

Human-Animal Bond:
Attachment vs. Objectification

by

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The bond between human beings and their pets is multi-faceted. Some doting “parents” view their companion animals as members of their families, while others maintain the more traditional expectation of service or commodification. Similar to the diversity evident in pet ownership, the relationship between humans and farm animals also varies broadly. Livestock on family farms are treated as sentient beings where they are properly socialized and treated respectfully. In dramatic contrast, factory-raised farm animals are treated inhumanely. Research has shown that human-pet relationships can influence our level of concern of and knowledge for other animals. However, little if any research has been done to examine if relationships with companion animals influence concern for animals raised in factory farms. In order to evaluate this relationship, a quantitative telephone survey of pet owners in Pitt County, North Carolina was conducted. Respondents were asked a series of questions about their relationships with their pets which allowed them to be placed in one of three categories of human-pet bond: humanist, protectionist, or dominionist as described by David Blouin (2009). Respondents were also asked a series of questions about their concern for and knowledge of industrialized-raised farm animals. The purpose of this study was to examine whether pet owners’ type of emotional attachment to their own animal or animals influenced their level of knowledge and concern for factory-raised farm animals. This study displayed that pet owners could loosely be placed into

one of Blouin's three orientations of human-pet bond using a simple qualitative sample.

However, the typology needs revision. The type of human-pet bond was not found to influence level of knowledge of factory-raised farm animals, but was related to level of concern for the animals.

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DEDICATION

To Sandy: The Best Dog in the World

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TABLE OF CONTENTS

CHAPTER I. INTRODUCTION.....	1
CHAPTER II. LITERATURE REVIEW	4
2.1 A Historical Review of Human-Animal Relationships	4
2.2 The Human-Pet Bond Today	6
2.3 Relationships with Pets and Views of Other Animals and People	7
2.4 Classifications of Human-Pet Bond.....	8
Protectionists.....	10
Humanists.....	11
Dominionists	13
2.5 The Horrors of CAFOs	14
2.6 Relationships Between Blouin’s Typology and Attitudes Towards Factory Farm Animals	16
2.7 Other Variables	18
Gender.....	18
Past Ownership of Pets	20
Education Level	20
Geographic Location.....	21
Past Farm Experience.....	22
CHAPTER III. METHODOLOGY	23
3.1 Research Questions.....	23
3.2 Study Design.....	23
3.3 Questionnaire Design and Methods.....	24
3.4 Type of Human-Pet Bond.....	24
3.5 Knowledge of and Concern for Factory-Raised Farm Animals	25
3.6 Other Variables	26
3.7 Data Collection	26
3.8 Sample Selection and Size.....	27
3.9 Data Coding	28
CHAPTER IV. RESULTS.....	31
4.1 Research Question One, Part A	31
4.2 Research Question One Part B.....	32
Humanists.....	32
Protectionists.....	33
Dominionists.....	33
4.3 Research Question Two, Part A.....	34
4.4 Research Question, Two Part B.....	36
CHAPTER V. DISCUSSION.....	38
5.1 Assignment of Respondents to One of the Three Types	38
5.2 Blouin’s Typologies and Relationships with Predictor Variables	41
5.3 Type and Relationship to Knowledge of and Concern for Animals Raised in Factory Farms	43
5.4 Control Variables and Knowledge of and Concern for Factory Farms	44
5.5 Future Research	45
CHAPTER VI. CONCLUSION	47
References.....	49

LIST OF TABLES

TABLES	55
Table 1: Descriptions of Pet Owners' Orientations towards their Pets	55
Table 2: Descriptive Statistics for Variables of Pet Owners' Orientations towards their Pets	56
Table 3: Logistic Regression of Covariates on the Humanist Typology	57
Table 4: Logistic Regression of Covariates on the Protectionist Typology	58
Table 5: Logistic Regression of Covariates on the Dominionist Typology.....	59
Table 6 (A): ANOVA of I Know What a Factory Farm or Concentrated Animal Feeding Operation is.....	60
Table 6 (B): ANOVA of The Animals are Treated Humanely.....	61
Table 6 (C): ANOVA of It is OK to Treat the Animals This Way.....	62
Table 7: ANOVA of I Know what a Factory Farm or Concentrated Animal Feeding Operation is with Covariates	63
Table 8: ANOVA of The Animals are Treated Humanely with Covariates.....	64
Table 9: ANOVA of It is OK to Treat the Animals this way with Covariates.....	65

LIST OF APPENDICIES

APPENDICES	66
APPENDIX A. IRB Approval Letter.....	67
APPENDIX B. Survey Instrument	69

CHAPTER I. INTRODUCTION

Animals and society is a topic of growing interest among sociologists as well as in the general population as the number of pets who share our homes increases and research has revealed intensifying emotional bonds between owners and their pets. Many people consider their pets to be their companions and even members of their families (Herzog 2010; Carlisle-Frank and Frank 2006; and Charles and Davies 2008).

The human-pet bond has potentially significant effects on how we relate to other humans as well as to non-human animals. Herzog (2010) suggests that pet ownership, particularly dog ownership, makes some people more likely to interact with strangers and other dog owners, which is likely to increase bonds with human beings. A study by Herzog (2010) showed that bonds with our pets teach us kindness and responsibility towards others. This influence is particularly strong with children. Serpell and Paul (1994) also suggest that sympathies for non-pet animals may arise from strong emotional attachment to pets.

It is important that we examine how our relationships with our pets can influence the level of concern for and knowledge of other animals, farm animals in particular. As the number of pets has increased, so has the concern for overall animal welfare (Spencer, Decuyper, Aerts, and De Travernier 2006). Farm animals have been a part of society since the rise of agriculture (Diamond 1999). Although research has been conducted on how our relationships with our pets can influence our feelings and relationships with other non-human animals, little, if any, research has explored if the relationships human beings have with their pets influences their concern for and knowledge of factory-raised farm animals. It is important that we study this relationship because billions of factory-raised farm animals live in miserable and abject conditions with few advocates on their behalf (Kirby 2010). As pets have become more integrated into our daily

lives, other animals have been pushed into far away places and spaces where only those involved in their maintenance are aware of their deplorable conditions (Serpell 1996). We do not know enough about the characteristics of people who might work to improve their situation. This study will help us understand whether or not certain types of human-pet relationships, as measured by Blouin's classification scheme, translate into knowledge of and concern for the animals raised in factory farms.

Many scholars have explored different ways of categorizing pet owners based on their level of emotional attachment to their pets. For example, Carlisle-Frank and Frank (2006) found that pet caregivers who defined themselves as either "owners", "guardians", or "owner-guardians" differed in their attitudes of companion animals. Expanding on past research, Blouin (2009) discusses three classifications of pet ownership: protectionists, humanists, and dominionists. He developed these categories based on past cultural and environmental factors that shaped the different practices of pet keeping (Blouin 2008). The categories place pet owners into three different groups based on their level of emotional attachment to their pets. This study examined the effects of the type of human-pet emotional bond on level of knowledge and concern for factory-raised farm animals. In order to identify which category respondents fit into, human-pet bond questions focused on the status and roles of pets in the home, attitudes towards other animals, home environment and care of pets in the home, and owner attitudes toward relinquishment and death of their pets. Category membership was then related to knowledge about factory farm animals and level of concern for their conditions.

The following pages review the literature on human-animal relations focusing on changes over time as well as their relevance to our lives today. Another emphasis is on how these relationships may influence attitudes and behavior towards people and non-human animals in

order to understand the effect pet ownership may have on attitudes and behaviors towards factory-raised farm animals. Blouin's three classifications of pet owners will be described in detail and linkages will be outlined between the type of pet ownership and individuals' level of concern for and knowledge of factory-raised farm animals. Also reviewed will be the effects that factors such as gender, education, past farm experience, past pet ownership, and geographic location have on individuals being placed in one of the three categories and/or the likelihood of being concerned for factory-raised farm animals. Finally, this literature review briefly examines research pertaining to factory farms, explaining what a factory farm is, what types of animals are raised there, and what conditions the animals endure in order to provide a context for the questions on respondents' knowledge of and level of concern for factory-raised farm animals.

CHAPTER II. LITERATURE REVIEW

2.1 A Historical Review of Human-Animal Relationships

Non-human animals have been living with people as companions for centuries. Domestic dogs date back to hunter-gatherer societies where they not only served as companions, but also as guards and hunting partners (Driscoll, McDonald, and O'Brien 2009; Serpell 1989; and Clutton-Brock 1994). The roles of pets in human societies have changed dramatically over time, as have human attitudes towards them. Keith Thomas (1983) presented information on attitudinal changes towards animals from 1500-1800. He argued that major changes in human attitudes towards animals shifted from an anthropocentric perspective to a more sentimentalized perspective due to conditions associated with the Enlightenment and modern and postmodern society. Relationships between people and animals changed enormously as people began to see and use animals in new ways. For example, with the birth of scientific knowledge we developed a greater understanding of the similarities between human and non-human animals as well as a greater appreciation of their cognitive, emotional, and social characteristics that facilitated a more humane orientation toward animals (Franklin 1999).

As attitudes towards pets and animals in general became more sentimental the first animal protection legislation was passed, and organizations such as the SPCA (Society for the Prevention of Cruelty of Animals) grew in popularity (Ritvo 1987). During the period of post modernity (the late 20th century), widespread education, economic growth and development and prosperity allowed for pet keeping to be more prominent among a broader group of people in society as opposed to just the upper-class (Franklin 1999). Pets also provided a sense of comfort and emotional support for lost “ontological security” due to the alienating conditions of postmodern life (Franklin 1999). Animals, particularly pets, became substitute objects of love

and mutual dependency as people's relationships with each other became more unstable and unreliable (Franklin 1999).

Familiarization via the media also increased public concern for pets and other animals in the 20th century in ways that were not possible in the past (Serpell and Paul 1993). Pet keeping grew significantly from the 1960s onward. The term "companion animal" was coined to denote a more positive connotation than "pet" (Franklin 1999). Since the 1990s we have seen a shift from considering pets to be a "species apart" to seeing them as furry companions and children endowed with many human qualities (Nast 2006).

The same factors that fostered a more tolerant attitude towards pets also changed people's awareness of and concern for other types of animals, both domesticated and wild. For example, zoos in the 19th century mostly consisted of iron bars and wires that left the animals with no privacy or environmental conditions similar to their natural habitat. By the mid 20th century, zoological parks made a valiant effort to make enclosures larger, more comfortable, and more natural. Today the primary missions of zoos are education and conservation rather than display and entertainment (Franklin 1999).

Growing awareness of the treatment of non-pet animals has focused attention on the use and treatment of a variety of animals including factory-raised farm animals. Animal rights organizations and activities by animal activists have greatly increased public concern and awareness for factory raised farm animals. A half-century ago, domestic livestock were kept outside in conditions that were suitable for their physical and mental wellbeing (Grandin and Johnson 2009). When conditions dramatically changed, animal rights groups were no longer able to avoid the topic (Frank 1979). Today this issue is no longer taboo and is often a central area of concern for organizations such as PETA that often use shock tactics to get their message across

to the public (Foer 2009). Appalling photos, videos, and descriptions of the farms are often circulated on the Internet, in books and magazines, and in television and films. In addition to revealing the dark side of the farms, animal rights organizations have also been successful in offering information and resources about alternative diets and methods of meat production. The ASPCA for example, has introduced the Humane Farm Animal Care (HFAC) mission which aims to improve the lives of farm animals from their birth until they go to slaughter (ASPCA 2011). Efforts of animal rights organizations and individual activists have also been partly responsible for the increase in vegetarianism and veganism in modern times. Vegetarianism, humane food animal farming, and in-vitro meat production have become more and more acceptable alternatives to consuming animals raised in factory farms (Pluhar 2009).

2.2 The Human-Pet Bond Today

The bond between human beings and their pets today is probably unique in that more people than ever have pets, and that these pets fulfill more emotional needs than ever before. Not only do pets provide potential benefits to owners such as a decrease in anxiety, blood pressure, and even cholesterol (Beck and Katcher 2003), above all, pets have become companions, friends, and even family members. The growing use of the term “companion animal” as opposed to “pet”, and “guardian” as opposed to “owner” points to the increasing importance of pets in our everyday lives (Jerolmack 2005 and Carlisle-Frank and Frank 2006). In 2006 there were almost as many pets as adult humans in the United States (Spencer et al. 2006) and households with pets in the United States are now more numerous than households with children. About 62% of households in the United States have pets where about 46% of American households have children under the age of 18 (APPA 2008 and USA Today 2009).

The literature shows that pet owners' emotional attachment to their pets varies greatly. Some pet owners are so emotionally bonded to their companion animals that they consider them to be members of their families, while others own pets for less sentimental reasons such as self-protection, small-scale food production, and other commodification purposes (Spencer et al 2006).

Studies have shown that the most common reason for owning pets in the United States today is for companionship or company (Endenburg 1994 and Staats 2008). A lot of people today appear to be in love with their animals. According to Herzog (2010), 70% of pet lovers allow their pets to sleep in their beds, over 60% buy their pets Christmas presents, 23% cook special meals for them, and nearly 20% dress their pet up on special occasions (p. 75). Today, the pet product and service industry is worth more than 45 billion dollars (Pacelle 2011).

2.3 Relationships with Pets and Views of Other Animals and People

Changes in pet keeping trends and changing attitudes toward human-pet relationships over the past century played a significant role in influencing attitudes and behavior towards people and other animals. As bonds with pets became more and more prominent, so did concern for other non-pet animals (Spencer et al 2006). Prokop and Tunnicliffe (2010) found that pet keeping had a positive effect on children's attitudes and concern toward wild animals. Similarly, Bjerke, Ostdahl, and Kleiven (2003) conducted a study on attitudes towards urban wildlife among pet owners and non-pet owners finding that pet owners reported liking the majority of the species on the questionnaire more than non-pet owners did. Serpell and Paul (1993) suggest that sympathies for other animals may arise from strong emotional attachment to pets. Wrye (2009) argues that pets provide us with similar types of pleasure and support we get from humans

without the apprehension and distress. As a result, close relationships with pets may make us more likely to have positive feelings about other non-human animals.

Research has also shown that good relationships with pets can influence kindness towards other people. Cox (1993) found that families with pets experience closer family ties and greater cohesion than families without pets. Relationships with pets have also been associated with fostering a sense of responsibility towards others. Increases in children's social competence, empathy, and cooperation have also been shown to be positively associated with relationships with companion animals (Herzog 2010 and Poresky and Hendrix 1990).

The research cited above suggests that intense, positive emotional bonds between humans and pets may translate into a more positive orientation toward animals in general. Such relationships also seem to facilitate productive interactions with humans. Thus, it is expected that of Blouin's types, protectionists (who have the strongest bond with pets) would be most likely to show concern for factory-raised farm animals as well as have more knowledge about them. Since dominionists tend to be emotionally distant from animals in general, one would expect them to show the least concern for factory-raised farm animals. Humanists, who have close bonds with their own pets, but don't concern themselves with animals in general, are likely to have low levels of knowledge for factory-raised farm animal, but may have high levels of concern if aware of the conditions.

2.4 Classifications of Human-Pet Bond

Various researchers have found ways to capture the strength and type of bond between owners and their pets. For example, Zaloff (1996) used a 13 item "comfort scale" in order to measure the perceived level of comfort dog and cat owners received from their pets. Carlisle-Frank and Frank (2006) conducted a study examining pet caregivers who defined themselves as

“owners”, “guardians”, or “owner-guardians”, and evaluated how respondents in these categories differed in their attitudes about companion animals. Blouin (2009) built on previous research and discussed three categories of pet ownership to distinguish highly emotionally attached pet “parents” from pet “owners” with low emotional attachment. Blouin (2009) discusses the highly emotionally attached “protectionists”, who not only have an extremely close emotional bond to their own companion animals, but to animals in general. They tend to see animals as equal or superior to human beings and respond in ways they believe to be most beneficial to the animals. Alternatively, humanists tend to view themselves as “parents” to particular animals. They express having a love of dogs (or another particular pet), but not a universal love of animals. Dominionists see themselves simply as pet-owners for, as Blouin notes, “of the three types they are the only ones who may view their dogs as objects rather than subjects” (2009:13).

The three categories developed by Blouin have a long history. Blouin’s three categories are loosely equated with Kempton, Boster, and Hartley’s (1995) three environmental values: biocentric, anthropocentric, and religious. Those with biocentric values believe that humans are a part of nature and subject to the same ethics as other parts of nature. Biocentric beliefs are closely related to the protectionist typology. The anthropocentric value states that human beings have a concern for themselves and their direct descendants when placing value on the environment, thus connecting it to the humanistic classification of pet ownership. The religious value is closely related to the Judeo-Christian traditions that humans are superior to other animals. This value is closely connected to the dominionistic typology (Kempton et al 1995 and Blouin 2008). Blouin (2008) argued that the protectionist orientation originated from the animal welfare movement, environmental protection movement, and other humane movements of the 19th and 20th century. He stated that today, the Humane Society of the United States (HSUS)

inspired the protectionist orientation due to the large number of people adopting the HSUS practices as their own. Some examples of values the HSUS promotes are working to eliminate pet relinquishment, promoting adoption as opposed to buying, discouraging forcing pets to live outside and portraying pets as valuable creatures instead of pieces of property (Blouin 2008). Blouin argued that the humanistic orientation was rooted in the changing relationships humans have had with nature because of industrialization, urbanization, and the start of widespread pet keeping in Western cultures. Finally, Blouin (2008) argued that the dominionistic orientation “originates from the Judeo-Christian tradition that humans have dominion over “lesser” animals, which they can use as they see fit” (p. 4).

Protectionists. “The protectionist’s orientation is characterized by a strong attachment to one’s dogs (in this study I am changing “dogs” to “pets”) as well as a deep respect and concern for other animals” (Blouin 2009:15). Protectionists are not just universal animal lovers, but also universal animal protectors. It is not uncommon for protectionists to obtain their pets from animal shelters or rescue groups. Frank and Carlisle-Frank (2008) reported that people who purchase animals from pet stores or breeders do so because they are generally looking for a specific breed or because they simply do not consider looking at a shelter at the time of purchase. Protectionists tend to allow their pets to find them. They do not seek a particular breed, gender, or age, explaining why they are more likely to adopt from shelters or rescues (Blouin 2009). Protectionists are not looking for a particular breed of animals because they are likely to favor all pets indiscriminately and because they do not use their pets for commodification purposes. Protectionists like taking care of animals especially abandoned or unwanted animals. Protectionists are the only of the three classifications that are likely to be involved in universal animal rights organizations, and often donate time and money to them (Blouin 2008).

Several researchers have discussed pet owners in similar ways to how Blouin defined the protectionist. For example, Spencer et al (2006) stated that people who placed animals in an equal or higher status to humans would consider it unethical to do anything to a non-human animal that would be considered wrong to do to another human being. Edenbourg, Hart, and Bouw (1994) argued that certain pet owners enjoy taking care of large numbers of unwanted or abandoned animals because it makes them feel wanted and needed, another characteristic of a protectionist. A study done by Herzog (1993) found that for most animal activists, involvement in animal rights organizations was associated with a shift to thinking about equality between human beings and other species of animals. For many activists, thoughts concerning the treatment of animals play a critical role in their day-to-day mental lives (p. 106).

Humanists. According to Blouin, “The humanistic orientation is characterized primarily by an intense emotional attachment to a particular dog or dogs (in this study, “pet” or “pets”)” (2009:12). From this perspective, a pet serves as an attachment figure for the individual human (Blouin 2009 and Kobak 2009). Bowlby (1969) defined attachment as “lasting psychological connectedness between two living beings” (p. 194). In order for a companion animal to be considered an attachment figure, it must be “regarded as a dependable source of comfort who mitigates any vulnerability associated with exploring the world” (Kurdek 2008:249). As attachment figures, pets may serve as substitute children or companions (Askew 1996). Desire for a human being to act as a parental figure towards another species rationally explains why humanists tend to be partial to a particular species of animals, while indifferent towards others (Blouin 2009). A humanist’s chosen pet is seen as and treated like a human child. Studies have shown that a large majority of pet owners refer to themselves as pet-parents (Cohen 2002), making the humanist category a very common classification.

Thus, humanists view pets as they do children. In some circumstances, they may even be substitutes for children (Noonan 1998). The study of human-animal families has often been examined through the humanist framework (Power 2008). Nast (2006) suggests that dogs do not only act as child substitutes, they actually supersede children because they travel easier, are highly social and can even help their owners become grounded and integrated in their communities (p. 900). For the first time in the post-industrial world, pets are being accommodated at beaches, parks, high-class hotels, restaurants, stores, and other public places (Nast 2006). A study reported that 65% of cats and 39% of dogs slept on the bed of a family member (Gallup 2006). Because of humanists' parental attachments to their animals, the thought of getting rid of companion animal is unfathomable. Humanists have even reported keeping their cherished pets in spite of allergies and new additions of children to the family (Blouin 2009). Humanists have a very difficult time when their pet's life comes to an end. The grief humanists experience with the loss of a companion animal is often compared to that of the loss of a spouse or other family member (Donohue 2005).

Extensive research has been done on pet owners sharing characteristics of Blouin's humanist category. Spencer et al (2006) discussed the concept of "speciesism". They defined this as "applying different criteria to different non-human animal species," thus valuing some species over others (p. 20). Speciesism was based on the idea that "membership in a species is in itself, not relevant to moral treatment" (Steinbock 1978). Thus a cat owner may object to scientific research on cats, but may be less concerned with research on rodents. Similarly, if asked if it was acceptable for a human being to cook and eat a dog, most people would say "no", but then show no objection to cooking and eating cows, pigs, poultry, and so on (Herzog and Golden 2009). Humanists are likely to take part in "speciesism" because they are not universal animal lovers.

Humanists believe that only particular animals experience subjective feelings, thus making them more emotionally similar to human beings than other species (Blouin 2009). Consequently, for humanists, these particular animals deserve more moral considerations than other animals (Fraser, Weary, Pajor, and Milligan 1997).

Dominionists. “Dominionists view their dogs (pets) as animals, who have less value and status than humans” (Blouin 2009:13). A study done by Brown (1984) noted that the low quality of affection in human/animal relationships was directly affected by the owner’s need for dominance (Woodard and Bauer 2006). Anthropologist Levi-Strauss suggested that dominant human beings used non-human animals in order to distinguish the differences that lie between themselves and the natural world, particularly focused on the differences between themselves and other non-human animals (Franklin 1999:12). It would follow from the above that the greater the need for the owner to experience dominance, the less emotionally bonded the owner would be to a pet. It is not that dominionists dislike animals. In fact, dominionists may be relatively fond of their pets and of other animals; they simply view them as less important than human beings (Blouin 2009). An individual’s attitude towards pets depends on their perceived function of the animal. Dominating pet owners view their pets as having a use or a function aside from affection and companionship (Spencer et al 2006). Animals may be prized for hunting skills or valued for being show animals. Dominionists may pay a substantial amount of money for a pedigree animal, but do so as an investment in an expensive piece of property.

Dominionists’ animals are often kept outside depending on the animal’s role. They rarely take their animals to the veterinarian (once a year or less), and when they do, it is generally for required visits such as legally required rabies vaccinations. They are also likely to relinquish their pet if it comes inconvenient or problems arise (Blouin 2009).

The three classifications of pet owners provide a broad overview of the majority of pet owners in the United States. They may not cover all possibilities, but the literature discussed in the previous pages supports these being the primary three classifications. In sum, protectionists are universal animal lovers who respect and cherish their own pets as well as other species. Humanists are very emotionally attached to a particular species of animal, but may show little care or concern for animals in general. Dominionists own pets as personal servants for a wide variety of reasons and see all animals as subordinate to human beings.

2.5 The Horrors of CAFOs

Very few farms are as idyllic as most human beings believe. Anyone who has followed a truck load of chickens, pigs, or cattle has a first hand look at the crowded and packed conditions these animals suffer during transportation, but few have an idea about the places they are raised in nor the horror of their final destination. Injury and death of animals during transport is a major problem, but is only a glimpse of conditions in the factories (Bruckner 2007). Astonishingly, nearly 10 billion land-animals are raised and killed for meat, eggs, and milk every year in the US (Pacelle 2011). Today, less than 1 percent of animals killed for meat are raised on family farms (Foer 2009).

The majority of the “meat” animals are raised in “Concentrated Animal Feeding Operations” (CAFOs) defined as “large-scale, mechanized mega farms where hundreds of thousands of cows, pigs, chickens, and turkeys are fed and fattened for market, all within the confines of enclosed buildings or crowded indoor lots” (Kirby 2010:xiii). To most, these enormous warehouses are simply known as “factory farms”. Animals housed in these facilities endure less than humane conditions. They are kept indoors and confined in cages throughout various stages of their lives where they have little or no opportunity to move around (Novek

2005). Animals are forced to eat, sleep, and live in their own waste (Newkirk 2009). Newborn calves and piglets are weaned from their mothers at unnaturally young ages and fed unhealthy diets of corn and gluten to fatten them up. Piglets' tails are docked when they are very young to prevent them from biting one another. Young pigs bite one another's tails when they are packed in close confinement because they are weaned at an unnatural age and are instinctively suckling (Lassen, Sandoe, and Forkman 2006). Many animals suffer from brittle and breaking bones due to a lack of exercise and excess weight they are forced to gain (Newkirk 2009). The animals are mistreated and live their lives suffering from discomfort and pain. The livestock are raised in such environments that the simplest instinctual behavior such as rooting, nest building, and socializing cannot be carried out (Novek 2005). Animals raised in industrial production systems are generally characterized as unhappy and suffering (Lassen et al 2006).

If an agriculturalist in the 19th century or before would have kept animals in such conditions, the scheme would have been quickly corrected by nature. In other words, it would have brought about rapid spread of disease, death, and financial ruin (Rollin 1995). Mass introduction of antibiotics and drugs used to promote rapid growth of these animals have allowed for warehouse like conditions with a low chance of spreading disease or causing death. The well being of the animals is no longer a human priority due to the rapid gestation and growth of factory raised farm animals and their mass-produced and shortened lives. The primary emphasis is on growing them as quickly and efficiently as possible in order to maximize profits.

Many people talk about the cruel conditions factory raised farm animals endure (HSUS Report 2012). However, there is a strong disconnect between concern and action. The majority of Americans have little or no contact with farm animals. We have learned to tolerate this disconnection with farm animals, because unlike our pets, they are not present in our everyday

lives. The average American is essentially detached from the concept of the factory-raised farm animal. Our meat comes from the grocery store not from the animal itself (Kirby 2010); at least that is what Americans are taught to believe. The abuse of factory-raised farm animals “lies behind the food we eat” (Singer 1980:428). Livestock are raised to be guests at our dinner table, not to be sentient beings. In general, people are not inclined to give much thought about what they eat. Livestock are therefore commoditized as a food source for human beings. The general population is not the only group who wants to keep factory farms out of sight and out of mind; company owners are happy to oblige. As a result of joint efforts between manipulative owners of transnational corporations and meat packing plants, factory farming is effectively concealed from the public eye (Pollen 2006).

Not everyone shares the same “out-of-sight out-of-mind” views about factory-raised farm animals. There are individuals and organizations that truly care and want to make a change in the conditions these animals endure. Unfortunately, the few that do show concern for the welfare of factory-raised farm animals tend to be labeled as “either stupid, sentimental or just plain crazy” (Serpell 1986:13). What does the typical factory farm animal advocate look like? Although they come in all genders, races, and socioeconomic statuses, the typical advocate tends to be a white, young, adult female with a college education (Pacelle 2011).

2.6 Relationships Between Blouin’s Typology and Attitudes Towards Factory Farm Animals

Based on the changing attitudes toward animals over time, it is reasonable to suggest that the type of human-pet bond owners experience with their pets should influence their level of concern and knowledge for animals raised in factory farms. It is expected that pet owners who report being more emotionally attached to their pets would have a higher level of concern for and

knowledge of animals raised in CAFOs, while less attached owners would be less concerned and knowledgeable.

Protectionists are universal animal lovers and protectors. Due to their universal concern and guardianship for animals, it is not uncommon for protectionists to make intense diet changes to communicate their stance on universal animal welfare. Vegetarians are individuals who do not consume any animal meat while vegans do not consume any animal products at all. Not all vegans and vegetarians are protectionists and not all protectionists are vegans or vegetarians, but the lifestyle and classification are often correlated. Many protectionists who practice veganism and vegetarianism believe that it is immoral to eat meat (Singer 1980). Still, others do not necessarily find it immoral to raise animals for food, but rather particular methods of raising the animals (Singer 1980). For instance, it may be deemed acceptable to raise free-range animals for food, but completely unacceptable to raise animals in factory farms. Some protectionists take beliefs about consuming factory-raised farm animals one step further by objecting to consuming all animal products produced in these farms such as eggs and milk. Ingrid Newkirk (2009), author of *The PETA Practical Guide to Animal Rights*, remarked in defense of mistreated farm animals: “being bred for a certain purpose does not change an animal’s biological capacity to feel pain and fear” (p. 74). This suggests that respondents in this classification are the most likely to have high levels of knowledge and concern for factory-raised farm animals.

Although humanists have a high level of attachment to their current pet(s), they are not universal animal lovers (Blouin 2009). However, Serpell and Paul (1994) suggest that strong sympathies for other animals (such as farm animals) may arise from long-term emotional attachment to pets. Due to humanists’ strong attachment to their pets, it is reasonable to believe

that they may have sympathies for factory-raised farm animal if they are aware of the conditions they endure.

People in the dominionist typology use pets for commodification purposes (Blouin 2009). Based on this classification, their knowledge of factory-raised farm animals may be high, but their concern for them is expected to be low. Dominionists believe that pets and other animals are placed on this earth as servants to human being. Dominionists are likely to not only be aware of the conditions, but also even agree with using the animals the way they are used.

As the review of research has highlighted, the human-animal bond has changed significantly over time. Changing times have led to an overall greater physical caring for, knowledge, and concern for pets and other animals in general (Franklin 1999). Blouin's three categories of pet ownership allow us to evaluate pet owners' type of emotional attachment to their pets. Changes in our society over time have also changed the way that human beings feel about factory-raised farm animals. As more research and information has become available about the conditions and treatment of animals in these farms, level of knowledge and concern for the animals has increased in the general population (Frank 1979; Foer 2009; and Pluhar 2009). A major aim of this study is to examine whether different types of pet owners are more or less likely to be concerned and knowledgeable about the animals raised in factory farms.

2.7 Other Variables

Gender. Pet owners' attitudes and feelings towards their own pets and other animals are mediated by variables such as gender, among others. Research has shown that roughly the same proportion of U.S men and women live with pets (Herzog 2007); however, men and women tend to have very different views of and interactions with pets. Lue, Pattenburg, and Crawford (2008) found that female cat and dog owners exhibited stronger bonds to their pets than both male dog

and cat owners did. Arluke and Sanders (2008) found that women were more likely to refer to themselves as their pets' parents, where men were more likely to refer to themselves as a master or playmate. Similarly, women were more likely to take on the caretaker role than men (Arluke and Sanders 2008). Men are more likely to hunt animals for recreation and engage in animal cruelty. Women, however, are more likely to participate in animal rights organizations and care for large numbers of pets in their homes (Herzog 2007). A study by Wells and Hepper (1997) reported that women in both North America and the United Kingdom expressed more concern for animals used in research than men and were also more likely to refrain from eating meat for animal welfare reasons. In contrast, men were more likely to have utilitarian and doministic control over animals, especially in sporting circumstances (Kellert 1980 and Kellert and Berry 1987).

In a study conducted about pet ownership and adults' use of animals, Wells and Kruse (1999) found that women were more likely to believe that animals had moral rights than men. Consumption of meat has also been associated with patriarchy and masculinity in Western European, African and Asian cultures (Ruby and Heine 2011). According to Franklin (1999), the traditional meaning of meat in western cultures symbolized strength, health, muscle power, vigor, and virility; qualities often associated with men. These traditionally masculine qualities may be associated with a lessened concern for animal welfare in general. Research has shown that women are also more likely to show greater affection towards animals and grant greater moral considerations towards animals in general (Arluke and Sanders 2008). Based on this research, it is expected that more men will be dominionists and more women will be protectionists and humanists.

Past Ownership of Pets. Past ownership of pets as children has also been shown to be a factor in pet owners' current feelings and concerns for animals. The majority of current pet owners grew up with pets, and continued to own the same types of pets they had as children (Arluke and Sanders 2008). According to Paul and Serpell (1993), adults who had regular contact with animals as children were more likely to express care and concern for animal welfare in adulthood. Studies have shown that owning pets as children is positively associated with concern for animal welfare in general (Prokop and Tunnicliffe 2010). The majority of animal advocates had a close bond to pets during childhood (Pacelle 2011). Based on these findings, those who grew up with pets in the home should be more likely to be protectionists and humanists and less likely to be dominionists.

Education Level. Education level also affects attitudes towards pets and other domesticated animals (Lue et al 2008). Until a couple of hundred years ago, elites were more likely to keep pets as compared to the underclass (Pacelle 2011). Greater educational attainment may make human beings more aware of the conditions of animals raised in factory farms. Those with a college degree are more likely to be animal rights activists (Pacelle 2011). These findings argue for greater concern and knowledge of animals raised in factory farms among those with higher education levels.

Lue et al (2008) found that it was actually individuals with lower income (< \$40,000 per year) and with a high school education or less that were more likely to report having strong bonds with their dogs than more educated and wealthy persons. The KC DOG BLOG statistical breakdown (2013) also reported that people with lower education levels (high school or some college) were more likely to have stronger bonds with their pets than people with postgraduate

degrees. Based on these findings, it is expected that respondents without a college education are more likely to be members of the humanist or protectionist type.

Geographic Location. Studies have shown that geographic location may also play a significant role in concern for and knowledge of agricultural animals. Kendall, Lobo, and Sharp (2006) found that people living in rural areas were more likely to be physically close to animals used for food. Factory farms are usually placed in poor rural communities. These farms negatively affect residents in many ways. They cause health problems as well as emotional and psychological illnesses (Kirby 2010 and Pacelle 2011). Those living in rural areas, especially in rural Eastern North Carolina where factory farms are numerous, would probably be more likely to have knowledge of CAFOs. According to Jordan (1975), rural white Southerners keep dogs for specific purposes such as scavenging, hunting, and guarding, characteristics often sought out by dominionists. Based on these findings, it is expected that rural respondents will probably have a higher level of knowledge but low concern for factory farms and are most likely to be dominionists.

Urban city dwellers are further removed from agricultural animals. This may make them less likely to have knowledge of their conditions (Kendall et al 2006). During the beginning of urbanization, pet keeping fulfilled a basic need to be closer to other creatures (Pacelle 2011). Due to the lack of non-human creatures in urban communities, pet keeping still fulfills an important need for city dwellers. Particular constraints in urban living associated with pet owning such as number and type of animals allowed, housing type, and increased responsibility of providing for animals in an urban areas (Huss 2005) may cause urban pet owners to be better prepared for having pets, possibly making them more likely to belong to the humanist and

protectionist categories due to the level of thought, consideration, and sacrifice they must go through to obtain a pet.

Past Farm Experience. It would make sense that individuals who have grown up on, or lived on a family farm at some time in their life may be aware of how farm animals should be treated. For example, they may have had loving one-on-one relationships with the animals and witnessed the benefits of free-range conditions. Kirby (2010) defines a farm as “a tract of land, usually with a house, barn, silo, etc., on which crops and often livestock are raised for livelihood”. These farms are dramatically different than their factory farm counterparts. Therefore it is predicted that those who had some past farm experience in their lives would be more likely to know what a factory farm or concentrated animal feeding operation is and agree that the animals are treated inhumanely more so than someone who had never lived on a family farm.

It is also reasonable to assume that past farm experience would influence the type of attachment a pet owner has for his or her pet or pets. Chardonens (2011) found that living on a farm could help develop strong relationships with various animals for some people. When studying children with various emotional disorders, he found that spending time with farm animals made the children develop stronger relationships with the pets on the farm. Therefore, it is reasonable to predict that those who have lived on a family farm at some time in their lives would identify as protectionists and humanists since protectionists and humanists display high levels of attachment to their pets. Past farm experience is less likely to be associated with the dominionist typology.

CHAPTER III. METHODOLOGY

3.1 Research Questions

The two primary research questions were:

1.
 - a) Can the assignment of pet owners into three types of emotional attachment be replicated using a simple quantitative method?
 - b) Are the predictor variables (gender, geographic location, past pet ownership, education level, and past farm experience) related to the likelihood of respondents adopting one of the three types?
2.
 - a) Does pet owners' type of emotional attachment to their pets influence their level of concern for and knowledge of factory-raised farm animals?
 - b) Is the relationship between type of emotional attachment and knowledge and level of concern influenced by gender, geographic location, past pet ownership, education level, and past farm experience?

3.2 Study Design

In order to determine if the typology of pet owners can be replicated and generalized to a more diverse population, a telephone survey of Pitt County North Carolina was conducted. The Community Research Lab (CRL) at East Carolina University executed the telephone survey. A telephone survey was a relatively inexpensive, quick and effective method of collecting data. As the Senior Graduate Research Assistant of the CRL, I was able to design a small, inexpensive telephone survey as a part of the research experience provided for the undergraduate student majors. This was very important because there was no funding for this project. With a strong introduction and carefully trained interviewers, a relatively high response rate was achieved.

3.3 Questionnaire Design and Methods

Interview questions were structured to measure the level of pet owners' attachment to their pet or pets. Participants were asked to evaluate their individual bond with their pet(s) by sharing information such as: 1) how many pets they have, 2) what role their pet(s) play in their household, 3) their self-reported emotional and physical attachment to their pet(s), 4) and their methods of physically and financially providing for their pet(s). Participants were then asked to assess their level of knowledge and concern for animals housed in Concentrated Animal Feeding Operations by sharing: if they were aware of factory farms, what they thought about the treatment of animals in these farms, and whether or not and how their individual lifestyles were influenced by their knowledge of these conditions.

3.4 Type of Human-Pet Bond

The first set of questions in the survey dealt with the human-pet bond. Respondents answered several closed ended questions about their pet or pets. Respondents were placed into one of the three types of human-pet bond (protectionist, humanist, or dominionist) based on their answers. There were 11 primary questions dealing with human-pet attachment. Each question had three answer choices that were associated with one of the three categories of human/pet bond. The 11 questions were based on a 3x11 table included in Blouin's (2009) article.

[Table 1 about here]

After data was collected, the number of answers each respondent selected in each category was counted. Initially, respondents with 70% (8 or more of 11) of their answers in one of the three categories were to be assigned to that category. This decision was made based on the following logic. Respondents had a one in three chance of selecting a category by guessing.

$\frac{N!}{r!(N-r)!} = \binom{N}{r}$. The odds of getting eight or more out of 11 by guessing were approximately .036.

This decision rule would be consistent with the traditional significance level of .05.

Considering the fact that this was an exploratory study, and it was possible that only a small number of respondents would select 8 or more out of 11 questions in one of the three categories, an alternative decision rule was considered. The odds of getting 6 or more out of 11 by guessing were approximately .10. This was a reasonable alternative decision rule since this was an exploratory study.

3.5 Knowledge of and Concern for Factory-Raised Farm Animals

The second set of questions in the survey focused on knowledge of and concern for factory-raised farm animals. Respondents were asked a few short, closed-ended questions in order to evaluate their level of concern for and knowledge of CAFOs and the animals raised in them. The Likert scale consisted of five categories: strongly agree (SA), agree (A), neither agree nor disagree (A/D), disagree (D), and strongly disagree (SD).

1. I know what a factory farm or concentrated animal feeding operation is...SA, A, A/D, D, SD
2. The animals are treated humanely...SA, A, A/D, D, SD
3. It is OK to treat the animals this way...SA, A, A/D, D, SD

One question asked respondents if they had made any of the listed lifestyle changes to protest the farms.

1. Have you or would you make any of the following lifestyle changes to protest these farms? Become a vegan, become a vegetarian, search for meat that is organic or free range, join an animal rights organization

3.6 Other Variables

1. Did you have pets in the home as a child? 1=Yes 2=No
2. Have you ever lived on a farm? 1=Yes 2=No
3. Would you say that you live in an urban or rural area? 1=Urban 2=Rural
4. What is your gender? 1=Male 2=Female
5. What is the highest degree in school that you have completed? 1=Did not complete high school, 2=high school, 3=some college, 4=associates or technical degree, 5=bachelors degree, 6=masters degree, 7=higher than a masters

3.7 Data Collection

All undergraduate majors in the sociology department are required to participate in several data collection exercises as part of their required coursework. Using a required methods class to collect the bulk of the data created a special obligation for the researchers. Research ethics required the students be given a valuable educational experience in exchange for their time. In-class lectures foreshadowed the telephone interviewing experience, but formal training of the interviewers began on October 31, 2012 at four o'clock pm. The interviewers were given a brief introduction to the CRL. They were given the official CRL manual to read, watched a short video on interviewing techniques, and were given instructions on appropriate conduct in the lab, proper ways to conduct interviews, and other essential information to begin the project. Interviewers signed up for one of the three shifts available (Nov 7, 11, and 12, 2012). Additional shifts were scheduled as required.

The interviewing process began on November 7, 2012 at five o'clock pm. The interviewers were assigned to their stations (either in the CRL or in BB302). They spent the first 45-60 minutes practicing a longer more complicated survey with each other. This gave them a chance to get comfortable with the equipment and with executing a telephone interview before they called an actual respondent. Interviewers then practiced the actual survey with each other. After practice, they started calling potential respondents. Surveys were collected from 5-9 o'clock pm. Each group of interviewers followed the same protocol on Nov. 11 and 12, 2012.

Shifts were supervised by either the senior graduate supervisor of the CRL or by one of the co-directors. Supervisors were available at all times in-case interviewers had any questions or concerns about the survey or interview process. They were also responsible for making sure interviewers stayed on task and worked in an efficient and professional manner. Students who performed well during their shift were given the opportunity to interview an additional four hours as an extra credit project. At the end of the assigned shifts it was decided that all interviewers that participated in the mandatory shifts would be given the opportunity to work an additional four hours for extra credit in their class. The additional shifts were offered November 25 and 26, 2012. A total of eight students attended one of the two shifts.

In addition to the undergraduate methods class, three graduate students collected data. Two graduate students completed a three-hour interviewing shift. Both had previous training in the CRL, so they did not have to be re-trained. The graduate junior assistant of the CRL interviewed for approximately 26 hours. In addition to the graduate students, I also interviewed for about 35 hours. When all interviewer hours in all shifts were combined, the total number of interview hours was about 331.

3.8 Sample Selection and Size

A random digit dialing sample was drawn using telephone numbers selected from the Greenville, NC phone book and entered into an Excel Spreadsheet by undergraduate sociology majors taking a required course in sociological research methods. Once in the Excel Spreadsheet, replacing the last two digits with random numbers modified the telephone numbers. This process produced a Random Digit Dialing sample with the number proportional to the listed numbers in each working block in Greenville. While this procedure did produce a large number of non-

working phone numbers, it reduced the problems associated with a listed sample. A telephone survey allowed for a much larger sample size than qualitative research.

The larger sample size was necessary in order to confidently determine if respondents could be placed into one of the three types of human-pet bond. Based on his qualitative study, Blouin identified eleven situations in which humanists, protectionists and dominionists would respond differently (2009:23). Blouin argued that respondents with different types of human-pet bonds would select different responses to each of the 11 situations. The ideal sample size would allow respondents to select the answer reflecting their type of human-pet bond allowing for random error in the selection process. To calculate the sample size, the error was assumed to follow the normal distribution and the desire to have a p-value less than or equal to .05. The estimated proportion (P) is .333 because one of the three answers is the correct answer for each respondent. The N was calculated by using the formula $n = \frac{[1.96^2 * (.333)(.667)]}{(.05)^2} = 340.79$. The final sample size was 293.

Given the limited resources available for this study, a minimum sample size was also computed. In many studies exploring new areas or new concepts with limited resources, a slightly larger p-value less than or equal to .10 is acceptable. The sample size using a p-value equal to .10 was 86 using the formula $n = \frac{[1.96^2 * (.333)(.667)]}{(.10)^2} = 85$.

3.9 Data Coding

Data collection ended the first week of December 2012. The data was exported from Qualtrics to SPSS. After the exportation, the data was cleaned. The cleaning process consisted of deleting all cases that were either practice or incomplete interviews.

Each of the 11 questions assessing the type of human-pet bond had three answers, - protectionist, dominionist, and humanist responses. Variables that identified the respondents'

type of animal-human bond were created by calculating the number of protectionist, dominionist, and humanist responses each respondent gave to the 11 questions. After the three dummy variables indicating type of human-pet bond were defined, they were combined into a single variable that included all three types. Respondents were assigned to one of the three types by answering six or more of the 11 situations that corresponded with the protectionist, dominionist, or humanist type. Respondents who did not answer six or more of the 11 situations in any of the three types were considered to be an undefined type.

The variable *Do you consider yourself to be male or female* was recoded into the dummy variable *gender*. The variable was coded “1” if the respondent was male, and “0” for females and respondents that were unsure. The variable *did you have pets in your home as a child* was dummy coded into the variable *pastpet*. The variable was coded “1” if the respondent reported owning pets as a child, and “0” if the respondents said that they did not have pets at home as a child. All other variables were coded as “system missing”. The original variable *do you live in an urban or rural area* was dummy coded into the new variable *urban* where a “1” was coded for respondents reporting to live in an urban area and “0” for those in a rural area. All other variables were coded “system missing”. The original variable *have you ever lived on a farm* was dummy coded into the new variable *pastfarm* where a “1” was coded for respondents reporting to have lived on a farm and “0” for those who had not. All other variables were coded as “system missing”. *Education* was coded as “1” for respondents who had less than a high school education, “2” for respondents who had a high school degree, “3” for respondents who had completed some college, “4” for respondents who had completed an associates or technical degree, “5” for respondents who had a bachelors degree, “6” for respondents who had a masters degree, “7” for respondents who had higher than a masters degree. All other variables were

coded “system missing”.

CHAPTER IV. RESULTS

A total of 6,275 RDD telephone numbers were generated and called. Of the 6,275 numbers called, 4,439 of the numbers were disconnected, business telephone numbers, residence with no one over the age of 18, or residences where no one spoke English. The final result was a total of 1,575 legitimate Pitt County home residence numbers. Thirty five percent of households called reported that they did not have a pet. A total of 1,024 households in Pitt County that had a pet were located. The refusal rate was approximately 18%. A refusal meant that the respondent in the household did not want to take any part in the survey whether they had a pet at home or not. Of the 1,024 home phone numbers called, about 29% completed the survey in entirety. The remaining 47% of the numbers called were answering machines. A total of 293 interviews were completed, with a 63% cooperation rate. "The cooperation rate to a survey indicates the extent to which contacted individuals cooperate with a request to participate in a survey" (Sagepub.com).

4.1 Research Question One, Part A: Can the assignment of pet owners to three types of emotional attachment be replicated using a simple quantitative method?

In the proposal, respondents would have been required to select 8 or more answers of the 11 questions to be placed into a single type of human-pet bond. However, only 38 of the 293 respondents could be put into one of the three types using this rule. These results showed that Blouin's results could not be replicated using the more rigorous decision rule of assignment (8 or more of the 11) to one of the three types of human-pet bond.

In order to allow for the preliminary nature of questions and answers created by Blouin, the alternative decision rule to assign respondents to a type of human-pet bond was used. The alternative decision rule allowed 60% of the respondents to be placed into one of the three types of human-pet bond.

Of the 293 respondents, 176 could be assigned to one of the three types with at least 6 of

the 11 questions. A total of 15 respondents were assigned to the dominionist type, 123 to the protectionist type, and 38 to the humanist type of human-pet bond. The remainder of the 117 respondents could not be placed in one of the three types of human-pet bond. The results showed that 60% of respondents could be placed into one of Blouin's categories, and 40% could not. This showed that there is some preliminary validity to Blouin's typology of human-pet bond (protectionist, dominionist, and humanist), but that both the typology and the measuring instrument need to be refined.

[Table 2 about here]

4.2 Research Question One Part B: Are the predictor variables (gender, geographic location, past pet ownership, education level, and past farm experience) related to the likelihood of respondents adopting one of the three types?

Since Blouin's typology was only partially validated, the remaining research questions must be approached with caution. A total of five background variables were logistically regressed on each of Blouin's three classifications of human-pet bond (protectionist, dominionist, and humanist). These five variables were: *gender, past ownership of pets, geographic location, past farm experience, and education*. Because of the exploratory nature of this research, relationships are accepted as statistically significant at the .10 level.

Humanists. When all variables were run separately, *pastpet*, and *urban*, and *education* were not significant. The relationship between *gender* was statistically significant ($p=.023$). Males were 68.6% less likely to belong to the humanist typology than females. The relationship between *pastfarm* was also statistically significant ($p=.056$). Respondents who had lived on a farm at some point in their lives were 50.8% less likely to be humanists than respondents who had not lived on a farm.

When all five of the predictor variables were logistically regressed together on the Humanist classification, *gender* and *pastfarm* remained significant. When controlling for all other variables, males were 61.1% less likely than females to be a humanist ($p=.071$). This indicates that the size of the effect decreased when controlling for *pastpet*, *urban*, *pastfarm*, and *education*. Respondents who had lived on a farm in the past were 63.9% less likely to be humanists ($p=.02$) when controlling for all other variables. Controlling for *gender*, *pastpet*, *urban*, and *education* caused *pastfarm* to have a larger impact on the likelihood of the respondent being a humanist.

[Table 3 about here]

Protectionists. No background variables were significant in the protectionist type when regressed alone, or with other variables.

[Table 4 about here]

Dominionists. When all predictor variables were run separately: *gender*, *pastpet*, *pastfarm*, and *education* were not statistically significant. *Urban* was statistically significant. Respondents living in urban areas were 63.6% less likely to belong to the dominionist type.

When all variables were logistically regressed together, only *urban* was significant. When controlling for all other variables, respondents living in urban areas were 65.6% less likely to be dominionists than those living in a rural area. When *gender*, *pastpet*, *pastfarm*, and *education* were controlled, urban residents become less likely to be dominionists.

[Table 5 about here]

In sum, gender and past farm experience were negatively associated with respondents adopting the humanist typology. Living in an urban area was negatively associated with being a

member of the dominionist category. None of the five variables were significantly associated with respondents adopting the protectionist category.

4.3 Research Question Two, Part A: Does pet owners' type of emotional attachment to their pet/pets influence their level of concern for and knowledge of factory-raised farm animals?

In order to test whether pet owners' emotional attachment to their pet or pets influenced their level of knowledge of and concern for factory-raised farm animals several ANOVA tests were run. The first tested knowledge of factory farms with the question: *Do you know what a factory farm or a concentrated feeding operation is?* Respondents were given a Likert-scale with the following five choices, “*strongly agree*”, “*agree*”, “*neither agree nor disagree*”, “*disagree*”, or “*strongly disagree*”. The first examined the relationship between the type of animal-human bond and knowledge of factory farms. These results' main effect for type was not statistically significant at the .10 level ($F=1.48$, $df=3$, $p=.221$). There was no statistically significant relationship between type of pet bond and level of knowledge for factory-raised farm animals. This meant that respondents' type of human-pet bond (protectionists, dominionists, or humanists) did not influence their level of knowledge of CAFOs.

[Table 6A about here]

Of the original 293 respondents, 147 (50.2%) reported that they either “strongly agreed” or “agreed” that they knew what a factory farm was. Only those 147 respondents who indicated that they knew what a factory farm was were included in the remaining analyses. Seven of the remaining 147 respondents were dominionists, 68 were protectionists, and 15 were humanists. Fifty-seven were not assigned to a type. Using the respondents who did know what a factory farm was, the influence of type of human-pet bond on level of concern for factory raised farm animals was examined with the statement: *The animals are treated humanely*. The results were

not statistically significant at the 0.10 level ($F=1.15$, $df=3$, $p=.330$). The type of human-pet bond does not influence the level of concern for factory-raised farm animals using this question.

[Table 6B about here]

Finally, a second measure of the respondents' concern for factory-raised farm animals was examined using the 147 respondents who knew about the factory farms with the statement: *It is OK to treat the animals this way*. The influence of type of human-pet bond on concern for factory-raised farm animals was examined. This analysis produced statistically significant results ($F=3.68$, $df=3$, $p=.014$). This shows that type of human-pet bond does have a statistically significant influence on this type of concern for factory-raised farm animals.

[Table 6C about here]

To better understand the relationship, the means for the four categories of respondents were produced. The possible range was from one to five. One representing "strongly agree" and five representing "strongly disagree".

The mean for the dominionists was 2.43 ($sd=1.13$), the mean for the protectionists was 3.79 ($sd=1.91$), and the mean for the humanist type was 3.60 ($sd=1.24$). For respondents who did not fall into one of the three categories, the mean was 3.33 ($sd=1.17$). Based on these results, dominionists were the most likely to "agree" that it is OK to treat the animals in factory farms the way that they are treated. Protectionists were the most likely to "disagree" that it is OK to treat the animals in factory farms the way that they are treated. Humanists fell in-between the dominionists and protectionists. Respondents that were not assigned to one of the three categories were less likely than the dominionists to think that it was OK to treat the animals the way they were treated, but more likely to think it was OK than the protectionists and the humanists.

These results showed that dominionists were the least likely of the three types to have concern for animals raised in CAFOs, protectionists were the most likely to be have concern for the animals raised in factory farms, and the humanists and unclassified respondents fell somewhere in between the other two types.

4.4 Research Question, Two Part B: Is the relationship between type of human-pet bond and knowledge of and concern for factory-raised farm animals influenced by controlling for gender, geographic location, education, past pet ownership, and past farm experience?

In the first ANOVA Model, the results showed the relationship between type of human-pet bond and knowledge of factory farms is related to *gender* ($F=4.73$, $df=1$, $p=.031$). *Pastpets* ($F=1.00$, $df=1$, $p=.319$), *urban* ($F=.482$, $df=1$, $p=.482$), *pastfarm* ($F=.000$, $df=1$, $p=.992$), and *education* ($F=1.65$, $df=1$, $p=.201$) were not significantly related to the type of human-pet bond and knowledge of factory farms. When the relationship between type of human-pet bond and knowledge of factory farms was examined controlling for the covariates, the relationship between type of human-pet bond and knowledge of factory farms remained statistically insignificant ($F=.892$, $df=3$, $P=.446$).

[Table 7 about here]

In the second ANOVA model, the results showed that the relationship between type of human-pet bond and the respondents thoughts that the animals in the factory farms were treated humanely was related to *pastfarm* ($F=11.06$, $df=1$, $p=.001$). *Gender* ($F=.000$, $df=1$, $p=.985$), *pastpet* ($F=.462$, $df=1$, $p=.498$), *urban* ($F=2.52$, $df=1$, $p=.115$) and *education* ($F=2.64$, $df=1$, $p=.121$) were not significantly related to type of human-pet bond and thoughts that the animals are treated humanely. When the relationship between the type of human-pet bond and the belief that factory raised farm animals were treated humanely was run controlling for the covariates,

the relationship between type of human-pet bond and belief that the animals in the farms were treated humanely ($F=.864$, $df=3$, $P=.462$) was still not statistically significant.

[Table 8 about here]

In the third Anova model, the results showed that the relationship between type of human-pet bond and thoughts that it was OK to treat the animals the way they were treated was related to *urban* ($F=3.08$, $df=1$, $p=.082$) and *pastfarm* ($F=12.41$, $df=1$, $p=.001$). *Gender* ($F=.616$, $df=1$, $p=.434$), *pastpet* ($F=.405$, $df=1$, $p=.529$), and *education* ($F=.764$, $df=1$, $p=.384$) were not significantly related to type of human-pet bond and beliefs human-pet bond and the belief that it was OK to treat the animals in the farms the way they were treated was run when controlling for covariates, the relationship between type of human-pet bond and the belief that it was OK to treat the animals the way they were treated ($F=2.35$, $df=3$, $P=.076$) was statistically significant.

[Table 9 about here]

CHAPTER V. DISCUSSION

5.1 Assignment of Respondents to One of the Three Types (protectionist, humanist, or dominionist)

A primary question of this research was to explore whether Blouin's typology could be replicated using a quantitative method. Analysis of the results showed that over half of the respondents could be assigned to one of the three categories using the criterion of picking more than half (60%) of the answers. This suggests that there is some validity to Blouin's results, but the categories and the measurement need to be refined before they can be useful for quantitative research.

Blouin conducted 28 in-depth interviews with (only) dog owners from a Mid-western county. Based on the 28 interviews, he concluded that the dog owners could be assigned dominionist, protectionist, or humanist categories. Based on responses from the interviews, he constructed a table providing a brief description of the various attitudes and behaviors accompanying the three orientations (Blouin 2009). Although Blouin did not use the constructed table as an interview guide, the table was used as the interview guide for this study because it reflects the patterns found in his in-depth interviews.

Blouin did not provide the percentages of respondents that fit into each of the three types. Therefore, it was difficult to assess whether the percentages found in this study are comparable to his. This study found that a relatively high number of respondents fell into the protectionist typology (123) and a significantly lower number of respondents fell into the humanist (38) and dominionist (15) typologies. Unfortunately, we have no way to know whether or not the results of this study are comparable to those in Blouin's study.

This study also revealed that there were a disproportionately high number of protectionists and a very low number of dominionists. A possible explanation for the high number of protectionists and the low number of dominionists may be related to their personality types. Given protectionists warm and caring nature, they may be more likely to agree to complete a telephone survey than more harsh natured dominionists.

Blouin's very small sample size also left questions about how generalizable his results were. His interviewees were selected from respondents from a previous quantitative survey (not specifically connected with addressing the three classifications of human-pet bond). Blouin hand selected the respondents for the in-depth interviews. Therefore, his study was not a random sample. The fact that he chose interviewees may have biased his results. This study used a simple random sample, which may have accounted for the large number of respondents not assigned to one of the three types.

Another factor that may have limited the replication of Blouin's study was the fact that he only interviewed dog owners. This study did not focus on any particular type of pet owner. Therefore respondents had pets ranging from dogs to alligators. Studies have shown that "dog" people and "cat" people have varying personalities and relationships with their animals (Gosling, Sandy, and Potter 2010 and Zasloff 1996). Perhaps the categories could have been more tightly defined in this study had it only focused on dog owners.

A possible reason that the study could not be replicated with a more rigorous decision rule for assigning respondents to each animal-human bond type is question structure. First, many of the respondents wanted to choose more than one of the three answer choices in several of the questions. For example: when respondents were asked if they considered themselves to be their pet's parent, owner, or caretaker, it was common for respondents to say that they considered

themselves to be all three of those. Respondents were forced to pick one of the three choices. In addition to many of the respondents wanting to select more than one of the choices, one of the questions did not seem to be relevant in assigning respondents to one of the three types: *How often do you take your pets to the vet?* Where reporting “less than once a year” adequately described the dominionist typology, reporting “once a year or more than once a year” did not seem to have much reliability in distinguishing between members of the humanist and protectionist types.

It was concerning that so many (40%) of the respondents could not be assigned to one of the three categories. This meant that they answered less than six of the 11 questions for one of the three categories of human-pet bond. When a factor analysis was run, no clear factor structure was observed. There are two primary possible solutions to this problem. First, the questions could have been asked on a Likert scale. Instead of reading one statement and asking respondents to choose one of the answer choices, each of the 11 questions could have been broken down into three separate questions where respondents had to report on a scale of one-five (strongly agree-strongly disagree) with each of the three parts. For example: “What is that status of your pet in your household?” could be broken up into *My pet is equal or superior to humans*: “strongly agree” “agree” “neither agree nor disagree” “disagree” or “strongly disagree”. *My pet is below humans*: “strongly agree” “agree” “neither agree nor disagree” “disagree” or “strongly disagree”. *My pet is my child*: “strongly agree” “agree” “neither agree nor disagree” “disagree” or “strongly disagree” for each of the 11 original questions. This may allow for more assignment of the unidentified respondents into one of the three types.

One of the main reasons that there were so many unassigned respondents was because people had trouble choosing between one of the three answers. Particular questions that were the

most troubling in forcing respondents to choose just one answer were: *What is the status of your pet in your household? (cherished pet or child, equal or superior to humans, or below humans), Would you say you are your pet's...(parent, owner, or caretaker), and What is the role of your pet in your household? (cherished child or best friend, companion, or useful for some other purpose like protection or entertainment)*. Rating each of the answer choices on a scale may allow for better assignment. A second possible solution to decreasing the number of unclassified respondents would be to have more than three categories. While some people fell very nicely into one of the three categories, others had very inconsistent answers. Adding additional categories may have allowed the previous inconsistent answers to be placed into the new type.

5.2 Blouin's Typologies and Relationships with Predictor Variables

A second primary question of this research was to explore whether Blouin's typology was related to the predictor variables: gender, having pets at home as a child, geographic location, past farm experience, and education level. There were no consistent patterns, but there were some significant relationships. The results showed that a rural background was associated with a greater likelihood of falling into the dominionist category. Females were more likely to identify as humanists than males were. The prediction that having past farm experience would be associated with being a humanist was also supported. This was assumed because humanists have a high level of attachment to their pets and research has shown that interaction with farm animals can lead to stronger bonds with pets (Chardonens 2011).

The fact that gender was not significantly related to the protectionist category was surprising. Based on previous research, it would have been assumed that females would have been significantly more likely to be protectionists and humanists than males. A possible reason that this was not significant may have been related to the fact that so many (40%) of the

respondents were not able to be assigned to one of the three categories. This left out a large number of respondents who may have been assigned to one of the three types if the questionnaire had been modified. Exploring additional types in addition to Blouin's three may have also allowed for significance. The proportion of males to females in the study was not equal (30% males and 70% females). More equal representation of males and females may have also been a key factor in producing significant results. Blouin had a disproportionate number of males and females in his study (11 males and 24 females). However, he stated that the lack of diversity in his study did not offer adequate explanations for the importance of this variable (Blouin 2009).

It was surprising that education level was not significant in any of the models. Previous studies demonstrated a significant correlation between education level and level of attachment to pets, so it was expected that results would have been replicated in this study. Education level was used as a way of measuring socioeconomic status in this research. Socioeconomic status could have been measured better by asking respondents their estimated annual household income. However, asking income can also cause problems. Respondents are often reluctant to report their income in telephone surveys. Measuring SES by income may be a better option, but it would probably require a much larger sample size to account for respondents refusing to answer the question. Another reason that education was not significant in any of the three categories of animal-human bond may have been due to the fact that the number of responses for each type was decreased from 8 of 11 to 6 of 11. The reduced number may have allowed for too much diversity in respondent's education levels. If the categories could have been more tightly defined, education may have been significant. Adding more categories could have also allowed education to be significant.

5.3 Type and Relationship to Knowledge of and Concern for Animals Raised in Factory Farms

Human-pet bond was related to knowledge of and concern for animals raised in factory farms. Protectionists were the least likely to think that it was OK to treat the animals the way they were treated in the factory farms. In addition, dominionists were the most likely to think that the treatment was OK. These results were expected because previous research has shown that protectionists showed the highest level of concern for animals in general and dominionists showed the lowest level of concern. Humanists fell in-between protectionists and the dominionists in their feeling that it was OK to treat animals in factory farms the way that they were treated. These results were also consistent with Blouin's finding that protectionists were universal animal lovers and protectors and dominionists believed all animals were below humans and did not deserve compassion or protection (Blouin 2009).

It was surprising that neither knowledge of factory farms nor belief about the animals' treatment was related to type of human-pet bond. It was expected that protectionists and dominionists would have the greatest level of knowledge of the farms. It was also expected that protectionists would be the least likely to think that the animals were treated humanely in the farms. A possible reason that typology was not correlated with knowledge of factory farms may have been that respondents were not familiar with the terminology. If the terms "factory farm" or "concentrated animal feeding operation" would have been defined in the question, respondents may have been more likely to be aware of what the farms really were. Confusion in the terminology may have also been why *the animals are treated humanely* was not significant. Respondents who were confused about the definition of a factory farm or concentrated animal feeding operation may not have known about horrible conditions the animals endured. I believe that the confusion in the previous two questions may have been why the question *it is OK to treat the animals this way* was significant. Of the respondents who were familiar with the terms

factory farm and CAFO, protectionists were more likely to say it was not OK to treat the animals the way they treated. Dominionists were more likely to think that it was OK to treat the animals the way they were treated. Humanists fell somewhere in between protectionists and dominionists, as expected.

5.4 Control Variables and Knowledge of and Concern for Factory Farms

The fourth and final primary research question was to examine whether the control variables were related to the respondents' level of knowledge of and concern for factory farm animals. The final results supported several of the expectations concerning the control variables and the level of knowledge of and concern for factory farms and the animals raised in them. Gender was significantly related to knowledge of the existence of the farms. The expectation that past farm experience would be significantly related to thinking that the animals were treated humanely and that it was OK to treat the animals that way was supported. This made sense because people who had lived on family farms in the past would probably have had knowledge of humane conditions.

Level of education was not statistically significant in any of the three models. It was predicted that those with a higher level of education would have been more knowledgeable about the farms, based on their access to more resources, than those with a lower education level. This could, however, be the result of the "out of sight, out of mind" idea that the farms were not located in upper class communities; therefore people with higher SES may have been disconnected from the existence of the farms.

5.5 Future Research

This exploratory study raises more questions than it does answers. Although Blouin's qualitative study could be loosely replicated by a simple quantitative design, there is still much more research to be done before it is considered a suitable replication method. In future research the consideration of exploring additional or alternative categories should be considered. The three categories (humanist, protectionist, and dominionists) certainly do not cover all of the possibilities of types of human-pet bond. Restructuring the questions and increasing the number of questions used to assign people to categories might allow for finer and more meaningful distinctions.

Another possible addition to future research of this study would be to survey respondents in a different geographic location. This study was limited to a sample of residents in Pitt County, NC. Pitt County is a relatively small county in Eastern North Carolina with only 172,554 residents (pittcountync.gov) county. Eastern North Carolina is home to a large number of factory farms, and has several rural cities as well as one relatively large urban college city (Greenville). It would be interesting to replicate the study in a geographic location that did not have as many factory farms as Pitt County. The livelihood and income that the factory farms in Eastern North Carolina provide to many of its residents may lead some respondents to hesitate saying negative things about them. In contrast, the health problems and other environmental factors the farms cause residents living near them (Kirby 2010) may cause the residents to have a heightened level of hostility towards the farms. It would also be interesting to replicate the study in a county not located in Eastern North Carolina. Blouin's study was conducted in the Midwest, which provided respondents of a completely different location and background than Eastern North Carolina. Blouin also reported that he had a relatively large number of rural residents in his study (Blouin

2008). I think that it would be interesting to conduct the study in a large metropolitan area where all respondents are urban and no factory farms are nearby.

Future research may benefit from using different background variables. This particular study controlled for gender, past pet ownership, geographic location, past farm experience, and education level. I believe that adding additional variables such as race, income, and whether or not there are children in the household might produce important findings in future research. Including race in the analysis would contribute to the research by allowing us to evaluate whether or not different racial groups report different types of animal-human bond and level of concern for and knowledge of factory-raised farm animals. It is reasonable to assume that it would, especially when accounting for factors such as education level and social class. As previously stated, replacing education level with income may be a better evaluation of socioeconomic status. Finally, addressing whether there are children in the home may be an important factor in determining what type of human-pet bond respondents were assigned to. Blouin (2009) found that respondents with young children in the home were more likely to be dominionists because they no longer saw their pets as children or family members when children were born.

In sum, restructuring the questions and adding more background variables to the research may allow for more valid results in future studies. Conducting the study in an area where there are no factory farms or in a large metropolitan area may lead to very different results. Finally, additional covariates such as race, income, and children in the home may be important additions to further research.

CHAPTER VI. CONCLUSION

The findings from this study indicate that there is some validity to Blouin's typology of the human-pet bond. However, in order to further replicate the study in a quantitative manner, several adjustments and revisions must be made to his typology, as well as the consideration of adding additional types of human-pet bond.

Based on the way that respondents were assigned to one of the three types, there was not a significant relationship between type of human-pet bond and knowledge of animals raised in factory farms. There was, however, a significant relationship between one of the questions measuring concern for the factory-raised farm animals and type of human-pet bond.

Different wording of the dependent variables may allow for better clarification for respondents. Since so many respondents reported that they did know what a factory farm was, and then said that they thought the animals were treated humanely, giving a brief definition of a factory farm before asking the first question may weed out the respondents who may have thought they knew what a factory farm was, but really did not.

It is important to pursue this type of research because we need to better understand the dynamics between people's feelings toward their own animals and what they are willing to do for other animals. This is particularly important given that our world population is increasing at such a rapid rate thus demanding a greater supply of animals raised for food.

Future research on this topic should allow for revised and additional typologies to be added to the study. It would also be valuable to consider repeating the study in a metropolitan geographic location far removed from the presence of factory farms. In addition, including predictor variables such as income, race, and existence of children in the home may also result in significant findings. This exploratory study is only the beginning of a long road of further

research into the examination of who is aware of and concerned for animals raised in factory farms, and who still needs to be educated.

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TABLES

Table 1. Descriptions of Pet Owners' Orientations towards their Pets

Attitude/Behavior	Humanist	Protectionist	Dominionists
Status of Pet	Cherished pet or child	Equal or superior to humans	Below humans
View of self	Parent	Caretaker or guardian	Owner
Role of pet in the house	Cherished child or best friend	Companion	Useful for some other purpose like protection or entertainment
Breed preference	Loves some breeds but not all	Loves all breeds equally	Sees some breeds as more useful than others
Attitudes towards other Animals	Very fond of own pet, but not universal animal lover	Loves all pets equally	Not particularly concerned with animal welfare
Animal Advocacy	May give to dog or cat related causes	Often volunteers and gives to animal related causes	Rarely give to any animal causes
Pet's "Home"	Either in owners bed or in its own bed	Whatever is best for the pet	Outside
Veterinary Visits	Once a year	More than once a year	Less than once a year
Origin of Animal Acquisition	A breeder or pet store	A shelter or rescue	It depends on what kind of animal they are looking for
Relinquishment Attitudes and Practices	Would never get rid of current pet, but has gotten rid of pets in the past	Would never get rid of any pet	Would get rid of pet if a problem or issue arose
Reaction to Pets Death or Impending Death	Likely to delay the death as long as possible	Would have the pets best interest in mind when dealing with end of life decisions	Pets can be replaced

Source: Blouin (2009)

Table 2. Descriptive Statistics for Variables of Pet Owners' Orientations towards their Pets

Attitude/Behavior	Humanist	Protectionist	Dominionists	Undefined
Status of Pet	132 45.1%	69 23.5%	92 31.4%	-
View of self	91 31.1%	92 31.4%	110 37.5%	-
Role of pet in the house	94 32.1%	163 55.6%	36 12.3%	-
Breed preference	145 49.5%	102 34.8%	46 15.7%	-
Attitudes towards other Animals	59 20.1%	227 77.5%	7 2.4%	-
Animal Advocacy	113 38.6%	64 21.8%	116 39.6%	-
Pet's "Home"	184 62.8%	73 24.9%	36 12.3%	-
Veterinary Visits	91 31.1%	175 59.7%	27 9.2%	-
Origin of Animal Acquisition	92 31.4%	145 49.5%	56 19.1%	-
Relinquishment Attitudes and Practices	31 10.6%	174 59.4%	88 30%	-
Reaction to Pets Death or Impending Death	27 9.2%	238 81.2%	28 9.6%	-
Type	38 13%	123 42%	15 5%	117 40%

Table 3. Logistic Regression of Covariates on the Humanist Typology, N=38

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	.314**	-	-	-	-	.389*
Past pet	-	.507	-	-	-	.682
Urban	-	-	.742	-	-	.639
Past farm	-	-	-	.492*	-	.361**
Education	-	-	-	-	.913	.844

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 4. Logistic Regression of Covariates on the Protectionist Typology, N=123

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	.908	-	-	-	-	.931
Past pet	-	1.13	-	-	-	.957
Urban	-	-	1.05	-	-	1.10
Past farm	-	-	-	1.29	-	1.35
Education	-	-	-	-	.981	1.01

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 5. Logistic Regression of Covariates on the Dominionist Typology, N=15

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	1.90	-	-	-		2.09
Past pet	-	.535	-	-		.333
Urban	-	-	.364*	-		.354*
Past Farm	-	-	-	1.83		1.71
Education	-	-	-	-	1.10	1.18

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 6(A). ANOVA of *I Know What a Factory Farm or Concentrated Animal Feeding Operation is*, N=293

Independent Variable	Sum of Squares	df	Mean Square	F-Value	P-Value
Type	7.48	3	2.49	1.48	.221
Error	488.24	289	1.69		
Total	2950.0	293			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 6 (B). ANOVA of *The Animals are Treated Humanely*, N=147

Independent Variable	Sum of Squares	df	Mean Square	F-Value	P-Value
Type	4.69	3	1.56	1.15	.330
Error	193.97	143	1.36		
Total	1766.0	147			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 6 (C). ANOVA of *It is OK to Treat the Animals This Way*, N=147

Independent Variable	Sum of Squares	df	Mean Square	F-Value	P-Value
Type	15.51	3	5.17	3.68	.014***
Error	210.01	143	1.41		
Total	2049.00	147			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 7. ANOVA of *I Know what a Factory Farm or Concentrated Animal Feeding Operation is* with Covariates, N=293

Independent Variables	Sum of Squares	df	Mean Square	F-Value	P-Value
Gender	7.80	1	7.80	4.73	.031**
Past pet	1.65	1	1.65	1.00	.319
Urban	.820	1	.820	.497	.482
Past farm	.000	1	.000	.000	.992
Education	2.72	1	2.72	1.65	.201
Type	4.413	3	1.47	0.89	.446
Error	443.59	269	1.65		
Total	2788.00	278			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 8. ANOVA of *The Animals are Treated Humanely* with Covariates, N=147

Independent Variables	Sum of Squares	df	Mean Square	F-Value	P-Value
Gender	.000	1	.000	.000	.985
Past pet	.579	1	.557	.462	.498
Urban	3.16	1	3.16	2.52	.115
Past farm	13.86	1	13.86	11.06	.001***
Education	3.31	1	3.31	2.64	.121
Type	3.25	3	1.08	.864	.462
Error	161.57	129	1.25		
Total	1661.00	138			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

Table 9. ANOVA of *It is OK to Treat the Animals this way* with Covariates, N=147

Effect	Sum of Squares	df	Mean Square	F-Value	P-Value
Gender	.808	1	.808	.616	.434
Past pet	.532	1	.532	.405	.529
Urban	4.04	1	4.04	3.08	.082*
Past farm	16.29	1	16.29	12.41	.001***
Education	1.00	1	1.00	.764	.384
Type	9.23	3	3.08	2.35	.076*
Error	169.26	129	1.31		
Total	1897.00	138			

*p< 0.10, **p<0.05, ***p<0.01 (two-tailed test)

APPENDICIES



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · www.ecu.edu/irb

Notification of Exempt Certification

From: Biomedical IRB
To: [Magdalen Walton](#)
CC: [Christa Reiser](#)
Date: 9/20/2012
Re: [UMCIRB 11-001272](#)
Human-Animal Bond: Attachment vs. Objectification

I am pleased to inform you that your research submission has been certified as exempt on 9/20/2012. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418

IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418 IRB00004973

APPENDIX B: SURVEY INSTRUMENT

Q1 Hi, My name is _____ and I'm a student from ECU doing a survey about pets. We are not trying to sell you anything, we are asking Pitt County pet owners a few questions about their pets. Do you have a pet? [IF YES...] Can you please help me out with a quick survey? I must verify that you are at least 18 years of age before we begin. Your answers will be recorded as confidential and anonymous.

Q2 First, are you male or female? [IF QUESTIONED TELL THEM YOU ARE REQUIRED TO ASK]

- Male (1)
- Female (2)
- Other (3)

Q3 How many pets do you have?

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- More than 5 (6)

Q4 What types of pets do you have? [DO NOT READ CHOICES. CHECK ALL THAT APPLY]

- Dog (1)
- Cat (2)
- Rabbit (3)
- Bird (4)
- Fish (5)
- Snake (6)
- Reptile (7)
- Gerbil or hamster (8)
- Other (9)

Q5 What would you typically say the status of your pet/pets in your household is? [READ ALL CHOICES]

- Equal or superior to humans (1)
- Below humans (2)
- My child (3)

Q6 Would you say you are your pet/pets...[READ ALL CHOICES]

- Owner (1)
- Parent (2)
- Caretaker (3)

Q7 Would you say your pet is...[READ ALL CHOICES]

- A companion (1)
- A child or best friend (2)
- Useful for some other purpose like protection or entertainment (3)

Q8 What is your attitude about particular breeds of companion animals? [READ ALL CHOICES]

- I love all breeds equally (1)
- I like some breeds, but not all (2)
- Some breeds are more useful than others (3)

Q9 Would you say you are... [READ ALL CHOICES]

- Not particularly concerned about animal welfare (1)
- Very fond of my pet/pets, but not a universal animal lover (2)
- Very fond of my pet, and a universal animal lover (3)

Q10 When it comes to animal advocacy, would you say you...[READ ALL CHOICES]

- Often volunteer and give to animal related causes (1)
- I rarely give to animal related causes (2)
- I may give to dog or cat related causes (3)

Q11 Typically where does your pet sleep? [READ ALL CHOICES]

- Outside (1)
- Wherever is best for him/her (2)
- Either in my bed or on its own bed (3)

Q12 How often do you take your pet to the vet? [READ ALL CHOICES]

- Less than once a year (1)
- Once a year (2)
- More than once a year (3)

Q13 Where do you typically get your pets? [READ ALL CHOICES]

- From a shelter or rescue (1)
- From a pet store or breeder (2)
- It depends on what kind of animal I am looking for (3)

Q14 How do you feel about getting rid of your pet? Would you say... [READ ALL CHOICES]

- I would never get rid of any pet (1)
- I would never get rid of my current pet, but have gotten rid of pets in the past (2)
- I would get rid of my pet if a problem or issue arose (3)

Q15 How would you typically react if your pet were very ill or dying? [READ ALL CHOICES]

- I would be sad, but pets can be replaced (1)
- I would likely delay the death as long as possible (2)
- I would have my pet's best interest in mind when making end of life decisions (3)

Q16 Thanks for sticking with me, we are almost finished. Now I am going to read a few statements about farm animals.

Q17 Please tell me whether you Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, or Strongly Disagree with the following statements...I know what a Factory Farm or Concentrated Animal Feeding Operation is.

- Strongly Agree (1)
- Agree (2)
- Neither Agree nor Disagree (3)
- Disagree (4)
- Strongly Disagree (5)

Q18 Click to write the question text

	Strongly Agree (1)	Agree (2)	Neither Agree nor Disagree (3)	Disagree (4)	Strongly Disagree (5)
The animals are treated humanely. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is OK to treat the animals this way. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 Have you ever made any of the following changes to speak out against these farms? [READ ALL CHOICES. CHECK ALL THAT APPLY]

- Became a vegan (1)
- Become a vegetarian (2)
- Search for meat that is organic or free range (3)
- Join an animal rights organization (4)
- None of the above (5)

Q20 I have just a few more questions for you.

Q21 Did you have pets at home as a child?

- Yes (1)
- No (2)

Q22 Did you enjoy having pets in the home as a child?

- Yes (1)
- No (2)

Q23 Do you have any animals you do not consider to be a pet?

- Yes (1)
- No (2)

Q24 Do you treat them differently than you treat your pets?

- Yes (1)
- No (2)

Q25 Would you say you live in an urban or rural area?

- Urban (1)
- Rural (2)
- Not Sure (3)

Q26 Have you ever lived on a farm?

- Yes (1)
- No (2)

Q27 What is the highest degree in school that you have completed?

- Did not finish high school (1)
- Completed high school (2)
- Some college (3)
- Associates or Technical degree (4)
- Bachelors Degree (5)
- Masters Degree (6)
- Higher than a masters (7)