domestic cats, something in which we should want them to engage, and not something which we prohibit (via declawing, keeping inside) nor be upset when they do.

One reason why we may not find this a priority, environmental concerns aside, is because our cats' hunting is typically not important to us; it is not as if we eat the prey our cats hunt.[292] When we fail to facilitate the 'normal' behaviors of our cats, because it is not important to us whether or not our cats exercise these behaviors, we presuppose that our cats are instruments or tools only for our own happiness.[293]

2.5 Misunderstanding as Indirect Harm

include a painfully distended abdomen, "retching, unproductive vomiting, hypersalivation" and respiratory distress (Ibid., 554). Yet the Kennel Club breed standards for the St Bernard include a "chest wide and deep" and for the Irish Setter to have a "chest as deep as possible, rather narrow in front" ("Dog Breeds," American Kennel Club).

[291] There are, of course, concerns about enabling domestic cats to engage in predatory behavior, given the detrimental effects this may have on ecosystems, vulnerable species, and conservation (Sarah L. Crowley et al., "Hunting behaviour in domestic cats: An exploratory study of risk and responsibility among cat owners." *People and Nature* 1 (2019)). But that exercising predatory behaviors in our pet cats can have negative environmental impacts does not entail that they must, nor does it entail that we should ignore this species-specific function.

[292] Let us assume that there is not a pest problem we are hoping our cats to take care of.

[293] Of course, we would like to think that our pets are nothing more than happy friends – when we come home to pets who, at the sight of us, become energetic and seemingly excited to see us, we interpret this reaction in a flattering light. But it is worth considering whether a role as mere companion is satisfactory to our pets. If we can find reason to think that it is not, we might make more of an effort to facilitate our pets' 'normal' behaviors, of which they may have interests engaging in (despite the fact that we do not). We may also interpret our pets' excitement at our return in a different sense, like that it is not so much happiness to see us as it is relief from isolation and boredom. We should be wary of seeing our pets as a tool for companionship, as there are parts of animal welfare that we ignore because they do not serve our own ends.

Whether or not Francione is right in calling for the abolition of pet-keeping remains an open question. While some of these othering attitudes may seem wrong in their own right, my argument will rest on the idea that there are welfare risks involved in all the ways that we see our pets as other. These attitudes of othering, while compatible with our meeting the most basic needs of our pets, lend themselves to or make way for harmful treatment.[294] In particular, there is the danger that our attitudes of othering will lead us to *neglect the social needs of our pets*. By social needs I am speaking here of those needs of our pets that can be met (if not by conspecifics) only by our physical interactions with them. Before I show how this risk arises, first I must explain the nature of these social needs.

2.5.1 The Social Needs of Pets

Dogs and cats are social animals. Social companionship is central to their emotional needs, improving animal well-being. [295] Needs for social companionship are usually satisfied by conspecifics. When dogs and cats are kept as pets, humans take on the role of kin, becoming responsible for satisfying social needs. Pet owners might get two dogs instead of one, to help meet these social needs. However, my focus throughout section 2.5 will be on those pets living in a single-pet household, or who live with conspecifics but have not formed social bonds. In these cases, human-animal interactions are a way that pet owners may foster social companionship. The social value of human-animal interactions can be seen physiologically, as "friendly and affectionate social interactions" like play and physical contact influence brain opioids and neuropeptides, (e.g. oxytocin) associated with pleasurable feelings,[296] and behaviorally, insofar as our pets may behave differently when they are left alone. I will explore each in turn.

2.5.2 The Social Needs of Dogs

Physiologically, research suggests that the human-dog bond is one of attachment, similar to that of mother and infant.[297] One study found that human-dog interactions are "followed by a release of oxytocin…

[294] I am open to the idea that these attitudes are wrong in themselves, but I will not argue for that here.
[295] Franklin D. McMillan, "Development of a mental wellness program for animals," *JAVMA* 220, no. 7 (April 2002): 965.
[296] Ibid., 966.
[297] It is well established that there are important physiological effects of infants who are attached to and bond with their mothers – attachment and bonding "are characterized by positive emotions," with both the mother and child experiencing "pleasure and security in the presence of each other, and anxiety and distress when separated" (Linda

[and] by reduced cortisol levels and blood pressure" in dogs.[298] Oxytocin, an important hormone in bonding, is associated with "pain relieving and sedative effects."[299] In a separate study, oxytocin levels were found to have "almost doubled" after "positive interaction between the species."[300] An increase in dogs' levels of prolactin (which promotes bonding associated with parenting behavior) and dopamine further suggests that they "derive pleasurable sensations" from interacting with humans.[301]

Perhaps unsurprisingly, human contact is important for kenneled dogs, particularly those that are housed alone.[302] It is thought that "social isolation is the most stressful factor in a kennel environment."[303] Human contact sessions have been shown to lower salivary cortisol levels in newly-entered shelter dogs two days after contact,[304,305] avoiding a peak in cortisol levels that is standard to the third day upon entering a shelter.[306,307]

The physiological effects of the human-dog interaction support the idea that human interaction is important to canine well-being.[308] There is, too, anecdotal evidence to support this. Many dogs experience distress when left alone (via a range of stereotypic behaviors: inappropriate vocalizations, destruction, defecation, urination, pacing, and/or self-harm) and may seem relieved (with these behaviors subsiding) when owners return.

Interestingly, both a symptom of separation anxiety and a phenomenon in its own right, some dogs may refuse food when left to eat alone. There is evidence to suggest that in dogs, much like in humans, there is a

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Handlin et al., "Associations between the Psychological Characteristics of the Human–Dog Relationship and Oxytocin and Cortisol Levels," *Anthrozoös* 25, no. 2 (2012): 216).

[298] Ibid., 217.

[299] Ibid., 216.

[300] J.S. Odendaal and R.A. Meintjes, "Neurophysiological Correlates of Affiliative Behaviour between Humans and Dogs," *The Veterinary Journal* 165 (2003): 299.

[301] Ibid.

[302] Crista L. Coppola et al., "Human interaction and cortisol: Can human contact reduce stress for shelter dogs?," *Physiology & Behavior* 87 (2006): 540.

[303] Ibid.

[304] Contact sessions occurred on the second day after arrival and included: "taking the dog into an outdoor enclosure, playing with the dog, grooming, petting and reviewing basic obedience commands. Each dog interacted with a human for approximately 45 min" (Ibid., 537).

[305] Coppola et al., "Human interaction and cortisol."

[306] Cortisol levels in kenneled dogs are nearly "three times that of normal household dogs" on the third day after arrival (Ibid., 537).

[307] Ibid., 539-540.

[308] Separation from social attachments is thought to be one of the most potent stressors influencing the pituitary adrenal cortex, a part of the brain associated with stress responses (Ibid., 537).

social component to eating.[309] It is possible that some dogs refuse to eat in light of anxiety while others do so simply because they want company. One theory is that the refusal to eat when left alone may be a vestige from our dogs' ancestors. Wolves hunt and eat in packs – likewise, "dogs find that meals are more fun with others... by nature, dogs are social creatures and the company can motivate them to eat."[310] Perhaps for this reason dogs seem willing to sacrifice food for human interaction. In one study, dogs preferred a significantly smaller amount of food if it meant that this food was given to them in a location indicated by humans.[311]

Besides supporting a communal meal, our interactions with our dogs can affect their well-being in other ways. For instance, it is thought that touch from a person to whom dogs are bonded brings a sense of calmness or happiness to dogs; one study found that "dogs being petted by a familiar person showed significantly more appeasement gestures, redirected behaviours and social approach behaviour than dogs being petted by an unfamiliar person."[312] In the context of veterinary visits, the human-dog bond can be essential to keeping dogs calm, as an owner's touch and voice has calming effects on dogs, e.g. lowering the dog's heart rate.[313]

2.5.3 The Social Needs of Dogs: Physical vs Virtual

In the third chapter, 'virtual companionship' will be discussed. The evidence just presented seems to suggest that virtual companionship will lose something essential in animal socialization. It seems that it is not interaction *per se* that our pets need, but physical interaction with us, the humans with whom they have bonded. To be sure, more research must be done to substantiate the idea this. Given the lack of evidence to support the idea that physical interactions are for dogs more important than virtual ones, we might find support for this claim in research that has been done in the human case. In humans, virtual interactions affect us differently than physical ones. For instance, while hearing the voice of a loved one over the phone has a comforting effect on

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[309] In one study on separation anxiety in dogs, dogs in both the control group (dogs without separation anxiety but with other behavioral problems) and the group with separation anxiety demonstrated a refusal to eat after owners left the home (46.6% of dogs with separation anxiety would not eat after their owners' departure, and 20.6% of dogs in the control group would not eat) (Gerrard Flannigan and Nicholas H. Dodman, "Risk factors and behaviors associated with separation anxiety in dogs," *JAVMA* 219, no. 4 (Aug. 2001): 462).
[310] Lily Feinn, "Why Does My Dog Only Eat If I'm In The Room?," The Dodo, accessed May 2, 2019, https://www.thedodo.com/close-to-home/why-wont-my-dog-eat-without-me.
[311] Gabriella Lakatos et al., "Sensing sociality in dogs: what may make an interactive robot social?," *Animal Cognition* 17 (2014): 388.
[312] Franziska Kuhne et al., "Effects of human–dog familiarity on dogs' behavioural responses to petting," *Applied Animal Behaviour Science* 142 (2012).
[313] Erika Csoltova et al., "Behavioral and physiological reactions in dogs to a veterinary examination: Owner-dog interactions improve canine well-being," *Physiology & Behavior* 177 (2017).

us,[314] it is physical contact, not auditory alone, that elicits the most comfort.[315] While auditory cues may be better than no contact, they also are not *as satisfactory* as physical contact. It is possible that this observation hold true for the human-dog case, too.

One explanation for physical presence as the most satisfactory form of communication in humans is explained by a theory of "media naturalness." We may find that face-to-face communication is "easier, less effortful, and more pleasant than electronic media in general,"[316] and that we are less satisfied with the experience of communication in virtual contexts. One reason for this may be that we have evolved in order to communicate face-to-face, to rely on certain cues. That is, face-to-face communication is filled with cues that make that can help make interactions less effortful: to see one another and hear one another quickly, to "observe and convey facial expressions" and body language, to "engage in mutual gaze" and see "where other people are looking," and to use both smell and touch. The absence of these cues may make communication more challenging, as we are "actively suppressing the constant confusion over why certain cues that *should* be present are not" (e.g. in videoconferencing, we experience an absence of smell and touch, and likely a lag in (if not an absence of) body language and facial expressions).

It is possible that dogs may find face-to-face communication the easiest and most satisfactory, too. There is much to suggest that dogs are sensitive to the same social cues that we use to communicate with one another. For instance, the observations that we can make of others only when we are physically in the same space, like facial and body expressions, are observations that, it seems, dogs can also make. Dogs can read our body language, can understand gestures such as pointing, and it has been thought that dogs can use social referencing ("the seeking of information from another individual to guide one's behavioral reaction") when confronted with

[314] Leslie J. Seltzer et al., "Social vocalizations can release oxytocin in humans," *Proceedings of the Royal Society B* 277 (2010): 2664.
[315] In humans the highest levels of oxytocin were shown when one was physically comforted by one's mother.
[316] D.A. Hantula et al., "Media Compensation Theory: A Darwinian Perspective on Adaptation to Electronic Communication and Collaboration," in *Evolutionary Psychology in the Business Sciences*, ed. Gad Saad (Verlag Berlin Heidelberg: Springer, 2011), 341.

unfamiliar stimuli.[317] The more affiliation a dog has with her owner, the better she will be at quick and accurate social synchronicity.[318]

Eye contact is also an important communicative tool for dogs. Dogs are sensitive to the human gaze and will follow a command better if this gaze is established. Likewise, dogs can follow the human gaze to a target.[319] Dogs seem sensitive, also, to us shutting our eyes. Dogs are more likely to ignore commands (e.g. not to take a piece of food) if the human's eyes are closed than if the eyes are open or if the human has her back turned/ is distracted.[320]

Given how important scent is for dogs, it seems likely that scent plays an important role in communication as well. In dogs presented with the scent of familiar and unfamiliar humans, as well as familiar and unfamiliar conspecifics, it was found that "the caudate was activated maximally to the familiar human"[321,322] -- the caudate being associated with positive expectations (e.g. of social rewards).[323] The authors note that it is "tempting to conclude that the caudate response represents something akin to a positive emotional response to the scent of a familiar human."[324]

While it remains unclear if scent makes communication with one's owner *easier*, in the way that it can for humans, we can without this information still conclude that the physical presence of one's handler would be a more positive experience (than a virtual presence), insofar as the dog can smell them, triggering certain pleasant neurological responses.[325] Perhaps it is in virtue of our odors, in addition to our voices, our touch, and the sight

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[317] Charlotte Duranton and Florence Gaunet, "Behavioral synchronization and affiliation: Dogs exhibit human-like skills," *Learning & Behavior* 46 (2018): 366.
[318] Ibid., 367.
[319] Juliane Kaminski et al, "Human attention affects facial expressions in domestic dogs," *Nature: Scientific Reports*, 7, no. 12914 (2017).
[320] Ibid.
[321] Gregory S. Berns et al., "Scent of the familiar: An fMRI study of canine brain responses to familiar and unfamiliar human and dog odors," *Behavioural Processess* 110 (2015): 43.
[322] What's more, the familiar human was absent during the study, indicating that dogs were able to discern this person from smell alone. The familiar human was also not the primary handler of the dog, but rather one comes intro frequent contact with the dog (e.g. the owner's child).
[323] The authors note that while the inference of an emotional state from and fMRI is contested, given that brain regions often have multiple functions, they note that the ventral caudate may be an exception, as "more than any other region of the brain, activation here is associated with reward processes to a high probability, and this includes both primary rewards like food, social rewards, and, in humans, complex rewards like money, music, and art" (Berns at al, "Scent of the familiar," 44).
[324] Ibid.
[325] In the following chapter, we will consider certain technologies that allow us to communicate with our pets over distance (by way of them hearing our voice or hearing our voice and seeing our face). And while these technologies

of us, that makes "repeated close interaction" between us and our pets have "long-term, anti-stress effects," on our pets.[326,327]

2.5.4 The Social Needs of Cats

Interestingly, we might draw some of the same conclusions for cats. There is much to suggest that cats are, contrary to popular belief, social animals, not only toward other cats[328] but toward humans. Of the cat-owner bond it has been observed that most domestic cats "slept with a family member, shared food with people, and greeted their owners at the door." [329] Some research suggests that cats are able to respond to human mood,[330] discriminate human attentive from inattentive states,[331] respond to owner's voices specifically,[332] and "look to their owner when presented with an unfamiliar stimulus."[333]

It is also telling that cats, much like dogs, can display both attachment behaviors and separation anxiety.[334] One study found that cats showed more activity, exploration, and play (behaviors that suggest a sense

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may have some calming effect on our pets, still we must acknowledge that these technologies block "expected cues" and, in turn, make communication "more effortful and less satisfactory and it is not a substitute for sharing the same physical space" (Hantula et al., "Media Compensation Theory," 349).

[326] Handlin et al., "Psychological Characteristics of the Human–Dog Relationship," 217.

[327] The study notes that "it cannot be concluded whether it is the high oxytocin levels that generate the close and frequent interaction between owners and their dogs or if it is the close and frequent interaction that generates the increased oxytocin levels" (Ibid., 225).

[328] Domestic cats commonly engage in friendly behavior (being close to and interacting with) cat companions. These friendships are reflected "by a cat's choice of partners for sleeping; resting, sitting, and playing together; sharing food; allogrooming; and allorubbing" (Stefanie Schwartz, "Separation anxiety syndrome in dogs and cats" *JAVMA* 222, no. 11 (June 2003): 1527). Communication is also an important part of the lives of domestic cats. Specifically, pheromones are "vital to the social lives of domestic cats" and can be communicated through scratching, saliva, urine, feces, allorubbing, and allogrooming. Smelling one's own, or other cats', scents through a house may work to minimize stress and anxiety, so that cats can feel secure in their environment (Kristyn R. Vitale Shreve and Monique A. R. Udell, "What's inside your cat's head? A review of cat (Felis silvestris catus) cognition research past, present and future," *Animal Cognition* 18 (2015).

[329] Schwartz, "Separation anxiety syndrome in dogs and cats," 1527.

[330] Vitale Shreve and Udell, "What's inside your cat's head?," 1199.

[331] Kristyn R. Vitale and Monique A.R. Udell, "The quality of being sociable: The influence of human attentional state, population, and human familiarity on domestic cat sociability," *Behavioural Processes* 158 (Jan. 2019): 11-12; Cats can modify their behavior in response to this discrimination by begging, allorubbing, and playing more when humans are attentive.

[332] Ibid., 12. In one study, cats showed a "significantly higher orienting response (movement of ears and head) to their owner's voice" over a stranger's voice.

[333] Vitale Shreve and Udell, "What's inside your cat's head?," 1199.

[334] As Schwartz notes, "separation reactions are not a characteristic of asocial species, for without the proclivity toward formation of social bonds, separation-related anxiety would not exist" (Schwartz, "Separation anxiety syndrome in dogs and cats," 1526-1527).

of safety and calm) in the presence of their owners than they did when alone or with a stranger.[335, 336] There is also evidence suggesting cats can develop separation anxiety in the absence of their owners. One study found that out of 716 cats evaluated for behavior problems, 136 cats (about 20%) displayed separation anxiety behaviors "only when separated from a favorite person or housemate."[337, 338] Separation anxiety behaviors of cats include "inappropriate elimination, vocalization, and destructiveness"[339] and can develop in cats when owners work long hours or when there is "a change (new schedule or extension) in the owner's work schedule," among other changes.[340]

Cats' preference for social interaction is demonstrated in a study that found social interaction to be the "most-preferred stimulus… for the majority of cats," with 50% of cats choosing to interact (via play) with a human (an owner or a stranger), even when given a choice between the human interaction and food (the second

[335] Claudia Edwards et al., "Experimental evaluation of attachment behaviors in owned cats," *Journal of Veterinary Behavior* 2, no. 4 (July/August 2007): 123.
[336] However, there is also evidence in the opposite direction, suggesting that adult cats are "autonomous…in their social relationships," for instance rubbing up against strangers as much as to familiar humans, so it seems questionable to what extent cats rely on their owners for a sense of security and safety. (Alice Potter and Daniel Simon Mills, "Domestic Cats (Felis silvestris catus) Do Not Show Signs of Secure Attachment to Their Owners," *PLoS ONE* 10 no. 9). Ultimately, secure attachment is likely specific to context, depending on the personality of the cat, the personality of the owner, and the particular bond between them. There are many factors that affect the sociality of cats. For instance, there is also evidence to suggest that neutering cats is associated with less aggression / lower cortisol levels (H. Finkler and J. Terkel, "Cortisol levels and aggression in neutered and intact free-roaming female cats living in urban social groups," *Physiology & Behavior* 99 (2010): 343). It is possible that our pet cats who we have been neutered, then, may be more inclined toward affiliative or social behavior. It is also suggested that the sociability of cats is heavily influenced by the degree to which they were socialized with humans as kittens (Rachel Alison Casey et al., "The effects of additional socialisation for kittens in a rescue centre on their behaviour and suitability as a pet," *Applied Animal Behaviour Science* 114 (2008)). What this suggests is that those kittens who are highly socialized with humans may have different and more robust social needs than cats who were not socialized with humans at a young age.
[337] Stefanie Schwartz, "Separation anxiety syndrome in cats: 136 cases (1991-2000)," *JAVMA* 220, no. 7 (April 2002): 1029.
[338] Also it is interesting that "of the 136 cats in the study, 70 (52%) were solitary pets" (Ibid., 1030).
[339] Ibid., 1028.
[340] Other changes might include "frequent business or vacation travel by the owner, an increase in the time the owner spends with family or friends, development of a new romantic involvement for the owner, departure of a family member (eg, through divorce or death), and death or abrupt removal of another pet" (Schwartz, "Separation anxiety syndrome in dogs and cats," 1529).

most preferred stimulus).[341,342,343] The study's findings suggest that "interaction with humans may serve as a highly preferred stimulus with enrichment potential."[344]

Finally, there is some physiological evidence to suggest that human-cat interaction may be beneficial for the well-being of the cat. First, a significant increase in cat's blood pressure was observed when cats were "presented with a bonded individual." This same affect has been seen in both humans and dogs, and has been thought to indicate "excitement for interaction or expectation for further rewards due to past reinforcement."[345] In addition, one study explored how oxytocin is affected by cats' interactions with their owners. The study found that after owner-cat interactions, the average increase in cats' oxytocin was 12% (versus, for dogs, an average increase in oxytocin of about 57% after interacting with their owners)[346] "about the same level as seen in people when meeting friends." This suggests that cats may view owners as "good friends" rather than "essential caregivers," as dogs do. [347,348]

Unfortunately, cats are the subject of bad press, with many articles referring to them as asocial or antisocial, "selfish," and "unfeeling."[349] This may reveal "societal biases about cat behavior that have contributed to the paucity of scientific research on feline social cognition." [350] This gap in the literature is not only epistemically flawed but harmful, insofar as we cannot properly guide or care for cats when faced with a lack of knowledge about the human-cat bond[351] (e.g., we do not know how to meet their social needs if we do not know

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[341] Vitale Shreve et al., "Social interaction, food, scent or toys?," 325.
[342] Because the play preferred by most cats was not directly with the human but was with a toy operated or moved by a human, we might interpret this as, rather, that cats prefer engaging in predatory behavior to food (Trudi Atkinson, *Practical Feline Behaviour: Understanding Cat Behaviour and Improving Welfare* (Oxfordshire, UK; Boston, MA: CABI, 2018), 50). However, even if we take this interpretation as true, still it seems significant that many cats preferred petting to playing, indicative of a more direct form of human contact.
[343] Within the context of social interactions, cats were presented with playing, human vocalization, and petting. Most cats preferred play as a form of social interaction with humans. More specifically, 25 of the 38 cats preferred play to vocalization, 17 cats preferred petting to vocalization, and 17 cats preferred petting to play (Vitale Shreve et al., "Social interaction, food, scent or toys?," 325).
[344] Ibid., 327.
[345] Vitale and Udell, "The quality of being sociable," 12.
[346] Atkinson, *Practical Feline Behaviour*, 50-51.
[347] Ibid.
[348] We might also note that this study, unpublished, measured the oxytocin levels of 10 cats. To date, it does not seem that any other studies have been done, but it would be interesting to see what a larger study would come up with. As noted, the human-cat bond is highly context-sensitive, perhaps more so than dogs. Perhaps some cats, like dogs, do view owners less as good friends and more as essential caregivers.
[349] Vitale Shreve and Udell, "What's inside your cat's head?," 1201.
[350] Ibid.
[351] Ibid.

what these need are). All of this to say that while the evidence presented in this paper suggests pet cats are quite social, more research is needed in order to determine what social needs they have.[352,353] Less controversial, perhaps, are the benefits of human interaction to dogs.

2.5.5 The Risk of Social Neglect

To see our pets in light of attitudes of othering may invite us to deprive them of social interactions, for we may not understand that this deprivation affects them. For example, the attitudes that encourage us to place our pets into structures of society that were not designed for them, or to use our pets as instruments (to stay at home while we work and to bring us happiness, respectively), are the same attitudes that make us more likely to ignore certain social needs that *they* have. To assume, through our practices of othering companion animals, that they do not have complex social needs in much the same ways we do, is a "colonial failure to value the difference"[354] of all of the ways that social needs might be expressed.[355]

The risk of ignoring the social needs of our pets – a risk that is invited by attitudes of othering – leads me to believe that attitudes of othering are harmful, if only indirectly so. It seems possible to fix these ways of othering rather than get rid of pet-keeping altogether, though we must note that changing our attitudes will be particularly difficult given the nature of oppression – that the wrongness of our actions is often hidden from us. This is part of the insidiousness of it: we may not notice when we are homogenizing, polarizing, etc. In ignorance we are able to rationalize the harm of our actions; the harm we are causing will not seem to us wrong as we are denying relevant parts of the truth. For example, leaving social beings like dogs to be alone all day while we are at work does not seem harmful when we ignore that dogs have a number of social needs to begin with.

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[352] It also possible that more than some cats are somewhat if not highly social, that our attitudes of cats as asocial is a sort of self-fulfilling prophecy. Perhaps if we change our views and, in turn, our behavior, if we work to socialize more with our cats, we may find our cats to adjust their behavior in a comparable way.

[353] At *minimum*, cats need our attention on occasion, though perhaps not as often or as long as dogs. For those cats who do not show signs of attachment anxiety, we may find it is not stressful (or maybe desirable, though more research is needed) for our cats to be left alone during the day while we are at work. Still, we might be hesitant to leave them alone for long periods of time (like, longer than a day, days on end while on vacation). While cats can meet their more "basic" needs on their own, (e.g. can free feed, can use the litter box rather than needing us to take them outside), they cannot socialize with themselves. If we are like "good friends," it is likely beneficial to the welfare of our cats to see us often.

[354] Plumwood, "Decolonizing Relationships," 64.

[355] Polarization, homogenization, and backgrounding run the same risk of disvaluing the social needs of our pets, as we will see in chapter three.

All things considered, we must work to eliminate 'othering attitudes' toward our pets, attitudes that leave our pets vulnerable to harm. This harm often comes in the form of neglecting our pets' social needs. My view is that attitudes of othering are harmful insofar as they put our pets at risk for unhappiness and suffering. While this may get close to Francione's worries about pet-keeping (for it is in virtue of our pets' dependence on us that they are so susceptible to the neglect of their social needs), my argument is ultimately different from Francione's, for I am suggesting here that we have obligations to better our treatment of our pets. We can recall that Francione does not think that better treatment is all we should be after; indeed, he does not think that even the best treatment would permit the moral permissibility of pet-keeping. Here, I am putting aside the issue of an overall ruling on the permissibility of pet-keeping. The issue is not something that I will settle, nor is this something that must be settled in order to draw some conclusions about the obligations we have to existing pets. For even Francione contends that the moral impermissibility of pet-keeping is consistent with keeping, at present, those pets that are already in existence. So be it only in this interim that Francione describes, or in the institution of pet-keeping that one finds it moral to carry on, these obligations can be relevant to both.

2.5.6 Combatting the Risk of Social Neglect

I agree with Palmer's view, that there are obligations of non-harm and assistance generated in virtue of the profound dependence and vulnerability woven into the lives of pets. These obligations are generated to all beneficiaries of the pet-keeping institution. The goal of these obligations is to help pets survive. If you come across a box of kittens in a dumpster, you have an obligation to assist them.

For those of us who keep pets, we incur the extra responsibility to help pets flourish. Pet owners are responsible not only for their pets' survival but their happiness. Contained within this special kind of assistance is an obligation to make sure our pets' social needs are met. To fail to assist our pets in meeting these needs is to put pets at risk of harm; in order for dogs, and for some cats, to be happy, socialization is necessary. We can either socialize with our pets ourselves, by working shorter hours, taking our dogs to day care, bringing our dogs to work, working from home, etc. Or maybe we can facilitate the fulfilment of social needs through conspecifics – we can get two dogs instead of one; we can take our dogs to the dog park more often. For cats, there is a wide range of sociability and thus, of social needs – if we know that we lead busy lives and cannot be home during

the day, we may adopt a cat that is less sociable and does not mind being on her own. We must remember that it is up to us to make sure our pets' social needs are satisfied; they cannot do this on their own.

In addition, as part of the duty of non-harm that all beneficiaries have, there is a duty to work to eliminate attitudes of othering. These attitudes lead us to misunderstand our pets' welfare and, subsequently, put our pets at risk of harm. For example, we might see dogs as polarized others, with social needs that are different and less demanding from our own. But to leave dogs home alone each day while we are at work will lead our dogs to feeling bored, lonely, or distressed. Thus it is essential to the welfare of pets that we dismantle these attitudes. Though difficult, it does not seem impossible, in principle, to change our attitudes toward our pets. We have a duty to stop treating our pets as 'other,' as polarized and homogenized beings, as background to our world, as objects of assimilation or mere tools for our uses. Instead, we can replace these forms of othering with recognition, appreciation, gratitude, generosity, attentiveness, and respect.[356]

One way to remove and replace colonizing frameworks is through what Marilyn Frye calls a "loving eye,"[357] a way of seeing our pets as they are, as separate creatures with their own unique needs and interests. This way of seeing does not presuppose the other to be an instrument, in existence "for the seer's service,"[358] nor presuppose our own point of view, projections, and expectations. Rather, "it is the eye of one who… must consult something other than one's own will and interests and fears and imagination. One must look at the thing. One must look and listen and check and question."[359] In this way of seeing we can work to dismantle our biases and attitudes of othering. We can establish boundaries between ourselves and our pets, such that we can recognize that their interests do not always converge with ours, that their and our "interests are not identical."[360] We can do our best to get at the true nature of our pets, social needs and all. We can be attentive rather than neglectful of these social needs, perhaps sacrificing our time to be home with them, to play with them when they

[356] Plumwood, "Environmental Ethics," 263.
[357] The alternative to the loving eye, as Frye describes, is the arrogant eye. The arrogant eye is characterized by a perception of the other as having interests fully in align with one's own, as seeing the other as for one's use. We might say that the forms of othering that Plumwood notes are made possible through the arrogant eye.
[358] Marilyn Frye, "In and Out of Harm's Way: Arrogance and Love," in *The Politics of Reality: essays in feminist theory* (New York: Random House Inc., 1983), 74.
[359] Ibid., 75.
[360] Ibid.

initiate it, even though we are busy. In sum, we can use a loving eye to challenge the norms of pet-keeping, norms that do not always recognize the role of social interactions in animal flourishing.

While I do think, as I have said, that we can challenge and change the more subtle ways that we indirectly harm our pets (through attitudes of othering), obstacles exist. One such obstacle, it might turn out, is our introduction of technologies into the lives of our pets. It is this issue that I will turn to in the chapter that follows. Ultimately, there is the possibility that technologies will further our attitudes of othering and oppression, rather than minimize them. Our pets have social needs that may not be adequately met by technologies, despite the fact that these technologies are advertised to do just this. It is, of course, much easier on us to misunderstand our pets, to deny their social lives, for it is less demanding. But as I have tried to show, it is our physical presence that significantly affects our pets' well-being. The use of pet gadgets, rather than highlight this fact, might help us be blind to it, ignoring our pets' social needs.

3: PET TECHNOLOGIES

Technology designed for our pets is gaining traction: according to Angel List, there are 1,036 pet-themed startup companies, with 618 investors, each averaging a $3.6Million valuation. It is estimated that "funding totals in pet-related startups have already reached $519.3 million in 2018—78 percent higher than all of last year."[361] Pet technology startups set out to achieve a variety of ends, providing both services (e.g. PetPlate, a delivery service for pre-made dog food, Rover/Wag, pet-sitting services)[362] and products (e.g. Furbo, a dog camera). In this chapter, we will be focusing on mostly pet products, and one service. I will explore in what ways these pet gadgets can help or harm our pets by appealing to forms of othering (polarization, homogenization, assimilation, backgrounding, and instrumentalism), as well as to Palmer's notions of pets as vulnerable and dependent and pets as generating special obligations. It will be my objective to consider how we might use these products in ways that will minimize harm.

We might group pet gadgets into three categories: those designed for pet entertainment and enrichment, those designed to monitor or track pet health and well-being, and those designed to make more routine or mundane tasks easier/ hands-off. These categories, of course, are not always mutually exclusive, e.g. an automatic feeder with a puzzle feature may be designed to satisfy the more mundane task of feeding while also designed to exercise dogs' cognitive abilities. I will examine the following: pet entertainment and enrichment technologies including the Hub by CleverPet and the Wickedbone by Cheerble; the FitBark 2 to monitor the health and fitness of dogs; and pet technologies to assist routine tasks, including an automatic feeder by Arf Pets, the Furbo dog camera, a citronella bark collar by Downtown Pet Supply, an ultrasonic bark collar by BarkWise, and a dog parker by DogSpot.

It may be helpful to begin my discussion with the field of study at the heart of these technologies, that is, the relatively new subject area of Animal-Computer Interaction (ACI). ACI is a bourgeoning field of study that aims to "understand the interaction between animals and computing technology within the contexts in which

[361] Mary Ann Azevedo, "Investors Unleash Millions into Pet-Tech Startups," Crunchbase News, accessed March, 2019, https://news.crunchbase.com/news/investors-unleash-millions-into-pet-tech-startups/.
[362] "Top Dog: The Most Successful Pet Startups of 2018," accessed March, 2019, https://www.biznewsarticles.com/business-articles/top-dog-the-most-successful-pet-startups-of-2018/.

animals habitually live, are active, and socialize with members of the same or other species, including humans."[363] One of these contexts is animals as companions: the goal here being to strengthen the human-animal bond via technologies that promote communication and understanding.[364] This strengthening of the human-animal bond is one aim of ACI,[365] as is to improve animal welfare.[366] ACI works to move away from human-centered technologies and "develop a user-centered approach, informed by… animals' needs and preferences."[367] The idea here is that in order to improve animal welfare through technology, we must come at technologies from the animal's perspective.

To accomplish such ends we must be guided by ethics. Some principles underlying ACI include: that we see "both human and nonhuman participants as individuals equally deserving of consideration, respect, and care according to their needs" (i.e. a non-speciest approach); that there be an intention to "advance knowledge or develop technology that is beneficial or otherwise relevant" to members of a particular species if we are to work with them; that all participants be able to "withdraw from the interaction at any time."[368] Advancements made in ACI that are done ethically have the potential to give us insights into the minds of animals and their intelligence as well as expand our imagination and our understanding of ourselves.[369]

With all of this in mind, let us look at each technology in turn. First, I will describe the design of each technology. Then, I will consider how the technology might improve well-being and how it might diminish it.

3.1 The Hub

Let us begin with technologies that are used for environmental enrichment. "The Hub" by CleverPet is an interactive device with sequence and memory games to provide pets with complex tasks for cognitive stimulation. Perhaps most pet owners use the Hub with their dogs, but the Hub is not exclusively for dogs (cats

[363] Clara Mancini, "Animal-Computer Interaction: A Manifesto," *interactions* 18 No. 4 (July/Aug. 2011): 70.
[364] Ibid., 72.
[365] Katherine Grillaert and Samuel Camenzind, "Unleashed Enthusiasm: Ethical Reflections on Harms, Benefits, and Animal-Centered Aims of ACI," (paper presented at Third International Conference on Animal-Computer Interaction, Milton Keynes, UK, November 16-17 2016), 2.
[366] Ibid., 2.
[367] Mancini, "Animal-Computer Interaction," 72.
[368] This last point suggests that the interaction of our pets with the gadgets we purchase for them should not be forced; animals should be able to choose to interact or to opt out of the interaction with the technologies. This said, there may be times where we may find it appropriate to restrict such withdrawing, if it is in the best interests of our pets. For instance, if we ultimately determine that fitness trackers improve the well-being of dogs, it may not be so objectionable that dogs cannot take these fitness trackers off, removing themselves from the interaction.
[369] Ibid.

and other animals can use it too, the company notes).The interactive games include things like: avoiding unlit touchpads, time-sensitive responses, learning sequences, and matching colors. In one interactive game, a pet is presented with three lights of different colors and must use the touchpads to get them all to turn the same color. If the pet successfully completes the task at hand, she is rewarded with a treat that is automatically dispensed from the Hub. The Hub includes 12 games of different levels of difficulty, advancing automatically as your pet becomes more skilled. The Hub is advertised as keeping pets "entertained all day with challenging brain puzzles," as game difficulty is adjusted automatically, according to your pet's skill level, ensuring that they do not get bored easily.

The Hub comes with other smart features, for instance its interface makes it so that as new games are developed, they can be downloaded automatically. The Hub also gives you the control to "schedule playtime" (set when the Hub will turn on and off), manage gameplay (adjust which game your pet is playing), and "control food intake" (track and limit how much food the Hub dispenses). And, in being smart phone accessible, the Hub makes it so that you can track statistics to see how your pet is improving. This way, when you are at work for instance, you can track your pet's progress.

We might first look at some of the upshots of the Hub: foremost, the Hub provides dogs (and cats!) with a challenge. Product reviews (Amazon) of the Hub note that some dogs seemed frustrated in learning a new puzzle but the dogs kept going and eventually figured it out.[370] This experience that is described aligns with what we might call "good stress,"[371] insofar as the stress has a purpose (namely, in the learning process) and is experienced at an optimal level, a level within one's mastery. This stress can facilitate learning, memory, and cognitive functioning.[372] In this sense, the Hub may avoid one of the worries that was addressed in chapter two, in the discussion of polarization, in which there is a "gross negligence" by pet owners' in failing to provide their pets with complex tasks. It is also possible that solving a challenge is not only externally rewarding for the animal (via a treat) but internally rewarding. The research is limited and such "positive emotional

[370] CleverPet Hub, Amazon Reviews, accessed March 2019, https://www.amazon.com/CleverPet-Hub-Exercise-Your-Pets/product-reviews/B06WP6NBJ3. While product reviews are not the most reliable, these were one of the few sources available.
[371] Cheryl L. Meehan and Joy A. Mench, "The challenge of challenge: Can problem solving opportunities enhance animal welfare?," *Applied Animal Behaviour Science* 102 (2007): 256.
[372] Ibid.

consequences"[373] are not definitive. However, it seems worth mentioning the possibility that completing a challenge on the Hub may be for dogs intrinsically rewarding, associated with mental states of interest, enjoyment, and flow.[374]

There is, too, the way that the Hub gives opportunities for choice. The animal can choose to interact with the Hub and then will be asked to make choices throughout the interactive game. By pawing the touchpads until all turn blue, pets receive an "opportunity to be active participants in their environments…to effect change through their own behavior."[375] We should note that an essential element of environmental enrichment in captivity involves increasing the animal's "variety and range of opportunities or choices" – indeed, objects that promote choice are "necessary for optimal psychological and physiological well-being."[376] Objects in the environment that allow an animal, then, to engage her ability to decide where and how she spends her time can, in turn, better her overall experience in the captivity of our homes.

Furthermore, the Hub, as an interactive object that provides pets with opportunities for cognitive challenge and decision making, may help minimize stereotypic behaviors. We can understand stereotypic behaviors as those that are repetitive, constant, and purposeless, similar to obsessive compulsive behaviors, though stereotypies can also be motionless, non-repetitive, and purposeful.[377] Regardless of the way such stereotypies manifest, underlying all of them is an element of distress. There are reports of stereotypy in most domestic animal species.[378] In dogs, stereotypies may manifest as obsessive grooming or rhythmic barking at no stimulus, among other manifestations.[379] While it may be unlikely that the Hub can *treat* stereotypic behaviors in dogs, it may help keep stereotypies from developing. One study found that stereotypic behaviors were more prevalent when animals lacked control over their environments.[380] [381] Likewise, "sufficient sensory stimulation"

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[373] Ibid., 252.
[374] Ibid., 251.
[375] Ibid., 248.
[376] Jill Mellen and Marty Sevenich MacPhee, "Philosophy of Environmental Enrichment: Past, Present, and Future," *Zoo Biology* 20 (2001): 214.
[377] Andrew U. Luescher et al., "Stereotypic or Obsessive Compulsive Disorders in Dogs and Cats," *Veterinary Clinics of North America: Small Animal Practice* 21, No. 2 (March 1991): 401.
[378] Ibid., 402.
[379] Ibid.
[380] Meehan and Mench, "The challenge of challenge," 254.
[381] The importance of feeling in control over one's environment should not be underestimated, as a study noted by Rault et al. suggests that rats who received electrical shocks but who could tap to suppress the shocks showed "drastically fewer gastric ulcers (a stress outcome)" than rats who did not have the control to stop the shocks, and no

is also important in preventing stereotypic behavior.[382] The Hub calls on an animal's sight (for color), taste (for treats), and of course, their intelligence, providing the animal with opportunities to make choices and to engage with sensory stimuli. It seems, then, that the Hub could minimize stereotypic behaviors that arise out of boredom. We must note, of course, that boredom is one among many other reasons (e.g. genetic predispositions, inadequate socialization, trauma, environments that inhibit species-specific behaviors,[383] etc.) that animals develop stereotypic behavior, so the Hub in no way is preventive across the board.

The final upshot of the Hub is that it may help minimize othering attitudes. It may do so in two ways. The Hub might, first, give us insight into our pet's intelligence. One customer reviewer notes that of their dog that "it is fun to watch him think and learn and now I think he is smarter than I thought."[384] By watching our pet's complete the complex tasks that the Hub offers, we may come to see the rich cognitive lives of our dogs as they are. In short, through the Hub we may be less likely to see our pets as, for instance, 'dumb.'

Second, the Hub is advertised as helping change the common misconception that dogs are fully colorblind. It is frequently believed that dogs can see only in black and white, despite recent research suggesting that dogs can see yellow and blue as well. Perhaps the Hub can help us to undermine our false beliefs about how dogs discriminate color, help us to understand that the answer is more complex than we had originally thought. To be sure, humans and dogs see differently. We have three kinds of cones and so see a wider spectrum of color than dogs, who have two. But perhaps the differences are not so drastic as we have come to think.[385]

So far, we might conclude that our pets will benefit from interacting with the Hub.[386] One thing that we must note, though, concerns the relationship between the Hub and the social needs of our pets. In chapter two I discussed the ways that human interaction is important to the well-being of pets. We can recall that physical

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more ulcers than rats who did not receive shocks. The findings suggest that the ability to control one's environment can greatly impact animal welfare. (Jean-Loup Rault et al., "Cross-Disciplinary Perspectives on Animal Welfare Science and Animal-Computer Interaction," (paper presented at the *12th International Conference on Advances in Computer Entertainment Technology*, Iskandar, Malaysia, November 16-19 2015).

[382] Meehan and Mench, "The challenge of challenge," 254.

[383] Andrew U. Luescher et al., "Stereotypic or Obsessive Compulsive Disorders in Dogs and Cats," *Veterinary Clinics of North America: Small Animal Practice* 21, no. 2 (March 1991): 405.

[384] CleverPet Hub, Amazon Reviews.

[385] Interestingly, and on the topic of technology, there are smartphone applications that have been developed for users to "see" the world in terms of their dogs vision – that is, dichromatically in terms of yellow/blue.

[386] One more way that the Hub may benefit our pets is that the Hub can provide older dogs with excitement that is otherwise missing in their lives. One customer noted that the Hub was able to keep her older dog mentally active even though the dog cannot be physically active anymore.

interactions between us and our pets come with certain physiological effects, effects that ACI has not yet been proven to have. There is evidence suggesting that dogs are sensitive to the sociability of robots and willingly interact with them,[387] but more evidence is needed in order to conclude that the animal-computer 'bond' is comparable to the animal-human bond.

If the Hub cannot meet the social needs of animals, a concern for well-being arises. That is: with the Hub we might rationalize leaving our pets alone more often and for longer. Indeed, the Hub is advertised as allowing you to "never feel guilty for leaving them home alone with nothing to do."[388] Yet when we leave our pets home alone for extended periods of time, they may miss out on the benefits associated with our interacting with them (e.g. a rise in oxytocin and a reduction in cortisol). Should we find that technologies give us, as it were, "permission" to spend even more time out of the home or to leave our pets alone, we should be hesitant to rely on these technologies, hesitant to incorporate them into our lives and the lives of our pets. That the Hub relieves our guilt can be understood as a downside; maybe we *should* feel guilty when we leave our pets home alone. This guilt might be useful in reminding us that our pets are social creatures.[389]

Ultimately, the Hub, while a great way to exercise the intelligence of our pets, should not be seen as a sufficient ward against loneliness. We must not conflate socialization with cognitive challenge – while these intersect in their effect of warding off boredom, there are effects of socialization, as we have seen, that are independent of the effects of cognitive challenge. Pets (particularly those who do not live with conspecifics) need social stimulation, need to spend time with humans, and the fact that they may be less bored while we are away should not ease our minds by assuming that they, therefore, are not lonely.[390,391]

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[387] Lakatos et al. found that "despite their lack of experience with robots, dogs appeared to attribute sociality to a robotic agent—which does not resemble a human—after having observed a social interaction between the robot and a human" (Lakatos et al., "Sensing sociality in dogs," 396). Interestingly, the study notes that dogs spent more time staying near the social robot than a human experimenter (Ibid., 387). And, while the dogs did not exhibit the same social behaviors when interacting with the robot (standing near, gazing at the head) as they did when interacting with a human, still the level of sociality impacted the dog-robot relationship positively (Ibid., 396).

[388] Product reviews aligned with this, noting "I feel so much less guilty when I leave him every day…" and "I don't have to feel guilty while I'm working" (CleverPet Hub, Amazon Reviews).

[389] The role of guilt is something that I will explore later on, in section 3.8.

[390] One concern that cropped up in thinking about the ways that the Hub might negatively affect the well-being of our pets is: what if this technology fragmented the human-animal bond? This might be possible if animal-computer interactions were found to elicit the same kind of physiological responses in dogs as humans elicit.

[391] There may be an additional worry, concerning the long-term use of the Hub. This is, we do not know how the Hub will change the ways that time is normally budgeted in our dogs' lives (Grillaert and Camenzind, "Unleashed Enthusiasm"). For example, perhaps dogs will use the machine for extended parts of the day "rather than performing

3.2 The Wickedbone

A similar product that is worth exploring, if only briefly, is the "Wickedbone" – the "world's first smart and interactive dog toy."[392] The Wickedbone is an electronic bone (for dogs only) that moves on its own to "entice your dog to play."[393] Wickedbone is designed with both a manual and automatic feature. Dog owners who wish to interact with their dog through Wickedbone can control the bone via an app on their phone, moving the bone in up to 9 different motions with a virtual joystick.[394] Alternatively, dog owners can program the bone to interact with the dog automatically, for instance while they are not home or are away from their phone. In automatic mode, Wickedbone "acts responsively to different types of touch, always in a playful manner to play with your dog" (up to 4 hours).[395] The Wickedbone is advertised as providing "health, happiness, and play" and can also be used for training purposes, to learn to "catch moving objects."[396] Wickedbone is not internet enabled – owners cannot at this point play with their pets from work (device must be set in automatic mode if owners wish for the device to be used while they are away), though the company suggests that this feature will be coming soon.

The benefits of the Wickedbone, much like the Hub, are that it may facilitate cognitive and physical enrichment, prevent stereotypy development, and may add excitement/interest/other positive emotions during times that would otherwise be boring (e.g. during the day when owners leave pets home alone).

However, the Wickedbone is advertised with language that may appeal to pet owners' emotions, proclaiming welfare benefits that may or may not hold up. For instance, the Wickedbone is advertised as having the added advantage of "strengthening the human animal bond." This is a loaded claim, especially given the complexity of the toy. It seems at least possible for the toy to strengthen the human-animal bond in manual mode. Manual mode would require you to be (somewhat) spatially close to your dog in order to play,[397] and this

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other natural behaviors such as sleeping and chewing on appropriate toys. This is a significant change to the time budget which has not been directly evaluated" (Ibid., 3). The point is that the supposed advantages of the Hub, that is, in providing cognitive enrichment and control in the environment, might erode over "continuous and frequent use" (Ibid.) of these technologies, perhaps to be replaced by a decrease in animal well-being.

[392] "Wickedbone: World's First Smart & Interactive Dog Toy," Cheerble, accessed March 2019, https://www.cheerble.com/wickedbone.

[393] Ibid.

[394] The device can operate on manual for up to 40 minutes.

[395] Ibid.

[396] Ibid.

[397] Wickedbone product stats note a control distance of up to 65 feet.

gadget could be seen as an intermediator or facilitator of play between you and your dog. Perhaps owners would be more inclined to play with their dogs if they owned a Wickedbone. In this sense, Wickedbone's claim that the human-animal bond is strengthened through this toy seems plausible.

But to find an explanation for automatic mode conferring these benefits is more challenging. Perhaps the dog enjoys using the Wickedbone when her owner is away from home, experiences more positive emotions as a result, and is then more willing to bond with her owner. But this seems like a stretch.

Not only does automatic mode not seem able to withstand the aforementioned benefit, there are additional concerns that arise with the use of the automatic mode in particular. In product reviews, users noted dogs quickly losing interest in the toy. This may be because of the speed at which the toy operates or because the movements become too predictable. The fear is, then, that pet owners who rely on Wickedbone's automatic mode may assume, while at work, that their dog is, while home alone, playing with the gadget. This may indirectly harm pets: by assuming that they are playing with the bone when, in reality, they are not, we might conclude that they have gotten a decent amount of exercise or play for the day. Subsequently, this assumption might encourage us to take our dogs for shorter walks or not engage in other play when returning home from work. However, this concern does not seem tremendous: pet owners can be diligent about assessing whether their pets are actually interested in this gadget. Ways to assuage this concern may be: checking in on your pet with a pet camera, using a fitness monitor to track your dog's movement, or, more simply, engaging in attentive observation of your dog's behavior when around the toy. We must keep in mind that the Wickedbone, like any form of environmental enrichment, is case sensitive; while some dogs love it, others may be wholly disinterested.[398,399]

But there is a more enduring worry that remains for the Wickedbone. This worry, again, is most relevant to the Wickedbone in automatic mode. The worry is that, much like the Hub, the Wickedbone may help us

[398] Product reviews noted that dogs seemed to be more interested in the toy when set on manual mode than automatic mode. ("Wickedbone Smart Bone," Amazon Reviews, accessed March 2019, https://www.amazon.com/Wickedbone-Automatic-Interactive-Durable-App-Enabled/dp/B07J583Q5S/ref=sr_1_1_sspa?keywords=wickedbone&qid=1558645384&s=gateway&sr=8-1-spons&psc=1#customerReviews). This may be because the movements of the toy are less predictable, or perhaps that dogs enjoy playing with their owners. In any case, this may help alleviate the fear of assuming our dogs are playing when they are not.

[399] Other concerns include: some complaints via product reviews that there is a plastic screen that dogs have broken by biting down on it (an obvious welfare concern).

rationalize leaving our pets home alone, help us rationalize spending less time with them. It is possible that this is more likely with the Wickedbone than the Hub because owners might think that this toy checks not only the box for cognitive stimulation but for exercise, too. We might in turn think it fine to work longer hours, for we may think that our pet's needs for play/exercise *and* for cognitive enrichment are being met.

The problem here is that our pets need more from us, need e.g. socialization, and we must not become inattentive to this fact by way of these technologies. This kind of inattentiveness is a real worry, as the emotive language used in advertising may unintentionally promote it. A compelling example of this is not the advertising of the Wickedbone but rather that of the Wickedball (another interactive toy by Cheerable, soon to be released). The Wickedball is self-described as "the first 100% automatic pet companion, the best boredom killer for your pets."[400] It is unclear how this claim of companionship is corroborated. It is possible that playing with the toy elicits certain chemicals in the brain, like oxytocin, that are associated too with dog-human interaction (research would have to be done to sustain this claim). But it seems highly unlikely that this toy will have equal or more physiological effects than those which arise when humans interact with dogs (or when dogs interact with other dogs). Those who are not critical of this language may come to believe that the toy is as effective as a human (or as another dog) in establishing social bonds, mental states of happiness, or however the company is defining "companionship." That is, we may subconsciously equate socialization and cognitive enrichment, two things that are, again, distinct.

The fear remains, both from the product itself and from the way that it is advertised, that we will use the Wickedbone to rationalize certain bad decisions, that is, decisions that will negatively impact our pets: perhaps we will choose not to get a second dog to keep the first one company; we will think that the Wickedbone has eliminated this need. Or perhaps with the Wickedbone we will think it alright to work longer days, to lead busier lives, leaving our pups home in isolation. But we must recognize this as oppressive: first, we unjustly neglect that which social animals desperately need and that which they are dependent on us for; then, we find ways to alleviate our guilt. Indeed, this is an essential component to the role of oppressor – that is, the hiding from ourselves certain realities of what we are doing, reframing what is wrong as what is right, so that we cause

[400] "Wicked Ball – Your Pet's First Automatic Companion," Kickstarter, accessed March 2019, https://www.kickstarter.com/projects/1847607923/wicked-ball-your-pets-first-automatic-companion-by.

harm without the burden of guilt. But we should not use technology to perpetuate social neglect. Nor should we use it to frame what we are doing as appropriate, as a means to cover up poor treatment or rationalize neglect.

3.3 FitBark 2

A popular fitness tracker for pets (used in over 130 countries) is the "FitBark 2" – a small device[401] that attaches to the animal's collar, monitoring "activity levels, quality of sleep, distance traveled, calories burned, and overall health and behavior 24/7."[402] While the FitBark can be used with both dogs and cats (and other animals), the "comparative norms and baselines" that FitBark provides are for dogs,[403] so I will focus on dogs' use of the FitBark. The data that the FitBark collects can be synced to the dog owner's smart phone and/or certain fitness devices. The FitBark is advertised to "help you catch early signs of discomfort or disease," e.g. the sleep monitor is said to help keep track of skin conditions, and product reviews note that the FitBark is helpful in monitoring on-going health problems.[404] More generally, the information that the FitBark collects may be something that owners desire (rather than need), giving them peace of mind.

Some dog owners use the FitBark as a tool to help their dogs lose weight. The FitBark webpage notes that the FitBark is designed to get pets healthy… "with 54% of US dogs affected, obesity is the single largest epidemic facing our pets today."[405] The FitBark tracks how much movement a dog is getting, relative to the calories consumed. Owners can use this information and adjust their actions accordingly (e.g. go for a second walk). One study surveyed dog owners on their use of dog activity monitors (not the FitBark specifically, though

[401] The FitBark can be fit onto the collars of dogs of all sizes and uses a battery that lasts up to six months.
[402] The FitBark does not have a heart rate monitor "yet" ("Do FitBark devices have a heart rate monitor?," FitBark, accessed March 2019, https://www.fitbark.com/articles/fitbark-heart-rate-monitor/).
[403] "Can a cat wear a FitBark device? What about other animals?," FitBark, accessed May 23, 2019, https://www.fitbark.com/articles/fitbark-cats/
[404] One reviewer notes: "This activity monitor has changed the way we medicate and monitor our animals! We have a horse, Stetson, who suffers from laminitis which causes his feet to hurt resulting in decreased movement. The FitBark allows us to track his movement throughout the day and see a breakdown of his movement from hour to hour. Our vet absolutely loves that she can easily access his information! She simply downloaded the app, and we added her as a veterinarian user for Stetson's FitBark profile. Now our veterinarian is able to check in on Stetson whenever she would like! Tracking his movement has let us catch when he is having a bad day and offer pain medication early on, before he visually starts limping!" ("FitBark 2 Dog Activity Monitor," Amazon, accessed March 2019, https://www.amazon.com/FitBark-Dog-Activity-Monitor-Black/dp/B077MDJYKQ/ref=pd_lpo_sbs_199_t_0?_encoding=UTF8&psc=1&refRID=Y9EJ3CVCEVMYD64QD1A4#customerReviews).
[405] FitBark Inc.

comparable) and found that they helped owners to better portion meals and increase daily activity.[406] This evidence could support FitBark's claim that the product is useful in aiding weight loss.

The data collected by the FitBark may be for useful for all dogs, obesity aside. The FitBark can help owners keep track of daily exercise and remind pet owners to get their pets this exercise. On this point it seems likely that an upshot of human fitness monitoring may translate over to dog owners using the FitBark: in humans, fitness trackers can act "as a catalyst to take responsibility for their health and well-being."[407] Analogously, monitoring the fitness of our pets may encourage us to take more responsibility for our pet's health and well-being, may provide us with motivation or incentive to walk them more regularly or for longer periods of time. This motivation may also be maintained by the alert feature of the Fitbark, 'awarding' owners when their dogs have met a goal. Owners may feel satisfied at hitting a particular goal, and this can encourage them to keep up with exercise practices. Thus, keeping fitness trackers on our pups may (help us to) help them stay healthier, as well as happier (less bored).

There is some evidence that fitness trackers may help to strengthen the human-animal bond. In the use of pet fitness trackers there is the potential to improve the relationship between owner and dog, as owners were motivated to "spend more time with the dog and to be more observant to his/her behavior."[408] Many dog owners described that using fitness trackers on their pets gave them an opportunity to "understand the dog's life" and to "learn new things about the dog," particularly in understanding what the dog's life looks like when the owner is not there to observe it, such as when the owner is away or when the owner is sleeping.[409] In addition to strengthening the human-animal bond, gaining these insights may prove to minimize forms of othering via polarization and homogenization; the more we observe and understand our dogs' lives, the more opportunities

[406] Heli Väätäjä et al., "Happy Dogs and Happy Owners - Using Dog Activity Monitoring Technology in Everyday Life," (paper presented at the *Fifth International Conference on Animal-Computer Interaction, Atlanta, GA,* December 4–6, 2018).
[407] John Toner, "Exploring the dark-side of fitness trackers: Normalization, objectification and the anaesthetisation of human experience," *Performance Enhancement & Health* 6 (2018): 76.
[408] Vaataja et al, "Happy Dogs and Happy Owners."
[409] Ibid.

we will have to confront our cognitive biases, our incorrect notions of our dogs, and the better we can become at correcting them.[410]

And, finally, while it is unclear how the FitBark might affect veterinary visits (it seems plausible that it could go in either direction, an increase in visits out of health obsessiveness, a decrease in visits by relying on technology), it is possible the FitBark will lead to more personalized veterinary visits. There is a lack of research to support this benefit for our pets, but in the human context it is thought that fitness trackers could "lead to a more personal health care system where medical professionals spend more time treating patients."[411] An upshot of this is that fitness trackers will automate the data that would otherwise need to be collected during doctor visits, saving time and giving patients "more face time with a doctor." If this benefit is found to carry over to the health care of our pets, fitness trackers again can function to improve pet well-being; more personalized health care might mean that we can better address the health problems of our pets, as vets may be better able to hone in on the problem.

Of course, there may be some downsides to the use of fitness trackers on our pets. There is not much research on the effects of long-term use of fitness trackers on our pets, but perhaps we can look at the disadvantages in human use of fitness trackers, lest these disadvantages carry over. In human use, fitness trackers may distract and inhibit the development of bodily knowledge. Also, fitness trackers may promote a kind of 'depersonification.' Let us examine each.

Some people using fitness trackers felt as though these wearables functioned as "an unnecessary distraction" that "prevented them from becoming absorbed in the activity."[412] We can imagine a similar scenario between pet owners and their pets. Suppose you take your dog to the dog park to play catch and, all the while, you are constantly checking in to see how many steps your dog tracks in each fetch and each return. There is the impending fear of becoming more interested in the quantified version of your dog than your dog herself – that

[410] Assuming, of course, that we regularly check in with the FitBark and look over this information. If we become lazy and inattentive, assume that if there is a health problem that the technology will alert us, then the FitBark may actually perpetuate (rather than eliminate) attitudes of othering, and lead to harm.
[411] Jack Karsten and Darrell M. West, "Wearable device data and AI can reduce health care costs and paperwork," *Brookings*, accessed 5/9/19, https://www.brookings.edu/blog/techtank/2018/10/18/ wearable-device-data-and-ai-can-reduce-health-care-costs-and-paperwork/.
[412] Toner, "The dark-side of fitness trackers," 77.

is, reducing "the family pet to something akin to a Tamagotchi or a Nintendog."[413] The technological distraction might work to corrupt the human-animal bond, for we may become so absorbed in the "mechanical, gamified" versions of our dogs that we neglect the actual, physical version in front of us.

An alternative negative implication may be that by engaging with the quantified, simplified version of our dogs, we may actually confuse or worsen our understandings of our dogs.[414] In the human case, deferring to technology to tell us about the health and fitness of our bodies can inhibit our development of bodily knowledge. This "excessive reliance on wearable devices" can occur when users defer to the technology so much that they lose their ability to rely on 'feel' to gauge how fast/slow/long/short they should go. For the FitBark, this may mean that we become out of tune with the bodily knowledge of our dogs, perhaps becoming so number obsessed that we ignore external behaviors or subtleties, e.g. signs of exhaustion. As a result, this could lead to decreased welfare of our pets, if we push our pets to work harder than their bodies can take.

Relatedly, quantifying our dogs with the use of fitness trackers may encourage oppressive attitudes that will erode communication and trust. We may 'depersonify' our dogs when we see their physical bodies "purely in terms of such objectified measures."[415] To do so is to assume that our dogs' expressions (of pain, of exhaustion, or relaxation) are irrelevant, for we can deduce this from the information on our phones. But by relying on an app instead of what our dogs are trying to tell us may erode communication. We will not have reason to be attentive or sensitive to changes in our pets' behaviors; rather, "the device can 'decide the body's fate at a particular time.'"[416,417] In effect, we may unintentionally force our dogs on walks that they are not feeling up for, feed them when they are not hungry, or act in ways that may harm them and which could be avoided if we were more attuned to their behaviors and expressions, less attuned to an app. Over time, this decline in communication may develop into a lack of trust, wearing down the human-animal bond.

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[413] Shaun Lawson et al., "Problematising Upstream Technology through Speculative Design: The Case of Quantified Cats and Dogs," (paper presented at the *33rd Annual ACM Conference on Human Factors in Computing Systems, Seoul, Korea, April 18-23, 2015*): 2670.
[414] Ibid.
[415] Toner, "The dark-side of fitness trackers," 77.
[416] Ibid.
[417] We might also note that fitness trackers "are unable to take context in to account" (Ibid., 76) – suppose a dog has just had surgery and cannot meet the goal for exercise for a few weeks. Owners may receive alerts on their phone/ Fitbit and feel distressed, both about not meeting the goal and about the fact that the dog may be in too much pain to meet the goal. Again, this distress may translate over to the dog.

3.4 Automatic Pet Feeders

The Arf Pets automatic feeder is a customizable (via portion control) dry-food feeder for both dogs and cats. Arf Pets advertises this feeder as "the ultimate dietary system for doting pet parents!" This automatic feeder gives pet owners the option to set up to "4 daily distribution alarms," as well as to record a message that will be automatically played to alert the pet at the beginning of each meal. In addition, the feeder will alert the owner when there is no food left.

Three benefits are made apparent in using an automatic feeder. First, there is the obvious benefit that an automatic feeder may be more consistent than a forgetful or a neglectful owner. We must admit that, while in most cases a neglectful owner is itself morally problematic, the outcome here, that the pet is being fed as opposed to starving, is at least better, though perhaps not an ideal sort of benefit. That said, there are some cases where this benefit is more straightforward. Automatic pet feeders may be useful for pet owners who develop memory problems. Automatic pet feeders may make it so that these owners can keep their pets who they would otherwise be unable to care for. This is beneficial on the human end of things[418] and, more relevantly, on the animal end. Some pets may be surrendered because their owners are unable to remember to feed them. These animals may be forced into shelters to either live out the rest of their lives caged,[419] to be euthanized,[420] or to readjust to a new environment and social world, which may be psychologically difficult.[421,422] Keeping companion animals into their old age, then, is beneficial to their welfare; automatic feeders can help here.

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[418] E.g. some elderly people may have memory problems and may, in addition, be particularly susceptible to loss of companionship and loneliness (Roberta Erickson, "Companion animals and the elderly," *Geriatric Nursing* 6, no. 2 (1985): 92). Pets can serve to fill this void.

[419] Restrictive housing like this is known to cause stress, stereotypic behaviors, and aggression in dogs, thus is experientially negative and may decrease the dog's chances of getting rehomed (Linda C. Marston and Pauleen C. Bennett, "Reforging the bond – towards successful canine adoption," *Applied Animal Behaviour Science* 83 (2003): 234).

[420] In 1991 it was found that one-third of all dogs die from euthanasia in the US and that euthanasia has been a "leading cause of canine death for the past three decades" (Marston and Bennett, "Reforging the bond," 234).

[421] We can imagine the toll it would take on a dog to be separated from her owner, an owner she has bonded with over a long period of time, and the stress, anxiety, fear, and other negative emotions that could arise. There is also some evidence to suggest that the absence of a long-term owner can negatively impact well-being, e.g. dogs may be more likely to develop separation-anxiety after rehoming. It is thought that this is because of "the loss of a primary attachment figure" (Marston and Bennett, "Reforging the bond," 241).

[422] It seems important to draw a line here, a line that will inevitably be blurry, about when it is and is not ethical to rely on this technology as a reminder. If one is merely neglectful, has the capacity to remember to feed one's pet but simply does not view it as a priority, then this does not seem like something we should identify as a benefit. I will address this again at the end of this chapter in some concluding thoughts.

Second, an automatic pet feeder could help overweight pets lose weight by monitoring portion control. While the specific automatic pet feeder explored in this paper, the Arf Pets automatic feeder, may not work best for weight loss purposes,[423] we might consider how automatic feeders in general can be used for weight loss. Some veterinarians find automatic pet feeding technology to be a good solution for weight loss, particularly in households with multiple cats (where some cats may eat more than their share).[424] But there are a number of important features that automatic pet feeders should have if we are to rely on them for aiding weight loss (features most of which the Arf Pets feeder does not have). For instance, the feeder should be able to give owners the ability to accurately portion out each meal, should be compatible with feeding small meals, and should be able to portion out six to eight meals a day (small but more frequent meals are important for weight management). In addition, making sure in a multi-cat household that cats are not stealing food from one another is important, so it is recommended that the automatic feeder have the ability to control "which cat eats by scanning their microchip, microchip tag or RFID tag."[425] Finally, the automatic feeder should be compatible with feeding wet-food, as a wet-food diet may be ideal for weight loss in cats.[426]

There are no automatic pet food feeders that have all of the aforementioned features, yet. Still, it is worth considering the effects of automatic feeding technologies, as it is likely that an accurate portion, pet-controlled, wet-food feeder will come on the market eventually. Using such a feeder to help pets lose weight may be advantageous for animal welfare. For instance, one study discusses the impact of weight loss on dogs' "health-related quality of life." The study notes that dogs who completed a weight loss program demonstrated an increase in vitality and overall emotional well-being with a decrease in emotional disturbance and physical pain (while dogs who did not complete the program did not benefit in this way). Anxiety remained the same in

[423] E.g., one reviewer noted that Arf Pets automatic feeder is "not completely cat proof (bumping it can pop kibbles out" ("Arf Pets Automatic Pet Feeder," Amazon, accessed March 2019, https://www.amazon.com/Arf-Pets-Automatic-Dispenser-Animals/dp/B06XBRP7J1#customerReviews). This may, in turn, only add to an existing problem of overeating.
[424] Ken Lambrecht, "Can Smart Technology Help with Cat Weight Loss," PetMD, accessed March 2019, https://www.petmd.com/cat/general-health/can-smart-technology-help-cat-weight-loss.
[425] Ibid.
[426] Ibid.

both groups.[427] Products that can aid owners in their pets' weight may, therefore, be products that will better the physical and emotional lives of our animals.[428]

Lastly, it is possible that the use of automatic pet feeders may minimize certain disruptive behaviors. One product review notes: "my cat no longer bothers me in the early morning to be fed and now bugs this robot when he's hungry."[429] It can be difficult for pet owners to manage the disruptive behaviors of cats who are persistent about their morning meal. To be routinely woken up at early hours becomes exhausting and, over time, may drive a wedge between the human and the pet. This wedge will, at best, manifest as the owner locking the pet out of the bedroom (where she may suffer from a certain social neglect, at least until one gets one's full sleep). At worst, owners may become so fed up that they abandon the animal to a shelter. An automatic feeder can avoid both of these prospects, improving both the welfare of the cat as well as the human-animal bond.[430]

Some problems arises if we become consistently dependent on automatic feeders to feed our pets: first, while automatic fed feeders may meet our pets' more basic needs (of food), to feel satiated is not the only benefit our pets get from eating. There is some research that suggests feeding is an interactive and communicative act: e.g. dogs seem willing to sacrifice food for human interaction. We might also recall, from chapter two, that some dogs refuse to eat in light of anxiety or because they want company. When technology feeds our pets, they lose out on the social aspect of meal time.[431]

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[427] AJ German et al., "Quality of life is reduced in obese dogs but improves after successful weight loss," *The Veterinary Journal* 192 (2012): 428.

[428] For some animals, overeating may be a sign of something else going on, like that they are bored and/or frustrated; some animals may "resort to food consumption as their only pleasure" or use eating "as a coping mechanism" (McMillan, "Mental wellness program for animals," 969). Overeating must be understood in these cases, then, as less a sign of poor physical well-being as it is of poor mental well-being. Perhaps an automatic feeder would be an inappropriate solution to pet obesity, then, a solution that does not get to the heart of the issue. Rather than investing in automatic feeders, pet owners might invest in resources that can provide more environmental stimulus for their pets, e.g. a fence so that cats can go outside safely, engage their senses and fix their boredom. The use of automatic pet feeders to help our pets lose weight may better their physical health while inadvertently covering up an underlying psychological issue.

[429] "Arf Pets Automatic Pet Feeder," Amazon.

[430] At the same time, there is the potential for the exact opposite to occur, that is, that this technology might weaken the human-animal bond. Perhaps the pet will start to associate this technology with feeding, becoming, over time, more interested in the technology than in her owner. This possibility seems more probable for owners who are not dependent on the pet feeder for one meal out of the day (e.g. early in the morning), but who use the automatic feeder for most or all meals.

[431] Our pets may also miss out on social interactions when pet owners use automatic feeders to leave pets alone for short and/or long trips. With the ability to dispense up to 4 meals, owners can leave pets alone for at least one day, if not more, depending on how often the animal eats. This may be particularly risky for cats, who are fairly self-

Second, we might fill the automatic pet feeder with food and assume that our pets are eating. The trouble with this, though, is that it is in the nature of using technology that we become less attentive; technology completes a task for us so that we can pay attention to something else. Automatic pet feeders allow us to be inattentive to the actual act of our pets' eating. But if our pets are not eating, because they need company, or because the technology glitches[432] and does not feed them, this is something we should know about. Unfortunately, if through relying on technology our attentiveness to our pets and their eating habits erodes, we may not find out until long after the problem began. This is not something we need worry about when we are feeding our pets ourselves.

In sum, by using an automatic feeder such as Arf Pets, we may perpetuate a relationship that works only one-way, where our pets give us companionship, happiness, benefits to our health, etc., while we no longer need to be "bothered" to provide for them. Our pets may become instruments that confer our lives with benefits but to whom we do not provide the same. The problem is, though, that this attitude may lead to harm: by depriving our pets of the sociality of eating or by causing them to miss out on eating entirely.

3.5 Furbo Dog Camera

The Furbo dog camera is a high definition camera featuring 2-way audio,[433] a barking alert, and treat-tossing ability. The camera has a microphone and speaker, so that your dog can hear you and you can hear your dog, as well as a light indicator that changes from blue to yellow, two colors that dogs can see, in order to indicate to your dog when you are 'there.' There is also a barking sensor that can alert you by phone when your dog is barking so that you may check in.[434] As for the treat tossing feature, the Furbo will alert the dog before tossing a treat by making a clicking sound, to help condition your dog to feel positively about the Furbo. Furbo notes

sufficient. With an automatic feeders to dispense food, owners may see fit to not have anyone check in on the cats when they leave for a trip.

[432] Feeding technologies can be unreliable. Some users noted, for instance, that the Arf feeder did not always dispense the food at the programmed time, perhaps because the shape of the food made it so that it was unable to drop through the dispenser. In a particular case, one customer was not aware of the unreliability until "a friend noticed how skinny my cat looked" ("Arf Pets Automatic Pet Feeder," Amazon).

[433] Product reviews note that it is like a walkie-talkie rather than Facetime ("Furbo Dog Camera," Amazon, accessed March 2019, https://www.amazon.com/Furbo-Dog-Camera-Designed-Compatible x/dp/B01FXC7JWQ#customer Reviews).

[434] Example of a barking alert: "Your dog is barking. Would you like to see what he is doing?" will pop up on your smartphone. This feature is advertised as helping to minimize complaints from neighbors ("Furbo Dog Camera," accessed March 2019, https://shopus.furbo.com/).

that the treat-tossing feature can be used as a reward or "as a distraction for situations like anxious pacing, licking or barking."[435]

The Furbo can, much like a security camera, help us keep our pets safe. One testimonial claims that Furbo "saved their dog's life," as she was able to see that her dog had consumed chocolate while she was away from home. An ability to check in on our pets when we are at work, running errands, etc., in this way can help manage the more critical needs of our pets. This is of use even by the most prudent of dog owners, who spend a great amount of time with their dogs but who, like everyone, will eventually have to leave the house at some point.

In addition, the Furbo (allegedly[436]) relieves separation anxiety in dogs. If it is true that these technologies are effective in minimizing separation anxiety, this would be a weighty benefit. Separation anxiety is one of the most common reasons for owners to seek help from behavior specialty clinics.[437] Separation anxiety is defined as "an anxiety-related disorder in dogs whose signs are only observed in the owner's absence or perceived absence." The condition manifests in a number of ways, e.g. howling, whining, urination, defecation, destructive behavior, anorexia, inactivity, diarrhea, vomiting, excessive licking of fur, and overactivity.[438] In some cases, dogs with separation anxiety may be treated with clomipramine hydrochloride (Clomicalm).[439] In cases where separation anxiety cannot be resolved, and the manifestations of the condition are highly destructive or detrimental to dog owners, steps toward relinquishment may be taken.

There is not a lot of research to confirm or deny that dog cameras can relieve separation anxiety, and the research that exists is rudimentary. For instance, one study found that dogs demonstrated positive responses to the audio and the audio/video combined of "familiar pack members," i.e. known humans, or humans and other

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[435] In addition, the Furbo is compatible with "Furbo Dog Nanny," a service that you can subscribe to (for a monthly fee), that will add features to your camera, such as cloud recording (the camera will detect and record "important dog-related events" that you can then go back and look at); smart alert (e.g. sends an alert to your phone saying "your dog is getting active, would you like to check in?" or "there is a person in your house, would you like to check who it is?"); and "doggie diary" ("Furbo captures adorable moments in your dog's day and creates a highlight video…"). Furbo Dog Nanny is advertised as "always getting smarter" as it is AI powered and so over time can learn about your specific dog's patterns and behavior (Ibid).

[436] Furbo advertises its product with this ability ("alleviate separation anxiety in dogs!") (Ibid).

[437] Niwako Ogata, "Separation anxiety in dogs: What progress has been made in our understanding of the most common behavioral problems in dogs?" *Journal of Veterinary Behavior* 16 (2016): 28.

[438] Ibid., 29.

[439] Debra F. Horwitz, "Diagnosis and Treatment of Canine Separation Anxiety and the Use of Clomipramine Hydrochloride (Clomicalm)," *Journal of the American Animal Hospital Association* 36 (March/April 2000): 108.

known dogs.[440] The study described the reactions of these dogs in hearing or seeing/hearing those that they knew via the technology as "much less agitated" – dogs panted and payed "more attention to the video/sound source," all with "perked ears." [441] However, it is unclear that this reaction is enough to validate the claim that digital interactions can relieve separation anxiety. First, there is the problem that this study explores only the short-term effects of the interaction, and while the dog may, at present, seem happy to virtually hear or see her owner, longer exploration of these effects is needed to ensure that they do not dissipate over time.[442]

Second, there is the concern that behaviors as signposts can be misleading. By this I mean that it is not always clear when our dogs are experiencing anxiety. For instance, separation anxiety in dogs has a long list of manifestations. While some dogs show signs of separation anxiety (whining, circling, etc), others do not show these signs and, instead, sleep or lay down all while having the same cortisol levels as dogs with more explicit signs of separation anxiety (i.e. cortisol levels that are indicative of stress). [443] While sleeping or lying down is not the same as the "positive" interaction of dogs exposed to digital interactions, the underlying sentiment holds: more is needed than the study of a few overt behaviors to prove that an animal feels one way or another.[444]

Furbo claims that it can relieve separation anxiety through both the speaker (the pet can hear your voice and this may be calming) and the treat-tosser. As for the effect of our dogs hearing our voices through a device, more research is needed to substantiate that this is calming.[445] It is also unclear how exactly the treat-tosser will

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[440] Demi Mankoff et al., "Supporting Interspecies Social Awareness: Using peripheral displays for distributed pack awareness," (paper presented at the *8th Annual ACM Symposium on User Interface Software and Technology*, *Seattle, WA*, *October 23-26, 2005*): 256.

[441] Ibid.

[442] For example, we might find that introducing dogs to digital interactions, as in the study just noted, could increase oxytocin, as this is the result of physical interactions between dog and owner. But we should not find this evidence convincing unless this response is found time and time again rather than once/ a handful of times in the confines of a research environment. Both "extended use of technology" and use of the technology outside "the boundaries of the laboratory" are essential (Grillaert and Camenzind, "Unleashed Enthusiasm," 3).

[443] Annika Geurtsen et al., "Interactive Digital Gameplay Can Lower Stress Hormone Levels in Home Alone Dogs — A Case for Animal Welfare Informatics," (paper presented at the 14th *International Conference on Entertainment Computing, Trondheim, Norway, Sept. 29 – Oct. 2, 2015*): 238-239.

[444] Of course, we may never know exactly how the animal is feeling. But there are ways we can, at least, come closer to this, e.g. by studying the chemicals in the body.

[445] Rault and Huber note: "In theory, the use of ACI technologies could compensate for reduced social interactions with a distant partner by allowing to bridge the physical gap, in similar way that humans use audio and video technologies: phone, video chat and other social media… Along these lines, a number of devices are now being marketed to allow communicating with your pets at a distance, a sort of Skype™ for pet owners. However, most of these ACI devices lack scientific validation regarding their effect on the animal" (Jean-Loup Rault and Ludwig Huber, "Animal-computer technology meets social behaviour: What to look for? What to look forward to?" (paper

calm your pet. Perhaps it would temporarily distract them, as the process of eating may be calming. But there is research to suggest that feeding to help separation anxiety is not a good option, first because the dogs will eat the treat (if at all) in an anxious state, so it does nothing to calm the dog, or if the treat does successfully distract them so that their anxiety subsides, the anxiety will return after eating the treat.[446] Perhaps we must leave it unsettled whether the relief of separation anxiety is a benefit the Furbo can claim; further research is needed.

With the Furbo there is, again, an indirect welfare concern, identical to the one we saw in the use of the Hub and the Wickedbone: through technology we are able to rationalize spending less time with our pets, creatures who often crave social interactions and human attention. With the Furbo we can at any time check in on our pets and make sure that they are okay. Thus, we may feel more comfortable about leaving our pets alone and so spend more time away from the house. Digital interactions may, as it were, replace (a number of) physical interactions and, as a result, the positive psychological and physiological effects that these interactions have on pets.[447]

3.6 DogSpot

Advertised as a "dog parker," the DogSpot smart house is a relatively small, high-tech space cropping up on the sidewalks in cities across the country. These houses are advertised as a "smart sidewalk sanctuary, providing your dog a safe and cozy home away from home while you briefly go somewhere they aren't allowed."[448] To use it, first you locate and reserve a house on your smart phone through the app, then you can use your phone (or member card) to open the door to the house (you will be charged by the minute for your dog's stay), let your dog inside, run your errands, unlock the house and get your dog. Sessions are thirty cents per minute, priced comparably to what you would pay to park your car. The DogSpot is currently available in twelve states and will be coming soon to seven more.

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presented in the *Third International Conference on Animal-Computer Interaction*, *Milton Keynes, UK, November 16-17, 2016*)).

[446] Perhaps Furbo's treat-tosser can be used in counter-conditioning a dog to be left alone.

[447] There is with the Furbo dog camera (as well as with any technology that has treat-giving features) the same concern that was discussed for the automatic pet feeder, that perhaps the dog will bond with the technology in such a way that adversely impacts the human-animal bond. For example, one reviewer notes that their dogs will "now go stand by it and wait for treats to come out!" while another review notes, "my girl even sleeps next to it hoping something will drop out of it" ("Furbo Dog Camera," Amazon).

[448] "Introducing: DogSpot," DogSpot, accessed March 2019, https://hellodogspot.com/.

DogSpot is equipped with a number of features to keep pets comfortable and to ease the minds of owners. First, the DogSpot comes in various sizes, so that dogs can be comfortable depending on their breed/size. There is also heat, air-conditioning, and fans that will automatically adjust the house to a comfortable temperature. The DogSpot has an auto-sanitizing system, via UV lights, to keep air fresh for dogs and to relieve concerns owners may have about hygiene.[449] Finally, there is a "Puppy Cam" feature so that you can (for an added fee) watch your dog on your phone while you are away, if you feel nervous about leaving your dog in the DogSpot.

The DogSpot advertises that this dog 'parking spot' may ultimately be a safer option than some alternatives, e.g. tying dogs up outside or leaving them in cars. There is a chance when we tie up our dogs that they may get loose, run away, get stolen, or find their way into other dangers. To sit in a hot car is no better. The DogSpot might be preferable to these options, as it is secure and the temperature is monitored.

Perhaps the DogSpot is better for the psychological well-being of some dogs, too. DogSpot may be a functional solution for dogs with severe separation anxiety, as owners will be able to take their dogs more places and so dogs will not need to spend so much time in the house alone.

But we might wonder if the minimization of separation anxiety is what would transpire by parking dogs in the DogSpot. It seems that the DogSpot may be equally conducive to separation anxiety, as owners leave their dogs inside them and walk away. Luckily, visits are usually short, ranging from five to fifteen minutes. Still, a minute may feel exponentially longer when one is in distress in an unfamiliar place. On the flipside, the short and perhaps chaotic experience of sitting in the DogSpot may prove preferable to, say, the hour it may take the dog owner to leave the house, run an errand, and return back home. If the DogSpot functions as a way to spend more time with our pets, this could be beneficial for the psychological well-being of the dog (and in strengthening the human-animal bond).[450]

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[449] The company also ensures that dogs are vaccinated before pet owners can receive a membership card / use the DogSpot ("Frequently Asked Questions," DogSpot, accessed May 2019, https://hellodogspot.com/faq).

[450] It is possible, instead, that the DogSpot would be used not to spend more time with our pets but to perpetuate the lack of time we spend with them. While visits are generally short, there is no reason that this must be the case – e.g. there is no time limit; the DogSpot rental does not expire. It seems that if one is willing to pay, one could keep their dog in the smart house all day. And why would the company object to the profit? This scenario seems realistic insofar as the DogSpot, as has been noted, is temperature controlled, so some pet parents may assume that their dog is fine, feel less obligated to hurry back in the way that they might when they leave their dog in the car.

What is troubling about the DogSpot is that it speaks directly to the concern that our pets are *backgrounded* in society. For why else would we need some kind of container on the sidewalk if dogs were more welcomed elsewhere. Perhaps we should not find ways for our dogs to assimilate (i.e. still keep them separate) as the DogSpot does and should work to change ourselves, our views on animals – we could allow dogs into (at least some of) our public spaces, eliminating the need for a dog parking spot. The fear, more concisely, is that this technology will work only to perpetuate our ideas that our pets do not belong in public spaces; the New York Times notes: "The idea is to park man's best friends in a comfortable place while their owners go where they cannot." But rather than accepting these norms, perhaps we ought to work to challenge them, perhaps man's best friend should be able to go. Of course, this is not always feasible. Taking dogs into restaurants may be unsafe both for us and for them.[451] In addition, many people are scared of or allergic to dogs. But while it might make sense to exclude dogs from some public spaces, still we could be more flexible in our pet restrictions.[452]

The question arises: would we put our children in a similar container? It does not seem that we would. Likely we would not put our children in this kind of container because we recognize that our children would be afraid here, in isolation, without us, that they are social creatures who need to be around other people. But all of this holds true for our dogs, too. It is strange that we recognize these needs in children but not in dogs. Here creeps in our *polarizing* attitudes.[453]

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[451] Lest they eat some human food that makes them sick.

[452] Likewise, we can note some of the troubling language that DogSpot uses to advertise their product. The DogSpot is promoted as "the future of dog friendly" ("The Future of Dog-Friendly is Here," DogSpot, accessed March 2019, https://hellodogspot.com/next-city). We might challenge whether this is true, for it does not seem that "dog friendly" is leaving our dogs on the sidewalk but, instead, taking them inside with us. The DogSpot seems dog friendly in the same way that apartments may be dog friendly, which is to say that they charge you upwards of an extra $1000 per month to keep a dog in your rental. The concern with advertising this product as such is that is perpetuates a skewed perception of what "dog friendly" is – when we as consumers absorb this message, we may be less likely to challenge the idea that our dogs are banned from so many public spaces to begin with. The language here, in effect, serves as a distraction from the issue at hand.

[453] Perhaps it comes down to perspective taking: while we can easily take the perspective of children, and see that this experience may be frightening, it requires more conceptual work to take the perspective of our dogs, and see the same. Instead, we see the needs of dogs from our own point of view, prioritizing physical safety (we know in the DogSpot that dogs are safe from overheating in a car or from being untied and stolen) over psychological security. If it were up to dogs, it is possible that they would prefer being less safe but more comfortable. Of course, this is speculative; research is needed on how exactly the DogSpot is experienced by dogs. If the DogSpot turns out to be a distressing experience, another trouble might arise, in addition to the dog's suffering – that the human-animal bond erodes, as the dog loses trust in her owner, having subjected the dog to this experience.

3.7 Odor and Sound Training Collars

In this section I will explore two different training collars, one that relies on odor and another that relies on sound.[454] Beginning with odor, one way to deter dogs from barking is with a citronella spray collar (here I will look at one by Downtown Pet Supply). The collar uses a microphone in order to detect when the dog is barking and, once barking is sensed, will mist a dog in the face with a citronella mixture. It is not entirely known why citronella collars work to stop most dogs from barking. Some note the possibility that dogs are "distracted by the odor and try to locate its source," that the odor may be calming and so alleviate the need to bark[455], that the noise of spray (or feeling of the moisture) may be startling, or that dogs may "object to the citronella spray's odor."[456] Whatever the case, there is research that suggests that spray collars are more effective than shock collars in deterring barking, as the dog's "pain threshold may be such that the discomfort of a shock correction is ignored."[457] The spray collar targets the sense of smell directly and, because this sense is so sharpened in dogs, an "attack" on it may be found more intolerable than a shock to the body.[458]

A second option for deterring dogs from barking is an ultrasonic collar (I will look at the one by BarkWise). This collar uses ultrasonic sound (by definition, anything over 20,000 hertz) to silence dogs. The BarkWise collar comes with both manual and automatic settings; on automatic the collar will pick up barking through a microphone and activate the sound; on manual you can turn the sound on through a remote control.

An upshot of these collars is that, when effective, a dog may be less at risk of abandonment or euthanasia.[459] One study found that "excessive vocalizations" are the second most common reason for pet relinquishment by owners, outpaced only by owner allergies.[460] This suggests that when excessive barking cannot be mitigated, there is the chance that the dog will be placed in a shelter. From there, the odds of being

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[454] I will not explore shock collars in depth, as they seem most straightforwardly inhumane. Shock collars will be mentioned only in passing.
[455] This seems unlikely.
[456] Soraya V. Juarbe-Diaz, "Assessment and Treatment of Excessive Barking in the Domestic Dog," *Veterinary Clinics of North America: Small Animal Practice* 27, no. 3 (May 1997): 523.
[457] Soraya V. Juarbe-Diaz and Katherine A. Houpt, "Comparison of Two Antibarking Collars for Treatment of Nuisance Barking," *Journal of the American Animal Hospital Association* 32 (May/June 1996): 233.
[458] Ibid.
[459] Of course, this is not so much an upshot of the products as it is in any method that effectively stops dogs from barking, but let us proceed anyway.
[460] M.D. Salman, "Human and Animal Factors Related to Relinquishment of Dogs and Cats in 12 Selected Animal Shelters in the United States*," Journal of Applied Animal Welfare Science* 1, no. 3 (1998).

rehomed may not be so good. In the United States, 670k dogs are euthanized each year.[461] We might say, then, that the welfare issues that arise in the use of the products may be 'worth it' if the alternative is abandonment or death.[462]

Then again, this does not in itself mean that we should rely on these technologies. While it is true that a mist in the face or an uncomfortable sound may be better than abandonment, this does not mean that these are themselves good options. For instance, there is the concern that we cannot be certain how these technologies are affecting our pets experientially. This is so for two reasons. First, and related to the ultrasonic collar specifically, is that ultrasonic bark device manufacturers do not tell consumers the exact nature of the sound that is produced. BarkWise will not release the frequency range of their product. This information is unavailable online and when asked, the company reported it to be "proprietary." We know that the frequency must be above 20k hertz, as this is the definition of ultrasonic, though how far above we will never know.[463] There seems something amiss about using technologies on our pets without having access to these product statistics.

The frequency range of ultrasonic collars is important. Research on animals suggest that ultrasonic sound emitted by training collars is, at best, well-above what it is comfortable for dogs to hear, if not painful and intolerable. This may be because sensitivity to sound is common in dogs.[464,465] Stress behaviors in dogs have

[461] "Shelter Intake and Surrender," ASPCA, accessed April 2019, https://www.aspca.org/animal-homelessness/shelter-intake-and-surrender.

[462] It may be worth noting, if only briefly, problems of efficacy. For instance, that either collar may pick up on backgrounded noises, barking from other dogs, etc. Dogs may, then, be punished for no reason. This both troubling in terms of training efficacy and in terms of fairness. This may so even while products may be advertised as discriminating background noises from your dog's barking. Many product reviews noted otherwise, for instance that the citronella collar would go-off when the dog would shake. This issue, of course, is more of a glitch then a flaw in the over concept of the technology and, for this reason, will not be pursued further.

[463] There is an obvious moral problem in using technology on our dogs without knowing any of the effects in virtue of withheld product specs.

[464] One study (of 383 dogs) found 49% of dogs to exhibit noise sensitivity (Linn Mari Storengen and Frode Lingaas, "Noise sensitivity in 17 dog breeds: Prevalence, breed risk and correlation with fear in other situations," *Applied Animal Behaviour Science* 171 (2015): 152).

[465] Interestingly, there is evidence to suggest associations between sound sensitivity and breed, with "Norwegian Buhund, Irish Soft Coated Wheaten Terrier and Lagotto Romagnolo" most commonly affected by noise sensitivity, while "Boxer, Chinese Crested and Great Dane" least affected (Storengen and Lingaas, "Noise sensitivity," 152). The intersection here of vulnerabilities to sound in virtue of our having bred animals in a specific way may itself be enough to suggest it immoral to use these products on these specific breeds of dogs, at least.

been observed when acoustic stressors of 3000 hertz are administered at a level as low as 70 decibels.[466,467] An increase in salivary cortisol was observed in dogs after an unanticipated sound blast at this sound and frequency.[468] It is likely that the sound emitted by ultrasonic collars is painful for dogs, then, given that the minimum acoustics the BarkWise ultrasonic collar operates at is 20,000 hertz administered at 84 decibels.[469,470]

The stress that dogs may feel in hearing ultrasonic sound has damaging effects on physical health. Such stress may involve "suppression of the immune system, gastrointestinal problems (e.g., diarrhea, vomiting, decreased appetite), delayed puberty, decreased sperm quality"[471] as well as "insulin resistance, cardiovascular diseases, [and] catabolism (molecular decomposition)."[472] Even in those cases where dogs do not seem to show signs of overt fear, the experience of hearing ultrasonic sounds may still overall be negative, as "ongoing instinctive reaction to sudden noise can interrupt the animal's relaxed state."[473] For reasons like this it has been suggested loud noise "disturbs the healthy equilibrium of the body"[474] and that for low-stress handing of pets, auditory stimuli should be kept at or below 60 db.[475]

Even if we had access to all of the product statistics, a second and more burdensome epistemological problem remains. We still do not know how these technologies affect our pets. We might consider the sensitivity of dogs' sense of smell. Depending on the breed, dogs have several hundred million sensory receptor sites (humans have about six million).[476] Alexandra Horowitz gives a vivid description of just how acute the dog nose

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[466] Bonne Beerda et al., "Manifestions of chronic and acute stress in dogs," *Applied Animal Behaviour Science* 52 (1997): 309.
[467] When we experience discomfort from a sound, this comes about both from the sound and the frequency of the noise (e.g. a super high frequency at a relatively low volume may not be uncomfortable)
[468] Gal Ziv, "The effects of using aversive training methods in dogs – A review," *Journal of Veterinary Behavior* 19 (2017): 58.
[469] The decibel range for the BarkWise ultrasonic collar is 84-90 decibel within a 1 meter distance, adjusting automatically/ randomly so that the dog does not get habituated to a particular decibel (BarkWise employee, personal communication, April 2019).
[470] Decibel wise, this is approaching the "critical zone" range (90 to 120 dB) where noise is "felt as well as heard" (Coppola et al., "Noise in the Animal Shelter Environment: Building Design and the Effects of Daily Noise Exposure," *Journal of Applied Animal Welfare Science* 9, no. 1 (2006): 2).
[471] Ziv, "The effects of using aversive training," 58.
[472] Coppola et al., "Noise in the Animal Shelter," 2.
[473] Susan Wagner, "Noise Toxicity and Healing Sounds: Current Understandings," *AHVMA Journal* 45 (Winter 2016): 39.
[474] Coppola et al., "Noise in the Animal Shelter," 2.
[475] Meghan E. Herron and Traci Shreyer, "The Pet-friendly Veterinary Practice: A Guide for Practitioners," *Vet Clinic Small Animal* 44 (2014): 451.
[476] Alexandra Horowitz*, Inside of a Dog: What Dogs See, Smell, and Know*, (New York: Scribner, 2009), 71.

is. She describes that the difference of our smell experience and a dog's is "exponential…next to them we are downright anosmic: smelling nothing. For instance, a dog can detect a teaspoon of sugar diluted in a million gallons of water: two Olympic-sized pools full."[477] While we can quantify a dog's sense of smell in terms of olfactory receptors or hearing as frequencies exceeding our own, we cannot know what such complexities are like experientially; we can only imagine what it feels like to a dog to be misted in the face with a strong odor or blasted in the ears with a loud sound. We might think that, given our knowledge of what it is like to smell something unpleasant or something loud and in close proximity, to our noses and ears, respectively, we can understand just how uncomfortable it is for a dog to experience this, too. But dogs have different physiology that we do not have access to and we cannot experience it ourselves.

Problems of knowledge aside, there are straightforward indications that, like the ultrasonic collar, the citronella collar triggers negative experiences for dogs. Stress behaviors have been observed in dogs exposed to the citronella collar. Product reviews note that when the citronella spray goes off, it "does scare the dog, so I come home and he's quiet but still nervous."[478] In addition, one study notes that dogs who were misted in the face with citronella spray "commonly froze, shook their heads, sneezed, and jumped backwards."[479] One dog showed "serious distress reactions, hiding under a veranda and trembling continuously."[480,481]

Putting aside direct welfare concerns, we might also note three additional worries. First, when we use the citronella and ultrasonic collars we *background* our dogs' unique skills. As noted, dogs have a profound sense of smell; to give another example of this: dogs "often sniff their owner's legs when the owner comes home as a way of determining where the owner has been and how the owner feels."[482] This is impressive! And we rely on this impeccable sense of smell in a variety of working ways – e.g. police dogs use dog's acute smell to locate drugs and bombs, and dogs can with their noses detect cancer. The problem is that when we fail to appreciate

[477] Ibid., 71-72.
[478] "Downtown Pet Supply NO BARK Collar," Amazon, accessed March 2019, https://www.amazon.com/Downtown-Pet-Supply-Citronella-Anti-Bark/product-reviews/B00987HPFO.
[479] Rebecca J. Sargisson et al., "An Evaluation of the Aboistop Citronella-Spray Collar as a Treatment for Barking of Domestic Dogs," *ISRN Veterinary Science* (2011): 5.
[480] Ibid.
[481] All of these stress responses were "fleeting and disappeared with extended exposure," as well as "immediately disappeared when the collar was removed and never recurred" (Ibid.).
[482] Mankoff et al., "Supporting Interspecies Social Awareness," 255.

this unique ability (in itself and in all the ways this it helps us) and instead background it, we invite ourselves to exploit it: if further research proves the citronella collar to be negatively experienced, we exploit dogs' sense of smell by using this sense to get dogs to act in ways that we find desirable (i.e. being quiet) and accomplish this *through their discomfort*.

The same goes for a dog's sense of hearing: dogs have a magnificent capacity to hear. The anatomy of a dog's ear allows "the reception of sound to occur on a much more sensitive level than in humans."[483] It is thought that dogs can hear sounds up to 45,000 hertz (whereas humans can hear up to 20,000).[484] Not only can dogs hear many sounds that we cannot, they can hear sounds at "four times the distance" as humans can.[485] And because dogs' ears move independently, dogs can hear and respond to sound faster than humans can. In light of all of this, dogs make particularly good hearing aids for the deaf and hearing impaired. But, again, we background these benefits, failing to appreciate the sheer impressiveness as well as all of the ways that we rely on this sense of hearing. This backgrounding invites exploitation: we use this capacity to hear in order to, once again, get dogs to behave in ways that *we* desire and we do this through the use of noises that may be distressing.

Finally, these training collars are troubling insofar as they are advertised as humane, perpetuating their own continued use, a use that seems straightforwardly harmful. They do so by stretching the truth. Insofar as we do not know whether or not these products are inhumane, we do not know whether or not they are humane, either. Yet the ultrasonic collar is, for instance, advertised as "extremely safe, effective and humane!" with a pitch that is "loud enough to get your dog's attention, but is completely safe."[486] Likewise, citronella collars are commonly advertised as humane. While it might be true that ultrasonic and citronella collars may be *more* humane than shock collars, it seems an overstatement to therefore assume that they are humane. Yet this language seems by customers to be accepted: a product review of the citronella collar notes that "this is indeed a much kinder solution than the shock collar,"[487] and a study found owners to perceive citronella collars as "humane and

[483] Wagner, "Noise Toxicity and Healing Sounds," 39.
[484] Horowitz, *Inside of a Dog*, 93.
[485] Mankoff et al., "Supporting Interspecies Social Awareness," 255.
[486] "BarkWise™ Complete," Good Life, Inc, accessed March 2019, https://ultimatebarkcontrol.com/products/barkwise-complete
[487] "Downtown Pet Supply NO BARK Collar," Amazon.

acceptable."[488,489] While shock collars may be out of fashion then, as they cannot lay claim to this 'humaneness,' ultrasonic and citronella collars seem appropriate to consumers.[490,491]

3.8 Discussion

There are three concerns overarching the technologies discussed: first, that through our use of these technologies we may negatively impact animal well-being, specifically in light of animals' social needs; second, that these technologies can function to manage guilt, rather than address the reason that guilt arises; third, there is the possibility that technologies will further, rather than minimize, our attitudes of othering and oppression. I will address each in turn.

As mentioned throughout, dogs and cats, as social creatures, need to interact with us (and/or conspecifics). It does not seem, at this point, that technologies can satisfy this need. Our physical presence affects animal well-being immensely. Again, this is supported by the stress responses of social animals left in isolation. Many of these technologies seem to conflate the human-animal bond, or socialization generally, with cognitive enrichment; products are designed for the latter but advertised as achieving both. However, to enrich the lives of our pets with interesting and novel stimuli, while important in its own right, is not the same as adequately fulfilling our pets' needs to socialize.

It may be appealing to ignore the importance of pet sociality; when we do not see this as important we are better able to manage our guilt surrounding the ways that we neglect it. This leads to the second concern that underlies many if not all of these products: that they seem to promote, in one way or another, language that

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[488] Juarbe-Diaz and Houpt, "Comparison of Two Antibarking Collars," 235.

[489] In order to hold up this misconception, it is likely that we must adopt an anthropocentric mindset. We assume that these products are humane, because they seem that way to us! The citronella scent may not bother us and may even be preferable to the smell of our dogs (Ibid., 233). But that, from our point of view, there is no problem does not mean the same is true from dogs' points of view. Our assumption that what is fine for us is fine for them allows us to rationalize the inhumaneness and, once again, become blind to the fact that we are causing harm.

[490] It is also important to note that training via bark collars may suppress, rather than address, an underlying problem. For instance, many dogs who bark are seeking attention because they are bored and lonely; others are frustrated or fearful. ("The Barking Dog," Blue Ridge Humane Society, accessed May 2019, https://www.blueridge humane.org/wp-content/uploads/2017/01/THEBARKINGDOG.pdf?x92492&x46151). We could instead address the motivation for the barking, the underlying cause, e.g. by provide our dogs with more stimuli, with complex tasks, etc., rather than use negative punishment to cover up the problem and stop the overt symptom of it.

[491] If owners wish to stop problem barking without technology, they might use, first, "positive barking interruption" techniques, ways of training that rely on positive reinforcement. Teaching dogs to bark on cue (via treat reinforcement) can solve problem barking in some. Systematic desensitization is another effective way to train dogs not to bark. The specifics of these techniques I will not go into; I mention them only to suggest that barking collars are not the only way to alleviate problem barking.

functions to manage our guilt. Both the Furbo and the DogSpot are advertised as products that minimize separation anxiety, but it is unclear whether they effectively do so. We also saw that the Wickedball is advertised as a 'pet companion.' How exactly pets benefit from these technologies remains unclear. We should be wary that these products may only benefit ourselves, by lifting the burden of guilt we otherwise would feel when leaving our pets alone.[492]

Guilt-relief, to be sure, is something that benefits us: the experience of guilt is unpleasant. When guilt and the accompanying psychological experience of it are alleviated, we are put out of this uncomfortable mental space. Of course, this is a *genuine* benefit, something we should want, in cases where we are experiencing guilt that is unwarranted, over something we did not do, could not have stopped, etc. In those cases, guilt does not have a function. However, we should not want to alleviate guilt that *is* warranted, for this guilt *does* have a function. The function of this guilt is to signal to us that we are acting badly. Guilt can be a strong motivator to make us act better. When we alleviate our guilt about leaving our pets alone during the day, without addressing the thing that provoked the guilt (namely our pets' neglect), this should be seen as a bad thing; this is not genuinely beneficial. Now we are made more comfortable while our pets' needs are still not met. In this sense, our 'benefit' comes at their expense.[493] But it is disconcerting that pet gadgets would be used like this, in order to encourage "a social hierarchy which privileges humans and positions all others as objects of lower importance."[494,495] Now we wind up back where we left off with Francione's property objection – because animals are seen as property, we are permitted to put our interests over and above theirs. And while it is not only the risk of decreased well-being that Francione is concerned with, it is a concern nonetheless.

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[492] One product review of the Furbo notes: "every time I have to go somewhere I now go with a new peace of mind and calm all thanks to Furbo!" (Furbo Dog Camera," Amazon) Other reviewers suggest that this product is a huge relief as they no longer are stressed or anxious about going to work or leaving their dogs at home alone.
[493] Grillaert and Camenzind, "Unleashed Enthusiasm," 2. The authors agree: "Certain ACI technologies, current and prospective, … primarily seek to ease the burden on the human to provide physical, mental, and emotional enrichment to the animal…" (Ibid.).
[494] Corey Lee Wrenn, "Pets: is it ethical to keep them?" The Conversation, accessed April 26, 2019, http://theconversation.com/pets-is-it-ethical-to-keep-them-115647.
[495] This hierarchy becomes particularly disturbing when we consider our hand in the stratification, positioning those animals who are dependent and vulnerable below us.

This leads to the third and last concern: that pet technologies have the potential to further our biases and attitudes of othering, which is to say that they may further our misunderstanding of our pets and, therefore, invite harm. This has been mentioned in various places throughout the chapter, but it may helpful to summarize:

The DogSpot can perpetuate the belief that dogs are fundamentally different from us in terms of their social needs. We must see the social needs of dogs as wholly different from ourselves if we are to put them in this isolated container, something that we would not do for our children. But dogs' social needs are not so different from our own. We can recall that socialization brings dogs, much like it brings humans, immense happiness. Dogs who are left alone, without social interactions, experience distress. With this in mind, the DogSpot encourages polarizing attitudes, i.e., views that our dogs and ourselves have sufficiently different social requirements.

The FitBark relies on norms and baselines of fitness for dogs in general, rather than the specific needs of a particular dog.[496] These baselines report what 'healthy' looks like in the 'average' dog; baselines are then used to indicate to owners whether dogs have 'normal' behaviors and sleep patterns.[497] But, as is true with humans, averages can only guide us so much; many individuals (both people and dogs) fall outside the range of 'normal' -- the Fitbark does not account for personalized health factors. To assume that all dogs have similar health and fitness requirements is to homogenize them. This is important because harm is not far off. Dog owners who rely on this technology may try to meet 'health standards' that should not be met. For example, while the 'average' adult German Shepherd might require at least two hours of exercise each day, exercise standards will likely look different for an adult German Shephard with arthritis. We may, if we are not paying attention, not realize that our dogs are trying to tell us otherwise, and push them in ways that are painful. The Fitbark, however, *encourages* a kind of inattentiveness: the very function of the FitBark is to attend to pets' health for us. But, as we have seen, we have a duty to our pets to try and eliminate inattentiveness; inattentiveness itself encourages attitudes of othering, attitudes that make us less likely to treat our pets well.

[496] The FitBark does not seem to homogenize *all* dogs under one category; the baselines account for age, breed, and weight. However, the baselines do not get more specific than this.
[497] Patrick Sinclair, "Fitbark 2 Review: All You Need to Know," accessed May 2019, https://www.allhomerobotics .com/fitbark-2-review-all-you-need-to-know/#Fitbark_2_Explore_Health_data_and_ baselines_for_your_dogs.

In using both the citronella and ultrasonic collars, we exploit our dogs' ears and noses, their impeccable senses, in order to shape their behaviors in ways that we deem acceptable. We are able to do this by backgrounding our dogs and their capacities, by ignoring all of the ways that we rely on their hearing and sense of smell. Likewise, we force our dogs to assimilate to our standards of what we take to be 'well behaved members' of society (which is to say, to be quiet). We have designed a society where excessive barking can be reason enough for one's being euthanized. Assimilation through the use of bark collars also means that animals must conform to our rules at their expense; as we have seen, these collars rely on means of punishment that are anywhere from somewhat to highly uncomfortable and distressing for dogs. [498] The fact that we call this bodily manipulation of a vulnerable group (our dogs) 'humane' is, perhaps, in order to "suit the interests of more privileged groups," namely ourselves, and this "is consistent with the cultural logic of oppression."[499]

Finally, in the use of many of the products mentioned, both instrumentalism and backgrounding are evident. For there is, as discussed, the fear that we will use pet technology to rationalize spending less time with our pets. This may be understood as a kind of instrumentalism insofar as these products can allow us to further separate ourselves from our pets and so use pets only when they benefit us, stepping further into a one-sided relationship. Our pets may become instruments for our own joy, happiness, and socialization, all while we fail to provide for them in the same way.

Within this pseudo human-animal bond, in addition to the use of animals as happiness-bringing tools (who, themselves, will likely be unhappy), is the effect of pushing animals further into the background. When we free ourselves of the obligations to meet our pets' needs (to feed them, to entertain them) because these needs are all being 'met' with technologies, it is that much easier to reject our pets as important parts of our society. Relatedly, the DogSpot exploits this backgrounding, normalizes it. We are left with little reason to pull our pets into the foreground.

In all of these ways, pet technologies have the potential to further our biases and attitudes of othering and misunderstanding. Yet, as mentioned at the beginning of this chapter, a purpose of ACI is to *promote*

[498] As discussed earlier, the DogSpot seems to be another example of assimilation: we ask our dogs to join us in our world, but only partly. They are brought in, but always kept at a distance.
[499] Wrenn, "Pets."

understanding. If these technologies have the opposite effect, it does not seem wise as pet owners to use them. Especially so given that such misunderstanding encourages harm – helps us to see pets through a dominating lens, reinforcing beliefs that make us less likely to treat our pets well. What's worse, these misunderstandings operate in and exacerbate (rather than correct) our blind spots, causing features that we do not notice to remain hidden from us. But I have argued that we have an obligation to our pets not to exacerbate but to correct these blind spots, as part of our duty of non-harm; because these technologies work to the contrary, we might conclude that their use is not something that we should accept.

However, with the exception of the training collars, and perhaps the DogSpot too, none of these products seem *inherently* destructive to the well-being of our pets. A lot of it comes down to how we as consumers use these technologies. These products become destructive when we use them to relieve our guilt, as a crutch to provide for pets' social needs (or to conflate cognitive needs with social needs), or when they incite forms of othering. There is the potential for all of this when we use pet technologies in excess. But, with moderation, and in certain contexts, pet technologies could be immensely powerful additions to animal welfare.

For instance: the use of automatic pet feeders by people with memory problems is not only beneficial on the human side but, as noted, can be a solution to what otherwise would be cases of relinquishment. Likewise, using the automatic pet feeder may be acceptable in feeding cats their pre-sunrise meal, in turn strengthening the human-animal bond by minimizing the cat's disruption of her owner's sleep. For the Hub or the Wickedbone, we can acknowledge that these technologies are beneficial to our pets in terms of cognitive enrichment, and use them as such (and as nothing further). We might also use these toys on manual as much as possible, to benefit our dogs so that they may reap the benefits of interacting with *us*. Fitness trackers, as well, can be used in responsible ways. We can recognize that wearables rely on baselines which may not always align with what our pets need. Similarly, we can use applications on our smartphones to collect information, but not to replace our sensitivity to our dog's behaviors; this sensitivity we can work to cultivate.

For many of these gadgets, it remains an open question which needs of our pets these technologies can satisfy. For instance, more research is needed in order to see how successful the Furbo dog camera (and others like it) is at relieving separation anxiety. It may be that video calling our pets while we are away has a calming effect, but that this effect is smaller than that which our physical presence brings. This (or whatever the research

winds up showing) can inform our behaviors, insofar as we may use video calling as a safety-net but not see it as a fix-all solution. It might also be worth noting that there does not seem to be much research on the psychological effects of dogs seeing their owners by way of technology. It seems possible that this could be confusing or distressing for some. This is something we should know about before introducing these technologies to our pets. We can also work to better understand how contraptions like the DogSpot affect our dogs. We could look at the salivary cortisol levels of dogs who are placed in DogSpots for a range of allotted times, and see what amount of time, if any, dogs are comfortable (and, if they are not comfortable at all, to what degree they are discomforted). We could weigh this information with data of dogs left in cars, left at home, or left tied up, in order to determine if one is better than the other, or if both prove undesirable options. With physiological data of our dogs in the DogSpot we could also better weigh the discomfort of our dogs against the risks of the other alternatives. More research on products like the Hub and the Wickedbone, too, would be beneficial, so as to see the associated physiological effects of using these products on our pets.

As it stands, we do not really know the costs and benefits, from the animal's point of view, for many if not all of these products. It seems that with the marketing and use of these products comes an imperative for research. We might say that this imperative for research, much like the imperative to meet our pets' social needs, manifests in both the duty of non-harm and the duty of assistance: studies on how technologies affect our pets, behaviorally and physiologically, can indicate to us whether or not they are harmful, and thus reduce the risk of harm; likewise, this data can help us assist our pets in providing for their well-being and happiness.

One way that this research might be conducted is with what Grillaert and Camenzind call a "critical anthropomorphism." The methodology of critical anthropomorphism involves considering pet gadgets "from a point of view with the animal as the center."[500] The critical component of this methodology keeps us from haphazardly assuming that behaviors similar to our own have an experiential counterpart in our pets.[501,502] This

[500] Grillaert and Camenzind, "Unleashed Enthusiasm," 4. While Grillaert and Camenzind promote critical anthropomorphism as a process to be used by researchers in order to ensure technologies have the welfare of animals in mind, I am extending this idea to use by pet owners in order to achieve the same ends.
[501] Ibid., 3.
[502] An example of such an assumption could be that we assume dogs laying down are not experiencing distress, based on our perceptions of humans laying down. But it has been noted that separation anxiety can manifest in more conservative ways like this.

way, in observing the effects of technology on our pets, we will not rule out possibilities of alternative explanations for a particular animal behavior.[503] Through critical anthropomorphism we can gain insights into ACI use without falling prey to misinterpretations and misunderstands by way of haphazard anthropomorphizing.

We as pet owners can maintain this spirit of critical anthropomorphism, as well, in order to use pet technologies responsibly. We can use these products in ways that are not *merely* out of convenience (if they happen to be convenient for us, this is fine, but our priority should be our pets' happiness). It may require only perspective-taking in order to see that, for example, leaving our pets home alone with the Hub is not enough to satisfy them socially. With this perspective-taking we can, in addition, come to see our pets' social needs more prominently, as needs we may have been systematically failing to meet. We must examine these technologies with an honest eye, an eye that will not succumb to the assumption of needs as being met by technologies, a portrayal that it is in our interest to believe. We can recognize that there are, often times, costs to using these technologies, and that while technologies may come at costs which are less than the costs of living technology-free, nonetheless they are costly.

[503] Ibid.

CONCLUSION

I explored the field of animal ethics and examined the wrongfulness of domestication. I discussed the challenge of asserting that pet-keeping, a mode of domestication, is wrong. Leaving the question open, I instead considered the obligations that arise from pet-keeping. Clare Palmer asserts that we have obligations to not harm and to assist domesticated animals, in virtue of their dependence, vulnerability, and our causal relations with them; I considered what these duties might look like in the context of pet-keeping. I argued that while pet-keeping generates obligations, the extent of these obligations will be shaped by the role that one plays in the institution of pet-keeping. Some of us incur duties only as beneficiaries; others incur additional duties as pet owners. I then presented a brief historical account of pet-keeping as well as an account of our current pet-keeping practices. I argued that in addition to the direct harms (e.g. of abuse, of neglect), there are more subtle ways that we indirectly harm our pets, that is, through Plumwood's attitudes of othering. These attitudes can invite harm to our pets, particularly in light of their social needs. In virtue of these less-obvious harms, we have less-obvious obligations to our pets. If we are to uphold the duties of non-harm and assistance asserted by Palmer, we must work to eliminate Plumwood's attitudes of othering. Some of the technologies that pet-owners may purchase reinforce, rather than eliminate, attitudes of othering. In this way, these technologies can invite harm. Still, with moderation, a loving eye, and a spirit of "critical anthropomorphism," we can use ACI responsibly and meet our duties, both as beneficiaries and as pet owners.

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