

Animal Companions and Speciesism: Does Pet Ownership Affect Species Prejudice?

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Abstract

Since humanity's conception, human-animal relations have played an important role in our survival. At the same time, human-animal relations are often described as “speciest” due to the human tendency of applying unequal levels of moral status between different animals. While speciesism has been correlated with traits such as empathy and gender, research looking into the relationship between animal companions and speciesism is lacking. In the present study, I delved into this possible association by investigating how participants evaluated moral scenarios involving different pets. Participants were given a short animal passage and five animal companions. While reading the passage, participants would interchangeably include one of the provided species and rate how morally wrong the passage was. Afterwards, they were provided additional scales that measured empathy, speciesism, and prior contact with pets. Independent *t*-tests results showed that pet-owners rated moral concerns scenarios as being more morally wrong. However, this effect was only significant for the treatment of dogs and cats. Linear regression data also showcased that prior contact with pets was a significant predictor when it came to the moral concern of pets, while speciesism and empathy were not. Results from the study suggest that rather than empathy or speciesism, it is prior contact with animal companions that seems to play the largest role in determining moral concern for pets, but this largely applies to dogs and cats. Future studies within the realm of speciesism should look further into the strong influence of prior experience as it remains a relatively unexplored topic.

Keywords: pets, speciesism, moral concern, pets as ambassadors hypothesis, prior contact with pets, experience.

Animal Companions and Speciesism: Does Pet Ownership Affect Species Prejudice?

Since the beginning of humanity, animals have been an essential component to human existence. In the past, it is suggested that while people lived within a hunter-gatherer lifestyle, they were also in close proximity with other living creatures (Amiot & Bastian, 2015). Due to this early interaction, it has been hypothesized that these associations have shaped present-day interactions between humans and animals. A theory that further explains the human-animal connection is the biophilia hypothesis by E.O. Wilson (1984). The theory states that during evolution, human fitness was able to increase due to the ability to hunt animals and gather vegetables within the environment (Beck & Katcher, 2003). Furthermore, it is theorized that from this evolutionary change, human brains became conditioned to pay specific attention to life and life-like organisms within the world (Kahn, 1997). An example of this innate feature is the *cute response* where humans are drawn to living things with large facial features such as infant eyes and foreheads. Adult participants who were shown images of both human and animal babies described the images as being more attractive than images that did not provide the same characteristics (Lorenz, 1943). From these studies, it can be said that human relations with animals are intertwined within an evolutionary standpoint.

In the present, perspectives on animal and human relations fall into two categories: sustenance and animal companions. As of 2021, Statistics Canada reports that 12.3 million cattle are owned within Canada (Statistic Canada, 2021). While overall beef consumption and production has steadily decreased across the years due to health concerns, many still remain animal consumers (Statistics Canada, 2021). On the other hand, pet ownership in Canada has seen the opposite effect with dog and cat populations growing consistent with previous animal companionship predictions (Canadian Animal Health Institute, 2021). In 2020, it was reported

that 58% of Canadian households have at least one pet and further data collection showed that there were a total of 7.7 million dogs and 8.1 million cats across the nation (Canadian Animal Health Institute, 2021). From these two categories, it can be inferred that human-animal relations go further than just innate evolutionary factors. Animals have become an essential part of everyday lives with many households beginning to adopt pets. Some refer to these animal companions as friends and even family members (Vandresan & Hotzel, 2020). By identifying the animal as part of the family unit, this pseudo-kinship between humans and pets showcases a strong bond unseen within other species (Thompson & Quinter, 2020).

There is more to human-animal relations than just familial concern. Amiot and Bastian (2015) found that pet ownership in childhood may be associated with positive well-being later in life. This influence does not fade away either as a study on human relationships with pets from childhood to adulthood found that pets left a lifelong impression on the owner (Amiot & Bastian, 2015). This positive animal concern that comes with pet ownership may also expand on to other species as well. According to the "Pets as Ambassadors" hypothesis, having animal companions in one's life increases the overall concern for other broader species (Serpell, 1995, 2000). More evidence of this effect comes from a study that found pet owners had decreased negative attitudes towards non-pets such as chickens and snakes (Bowd, 1984). In addition, pet ownership was found to have an increase in empathetic concern for non-pet animals (Amiot & Bastian, 2015).

According to Singer (2009), the definition of speciesism is, "a prejudice or attitude of bias in favor of the interests of members of one's own species and against those of another species" (p. 35). From this definition, it can be said that speciesism denies the rights of animals solely based on species membership (Caviola et al., 2021). Human relations with animals have

been labeled as “specisest” due to the fact that humans apply different moral statuses onto different animals. This interaction is labeled as such due to the fact that most humans share the universal belief that humans are the more valuable collective when compared to other species (Caviola et al., 2019). A basic example of this specisest attitude is the cognitive dissonance between the consumption of animals such as cows or pigs compared to the great influx of dogs and cats ownership within many households. Even though pigs are reported to display much higher intelligence than dogs (Caviola et al., 2019), their value as a species is lowered to that of food and nothing more. Caviola and colleagues (2019) further highlighted this characteristic while testing their speciesism scale. They found that speciesism and vegetarianism were psychologically distinct factors even though they are usually strongly correlated (Caviola et al., 2019). This finding, though surprising, remained consistent with previous work done by Monteiro and colleagues (2017) which stated that while people may disagree with speciesism, they will still employ specific beliefs when it comes to sustenance. An explanation for this behaviour may come from the fact that some animal consumers deny a farm animal's capacity to feel pain or suffering (Vandresen & Hotzel, 2021). This creates a paradox where animal companions are treated as family members yet cows and pigs around the world are treated far more inhumanely even though there is no evidence of a difference between the two species' emotional capacity.

Thus far, no research has explored the relationship between speciesism and pet ownership. While some experiments have been attempted, they fall short on certain aspects. For example, Possidonio and colleagues (2021) tested the full extent of the “Pets as Ambassadors” hypothesis. In this experiment, the researchers asked participants to evaluate groups of animals and then answer trait measures following their assessment. The authors found that participants

did indeed have a higher level of positive attitudes towards other non-pet animals groups when the participant scored highly in pet attachment. Specifically, animals that fell into the predator and livestock category were found to have benefitted the most from high levels of attachment. While the results were promising, Possidonio and colleagues (2019) had an unbalanced set of animals during experimentation. In particular, out of their four groups of tested animals, three were vertebrates and one was invertebrates. This unequal distribution of animal species could have resulted in biased data due to the fact that there is a strong difference between these two kingdoms of animals. Another study conducted by Auger and Amiot (2019) sought to research the result of imagined contact between humans and animals. In their study, Auger and Amiot (2019) asked participants to imagine scenarios within a questionnaire in order to measure the generalization effect. This generalization effect posits that when positive interactions occur between members of valued and devalued groups, improved attitudes toward the superordinate group occurs (Auger & Amiot, 2019). Researchers found that when participants imagined both pets and farm animals, they typically held positive attitudes afterwards towards both subspecies and the animal group as a whole (Auger & Amiot, 2019). Along with this finding, speciesism was measured but no significant effects were found. This was possibly due to the fact that the researchers used a weak speciesism scale, another issue with the study. While Auger and Amiot's study did showcase the positive effects of owning a pet and overall animal attitudes, the researchers did not specifically focus on speciesism. Instead, it was just a test for moral and ethical concern (Auger & Amiot, 2019).

A common trait between both of these studies is that they did not define or use specific pets. Instead, they either used groups of species or told the participant to imagine their contact with an animal. The issue with this course of action is that by choosing not to focus on a

definitive pet, researchers lose the opportunity to see if various animals are held to different regards. In the case of North America, the most popular pet companion is the dog (American Veterinary Medical Association, 2018). According to Herzog (2014), this animal preference comes from a mixed predisposed source in the form of evolutionary and cultural factors.

Following this line of thought, it can be said that humans would much rather prefer forming social relationships with a canine compared to bats or turtles (Herzog, 2014). While it is known that dogs are the preferred animal companion in the Western world, research has not delved into the differences in moral treatment between popular pet species.

From the two above studies, it can be concluded that the subject of speciesism and pet ownership is an unexplored topic within the realm of human-animal relations research. The current study identified whether or not the experience of owning and caring for pets is correlated with reduced speciesism towards other animal companions and whether it relates to different moral treatment of a pet species. I hypothesized that owning an animal companion will reduce overall levels of speciesism within the participant. Additionally, I also hypothesized that different species of pets will result in different moral treatments and that pet ownership will not affect all animal companions equally.

Method

Participants

To satisfy the research objectives, 100 undergraduate students from the University of Regina were recruited through the Psychology Pool of Participants. Each participant was provided with a partial course credit for their involvement within the study. A power analysis with $\alpha = 0.05$ and power = 0.80 was conducted with five predictors. The result indicated that a

medium effect of $f^2 = 15$ was to be found with 92 participants. Overall participant recruitment was rounded to 100 for the sake of convenience.

Measures

Demographics

Prior to starting the measures section, participants were asked to answer several demographic questions. These questions included age, gender, birth country, parental birth country, race, and ethnicity. Of the demographic questions, the latter characteristics were used within an exploratory measure.

Moral Reasoning Task

Once participants finished answering demographic questions, they were then presented with four short moral scenarios. In each of the scenarios, the participants would read about a character displaying a particular behaviour or action. Participants were asked to rate how acceptable each character was based on some details that are changed within the story. Responses were measured using a five-point Likert scale that ranges from “*Not at all wrong*” to “*Extremely wrong*”.

The important moral scenario that is pertinent to the study involves different pets. In this passage, participants read about Adam and his desire for an animal companion (see Appendix A). One year, his best friend gifted him an “animal” and he was overjoyed at the present. After a year however, Adam’s life situation changed and he realized that he could no longer afford to care for his “animal”. Adam then decides to drive out to the countryside and leave his “animal” in the wilderness, knowing that it will not survive. Participants were asked to

rate how wrong Adam's actions were depending on the provided "animal". These included a dog, a cat, a hamster, a bird, and a turtle.

Additional Measures

In order to measure speciesism within the participant, Caviola and colleagues (2019; see Appendix B) Speciesism Scale was used. The scale consists of six items that are loaded onto a single speciesism factor. Participants were asked to answer all items with a seven-point Likert scale that ranged from "*strongly disagree*" to "*strongly agree*". The scale has unique characteristics such as being validated by multiple experts, items that include both empirical and abstract ideas, and items that do not elicit confounding factors.

Pet contact was measured within the study using Auger and Amiot's (2017, 2019; see Appendix C) Prior Contact with Pets Scale. Participants were asked to rate four items on a six-point Likert scale that ranged from "*never*" to "*always*". The items measured the frequency, reciprocity, and affective valence of previous pet contact. Higher scores signify a more positive and frequent contact with animals.

The final measure used within study was the Empathic Concern Scale by Davis (1980, 1983; see Appendix D) which measures the empathic tendencies of the participant. Participants were tasked with answering seven items with a five-point alphabetical Likert scale that ranged from "A" to "E". After reading the question, the participant selected from a range of letters with "A" representing "*does not describe me well*" and "E" representing "*describes me very well*".

Procedure

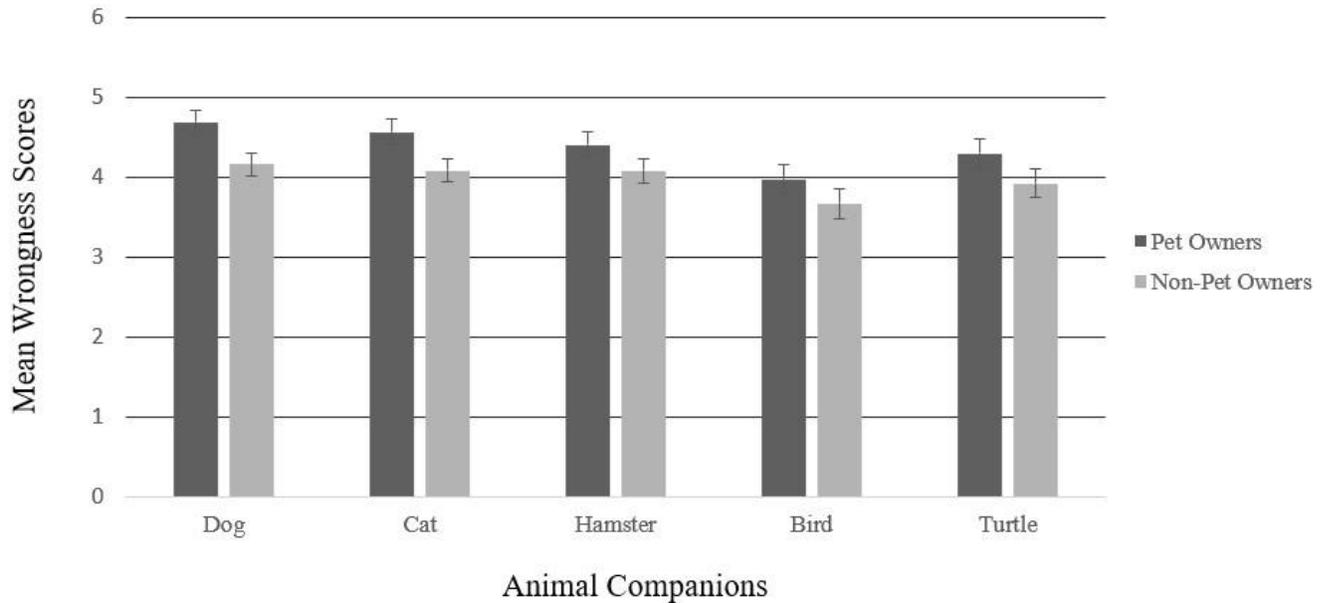
The study began with a brief consent form that outlined the purpose and goals of the study. When consent was given, the participants were asked demographic questions such as age, gender, place of birth, and parents' place of birth. After these demographic questions, participants were presented with four moral scenarios. Once these moral scenarios were completed, participants then moved on to answering three scales. The first scale presented was the Empathic Concern Scale, followed by the Speciesism Scale, and finally finishing with the Prior Contact with Pets Scale. Following these measures, no further questions were asked and the participants are debriefed on the true purpose and goals of the study. Afterwards, participants were sent back to the Participant Pool system.

Results

Mean wrongness scores as a function of pet status can be found in Figure 1. The first analysis was a 2 (pet status) x 2 (gender) x 5 (species) mixed ANOVA, with pet status (owners vs. non-owners) and gender (male, female) entered as between subjects variables, and species (dog, cat, hamster, bird, turtle) entered as a repeated variable. There was a main effect of species, $F(2.919, 287.716) = 12.163, p < 0.001$, partial $H^2 = .107$, and a main effect of pet status, $F(1, 102) = 3.971, p = 0.49$, partial $H^2 = .04$. No other effects or interactions were significant, $p > .20$.

Figure 1

Mean Wrongness Scores For Pet Owners and Non-Pet Owners



Note. This figure demonstrates the differences in moral concern between pet owners and non-pet owners across the five animal species.

A series of linear regressions were conducted in order to indicate if any of the measures used within the experiment were related to the moral concern of each pet species. The variables entered were: speciesism, empathy, and prior contact with pets. The test revealed that out of the five animals, three animal companions produced significant results. For the dog, overall significance was, $R^2 = .182$, $F(4,101) = 5.603$, $p < .001$, and the significant predictors for this species was gender, standardized $B = -.221$, $p = 0.023$ and pet ownership status, standardized $B = .307$, $p = 0.001$. Predictors such as empathy and speciesism were found to be insignificant, $p > .05$. Following the dog, overall significance for the cat was, $R^2 = .158$, $F(4,101) = 4.753$, $p <$

.001, and the only significant predictor for this species was pet status, standardized $B = .271$, $p = 0.023$. The rest of the predictors for the cat species were insignificant, $p > .05$. Regarding the hamster, an overall significance was found, $R^2 = .094$, $F(4,101) = 2.608$, $p = .040$, the bird, $R^2 = .035$, $F(4,101) = 0.909$, $p = .462$. However, when observing the predictors, none resulted in significance. A possible explanation for this result may be due to the fact that the combined power of the non-significant predictors were strong enough together that it resulted in an overall significance for the hamster regression.

Independent samples t -tests were performed in order to explore the effects of pet ownership on the wrongness scores for each animal for each of the five pet species. As is clear from Figure 1, pet owners thought the treatment of the dog, $t(104) = 2.53$, $p = .013$, $d = 0.496$, and the cat, $t(104) = 2.30$, $p = .023$, $d = 0.451$, was significantly more wrong than did non pet owners. No significant differences were found for the hamster, bird, or turtle, however, all $p > .15$.

Discussion

The goal of the present research was to explore the effects of pet ownership on speciesism using moral concern scenarios. Current results from the study confirmed the initial hypothesis that having an animal companion raises moral concern for animals and thus, lowers levels of speciesism. Of the three measures used within the study, the most consistently significant predictor of moral concern was found to be prior contact with pets, over and above speciesism and empathy. Those who have been exposed to animal companions typically rated higher wrongness scores when compared to their non-pet owner counterparts.

Furthermore, the secondary hypothesis stated that different species would be treated with differing levels of moral concern. From the results of the present study, the secondary

hypothesis was also confirmed. Concern was greater for dogs and cats in comparison to the other pet species, and pet owners showed significantly greater moral concern for the dog and the cat compared to non-pet owners, but this was not the case for the other species. Significant results for the two animal companions indicate that pet owners do not treat all species equally within a moral lens, even though they have had previous contact with animals. Generally, experiments that looked to explore speciesism would list groups of animals rather than individual pet companions. Experiments conducted by Possidonio and colleagues (2019) for example, involved the grouping of four animal species. With this approach, participants may face unequally distributed groups and thus, may bias the data. From the present findings, the grouping of animals when it comes to speciesism studies may no longer be a viable approach. Since participants do not morally treat all animals equally, a grouping of species containing less cared for animals may face more prejudice when compared to a grouping filled with highly concerned pet companions.

Regarding previous literature, both gender and empathy were expected to have a strong influence on speciesism. Herzog (2007) states that gender is an extremely stable factor when it comes to predicting empathy. Typically, women generally score higher in empathy compared to their male counterparts. In addition to this high empathy, female attitudes towards animals within a Western perspective are typically more positive and involve higher moral concern. (Herzog, 2007). Empathy itself is also another stable characteristic when it comes to measuring positive attitudes towards animals. It was found that those who measure highly within empathy are also usually associated with more positive feelings towards animals (Taylor & Signal, 2005). While these traits have been shown to be related to speciesism, results from the study demonstrate that neither of these traits were not comparable to that of prior animal contact. Instead of traits that

relied on abstract characteristics, it was true experience that determined how a participant would rate the moral concern of a species. Findings from the study do not completely support literature surrounding speciesism. One example of research that is weakened is the “Pets as Ambassadors” hypothesis. According to Serpell (1995), having a pet companion increases overall concern for other broader species. With the gathered results, this is not the case. Even though pet owners scored dogs and cats as a higher priority species for moral concern, this response was not the same for the hamster, bird, and turtle species. It is possible that rather than increase concern for other broader species, pet ownership only reinforces concern for the pet owner's specific animal companion. Nonetheless, one finding that is supported between literature and the present study is prior experience. Jamieson and colleagues (2012) found that when young children learned about chickens and the biology surrounding the species, there was an increase in positive behaviors toward the animal. However, these increases would diminish within a three month timeframe. The act of caring for an animal companion is typically long and for some, this means fostering the pet for its entire lifespan. In regards to experience then, some pet owners will have years of prior knowledge of their pet and thus, its species. Due to this extensive familiarity with their animal companions, participants with pets will rate their pet with higher moral concern due to their positive behaviours toward said animal.

Another difference between literature and the present study was the usage of specific pet species rather than imagined animal interactions or groups of animals. In Possidonio and colleagues (2021) “Pets as Ambassadors” study, the researchers tasked participants with assessing a group of animals followed by personality trait measures. Results from the Possidonio and colleagues study indicated that there was a higher level of positive attitude towards other groups when the participant was found to have scored highly in pet attachment. When comparing

these results with the present studies findings, a discrepancy is observed. Overall positive attitude towards other non-pet animals was not found and furthermore, pet owners within study did not show an overall positive attitude towards other pets as previously expected. Instead, pet owners still rated the hamster, bird, and turtle to be of low moral concern, thus indicating that the positive attitude that should have been present with pet attachment did not emerge with specific species. A possible explanation for these conflicting results may be due to usage of animal groups versus the usage of individual pet companions. If an animal group contains a favoured pet species, the participant may prefer this set of animals compared to a grouping of animals without a non-favoured species. Since the present study did not use groups of animals and instead specific animal companions, participants were not influenced by the presence of other pets. As a result, participants deemed some species to be of less moral concern, even though they have had previous pet experience.

Additionally, findings from the present study also contained conflicting results with Auger and Amiot (2019). The authors posited that when participants visualized scenarios with a specific animal, a generalization effect takes place with the animals subgroup and overall superordinate group. In their study, Auger and Amiot tasked participants with imagining positive interactions with pets and farm animals. It was found that after participants imagined a scenario with a farm animal, participants were reported to have improved attitudes towards other farm animals as well as other species in general. When compared to the present study, it can be said that the difference in results with the farm animal group may be due to the usage of imagined scenarios. By tasking a participant with visualizing a positive interaction, it is possible that the participant becomes predisposed to favoring the species. Thus, answers from the participant may be biased. Since our study did not involve the usage of positively imagined scenarios,

participants were not influenced. This resulted in some species being rated with low moral concern and the lack of a generalization effect among animal companions.

Limitations and Future Studies

One of the issues encountered within the study resided within the hamster regression. In particular, the predictors used within the hamsters linear regression yielded insignificant results. Yet, an overall significance in concern was found. As previously stated, the combined powers of the non-significant predictors may have resulted in an overall significant result. The inability to differentiate between predictors is an issue due to the fact that the specific reasoning behind the hamsters' significant moral concern is unknown. Furthermore, it is also possible that uniformity in treatment between the hamster, bird, and turtle were too similar to each other. This similarity in results may have been due to unaccounted variables within the study that were not measured. Future studies should look into using other measures and variables in order to discern the differences in moral treatment among different pet species.

The overall study was conducted using North American students and was completed within a Western society. The issue surrounding these two characteristics lies in socioeconomic and cultural differences. Regarding the socioeconomic aspect, all of the participants were taken from the University of Regina Participant pool. The majority of volunteers were those who were able to afford higher education and thus, came from a more privileged background. Those who fall into the non-privileged category may have not been able to own pets due to their economic situation. Since a majority of volunteers came from the former group, the present data lacks information from those with lower socioeconomic status. Future studies can look into gathering

data from this subset of the population as it will allow for a more indepth look into how moral concern for animals may differ depending on those of lower socioeconomic status.

Another aspect is the location where the study is conducted. Since the study was administered within a North American society, it is possible that many of the participants already had a Westernized viewpoint on animal companions. In Canada, it is said that the majority of Canadians own either dogs or cats with 58% of households having at least one pet (Canadian Animal Health Institute, 2021). From these figures, it can be said that many Canadian participants are very familiarized with these two specific animals. This familiarization causes bias due to the fact having extensive knowledge on an animal may lead to a greater moral concern on said species. Furthermore, not all countries share the same popular animal companions. Cultural variables cause significant variation as to how a society interacts with animals. South Korea for example, uses dogs as a source of sustenance rather than companionship (Podberscek, 2009). One of the major cultural differences is how pets were identified within the family unit. Amiot and Bastian (2015) explored cultural differences by exploring a variety of animal worldviews. Of the 60 cultures studied, Amiot and Bastian found that only five cultures identified their animal companions as “friends” or “family members”. This disparity in pet identification results in great differences as to how one would measure moral concern for a pet species. If a participant were to rate their pet as a “family member”, it is also likely that they would measure higher moral concern when compared to a participant that did not see their pet as a “family member”. Future studies should look into conducting experiments that involve different countries as it may lead to greater insight in speciesism as cultural variables remain unexplored.

Subsequent studies researching speciesism may look into changing imagined or arbitrary tasks to directly asking participants of their previous experiences with animals. Asking or questioning pet owners specifically will allow researchers to perceive how influential prior experience can be when it comes to species prejudice. A person who has never interacted with animals may have a different answer when it comes to rating the moral concern of a certain species. By seeking out those who have had experience with pets, answers coming from this subgroup are influenced by prior knowledge of animal companion species. Thus, a pet owner's attitude towards a study concerning pet treatment will vary greatly compared to that of a non-pet owner.

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Appendix A

“Adam always wanted to have a pet [animal]. One year, his best friend got him one for his birthday, and he was overjoyed. After a year, however, his life situation had changed dramatically, and he realized that he could no longer care for it. So, one night, he took the [animal] out to the countryside, let it out into the wilderness, and drove off. He knew it would probably not survive for more than a day or two.”

Please rate the acceptability of the above behaviour using the scale below, considering each animal

	Not at all wrong	Not too wrong	Somewhat wrong	Very wrong	Extremely Wrong
Cat	<input type="radio"/>				
Dog	<input type="radio"/>				
Turtle	<input type="radio"/>				
Bird (budgie)	<input type="radio"/>				
Hamster	<input type="radio"/>				

Appendix B

Table 1
Speciesism Scale

Item	Item Label
1	Morally, animals always count for less than humans.
2	Humans have the right to use animals however they want to.
3	It is morally acceptable to keep animals in circuses for human entertainment.
4	It is morally acceptable to trade animals like possessions.
5	Chimpanzees should have basic legal rights such as a right to life or a prohibition of torture.
6	it is morally acceptable to perform medical experiments on animals that we would not perform on any human.

Appendix C

Table 2

Prior Contact with Pets Scale

Item	Item Label
1	you are in contact with pets
2	you have mutual interactions with pets
3	your contacts with companion animals provide you with positive emotions
4	you have been, throughout your life, in contact with companion animals

Appendix D

Table 3

Empathic Concern Scale

Item	Item Label
1	I often have tender, concerned feelings for people less fortunate than me.
2	Sometimes I don't feel very sorry for other people when they are having problems.
3	When I see someone being taken advantage of, I feel kind of protective towards them.
4	Other people's misfortunes do not usually disturb me a great deal.
5	When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
6	I am often quite touched by things that I see happen.
7	I would describe myself as a pretty soft-hearted person.