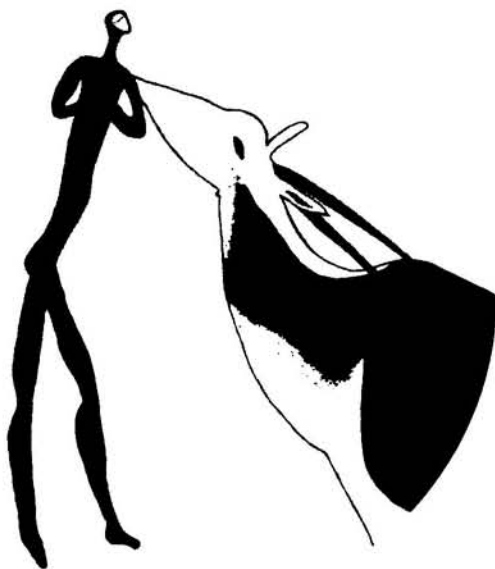


Annual Conference of the
International Society for Anthrozoology

HUMAN-ANIMAL BOND

THEORY RESEARCH PRACTICE

AUGUST 13 TO 15, 2008



ABSTRACT BOOK



UNIVERSITY OF TORONTO
OISE | ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

Podium Presentations: Thursday Session 1

Animals in Literature

Chair: Lana Stermac

Using literary works to develop appreciation of the human animal bond by student veterinarians

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Veterinarians play an important role in preserving the human animal bond throughout the lives of animals and their owners. Although this bond is frequently discussed in the veterinary field, the discourse is typically from a scientific point of view. The authors propose that reading and discussing literary works allows veterinarians to more fully understand the depth and importance of the bond to the well-being of their patients and clients. The objective of this study is to present a model for a course in veterinary medicine and literature for veterinary students.

The Veterinary Medicine and Literature course has been offered six times as an elective course (four in the United States at NC State University and two in Canada at Ontario Veterinary College, University of Guelph) to a total of 50 students (46 women and 4 men) in years one to three of the veterinary curriculum. Their areas of interest included companion animals, horses, farm animals, and wildlife. In the course, students read and discussed selected poems, short stories, essays, and excerpts from novels. They also wrote a story or poem, which they read in the last sessions of the class. A post-course survey was administered to assess the impact of the course on students' appreciation for the human animal bond, using a Likert scale (1 low, 5 high).

A majority of students reported that their appreciation of the personal connections between their clients and their animals, and the veterinarians and their patients, significantly increased during the course. A majority also reported that their understanding and empathy toward clients, other veterinarians, and staff was enhanced by what they read and discussed during the course. They felt that the readings stressed the intensity of the human animal bond and that it is important to remember that others may be suffering even if all is well with you. The readings from the perspective of animal owners reinforced their appreciation of the human animal bond. Thus, we have found that reading and discussing the wide variety of stories and poems dealing with the human animal bond provide a natural, open-ended way of developing an awareness of the human animal bond that is critical for effective veterinary care.

H(a)unted Man: Animal Invasion and Richard Marsh's *The Beetle*

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As the nineteenth century was drawing to a close and England's imperial project was still going strong, Victorian society despite, or because of, technological and scientific advances was feeling anxious. Latent fears of invasion resided in the subconscious mind of the public and we find these fears surfacing within the fictional works of the fin de siècle. Two of the more popular of these novels are Bram Stoker's *Dracula* (1897) and H.G. Wells's *The War of the Worlds* (1898), but published during the same time and just as popular, at least then, was Richard Marsh's *The Beetle* (1897). Like *Dracula*, *The Beetle* is told through multiple narrators and thrills the reader with the story of an ancient Egyptian being which comes to London aiming its malice mainly at politician Paul Lessingham. This novel not only tells a tale of reverse colonization, of the Eastern Other invading London, seeking retribution and causing contamination, but because of the being's ability to transform itself from man to woman to animal at will, it also represents a reverse invasion of another sort. In a post-Darwinian world, I argue, Victorian fears included not just the repercussions of imperialism but also the fear of animal invasion into and potential colonization of human territory. Darwin removes humans from the center of power through his theory of natural selection and Marsh's novel portrays a society's anxiety about the possibility of animals achieving a position of power rivaling that of humanity.

Empowering animals to disempower imperialism: Metamorphoses in Victorian children's fantasy.

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The Victorian era heralded the creation of the Society for the Prevention of Cruelty to Animals (1824), the Vegetarian Society (1847), the first animal shelter (1865), the National Anti-Vivisection Society (1875), and the Cruelty to Animals Act (1876); unfortunately, these were projects of the few, not the many. Under the umbrella of imperialism, regimes of speciesism and anthropocentrism perpetuated philosophies firmly based in the subjection of the Other. Children's Literature, however, became a forum for authors to propagate anti-anthropocentric ideologies to a readership of both adults *and* children thus enacting cultural change at a myriad of levels. While books such as Anna Sewell's *Black Beauty* overtly clamored against animal cruelty, children's fantasy authors deployed subversive maneuvers to transgress practices of animal cruelty and its enabling philosophies. Although Charles Kingsley publicly aligned himself with anti-vivisectionists, his fantasy, *The Water-babies: A Fairy Tale for a Land-Baby*, suggests otherwise as he denigrates animals to save human-animals. In direct contrast, through literal and figurative human-animal to animal metamorphoses in his *Alice* books as well as *Sylvie and Bruno Concluded*, Lewis Carroll consistently privileges animals over human-animals. By portraying the metamorphoses and resulting animals as escape or reward in contrast to curse or punishment as is common in the Western European

folktale tradition, Carroll transforms the animal from subjugated Other to empowered Subject. Lewis Carroll alters evolutionary hierarchy, interrogating, disrupting, and defying anthropocentric practices of dominion and exploitation, and presenting, in the pages of Children's Literature, an autonomy for animals that is one of the Victorian period's greatest legacies to both British and American society.

Bridling the Scolds, or Natural Horsemanship and *The Horse Whisperer*

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By popularizing natural horsemanship, *The Horse Whisperer* functions like a modern day *Black Beauty*. In fact, Diana Deterding claims that *The Horse Whisperer* did “more for the treatment of horses in 2 1/2 hours than all the gentle training advocates have been able to do in the past twenty years.” Deterding's praise echoes standard reactions to the novel and film that embrace the momentous healing that results in the glorious reunion of protagonist Grace and her injured horse Pilgrim.

Such readings strikingly take little note of the climatic scene that challenges the ostensible message of kindness. In fact, investigating the literal and metaphorical significance of the laying down sequence in *The Horse Whisperer* seriously complicates the ideological positioning of this popular work. John Lyons, “America's Most Trusted Horseman,” acknowledges the tension between Pilgrim's literal and symbolic status in *The Horse Whisperer*: “While we know that the story of Pilgrim, the movie's equine star, is supposed to be reflective of Grace— his traumatized, emotionally hobbled and finally free young owner— the activities undertaken by Tom Booker, played by Robert Redford, in training Pilgrim are dangerous.” Dangerous to whom? Clearly Lyons explores the implications for the literal horse in great deal, but the old cowboy's warnings about Pilgrim's metaphorical status being “reflective of Grace” suggest that the danger extend into the unstable world of gender politics.

This presentation will explore the literal benefits to the lives of many horses by the revolution in horsemanship while questioning the more dubious metaphorical status of the horse/woman analogy that permeates their representation in *The Horse Whisperer*. Relying on the long tradition linking the horse with the woman (Chaucer, Shakespeare, Trollope, Eliot, etc.), the representation of the relationship between Grace and Pilgrim challenges the notion of equality by naturalizing hierarchy. The conclusions dispute even progressive notions of the binaries of man/woman and human/beast, complicating post-humanist and post-feminist ideologies that seek to destabilize authority.

Language, Expression and Representations in Human Animal Relationships

Chair: Lori Marino

The aim of this conference is to draw connections across theory, research and practice in human-animal studies. A core mediator of these three areas is the general domain of language, expression and the representation of animals and human-animal relationships. In this proposed panel session we will examine the ways language, expression, and representation shape the human-animal bond in a variety of important contexts. In doing so we hope to deconstruct how our conceptualizations of other animals are both shaped by and, in turn, mold our language in a perpetual cycle of theory, research and practice. We examine how the discourse of human-animal relationships is used to reinforce cultural norms, particularly as they emphasize disparities in power and value. We also seek to set the foundation for a new paradigm of trans-species science that compels a reconceptualization of human-animal relationships in a way that has the potential to radically change theory, research and practice in human-animal studies.

Our session begins with a foundational talk by Gay Bradshaw (presented by Lori Marino) in which she introduces the major concepts of the session and lays the groundwork for trans-species science. Five presentations follow on the role of language, expression and representation in a number of critical domains including research and experimentation, the culture of science, the veterinarian-animal relationship, zoos and aquaria, and the experience of pleasure. We explore how the representation of animals in each of these contexts has led to the glaring absence of an advocate for individual animals. We conclude that documents such as the Belmont Report, for the protection of human research subjects, may be extended to animals to ensure adequate protection for these vulnerable individuals.

Elephants on Acid: How What We Say About Animals Let's Us Do What We Do To Animals

G.A. Bradshaw (Presented by Lori Marino)

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There is a famous story of the Sufi master, Hazrat Inayat Khan, who told one of his students to repeat a certain mantra as a way to make spiritual progress. The student protested saying, "How could mere words make a change?" The master then angrily shouted at the student who shrank down in shame and fear at his wrath. Suddenly, the master started laughing, and said, "Now, you understand the power of words!" Along with this student, George Orwell, and countless observers of the human politic, have grasped the profound influence language has on thought and action. However, since words and language are regarded as property unique to humans, less attention has been given to their role in shaping the lives and images of animals. Here, through specific examples of human-animal relationships in diverse settings (e.g., elephants used for LSD testing, orcas trained for marine parks, dogs used as service animals, cattle processed for

food), we examine the question of language—its role, use, and meaning--given the new paradigm of trans-species science. With the emergence of a unitary model of brain and behaviour for all vertebrates (and some include invertebrates), science compels a radical re-conceptualization of human privilege, human language, ethics, and indeed, a new culture. By deconstructing human-animal differences, science has deconstructed the conceptual and political architecture permitting speciesism.

The Language of Neurological and Psychological Experiments on Animals and the Perpetuation of Moral Conflict

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In 1996, Niall Shanks and Hugh LaFollette wrote: “Biomedical researchers offer scientific justifications of animal experimentation: since humans and non-human animals share significant biological mechanisms. Experiments on animals can teach us a great deal about human biological phenomena. Researchers have also offered moral justifications for experimentation: humans and non-human animals are substantially different in morally relevant respects. At some level these justifications are at odds”. These conflicting justifications are evident in the medical and scientific literature, particularly in the psychological and neurological literature.

The language used to describe the procedures inflicted upon animals in the laboratory during experimentation and the animals’ reactions to these procedures is a manifestation of how the experimenter reacts to and justifies the animals’ experiences during testing procedures. Language is nuanced to minimize the perception and realization of animal suffering and trauma during these procedures while it concurrently maximizes similarities between humans and nonhumans as a justification for these experiments. In other words, physiological similarities are emphasized and psychological ones are minimized (i.e. PTSD-*like* rather than PTSD, nociception rather than pain). This language in turn further influences and perpetuates blunted emotional reactions towards the animal subjects on the parts of the experimenters and the readers.

Overcoming Language and Species Barriers and Ensuring Protections to Vulnerable Subjects

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Article 1 of the United Nations Convention against Torture defines torture as “any act by which pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes” including, “for any reason based on discrimination of any kind.” Human survivors frequently cite three forms of torture, including physical, psychological, and environmental trauma, which may lead to short- or long-term physical and psychological distress. However, evidence has shown that humans are not alone in their capacity for physical, psychological, and emotional suffering. Language used by torture survivors may be applied to the physical and mental trauma experienced by nonhuman animals. Subjective and objective concepts such as “witness”, “humiliation”, and “involuntary participation” in research and other forms of exploitation transcend the species barrier. Subsequently, the relationship between veterinarians or technicians and animals used in experimentation may be compared to the historical participation of physicians in torture. In this scenario, the human-animal bond is compromised much like the physician-patient bond is undermined. In closing, we consider how the protection of human subjects in research, predicated on documents such as the Belmont Report, extends to nonhuman animals.

Animals, Agency and Identity: A Discourse Analysis of Institutional Animal Care and Use Committee Meetings

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Human beings' "discourse of domination" about other humans has been and remains a critical topic of study. The same critique applied to animals, however, has lagged behind. This study contributes to and enriches this area by asking, what is the role of discourse in the oppression and exploitation of laboratory animals? Scientific discourse, as a specialty and subgroup, consists of its own language communities—scientists, administrators, technicians—who frame a way of knowing and a way to work that creates in-group understandings of technical terms and emphasize the existence of out-groups. For example, previous studies have revealed dual motivations in scientific agents' use of language as a way of maintaining the appearance of credibility, even when they felt internally uncertain, and to maintain psychological equilibrium between actions and belief. The conceptual framework of this study extends research typically applied to analyses of racism and sexism into that of speciesism by applying the tools of discourse analysis to a text taken from monthly protocol review meetings of an Institutional Animal

Care and Use Committee. Examples of the description and deliberation of animals' pain and of agency are used to highlight apparent psychological and cultural barriers to oversight and enforcement. We argue that language is used not only to justify experiments on animals, who lack agency in this context, but also to reduce scientists' and administrators emotional discomfort about the effects of experimentation.

Perverting the Ark: The Messaging and Motives of Zoos and Aquaria

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There is a longstanding custom of zoos and aquaria conforming their messaging to popular cultural trends. For instance, in early nineteenth century England, imperialism was the predominant social ideology and the first zoos presented themselves as models of imperial grandeur, emphasizing the conquest of nature. Today, the preservation of species is the *dernier cri* and zoos and aquaria have responded by representing themselves as principal agencies for species education and conservation (the Noah's Ark concept). In this presentation we will explore the following questions about the messaging of zoos and aquaria: Are the ostensible motives of today's zoos and aquaria what they appear to be? Do zoos and aquaria, in fact, significantly contribute to species education and conservation? How do zoos and aquaria use language and representation to achieve their goals? How does the messaging of zoos and aquaria affect the human-animal relationship? We will address these questions by 1) presenting examples of zoo and aquarium rhetoric, advertisement, and physical presentation from various sources, 2) highlighting the findings of our analysis of the recent much-cited report by the Association of Zoos and Aquaria (AZA) entitled "Why Zoos Matter", and 3) exploring, in an evidence-based manner, the consequences and implications of zoo and aquarium messaging for the human-animal relationship.

Our findings lead to the strong conclusion that zoos and aquaria are not motivated by the Ark concept despite strong messaging to the public to that effect. Furthermore, the recent AZA study provides no evidence that zoos and aquaria support educational and conservation goals. Finally, we argue that, in fact, zoos and aquaria contribute to a cultural milieu that distorts and degrades the human-animal relationship in a way that is antithetical to conservation.

Science-speak and the neglect of pleasure

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The language of peer-reviewed science dodges the assumption that animals experience a conscious existence. This “science-speak” keeps things in a strictly evolutionary context. Feelings become functions. For instance, positive emotions like “love “ and “affection” are instead lumped within a relatively sterile “pair bond.” Scientists refer to pleasurable stimuli as “rewarding,” kissing in birds has been labeled “beak rubbing,” and open-mouthed kissing as “false feeding.” Occam’s Razor has been blunted by over-use. In the face of available evidence regarding animal sentience and emotionality, it is more plausible to accept conscious experience in a hippopotamus, for instance, than to deny it. Yet the natural selection of peer review keeps academic writing firmly entrenched in ultimate causation, to the exclusion of proximate experience. I will give examples of this in my presentation, such as a study concluding that rats’ preference for novel foods following 3-days on a single foodstuff was adaptive for avoiding a potentially ephemeral food resource, or micronutrient deficiency; the authors make no suggestion that the rats were tired of the same fare and welcomed something new. I argue that it is time scientific discourse tipped its hat to the conscious, feeling experience that defines daily life for so many animals. When we focus only on survival, reproductive success, selfish genes and natural selection, we overlook emergent properties of the complex whole, and rob ourselves of a valuable perspective from which to interpret behavior.

Podium Presentations: Thursday Session 2

Cultural Perspectives

Chair: Ardra Cole

For the love of dog: The human-animal bond in rural and remote Australian indigenous communities

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Non Indigenous visitors to Australian Indigenous communities often assume the human-animal bond there is weak, based on the poor health and free roaming nature of the canine population. This belief has facilitated the practice of shooting free roaming dogs by non Indigenous authorities in an effort to improve the health and quality of life in these communities. However, anthropologically, the human-animal bond in Indigenous communities is traditionally strong. Traditional lifestyles have been in a rapid state of flux since European contact. The nature of the human-animal bond in contemporary

Indigenous communities is little researched, but essential to understand to develop and implement appropriate and sustainable animal health and management practices to improve canine and human health and quality of life.

There are intrinsic difficulties posed by exploring attitudes to animals cross culturally. This project first studied the appropriateness of three approaches to exploring the human-animal bond in four rural and remote Indigenous communities: the Attitudes to Animals Scale (AAS), a newly developed more locally relevant questionnaire (LRQ), and a semi-structured interview format (SSI) based on the themes in the LRQ. Eleven of 26 participants rejected the questionnaires in favour of the SSI, with a strong preference for the SSI in more remote communities. SSI was henceforth used to elicit information on attitudes to animals in these communities. Theme analysis of SSI responses (n=76) revealed a variety of attitudes to animals within the communities. However, a strong theme was the importance of dogs on a community level. Many of the reasons given for the importance of dogs in the community were based on traditional cultural values or beliefs. Thus, contrary to appearances from a Western perspective, the traditional Indigenous human-dog bond was found to be strong, and thus must be taken into account in developing appropriate and sustainable animal health and management practices.

Attitudes and perceptions towards free-roaming cats among individuals living in Ohio

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Cats have surpassed dogs as the most popular pet in the United States, with 38.4 million households owning an estimated 88.3 million cats. Unfortunately, this increasing popularity of cats as pets has been accompanied by an increase in the number of free-roaming cats as well as cats entering animal shelters. Little work has been done, however, to assess individual attitudes towards free-roaming cats. The objectives of this study were to evaluate the attitudes and perceptions towards free-roaming cats among individuals living in Ohio, and to examine differences in these attitudes and perceptions among cat and non-cat owners and between individuals living in different residential areas (urban, suburban and rural).

A random digit dialing sampling methodology was used to collect information from individuals living in Ohio. Participants were asked a series of questions regarding demographic information, pet ownership, attitudes towards cats in general and free-roaming cats, feeding and management practices of free-roaming cats, awareness of laws for pets, and beliefs about free-roaming cats and the need for laws to regulate them. Interviews were completed for 703 of the 1,250 households contacted for a response rate of 56.2%. Over three-fourths of participants saw a free-roaming cat on occasion or more often during the prior year. Approximately one-fourth (n=184, 26.2%) of participants fed at least one free roaming cat during the prior year. Almost half of participants had

sympathetic feelings towards free-roaming cats. Significant differences were found in many of the questions regarding beliefs about free-roaming cats and the need for regulations between cat and non-cat owners, and between urban, suburban and rural residents.

With over one-fourth of participants feeding free-roaming cats and one-half having sympathetic feelings, clearly an element of the human-animal bond exists towards free-roaming cats that needs further exploration.

Anthropomorphism and attitudes toward animal training

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Within the past decade, many experts have increasingly relied on more positive reinforcement training techniques and have shifted away from harsh techniques that may injure the animal, possibly due to the belief that positive techniques are more beneficial for the emotional well-being of the animal (HSUS, 2007). The present study examines whether tendency to engage in anthropomorphism is related to attitudes about animal training.

Three-hundred twenty-five college students completed a 55-item survey pertaining to animal training practices for various types of animals (*e.g.*, dogs, circus animals, livestock). Previous research by Chin, Sims, Lum, and Richards (in press) found that this survey contained nine subscales (factors) including views of general punishment, withholding food or whipping, electric shock use, belief that an animal does something wrong to intentionally upset us, shouting at animals, belief that dogs are like property, belief that zoo animals are treated properly, attitude toward treatment of livestock, and use of timeout as an effective punishment. Participants also completed the 78-item Anthropomorphic Tendencies Scale (ATS) (Chin et al., 2005) which assessed extreme anthropomorphism, anthropomorphism of animals, anthropomorphism of god or a higher power, and negative anthropomorphism. Stepwise regression analyses were used to assess which of the four types of anthropomorphism predicted attitudes towards animal training as measured by the nine subscales. Participants who scored higher on extreme anthropomorphism and anthropomorphism of pets were *less* likely to endorse harsher training techniques. Females also had less favorable attitudes toward the harsher training techniques, a finding consistent with the literature on gender and attitudes toward animals (*c.f.* Sims et al., 2007). However, those who scored higher on anthropomorphism of god or a higher power and negative anthropomorphism were *more* likely to endorse harsher training. Overall, results supported the hypothesis that anthropomorphism can be used to predict attitudes towards animal training practices.

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Locating relationships with animals in Indigenous mental health and healing

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Presently there is interest both within Native communities and in western societies to more fully understand and utilize traditional healing methods to deal with contemporary mental health challenges. The healing nature of human relationships with animals is markedly absent in current literature concerning mental health. Indigenous peoples worldwide have traditionally employed a view that holds relationships with animals, as part of a holistic perspective, as important to maintaining health. The results of an empirical study of Indigenous mental health and healing in Canada suggest that relationships with animals, as part of core concepts of community, cultural identity, holistic approach, and interdependence are integral to a conception of Indigenous health and healing.. This presentation will include a discussion of the basic understandings of where animals fit in a conception of Indigenous mental health and healing.

Primate Human Bonds

Chair: Anne Russon

Primate Picassos: Painting by non-human primates and how public discourse is shaping strategies for captive care

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For comparative psychologists and primatologists, paintings made by apes have long served as data for investigations of eye hand coordination, tool use, and cognitive studies of symbol making (Beach et.al., 1985; Boysen et. al., 1989a; de Waal, 1999; Tanaka, 2001) . And in zoos and sanctuaries, painting has occasionally been used as one activity among many employed to enrich the captive environment (Kment, 1994, 2005). However, since the 2005 public sale in London of three paintings by Congo the chimpanzee (for the remarkable sum of approximately \$33,000), the general public's awareness of and interest in such paintings has grown greatly. I argue that while we expect scientific knowledge to drive the development of enrichment programs for captive animals, in this case public appetites are shaping the behind-the-scenes design of primate enrichment programs.

Employing methodologies of ethnographic observation and interviews, and analysis of public discourse (including newspaper reports, on-line discussion boards, and web sites) I find that an increasing number of zoos and sanctuaries are employing painting as an enrichment activity for their animals, and then selling the resulting paintings to the public on line, in gift shops and even over eBay. Some animals are even explicitly being “taught” to paint. I document the process of teaching a gorilla to paint at the Oklahoma City Zoo based on observation and interviews with keepers there, and, finally, situate this type of activity in relation to the most current philosophies and techniques for providing enrichment for primates (based on 2008 fieldwork at the national primate research center enrichment workshop at the University of Texas Anderson Cancer Center).

The larger implications for this research indicate that the role of public relations, public discourse, and fundraising impact behind-the-scenes animal care in unexpected ways, and should thus be figured into research design on captive animal welfare.

This presentation will include several examples of primate paintings.

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Relational minds: Enculturated apes and the shared construction of identity

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In *Descartes' Error* and *The Feeling of What Happens*, neurophysiologist Antonio Damasio posits that the construction of humans' “extended consciousness” is a dialogic process centered in the relationships between the human organism and the objects it perceives. In *The Feeling of What Happens*, Damasio writes,

I began seeing consciousness in terms of two players, the *organism* and the *object*, and in terms of the *relationships* those players hold. All of a sudden, consciousness consisted of constructing knowledge about two facts: that the organism is involved in relating to some object, and that the object in the relation is causing a change in the organism. ...elucidating the biology of consciousness

became a matter of discovering how the brain can construct neural patterns that map each of the two players and the relationships they hold (133).

While Damasio assumes that the “organism” in his formulation is human, he acknowledges that “at simple levels,” extended consciousness may be the domain of some nonhumans as well. He further acknowledges that important contributions to the development of “autobiographical self,” the consciousness foundational to “personhood,” come from “the unique interactions that a growing, living organism engages in a particular environment, physically, humanly and culturally speaking” (222).

My presentation applies Damasio’s relational model of consciousness to the case of enculturated apes, focusing particularly on those nonhuman apes who have been taught to use some version of human language. This examination develops out of a larger study of the ethical concept of *personhood* in the context of the human-nonhuman ape relationships that shape the pedagogies and assessments of ape-language research projects. Many such studies initially position infant nonhuman apes as children in human families; others, as in the case of the bonobos, Kanzi and Panbanisha, formulate a “Pan-homo culture” that is jointly constructed by human and non-human individuals. I invoke the relational ethics of feminist philosophy to interpret reports of ape-language scientists that what they “know” of their nonhuman research subjects exceeds the boundaries of the scientific paradigm. Drawing from research on human mother-infant bonding, relational ethicists such as Carol Gilligan, Sarah Ruddick, and Nel Noddings propose that the development of self-awareness or subjective identity is a process of *mutual* relationality built of the mental acts of recognition and response.

My study finally proposes that these enculturated apes can be understood not merely as objects of human organisms’ perceptions, but as organisms whose autobiographical self develops out of relations with human object-organisms.

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The human – great ape bond: Too close for comfort?

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Great apes are humans’ closest living genealogical relatives, which creates exceptional interest in and multiple avenues for interspecies bonding. We share diet preferences, relationship-based semi-closed societies, multifaceted relationships, long lives, prolonged dependency, and lengthy if not life-long parent-offspring bonds. Because of the close similarities, great apes have perennially attracted humans as objects of curiosity, entertainment, nurturing, or companionship. The encounters this interest engenders often lead to human-great ape bonds but they also lead to conflict, notably food and habitat

competition and individual or group level antagonism. This paper explores the implications of fostering these bonds via two currently prominent contexts: nature tourism and pets. I used orangutan-human interactions identified in 5000 hr systematic observational data on ex-captives under rehabilitation to forest life in Borneo to assess the impact of human bonding in pet-like contexts, and published literature to assess these effects in nature tourism contexts. Observational data confirm the common view that human bonding alters apes' socio-behavioral development: notably, it undermines rehabilitation by orienting apes to humans and human environments vs. conspecifics and natural environments. The literature review shows similarity across genera in the impact of developing human-ape bonds in natural settings. Effects discussed include transmission of contagious diseases, increased risk of attack (apes on humans, humans on apes), altered forest behavior in apes (e.g., ranging), and enhanced avenues for human understanding, protection and care (e.g., Dellatore 2007; Homsy 1999; Koendren et al. 2008; Russell 1995). The roles played by great apes' own agendas and their exceptional intelligence are considered. Discussion weighs positive and negative effects of human-ape bonds in light of great apes' endangered status and in the aim of working towards guidelines to maximize the benefits and minimize the risks of human involvement with great apes.

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The social bond: Insights through collaboration with orangutans.

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Orangutans remain under-represented in the primatological literature and historical stereotypes of their anti-social, unresponsive, and perhaps intellectually inferior qualities continue to influence modern scientists. Contrary to these stereotypes, orangutans demonstrate tremendous flexibility and resilience, even adults may form strong social bonds with both other orangutans and humans, and they may experience strong reactions to changes in their environment. Various factors contribute to maintaining these perceptions, including the subtle manner that characterizes much of orangutan social communication. We collected behavioral and physiological data on orangutans at Great Ape Trust in a study of their reactions to social change such as social introductions etc. These data demonstrate that orangutans are strongly affected by changes in their social environment. Their reactions may be precipitated by other orangutans or humans.

Orangutan participants in this study appeared not to make categorical distinctions based on taxonomy; rather, they treated both humans and orangutans as social agents. These findings, combined with data demonstrating Theory of Mind in orangutans, have obvious ramifications when applied to testing situations that involve direct or indirect interaction with a human experimenter. These results demonstrate the necessity of treating orangutans as socially sentient individuals rather than as passive experimental subjects.

Podium Presentations: Friday Session 1

Animal Icons

Chair: Lorah Pilchak Harley

Remembering Alex: Crossing the boundary from parrot to person

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Alex was famous as center of a longitudinal study on the cognitive and linguistic abilities of grey parrots (*Psittacus erithacus*) by Irene Pepperberg. In his 30s when he died on September 6, 2007, Alex was no mere parrot, but a sensation and a celebrity in his own right and his passing was reported by the media much like that of human celebrities. Rigorous scientific testing over a 30-year period demonstrated that his cognitive abilities matched those of primates, including young humans. With mastery of an impressive repertoire of words and concepts, including the abilities to distinguish materials, colors, shapes, and sizes, as well as become bored and manipulate unwitting graduate students, Alex helped to shatter the stereotype “bird brain” and challenge human animal boundaries. Soon after Alex died an Internet group, “Remembering Alex,” was created where the world could come to send their messages of condolence and mourning.

A qualitative analysis of a sample of 100 of these messages, based in grounded theory (Bernard 2002; Glaser & Strauss, 1967; Glaser & Corbin, 1990), provides a fascinating insight into how the authors perceived Alex. These messages reveal common beliefs about religion and death, birds, companion parrots, and Alex, who is constructed as a charismatic individual. Although a majority of messages are from those who only “knew” the “public” Alex, others are from those who had worked with Alex and provide rare insight into the personality, the “private” Alex. Ultimately, in death as in life, Alex transcends the human/nonhuman animal boundary and may be seen as elevated to the status of human. His legacy to science, the welfare of parrots, and popular culture is invaluable.

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Animals as (super) individuals

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Over the last decades, a sociocultural change can be observed in the news: domestic and wild animals are personified. This personification process is observed on three levels: *Singular/particular animal*: one single animal is presented as a specific/special subject, different from its own group or specie. / *Individualized animal*: it is described in an anthropomorphic way, as genuine individual. / *Super individual*: In this third level, the personification process is amplified and becomes a process of "starification". This process of personification questions the human/animal border: the animal is portrayed as a human figure (with a nickname, emotions,...) while in other situations including animals the Alterity is reinforced.

To address these issues, we will focus on the recent case of the ice bear Knut, the abandoned cub from the zoo of Berlin (end 2006-2007). He became a mediatic figure: each step of his development participated in an international storytelling. This mediatic figure became an emblematic one, used as a trademark and a banner for an environmental campaign. Our analysis will also examine other examples of animals (Dolly the female cloned sheep, the seven years story of Max the female stork, etc.) going through this personification process.

The results of this analysis are part of a wider research which aims to document the social representations associated to animals conveyed by the media in Switzerland over the last 30 years. The media corpus consists in 3700 articles from 15 Swiss newspapers over the period 1978-2007, and 257 news sections. Our analysis on a selection of this corpus will be realized with the CAQDAS *Atlas.ti*. The results will describe various stages of the personification process and will address the human/animal border through these figures of animal (super)individuals.

Blood Will Tell: *Seabiscuit* and the Race for America

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The ascendancy of the thoroughbred as totem popularized by Laura Hillenbrand and Gary Ross' *Seabiscuit* exposes much about the politics of race and class in George Bush's America. Its "clan" belies the American mythology of unlimited social mobility by emphasizing purity of pedigree as a prerequisite to enter the "race". Though it does not entirely displace other breeds, this current affair reveals an increasingly conservative

trend in the social landscape of America—comfort with widening income gaps and decreasing mobility coupled with intense discomfort with immigration from non-European countries. Moreover, the “thoroughbredization” of the breeding of horses where even wild mustangs have purebred registries manifests the disharmonious underpinnings of the “melting pot”. This unwieldy combination leads to the reassertion of the values of hereditary, predominantly white ruling class in contemporary America.

The discursive power of the thoroughbred permits the discussion of the taboo belief in a Burkean society where the “topic of race and genes is like the topic of sex in Victorian England”: it does not disappear but actually proliferates under the guise of myth, science, and metaphor. As Roland Barthes points out, “That is why myth is experienced as innocent speech—not because its intentions are hidden—if they were hidden, they would not be efficacious, but because they are naturalized.” Such naturalization is further legitimized by the very materiality of the equine body.

The current resurgence of this icon in racing and popular culture deceptively reinforces that even during times of economic distress like the Great Depression anyone can succeed. Provocatively, this myth has resurfaced during a time when the New Deal policies of Seabiscuit’s era are in grave danger of being dismantled. By constructing the legendary race horse as an underdog, Hillenbrand and Ross disguise the lamentable fact that races are only open to the narrow few who possess the proper pedigree.

Animals in History

Chair: Robert Mitchell

The history and significance of animal familiars

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Familiars were minor demons, often in animal form, that figured prominently in English witch trials of the seventeenth century. What makes familiars especially intriguing yet elusive is that they at least superficially resemble many other phenomena including grateful animals in European fairy tales, archaic demons, shamanic animal helpers, and modern pets. This presentation examines familiars in their historic context to determine their role and importance.

The idea of familiars probably originated in Continental Europe through the demonization of local and household spirits. Familiars were never very significant in Catholic areas, since that church had partially incorporated these spirits into Christian belief. Many Catholic saints were depicted with animal companions that resembled familiars: Saint Kevin, a blackbird; Saint Roche, a dog; Saint Anthony, a pig; Saint

Francis, a wolf. The emphasis on familiars in witch trials was partly a reaction by Protestants against what they saw as “pagan” elements in Catholicism.

What made familiars assume such prominence in English witch trials of the middle seventeenth century was the combination of a growing fear of the Devil with a demand for more rigorous standards of evidence. Rumor and conjecture alone were no longer sufficient to convict a person of witchcraft. Fantastic accounts of witches flying to a Sabbath, never widely reported in England, were losing all credibility. The role of familiars seemed to suggest relatively simple empirical tests with which reports of witchcraft might be confirmed.

Theories that derive familiars from paganism, shamanism, or pets are conjectural, but they suggest ways in which familiars have universal significance. The underlying conception behind familiars is using animals as a means to contact with realms beyond the mundane patterns of daily life. This is an idea that is sufficiently simple and obvious to be repeatedly rediscovered by in many cultures and historical circumstances.

Valued and reviled: Contrasting images of donkeys in ancient Greek and Roman authors

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The purpose of this paper is to discuss the attitudes of people in the ancient Mediterranean world toward donkeys. I will examine references to donkeys in several Greek and Roman authors, references that indicate that people were well aware of the value of donkeys to their own survival, but nonetheless treated them with contempt and abuse. I will argue that these conflicting attitudes reflect both an admission of and an apprehension about the magnitude of human dependence on donkeys. Donkeys were indispensable to the economy of these cultures (Columella, Varro, Pliny, Cato). These remarkably sturdy animals could survive on small portions of poor quality food and could tolerate hard labor, withering heat, and harsh beatings. Donkey owners believed that, in order to profit financially, they needed to extract every ounce of energy from their animals, while providing them with minimal care. As is often true in situations of exploitation, we clever humans rationalize our mistreatment of others with several coping strategies. We may trivialize the objects of our mistreatment, or we may demonize them. The ancient Romans and Greeks employed both strategies to justify their abuse of donkeys. Being uneasy about their dependence on these animals for their very survival, they claimed, on the one hand, that donkeys were stupid, required human protection to survive, and could be trained only by frequent flogging (Aesop, Ovid, Horace, Plutarch). On the other hand, they attributed malevolence to donkeys and believed that they deliberately acted contrary to the owner's interests (Apuleius, Plautus, Tyrtaeus). Thus, although the donkey might have accurately been called "man's best friend", people constructed images of them as stupid and uncooperative in order to mitigate their own discomfort about both their cruelty and their dependence.

A history of antivivisection from the 1800s to the present

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This overview of the different currents of antivivisectionist philosophy from the mid-19th to the early 21st century highlights the dilemma of animal use in gaining medical and scientific knowledge, technological advances, and ultimately, economic gain.

The overview is divided into three periods: mid-1800s to the First World War; 1918-1970; and 1970s-present. My rationale for this division includes the sweeping changes that took place in Western society and science, particularly with regard to the events precipitating and resulting from the First World War and later, the social and demographic upheavals of the 1960s. I believe that these changes both influenced and were influenced by progress in medical and scientific knowledge that resulted from the use of animals in research and experimentation, and that the writings of influential authors and philosophers that surfaced during each of these periods were crucial in reformulating a consideration for animals – particularly with regard to the tensions and debates regarding the deliberate cause of suffering and distress in animals that are widely recognized as feeling and thinking individuals – even in the light of the resulting gains for the human species.

Significant events such as the Brown Dog Affair of 1907, as well as the writings of novelists and philosophers on animal consciousness and suffering are presented and placed in opposition to the significant medical and technological advances of the mid-18th century to the Cold War.

The industrialisation of animal lives and commodification of animal flesh emerge as the inevitable result of this component of the human-animal bond. The role of veterinarians in this commodification is touched upon, and more recent developments in veterinary “philosophy of practice” are considered. In my view as a practicing veterinarian, knowledge of this history is essential to coming to terms with the meaning of medical practice on animals, and the social role we fulfill.

Podium Presentations: Friday Session 2

Teaching Human-Animal Studies: Methods and Challenges

Chair: Margaret Schneider, Ontario Institute for Studies in Education- University of Toronto, Toronto ON Canada mschneider@oise.utoronto.ca

Bestial passions: Handling difficult issues in an animal studies class

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This presentation will focus on handling the passions aroused by Animal Studies in the classroom, particularly in an online setting. Issues involving animals, from deer management to the cloning of pets, tend to be both emotionally intense and intellectually complex, which can make them difficult for people to confront. Students will often come to these after exposure for years or decades of polarizing rhetoric from both the animal rights movement and its critics. Furthermore, many of them will not have the analytic skills or the confidence to clarify priorities. Many, who have never previously considered the importance of animals in human culture, may be initially overwhelmed, and even frightened, by a rush of new ideas and perspectives.

Online courses are generally based on constructivist pedagogy and rely very heavily on discussion. The partial anonymity in an online environment encourages students to speak out more freely, which can lead to intense engagement with the subject matter and to classroom solidarity. The lack of inhibiting factors can also make discussion degenerate into an exchange of insults, particularly when the subject matter inspires passionate reactions.

In the online course “Animals and Human Civilization,” taught for the State University of Illinois at Springfield, students are asked to constantly relate the material of the course to their personal lives, whether their contact with animals comes primarily through keeping pets, hunting, hiking, farming, or simply observing. Because ideas are not consistently presented on a highly abstract level, students of different backgrounds and views are able to empathize with one another enough to conduct civil and productive discussions. Potential conflicts between students can generally be defused by moving between the levels of theory of individual experience.

Politics, pedagogy, and passions: Tensions in the teaching and study of animal rights

María Elena García

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Drawing on the experience of teaching anthropology courses on human and non-human rights at a private, elite liberal arts college, this paper examines the challenges and contradictions of embracing and teaching a new cultural politics of human and non-human intersectionality. Exploring the tensions and possibilities that emerged both within a course on animal rights and within the broader college community, I describe several ways in which students approached the study of animals. Within the course, there existed a division between students who saw critical animal studies as necessarily political and those students who privileged instead epistemological and representational questions. I describe my efforts to put these calls for advocacy and abstract critical thinking in dialogue, while struggling to find room for my own political commitments. The course became part of a broader conversation (some might say confrontation) over the place of animals and animal studies in the college and curriculum. I examine one particular confrontation between a student group hostile to idea of animal rights (calling itself “PETA”: People Eating Tasty Animals) and students in my course. This paper highlights the challenges of creating pedagogical and political spaces where opposing ideas are taken seriously without forgetting the moral and ethical reason for teaching this course in the first place.

Integrating animal studies into college composition courses

Kathleen D. Keirn

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First year college composition courses present challenges for instructors in terms of finding meaningful topics for students to write about in order to engage in the writing process. This course emphasizes academic writing, focusing primarily on analytical reading and writing, and typically introducing argumentation in the second half of the term. One habit of mind, thinking critically, is of paramount importance for entry-level college students. Research in composition studies indicates that students write stronger, more cogent papers leading to better grades when they feel personally invested in the subject matter. Issues within Animal Studies provide a natural link in both content and form for a first year college composition course.

This presentation focuses on teaching freshman composition, working on various topics within the broad theme of animal ethics and how that focus helps students increase their own critical thinking abilities. The objective here is to share and synthesize the successes and challenges and speak to the relevance of teaching Animal Studies to entry-level college students. I will discuss how the students integrate close readings of a variety of works, while examining what methods various writers employ to inform and/or influence their readers as well exploring issues pertaining to the topics of their choice all within the context of Animal Studies. The texts used in this course, Erica Fudge’s *Animal*, David De

Grazia's *Animal Rights: A Very Short Introduction*, Virginia Woolf's *Flush*, and J. M. Coetzee's *The Lives of Animals* as well as a course packet consisting of short newspaper and journal articles provide varied philosophical stances allowing students to write position papers, formal essays and present materials to their classmates.

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Caged: Pedagogical and theoretical implications of Ota Benga's 1906 exhibition in the Bronx Zoo of New York City

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In my proposed paper, I wish to examine – largely from a pedagogical point of view – the infamous story of the African Pigmy Ota Benga having been “exhibited” in the Bronx Zoo (NYC) for several days just about a century ago. I would like to speak of this incident from a number of intersecting points of view. First, I would address the arguably controversial practice of **beginning** a first-year seminar course (entitled “Animals in Text and Society”) by having the students read and think about 2-3 relevant chapters from Philip Verner Bradford and Harvey Bloom’s riveting historical biography of Ota Benga, *Ota Benga: The Pygmy in the Zoo* (Delta 1992). The chapters in question are entitled “The Museum,” “The Pygmy in the Zoo,” and “Is It a Man?” respectively. The reading and discussion throws on the proverbial table several crucial issues, including the cultural and political construction of meaning pertaining to the human-animal divide in the particular lens of race as understood 101 years ago and as understood in 2008. Ota Benga’s exhibition in the zoo (in a cage also containing an orangutan, and carefully staged in that O.B. wore “savage” clothing, and was surrounded by scattered bones as if to signify his “animalistic” eating practices) created huge interest and raised the number of visitors in the zoo to unprecedented levels. It also generated a huge media response and almost instantly intriguing objections on the part of sundry observers. Topics that arose immediately centered on the implication of Benga’s exhibition as a “missing link” between humans and primates. Thereby Ota Benga’s status both as human being and as a troubling reminder of the uncanny closeness of humans and other animals took center stage in the contemporary discussions. Christian observers (some of them African American) objected to the fact that the exhibition implicitly “proved” Darwinist understandings of creation. My paper would also examine Ota Benga’s own apparent attitude about having been made an exhibit. Ota Benga looked **back** at his spectators. Some of his own observations of the environment of the Bronx Zoo over a hundred years ago centered on the, to him, deeply puzzling ways in which the zoo keepers and administrators focused on placing animals in situations that appeared “human” (for example training the elephant to accept pennies from by-

standards and dropping them in a contraption that would reward him with food). What also must be addressed and is addressed in an undergraduate class that focuses largely on human uses (theoretical, symbolic and practical) of animals is the current universal reaction of abhorrence on the students' parts about Benga's fate. That reaction naturally leads to questioning the very premise of creating environments in which paying spectators behold living creatures behind bars. I would close my discussion by outlining the ways in which members of the class kept returning to our initial discussions of the Ota Benga chapters in light of further readings and increasingly complex ways of regarding the human-animal boundaries and humans' treatments and representations of other animals.

Blume, H. & Bradford, P.V. (1992). *Ota Benga: The pygmy in the zoo*. St. Martin's Press.

Poster Session A: Thursday

1. The effect of animal-assisted therapy on physiological stress and anxiety in hospitalized children

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Hospitalization is a major stressful experience for children. The stress associated with hospitalization of children may lead to physiological and psychological sequela resulting from adverse stress. Pediatric healthcare professionals can develop interventions to decrease children's stress during hospitalization. Animal-Assisted Therapy (AAT) frequently is used to alleviate the stress of hospitalization, little scientific evidence evaluates the use of AAT in hospitalized children. This study examines the effects of AAT on cardiovascular responses and state anxiety in hospitalized children. A quasi-experimental repeated measures study was conducted in pediatric settings. Children (8 girls, 7 boys, aged 7 to 17 years) participated in AAT and person visits (PV) on two consecutive days; they were assigned to AAT (n=9) or person (n=6) visits first. Children's systolic (SBP) and diastolic (DBP) blood pressures and heart rates (HR) were measured 9 times, 3 pre-, during, and post-each visit. State anxiety was collected post-visits. Repeated measures ANOVAs were used for data analysis. SBP responses depended on visit order. In the PV first group, SBP decreased from pre- to post-AAT ($p < .05$), and did not change from pre- to post-PV. SBP did not change in the AAT first group. Changes in DBP were not parallel for AAT and PVs. DBP did not change from pre- to post-AAT and increased from pre- to post-PVs ($p < .05$). Visit type didn't affect HR. This study indicates that AAT can decrease physiological arousal for hospitalized children compared with other in hospital play activities and suggest that AAT may be useful in health care settings to play a part in decreasing hospitalized children's physiological stress.

2. Animal assisted interventions from a research/practitioner point of view: Bridging the gap and strengthening efficacy

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Many health care and mental health care providers have become cautious and skeptical of those who make unreasonable comments about the power of animal assisted interventions (AAI). More importantly, it behooves leading researchers and clinicians interested in advancing AAI to come together to generate more rigid guidelines for utilization of animal assisted interventions, as well as more evidence based protocols for utilization.

For AAI to eventually gain respectability there is a strong need for evidence based research for documentation.

The primary purpose of this presentation is to provide a blue print for direction. The following are the areas that will be clarified: a) The steps that need to be taken to document the efficacy of AAI; b) Best practice strategies that will help clinicians and researchers address the maintenance and generalization of these interventions; c) An explanation of the special relationship/balance that needs to exist between the well trained therapist working in tandem with a therapy animal. (Draper et al. (1990) stress that the therapist, “must possess appropriate competence in a definable therapy in absence of the animal” (p. 172). In order for therapists to create a therapeutic context, therapists need to be theoretically grounded and be competent or skillful in the therapeutic process); d) How to enhance the respectability of AAI in the field of health care so it is more properly presented.

For years, there has been an uneasy relationship between researcher and clinician. Nevertheless, if the clinical community wants to increase the stature of AAI into a more critically accepted evidence based approach, more scientific evidence is needed to make the skeptics more convinced, that this is “more than just puppy love”. The primary purpose of the presentation is to provide a template for action and change.

Draper, R.J., Gerber, G.J. and Layng, E.M. (1990). *Psychiatric Journal of the University of Ottawa*, 15,(3), 169–172.

3. Visceral Disgust Motivates Concern for Animals

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Social Intuitionist Theory posits that human moral decisions result from mental processes that are unconscious, instantaneous, and emotional. Previous research has shown that a positive emotion, empathy, is associated with concern for animals. We examined the role of a negative emotion, visceral disgust, in motivating animal activism and pro-animal welfare attitudes.

The participants (N = 418) completed a web-based survey which included the Animal Attitude Scale (AAS), the Disgust Scale-Revised (D-Scale), as well as items concerning diet and involvement in animal-related activities. Participants were recruited through announcements posted on specialty group bulletin boards on MySpace and Facebook. One hundred forty five participants were self-described animal activists, 46 were members of organizations that promoted the use of animals by humans, and 227 were not involved in animal-related causes.

Results:

Animal activists are disgust-prone.

Animal activists had significantly higher D-Scale scores than the other two groups [$F(2, 417) = 4.48; p = .012$].

Attitudes towards animal welfare are positively correlated with disgust sensitivity.
The correlation between AAS scores and D-Scale scores was statistically significant ($r = .253, p < .001$).

Vegetarians are not disgust prone.

D-Scale scores of vegetarians and non-vegetarians did not significantly differ [$t(421) = 1.035, p = .30$]. In addition, disgust sensitivity did not predict frequency of eating meat.

Sensitivity to visceral disgust is associated with animal activism and pro-animal welfare attitudes (though not with vegetarianism). While previous research has linked high levels of disgust sensitivity to political conservatism, this is the first demonstration that disgust can also motivate involvement in a liberal social movement. The large difference in propensity for visceral disgust between animal activists and members of animal use organizations suggests that differences in moral intuition underlie disputes over the treatment of other species.

4. Ants and humans; Anthropomorphism in entomology 1880-1920 - a Swedish example

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My contribution will focus on how the scientific and popular view of animals was formed primarily in entomology and to show how this view is related to the perception of society and our relationship with animals.

I will discuss a certain historical period; between the breakthrough of Darwinism and the work of the great names in ethology such as Niko Tinbergen and Konrad Lorenz. The context is the study of animal behaviour, and the popularization of such studies, in Swedish entomology. The use of anthropomorphism points towards a change of interest in entomology itself. Previously entomology was primarily concerned with the Linnaean categorization of insects. However at the end of the nineteenth century the entomologists were increasingly interested in the *behaviour* of insects. The interest in insects was both popular and learned. The likeness of humans and (social) insects also became a strategic argument for Darwinism.

Animals seem untouched by human social categories such as gender, class or race yet the descriptions of animals to a great extent reproduce the categories. Therefore the study of anthropomorphism is central. Our language is built on the notion of a relationship with the non-human through continuous comparison.

Anthropomorphism is not seriously questioned until the breakthrough of behaviourism in the early twentieth century. At the same time Darwin's anecdotal and anthropomorphic language of science is an evident point of departure. What does it say in relation to Darwinism? What do the entomologists have to say about categories such as gender, class and race? How do they relate to concepts like society, war and gender concerning insect-societies? What does this tell us about the view of humanity and our relationship with animals?

5. The power of cross-species play: Theory, research, and practice of canine-assisted play therapy

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This paper presentation reviews the emerging field of canine-assisted play therapy (CAPT), an integration of animal-assisted therapy (AAT) and play therapy for children and families (PT). The presentation reviews (a) multidisciplinary research that led to the emergence of this approach, (b) theoretical underpinnings about the use of cross-species play to resolve serious child problems while preventing animal abuse, (c) three studies conducted on CAPT by the authors (1 qualitative and 2 quantitative), and (d) how CAPT is being used to help children with a range of problems, such as anxiety, trauma, attachment problems, and serious behavior disorders. The review will be illustrated through the use of short DVD clips of CAPT in use.

Canine-assisted play therapy has emerged in the past several years, owing to growing bodies of evidence about the value of the human-animal bond, the importance of play in human and nonhuman animals' development, and the efficacy of AAT and PT for a wide range of child/family problems. Canine-assisted play therapy (CAPT) is defined as *the use of dogs in the context of play therapy, in which appropriately-trained therapists and animals engage with children and families primarily through systematic play interventions, with the goals of improving children's developmental and psychosocial health as well as the dog's well-being. Play and playfulness are essential ingredients of the interactions and the relationship.*

In addition to theory and research, the presentation will demonstrate by case study and video the practical use of this approach, including therapist/handler and nonaversive canine training, the use of dogs in a variety of play therapy methods, and ways that these play-based interventions foster better child adjustment, resolution of problems, elimination of injury to pets (e.g., by foster children with trauma histories), the building of children's confidence and skill with dogs, and mutual enjoyment for children and dogs alike.

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6. Merging of the unconscious & the mystical: Animals and humans in therapeutic interaction.

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We know that there are conscious and unconscious dynamics that occur in the therapeutic interaction. In our therapeutic work with children, both individually and in groups, we work with animals as ‘adjunct therapists’ in the psychotherapeutic encounter. It is our feeling that this adds another dimension to the therapeutic dyad making it a triad, in individual therapy. In group therapy, the animal becomes a major part of the matrix, as conceived by Foulkes.

This presentation places the animal as a major player in the therapeutic relationship. In effect, we feel that the therapist becomes an ‘adjunct’ to the animal. The animal is more attuned to the emotions of the patient and helps the therapist tune-in to the underlying dynamics. If we are concerned about countertransference in the therapeutic relationship, utilizing animals as therapeutic agents, allows the therapist to observe the interactional processes between the patient (s) and the animal, and this helps both in diagnosis as well as in treatment.

The animal aids in the development of a transference relationship, and helps the therapist to better understand the patient as well as him/herself.

We will present a proposal for linking both theory and clinical practice, in an understanding of the mystical unconscious that hovers over the patient, therapist and animal. We will explore this in light of psychodynamic theory, focusing on the underlying mystical qualities that typify, in our thinking, the unconscious. Bollas’ ‘unthought known,’ as well as other theoreticians who try to understand what is ‘felt’ in the therapeutic interaction.

7. Mustang: Images are everything

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What is a wild horse or mustang? Or, more importantly, what do we imagine it to be? When recounting the history of the wild horse or mustang, it is apparent that its status continues to waver between a pest to be eradicated and a cultural symbol worthy of protection. How can one animal evoke such passionate and oppositional responses? The wild horse is the same species as its domestic counterpart. However, as a feral animal, it lives in a liminal state between domestic and wild. Vast amounts of data have been collected on the behavior of wild horses, their herd composition, and their impact on the environment. As an anthropologist, I am interested in how culture constructs the mustang and how different social constructions influence behaviors and beliefs about these animals.

The purpose of this ethnographic study was to establish a comprehensive understanding of the diversity of images that exist regarding wild horses and explain how these images are manipulated for specific purposes. The greatest concern when undertaking this ethnographic study was that the wild horse and its many images do not have a specific longitude or latitude. The study was not defined by geography, but by flows of people, goods and information.

The ongoing discussion of whether the mustang should be eradicated or promoted reveals the power of images. Attacking or trying to eliminate the mustang challenges history, the West and the value of freedom. Can one remember the West without a mustang? Do the mountains and desert seem as exotic without wild horses running upon them? Do our hearts race a little faster when we view a commercial in which a mustang snorts alongside the car of the same name?

8. Pet ownership as meaningful community occupation for persons with serious mental illness

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Despite a growing interest in pet ownership as a natural community occupation, there is a lack of knowledge on its impact for individuals with serious mental illness.

Research aims pertaining to persons with serious mental illness were to: (1) determine the proportion of individuals who engage in pet ownership; (2) examine clinical and sociodemographic characteristics of pet and non-pet owners; (3) explore their motivations for pet and non-pet ownership, and (4) study the relationship between pet ownership and

frequency of engagement in meaningful activities and three dimensions of community integration.

Three Assertive Community Treatment (ACT) teams reported on the pet ownership status of all community dwelling service recipients (n= 204). Fifty-nine (20 pet owners and 39 non-pet owners) of the 204 clients completed an engagement in meaningful activities and a community integration survey. Both of these surveys are valid, and reliable, outcome measures previously used with this population. Nonparametric tests were selected for data analysis.

Of the 204 ACT clients, 18.6% engaged in the occupation of pet ownership, compared to more than 53% in the Canadian population (n=1000). Of the non-pet survey participants, 63.1% expressed the desire to engage in this occupation. There were significant differences between pet and non-pet owners on diagnosis, gender, and a global measure of function. Pet owners had significantly higher scores on measures of engagement in meaningful activity and psychological, but not physical, integration. The key finding supports the hypothesis that pet owners living in the community with serious mental illness demonstrate higher social community integration ($p \leq .01$).

The results substantiate the potential of pet ownership to enable community integration and raise the issue of how occupational therapists can empower this population in this natural occupation.

9. Walk a hound, lose a pound

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Research shows the benefits of people walking dogs to lose weight and maintain active lifestyles. The high rate of overweight and obesity in the United States creates a need for innovative projects aimed at increasing physical activity. Our previous research showed that adherence to a walking program could be motivated by commitment to walking “loaner” dogs. The aim of this study was to increase physical activity outside of the dog-walking among adults.

In Walk a Hound, Lose a Pound (WAH) adults participated in weekly (Saturday morning) one-hour walks with shelter dogs for exercise. Shelter dogs participating in the walks were selected for amicable personalities and ability to be walked. Participants were led through a brief group warm-up exercise sequence and walked on a walking trail as far as they wished to walk (1/4 mile to 3 miles). Outcome variables included participation rate, physical activity stage of change, weekly exercise history, blood pressure, weight and body mass index.

Sixty-nine adults participated (12 males and 57 females). Ages ranged from 19 to 85 (Mean=43, SD 16.4). The majority (48) were pet owners. The most commonly reported

diagnosed health problems were depression (n=10), headache (n=5), anxiety (n=4), and immune disorders (n=4). There were no significant changes in blood pressure, or weight over total number of weeks walked by each participant. There was a significant increase in the participants' Physical Activity Stage of Change (calculated as difference scores from pre to post and compared $p=0.0013$). The mean score for the group was 4.8 on the pretest and 5.25 on the post-test. This means that participants went from doing vigorous exercise less than 3 times per week or moderate exercise less than 5 times per week to doing 30 minutes a day of moderate exercise 5 or more days per week for the last 1-5 months.

10. Why are pets good for health? Social status, social support, and stress

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ISAZ members are familiar with the health benefits of interactions with animals. Interestingly, the “pet effect” is typically more immediate, consistent, and persistent than the effect of human interaction. Research on social correlates of human health usually focuses on the role of *social support* in stress reduction. The purpose of this review is to demonstrate that *social status* has an equally important influence on physical functioning (Beck, 2008), and to describe the implications of status and support for exploring human-animal relationships.

The theoretical importance of both social status and social support, and their relevance to health, comes from research with humans and animals, in diverse areas: social psychology (Brown, 1965) animal behavior and neuroendocrinology (Sapolsky, 2005), health psychology (Kemeny, 2007), social cognition (Fiske, Cuddy, & Glick, 2007), and epidemiology (Marmot, Shipley, & Rose, 1984). Status and support are fundamental relationship dimensions with immediate survival value in many species, and are also associated with a wide range of stress-related diseases.

Some human relationships provide opportunities for an individual to experience high status, and others provide social support, but few provide high levels of both at the same time. In contrast, a pet allows the owner to enjoy high status within the relationship, as well as a high degree of affectionate support. The unusual combination of status and support in the owner-pet relationship may account for the remarkable health benefits of pet ownership.

Recognition of the importance of both social status and social support provides a framework for further research on animal-human relationships, including prediction of how these relationships can fail, and how relationship styles correlate with health and behavior outcomes for both owner and pet.

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11. Animals as healers of human suffering: The therapeutic value of animals in human experiences of illness and suffering

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In focusing on the evolutionary integration of the role of animals in care-giving positions, and their depiction in popular Western culture, the goal is to establish the degree to which non-human mammals, domesticated and wild, contribute to the wellbeing and care of humans in contemporary Western culture. The aim of my research is to provide an in-depth analysis of the cultural interpretation of animals as they interconnect with a diverse array of human-constructed realities principally in the area of 'wellness and suffering.' This research seeks to explore how certain species of animals have become regarded as human companions who can enhance or ameliorate the experiences of human's coping with illnesses, disorders or suffering on an emotional and/or physical basis.

12. The presence of a therapy dog can help preschool children follow instructions

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The purpose of this study was to examine preschoolers' ability to follow instructions on executing a variety of motor skills tasks in the presence or absence of a therapy dog. Two miniature poodles (1 neutered male age 8, 1 spayed female age 6), trained extensively in dog agility and registered with Therapy Dogs International participated in the study. Fifteen tasks were divided into three general classifications; 1) Modeling Tasks: the children were asked to emulate the behavior of a model, 2) Competition Tasks: the children were asked to do the task faster than a competitor, 3) Tandem Tasks: the children were asked to do the tasks as the same time as a co-performer. Eleven preschool children from an integrated classroom (6 language impaired and 5 typical, 3 girls and 8 boys, age 3 to 5 years) were randomly assigned to perform five tasks of each general classification (a) alone, (b) with a human, (c) with a therapy dog, and (d) with a stuffed dog similar in size and appearance to the live dog. Two independent raters evaluated each child's adherence to instructions (inter-rater reliability = .99) on a 7 point scale.

Nearly all of the effects in this study were significant ($p < .05$) but the most interesting effect was the interaction that revealed that in the Modeling Tasks the preschoolers adhered better to the instructions when the therapy dog was present than in any other condition ($F(6, 60) = 5.80, p < .05$). This effect was not present in the Competition Tasks or the Tandem Tasks. These results indicate that the presence of a therapy dog tends to be beneficial for promoting preschoolers' compliance with instructions in motor skills tasks that require modeling behavior, but not in those tasks that stress competition or behaviors performed in tandem.

13. Pet support services as a healthful safety net for people with AIDS

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Being diagnosed with AIDS (autoimmune deficiency syndrome) disabilities may be compounded by other financial and social hardships, leading to being precarious in continuing healthful functioning. Pets Are Wonderful Support in San Francisco (PAWS) coordinates volunteer support for low-income clients with AIDS (and individuals with other disabling illnesses) to assist them in keeping a pet and with other challenges. For PAWS assistance with pets, a confirmed AIDS (or other disability) diagnosis and income level below the poverty line are both required. We investigated the self-reported medical and psychosocial functioning of people with AIDS who have pets, both with and without assistance from PAWS, as well as non-pet owners with AIDS. The study included three groups of people with AIDS: 1) 26 participants with pets---without PAWS support; 2) 81 participants with pets---with PAWS support; 3) 63 participants without pets. Most participants were men living alone. Women were specially trained to conduct telephone interviews (August 2006-July 2007). The incidence of petkeeping appeared low among people with AIDS lacking support from PAWS. PAWS clients rated themselves as having a lower level of depression than non-clients and non-owners (one-tailed test: $p < .05$). They expressed a trend toward a higher level of happiness than the owners without support and non-owners (one-tailed test: $p < .1$). Living below the poverty line, PAWS clients managed living with their pets and functioned socially at a level at least equivalent to, or even exceeding, the other groups. Support from pets and PAWS effectively provides comfort and compensatory assistance for clients with the deficits they face financially. PAWS clients manage to continue functioning at a level at least equal to others who are less disadvantaged.

14. The study of the outcomes of animal-assisted group therapy for the children with Asperger in the aspect of social interactions

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The purposes of this study are to explore the immediate, long-term effect of animal-assisted group therapy (AAGT) that would promote the social interaction of children with Asperger. A multiple-baseline design across individuals was employed in this study. Three children with Asperger received treatment consisting of 16 sessions in 8 weeks, twice a week, 40 minutes a time, respectively. One of the therapeutic group contains an Asperger children, three normal children and a therapy dog whose name is Coki. The four children are from the same class in the same school. The researcher used the “observation sheet of social interaction behavior” as the researching tool, which the researcher designed. The data were analyzed with visual analysis and Tryon’s C statistic. In addition, researcher used “Vineland Adaptive Behavior Scales” to analyze pre-posttest data.

The findings are as followings:

(1)Result showed that the AAGT did not have significant immediate effect on all the children with Asperger. Subject Sen $Z=1.62$, $p<.05$; Subject Fong $Z=3.35$, $p<.01$; Subject Fen $Z=1.39$, $p<.05$.

(2) Result showed that the AAGT had all significant long-term effect on the children with Asperger. Subject Sen $Z=2.37$, $p<.01$; Subject Fong $Z=3.5$, $p<.01$; Subject Fen $Z=2.06$, $p<.05$.

(4)Result of “Vineland Adaptive Behavior Scales” pre-posttest data showed:(a) resource teacher and parents thought that after the AAGT, subject Sen displayed positive treatment results, but classroom teacher thought Sen displayed negative results. (b) resource teacher, parents and classroom teacher all agreed that subject Fong displayed positive treatment results after the AAGT. (c) On the subject Fen, only her parents considered that after the AAGT Fen displayed positive treatment results, but the resource and classroom teacher both thought Fen went negative.

15. Imagination and the human-animal bond

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My research considers the role literature plays in helping us understand the human-animal bond. I use examples drawn from science fiction texts, which enable a greater breadth in animal characterization (e.g. animals that have evolved speech, telepathic communication between human and animals, animals that have been genetically engineered in various ways). The purpose of this study is to consider to what degree and how such fictional characterizations of animals can further our understanding of the human-animal bond.

Literature has played a larger role in shaping the human-animal bond than has often been acknowledged. My methodology of literary analysis takes up the question of the relative merits of rational versus empathetic engagement with animals. In his 1997 Tanner Lecture of Human Values, J.M. Coetzee used the literary notion of the ‘sympathetic imagination’ – an identification with the object of contemplation that gives insight into its

nature, identity and truth through a kind of direct experience – to consider the relation between humans and animals. Instead of delivering a lecture on human-animal relations, Coetzee tells a story of Elizabeth Costello, a novelist invited to give a lecture on a topic of her choosing; she chooses animals and our moral relations to them, arguing that this cannot be a topic for mere theorizing but must be something that is felt. By choosing himself to tell the story of Costello instead of deliver his own lecture on animal rights, Coetzee demonstrates the importance of those human qualities to which literature speaks in thinking through our relation to animals.

The main conclusion I draw is that although literature to a large degree represents our projections in its depictions of animals and thus speaks more to human values than animal realities, such projections are nonetheless an important force shaping our material interactions with animals and thus merit analysis.

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16. Pet attachment in relation to depression and anxiety in university students: General versus student with challenges

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This study investigates the relationships between companion animal (pet) attachment among 105 of 190 students enrolled at York University, as well as investigating correlations between gender, anxiety, and depression scores in students with a disability (challenged) versus those without a disability. The Companion Animal Bonding Scale (CABS) was used along with the Beck Depression Inventory-II (BDI-II), and the Beck Anxiety Inventory (BAI) in an integrated survey using counterbalancing technique amongst the two Beck inventories. No significant differences were found between students with a disability and those without a disability, regardless of gender, with respect to their pet attachment, anxiety, and or depression scores. Past literature research is reviewed, limitations, suggestions for improvement and implications for future research is then discussed.

17. Psychological factors that discriminate between laypersons, supporters of medical research and opponents of animal use.

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In social psychology, attitudinal theorists propose that in order to understand peoples' opinions, cognitive components and processes must be understood. The current research aims to understand how people take opposing sides when presented with an issue that often provokes controversy: the use of animals for human benefit. We examine: beliefs concerning animals and animal use, empathy toward humans and animals, and value systems. A questionnaire was completed by 177 participants that were allocated to one of three groups: scientists involved with animal use, opponents of animal use, and laypersons. Beliefs concerning animals and animal use, and instrumental and terminal values were ranked in order of importance in order to determine their relative importance. A general measure of attitudes toward the use of animals for medical research was taken, and the Interpersonal Reactivity Index (Davis, 1980) was developed to examine empathy toward humans and animals. Analyses demonstrated that scientists and laypersons differed significantly on very few measures. These groups presented comparable levels of support for the use of animals for medical research, ranked beliefs and most values in a similar way, and differed on only one of eight measures of empathy. But both groups differed from opponents of animal use on most measures. Factors that most discriminated between these were: belief in animal rights, the benefits of medical research, equality, humans as superior, social recognition, and perceptions of choice. Findings demonstrate that by placing different weighting of either human interests (as viewed by scientists) and animal interests (as viewed by opponents of animal use), both parties can have a fair understanding of all issues and integrate conflicting issues, yet hold opposing views on the same topic. This research contributes to the field of human-animal relations, and can inform those interested in the structure, nature and variance in attitudes toward animal use.

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18. Mental health benefits of therapeutic riding programs

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This study investigated the psychological benefits of therapeutic riding programs. Participants (N=35) consisted of individuals in therapeutic riding and therapeutic skiing programs. Participants completed a questionnaire package assessing their self-esteem, symptoms of anxiety and depression and locus of control prior to treatment and again, approximately three months later, when the session of riding or the season of skiing had ended. Results indicated that both groups of participants showed significant improvements in self-esteem and locus of control as well as a decrease in symptoms of anxiety and depression after treatment. Twenty participants took part in post-treatment interviews, which looked more specifically at program benefits. Both groups revealed that the therapeutic program increased their self-esteem, made them feel better about themselves and provided social benefits. However, participants in the therapeutic riding program additionally experienced a connection to the therapy animal, a sense of community within the equestrian environment and a feeling of prestige and specialness that was associated with being able to ride a horse. Interactions with the therapy horse also increased motivation to engage in and remain in treatment. These results demonstrate that therapeutic riding programs can have a beneficial effect on mental health functioning and can provide additional, unique benefits not available in other therapeutic programs. The relationship that is developed with the horse and the intrinsic sense of community that is experienced appears to be particularly important treatment components of the program.

19. Transcending disability, transforming life: An ethnographic study of a graduate student with an acquired disability and her service dog

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Service dogs have become increasingly visible in university campuses in the United States. However, very little is known about how they enhance the quality of life of students with disabilities in higher education. The purpose of the study was to examine the effects service dogs may have on the quality of life of students with an acquired disability. Methodology: The study was an ethnographic case study of a female graduate student (in her mid-twenties) and her service dog (a Labrador rescue). The participant, a returning student, acquired her disability in the senior year of her undergraduate program. With the assistance of her service dog she went on to complete her unfinished degree and pursue her graduate studies.

The study draws upon 12 months of participant-observation, and in-depth and life history interviews with the participant. Interviews focused on how the service dog helped the

participant overcome socio-emotional and physical barriers, stereotypical perceptions of able bodied peers and fostered her optimal functioning as a student to achieve her educational goals. Constant comparative analysis was the primary method of data analysis. Analysis was an ongoing and multileveled process. An audit trail was also established. Results suggest that for this participant, having a service dog substantially enhanced her quality of life, both personal and professional, and increased her independence. The participant reported psychological and social well-being, community integration, and confidence to complete her graduate program. The participant also reported self-transformation, and the ability to transcend her acquired disability as a result of her relationship with her service dog. Implications: Evidence indicates a critical need for awareness and education in the academic circle on how to provide support for students with disabilities in higher education and their service dogs.

20. Animal-and equine-assisted therapy and learning: A critical review of the current state of the field in Canada.

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The purpose of this critical review is to document and describe the current state of the profession of Animal-Assisted Therapy (AAT) and Equine-Facilitated Psychotherapy (EFP) as it exists in Canada. Since the seminal work of Dr. Boris Levinson in the 1960s, who has been credited as the father of AAT, this novel approach and profession have thrived, spawning numerous training programs, associations, research studies, articles, books, programs and services. However, the majority of these initiatives appear to be American; similar Canadian equivalents are underdeveloped, lacking in visibility, or non-existent. The lack of credibility and fragmentation of the field are further compounded by the lack of any unified national body representing these professions, meaning very little accessible information is available. Past attempts at developing such an association or organization, such as the Human-Animal Bond Association of Canada and the North American Association of Pet-Facilitated Therapists, have failed, leaving the profession and its adherents without much direction.

However, a number of noteworthy initiatives deserve recognition. The field of Zoothérapie, as AAT is known in Québec, has been promoted for over 30 years, and boasts a number of certificate programs as well as two professional associations. There also exist training programs in EFP offered through independent practitioners or associations across the country, and a working committee governed by the Canadian Therapeutic Riding Association is currently developing national-level standards and guidelines for the practice of Equine-Facilitated Mental Health. In spite of these (and other) advances, more work clearly needs to be done at municipal, provincial and national levels. The development of provincial and/or national associations is strongly recommended in order to inform the public and potential clients about AAT and EFP, educate government and third-party payers about this profession, as well as help guide the work of professionals practicing in this therapeutic modality.

21. Evaluation of the riding on mental and physical reactions for handicapped elementary school children

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Much researches and many activities have shown that horseback riding improves mental as well as physical disorders. In this research, we evaluate the extent to which the riding experience affects psychological and physical reactions to horse, behavioral and emotional states on everyday life situations for physically or mentally handicapped schoolchildren.

A total of eight groups of 51 elementary school children (35 boys and 16 girls) participated in the riding session. They were the members of the classes for the handicapped. Some suffered mental disorders and others had physical handicaps. Prior to the riding session, the instruction was made, and behaviors, emotions, and interpersonal relationships in everyday life situation were questioned. In the riding session the children rode a horse being led around the riding ring with a leader and two side-walkers. Before and after five minutes riding, psychological and physiological measures were obtained. These measures included emotional states and the impressions to horse, car and dog, blood pressure, pulse rate and skin temperature. Follow-up questionnaire was delivered to ask participants' behaviors and emotional states in a few days.

Results

Compared with children with no riding experience, ones having had riding experience tended to thrive in everyday life, to regard horse more "soft", and to feel more "relaxed" and "cheerful" before the riding session. But once the inexperienced children rode, they felt as relaxed and cheerful as the experienced ones. Answers of "getting calm or understood after the riding session" to the follow-up questionnaire suggest the extended effects of riding experience on keeping mental balance.

22. Dog ownership and weight: Are dog owners more or less likely to be obese?

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There is a growing body of research that shows support for the beneficial effects of human-animal interaction on health. One area that has yet to be effectively examined is that of dog ownership and obesity. Obesity is a major concern in the United States, increasing in prevalence in the past two decades, with 30 percent of adults over the age of 20 now identified as obese. The current study uses Logistic Regression and Ordinary Least Squares Regression to examine data from a national telephone survey that was

collected from adults 18 years of age and older (n=200) in the spring of 2006. The focus of the paper is to examine if dog owners (n=76) are more or less likely to be obese than non-dog owners and to examine if dog owners had higher or lower BMI's as compared to non-dog owners.

Findings revealed no differences in obesity or BMI for the total sample. However, middle-age dog owners are *more* likely to be obese than middle-age non-dog owners ($p<.05$) while younger dog owners are *less* likely to be obese than younger non-dog owners ($p<.05$). The reason for these converse findings are unclear, however, a study on dog ownership and physical activity based on these data and findings is currently going on. It can be concluded that dog ownership and obesity varies by age, however, more research needs to be done in this area.

23. Exploring the benefits of human-companion animal interactions: Physical activity and pet ownership

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Increasing obesity and sedentary behaviour is now identified as a global health problem. In UK it has been estimated that reducing the national sedentary level by 1% would save 1,063 lives per year and £1.44 billion (Department of Health, 2004). Advice given to patients may include a combination of diet, exercise, drug and surgical interventions. However, obesity continues to be a difficult policy issue. The increasing concern about obesity and levels of exercise is matched by an increasing identification of weight problems in companion animals, with 40% of the UK pet population estimated as obese (German, 2006).

When exploring the positive benefits of human-companion animal interactions, a number of research studies have attempted to understand the impact of pet ownership on human health. In particular, studies have examined factors that affect the relationship between dog ownership and levels of physical activity (McNicholas *et al*, 2005). Although some authors have suggested the promotion of dog walking as a contribution to a physically active lifestyle (Ham and Epping, 2006), there has been little published research on the features of physical environments, such as parks, that are more conducive to dog walking (Cutt *et al*, 2007).

This paper presents a critical review of the literature on the relationship between dog ownership, open space provision and levels of physical activity. Key factors that might influence activity levels, in particular relating to the physical environment and owner-related issues, are identified. This work informs a UK study that will test the influence of these factors and explore the attitudes of dog owners to physical activity from dog

walking. Conclusions will be of interest to researchers who focus on human and animal health and will also contribute to a better understanding of the practical impact of the human-companion animal bond.

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24. Pet ownership, adult attachment and well-being

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This study examined the relationship among pet ownership, adult attachment, and well-being. Participants (N=292) completed an online survey that assessed their level of depression, state and trait anxiety, and attachment style (attachment avoidance, and attachment anxiety). It was hypothesized that there would be a negative relationship between pet ownership and depression and anxiety, and that attachment would moderate these relationships. Comparisons were made between those who either had a pet (including dogs, cats, birds, snakes and hamsters), or had had one in the past and those who had never had pets, as well as among current pet owners, past pet owners, and those who had never owned a pet. None of the hypotheses were supported. Previous research relating well-being and pet ownership have had mixed results, so the results of this study should not be surprising. However it raises methodological questions about the validity of the measures for this type of study and whether measuring moods and traits globally, rather than situationally is appropriate for assessing the influence of pets.

25. Problematic knowledge in Finnish wolf policy

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This paper deals with Finnish wolf policy. The wolf is an endangered species protected under the principles of international agreements. These formulations of international policies have somewhat failed to take into account the various historically formulated cultural and practical perceptions, and thus have caused a lack of respect and commitment at the local level.

This problematic situation has been approached in this research by interviewing different actor groups in Finland during 2003-2005: local people, nature conservationists, authorities and researchers (total 18 interviews). The data have been analyzed with narrative policy analysis. The analysis aimed at finding the metanarrative; the underlying narrative between different and conflicting stories. The analysis has shown that the underlying and often hidden problems relate to knowledge. Therefore it can be said that knowledge is somehow a problematic phenomena in current wolf policy.

There are many different kinds of knowledge concerning the wolf. Some knowledge is related to local practices, some is connected to scientific data. There is a more or less shared vision about *right* and *real* knowledge which is free of values. Different actor groups all call for this knowledge but disagree about which knowledge finally meets these demands. However, this kind of “pure” knowledge does not and cannot exist. Another problem is that not all “knowledge” is appreciated as knowledge, especially if feelings are attached. Therefore even the local people themselves fail to recognize and value some elements of the knowledge they have.

To tackle this problematic situation some policy changes are required. Institutions and practices which help us to understand and learn to utilize the different elements and forms of knowledge have to be developed. This development must take place at the local level in co-operation with different actors. Also connections to national and international levels must be constructed and maintained.

Poster Session B: Friday Morning

26. Understanding the basis and nature of attitudes toward animal use: A psychological approach

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The use of animals for human benefit is a contentious topic and often a cause of conflict between scientists and those concerned for the welfare of animals. Presented here are two studies that apply psychological theory to understand the basis and nature of attitudes toward animal use. We use the term basis to mean the cognitive foundations of attitudes, and the term nature to mean the qualities and characteristics that affect how opinions are maintained and changed. In the first study, participants (N= 163) completed a questionnaire that i) examined beliefs about animals and animal use, and ii) measured support for different types of animal use (for medical research, dissection, personal decoration, and entertainment). Factor analysis on questionnaire items revealed seven psychological factors that represent beliefs underlying attitudes, and regression analyses demonstrated that combinations of factors varied in relation to attitudes toward different types of animal use. In particular, a significant relation was found between belief in the

existence of alternatives to using animals (“perceptions of choice”), and support for practices associated with high costs to animals.

University students (N= 120) participated in the second experimental study. Participants were first primed with information that attempted to manipulate “perceptions of choice”, following which support for animal use was measured. The manipulation was found to have a significant impact on attitudes ($F(2,69) = 3.83, p < .05, r^2 = .10$): Informing people that there are alternatives to using animals for medical research led to significantly less support for this practice. This result was interpreted in terms of dissonance between beliefs and attitudes. Findings are discussed in relation to psychological theory that assumes attitudes to comprise of sets of beliefs (Ajzen, 1991), and Cognitive Dissonance Theory (Festinger, 1957). These have important implications for those wishing to understand and influence concern for animal welfare.

Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179-211.

Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.

27. The occupation of pet ownership as an enabler of community integration

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Community integration through occupational engagement is an integral tenet of occupational therapy. Yet, little is known about how pets may assist this process. This study explored community integration through pet ownership as meaningful, lifelong, occupation for one person with bipolar illness receiving Assertive Community Treatment (ACT). ACT is a best practice model that provides comprehensive locally based, multidisciplinary, treatment for people with serious and persistent mental illness.

Using a case study approach, eight qualitative, in-depth, interviews, observation, and analysis of pet photos were conducted with the mental health client and members of her social network. Data were analyzed inductively according to the constant comparative approach. The findings revealed that pet ownership assisted the individual to counterbalance and move beyond stigma through pets as enablers of: “continuity”, “belonging”, “action and self-construction”, “acceptance”, and “participation”. This process was influenced by the “severity of illness”, “view of community”, and “supports and resources”.

The results contribute to our understanding of pet ownership as means to community integration. The study indicates that to enable persons with a mental illness to engage in pet ownership, occupational scientists need to examine and understand this occupation in the broader context of recovery and health. A perspective of pet ownership as meaningful occupation challenges occupational therapists to develop strategies to actively engage clients and their pets in their community.

28. Pet owner intensive care unit visitation policies in veterinary medical teaching hospitals

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There are differing opinions as to whether or not owners should visit their hospitalized pets. Some veterinarians believe that the pets become upset and stressed by the visits and that this may have a negative effect on clinical recovery. Others believe that owners' visits are beneficial for the pet and the owner.

The purpose of the study was to identify existent policies and procedures for pet owners' visits to pets hospitalized in intensive care. A descriptive survey design using an anonymous, online survey of all veterinary medical teaching hospital emergency/intensive care directors in North America was conducted. Potential participants were identified by reviewing the teaching hospitals' websites. Thirty-one were contacted by email giving them a description of the study, and the secure URL for them to access to complete the anonymous questionnaire.

Seventeen directors responded to the invitation and completed the survey (response rate =55%). In 11 of the ICU's, owner visitation was allowed (65%). The majority of the directors indicated that there were no set visiting hours (n=11, 65%), that someone (most commonly the student working on the case) was required to stay with the owners during visits (n=12, 71%), that there was no age limit on owners who visit (n=16, 94%), and that other animals were not allowed to visit (n=12, 71%). Directors described in some depth problems encountered with and benefits of owner visits. Issues were identified, such as disruption of the flow of care in the ICU, owners becoming upset with what they saw, and difficulty in getting owners to leave. Benefits were perceived, such as comfort to the owner, improved mental status and better appetite in the pet, and building trust between owners and their pet's health-care team. Further detail and breadth of these very interesting responses will be categorized and depicted on the poster.

29. Gender-related stereotypes of male “cat people” and “dog people”

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North Americans apparently maintain a stereotype of men who like dogs as more masculine and (perhaps) less feminine than men who like cats (Perrine & Osbourne 1998). It is unclear, however, if men who like dogs are viewed as more masculine and less feminine only by comparison with men who like cats. In this study, we examined 563 undergraduates' gender-related evaluations of two men (one average, one masculine) described as sharing a characteristic. Prior to watching a video of these men play a verbal game, participants were either given no information about the men or told that both men were cat people, dog people, adopted, heterosexual, or gay. After the video, participants rated both men for 24 characteristics, including masculinity and femininity, on a Likert-like scale from 0 (Not x) to 5 (X). The label used had no impact on the average man's masculinity ($F(5, 557) = 0.68$, ns, $M = 2.53$) or femininity ratings ($F(5, 557) = 1.24$, ns, $M = 2.05$). However, the label influenced the masculine man's ratings (masculinity, $F(5, 557) = 4.11$, $p = 0.0011$; femininity, $F(5, 557) = 9.09$, $p < .0001$). He was rated less masculine when labeled a cat person ($M = 3.47$) than when labeled a dog person ($M = 4.00$), and less masculine when labeled gay ($M = 3.07$) than when not labeled ($M = 3.59$), or labeled adopted ($M = 3.67$), heterosexual ($M = 3.70$), or a dog person. Only the gay label ($M = 2.26$) increased the masculine man's femininity compared to other labels ($M_s = 0.88-1.32$). Apparently, liking cats (or being gay) decreases a masculine man's masculinity by comparison with his liking dogs (but not in general), and has no impact on his femininity or on an average man's masculinity or femininity.

Perrine, R. and Osbourne, H. 1998. *Anthrozoös* 11(1): 33-40)

30. Eating well, surviving humanism: Questioning the focus on the human-animal bond

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When Species Meet reflects upon what it means for species to 'eat well' (2007: 287). I am interested in the literal meaning of Haraway's concept: how organisms ingest, use or otherwise transform living/nonliving matter. All animals are, by definition, *consumers* (heterotrophs must use ready-made organic compounds). Bacteria, by contrast, do not 'eat' (they 'fix' or otherwise convert the elements on which all living organisms depend). Bacteria are *producers*, engaging in a different economy of eating and relating with the world. This difference invokes a metaphoric sense of 'eating well' – an ethics through which 'care, respect, and difference can flourish in the open' (Haraway 2007: 287), at the same time that humans confront what Pollan (2007) acerbically calls 'the omnivore's dilemma'.

Given our relation to the biosphere as consumers, it is unsurprising that humans focus on eating. The irony of Haraway's post-human epistemology is that 'eating well' obscures a focus on production as the most prevalent relational economy on Earth. While appreciating the complex interdependencies within-and-between living and nonliving matter, Haraway's 'species meeting' excludes bacteria (bacteria are not species) and the inorganic figures only as 'land'. Indeed, bacteria – the original organisms on Earth, creators of all species, and on which the biosphere intimately depends – are typically excluded from increasing interest in 'human animal bonds' (even though they are an immutable material part of all such bonds). Put another way, 'eating well' with bacteria requires an ethics absent from current formulations. By fore fronting the majority of organisms on Earth, I invite critical reflection upon the serious limitations we create by eclipsing the much more significant relations all animals enjoy with microorganisms – how our eating (well with) bacteria requires a different relational economy. As such, I hope this paper will precipitate useful debate amongst conference delegates.

Haraway, D. (2007) *When Species Meet*. Minneapolis: University of Minnesota Press.

Pollan, M. (2007) *The Omnivore's Dilemma*. New York: Penguin.

31. Improving the human-animal relationship: Strategies for success in changing human behaviour towards animals

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Changing the way animals are handled within agricultural animal-use industries, by increasing positive handling behaviours (HBs) such as patting, and decreasing aversive HBs such as hitting, can improve the human-animal relationship. The few studies that implemented interventions to change the attitudes and HBs of stockpeople within the Australian pig (1) and dairy industries had some success; therefore there is scope to build on this base.

Consumer behaviour research has a long tradition of addressing human behaviour-change. Increasing adoption of change requires addressing the needs (explicit and/or tacit) of the people targeted for behavioural change (2). Identifying and addressing people's need has not occurred in previous human-animal studies; however could prove a useful addition to increase industry adoption of changes in HB.

Whilst research on human-animal relationships has yielded useful information on relationships between attitudes, HB and animal behaviour, the field has not yet investigated the full range of factors proposed to influence human behaviour in the social psychology and marketing fields. Theories such as the Theory of Planned Behaviour and Theory of Goal Directed Behaviour (3), indicate a larger set of factors influence human

behaviour, including perceived behavioural control, anticipated emotions and desire, in addition to attitude. It is important to understand the full set of these potential antecedents, to enable HB-change.

Strategies for changing HB will be more successful if their development involves an interdisciplinary approach that is novel to human-animal research. Firstly, initial identification of people's thoughts in regards to which HBs affect their relationship with animals is required. Strategy development can then address industry need, increasing adoption of recommended HB-change. Next, the recognition of multiple factors likely to affect performance of the HBs identified by industry is needed. HB-change efforts can then focus on influencing the factors important to HB performance, and will therefore be more likely to succeed in changing HBs.

Hemsworth, P.H., Coleman, G.J. and Barnett, J.L. (1994). *Applied Animal Behaviour Science* 39: 349-362.

Miller, W.L. and Morris, L. (1999). *Fourth Generation Research and Development*, John Wiley & Sons, Inc.

Perugini, M. and Bagozzi, R.P. (2001). *British Journal of Social Psychology* 40: 79-98.

32. The transformation of knowledge and expertise in horsekeeping: The case of Finland

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The paper aims to highlight the impacts of the transformation of knowledge and expertise on horsekeeping in Finland. Traditionally, the role of tacit, practical knowledge has been strong, and expertise has been based on long personal experience. Today, horse-owners are mostly urban inhabitants, who keep their horses in rural areas for recreational purposes. As they typically have no connection to traditional horsekeeping, they have to acquire information from commercial sources. As a response to the demand, various forms of knowledge and expertise are produced in connection to horsekeeping. This expertise is not limited to professions or institutions but is instead socially constructed, contextually relative and influenced by varying interests.

This completed substudy is based on qualitative interviews of 9 Finnish horse owners. The informants are all female, aged between 20 and 60 and have different levels of education. Apart from being horse owners they have multiple roles as e.g. yard owners and riding instructors. The interviews were conducted in Finland in 2007, and they were analysed thematically. According to the interview analysis, practical knowledge is losing its central role in the education of young equine enthusiasts at riding schools, as the skills of new yard owners are not always appropriate. New horse owners do not get advice on issues such as the quality of hay, and they cannot always "read" the horse and recognise changes in its welfare. On the other hand, the new experts in the contemporary horse

industry (for example trainers) influence the conceptions of inexperienced horse owners, who do not have the competence to critically judge e.g. different handling methods.

The research results indicate that the forms of knowledge and expertise are transformed by the urbanisation and commercialisation of horsekeeping. The question remains, how and where new horse owners can achieve an adequate level of practical knowledge.

33. Eye movements during the identification of animal faces

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Research on face recognition shows that many of the same parts of the brain are active when looking at a human face as when examining the face of a dog (Blonder et. al., 2004), and that prosopagnosia can extend to animal faces (Bornstein, Sroka, & Munitz, 1969), suggesting a common mechanism is used for examining the faces of many species. However, research has not examined the eye movement patterns associated with the identification of more exotic animals. The purpose of the present study is to examine whether humans use similar cues for identifying wild animals as they do for identifying humans and companion animals.

Eye movements were collected for twenty-two undergraduates (7 male, 15 female; mean age, 19.6) as they quickly identified the faces of 11 animals: bird, house cat, cheetah, cow, dolphin, elephant, rabbit, raccoon, dog (retriever), sheep, and tortoise. Participants also rated their familiarity with each animal and rated it on 5 dimensions: attractiveness, intelligence, trustworthiness, friendliness, and aggressiveness. Ratings were made on 5-point Likert scales. Durations of fixations on the eyes, ears, nose, and mouth of the animals were recorded using a head-mounted eye-tracking device.

An 11(Animal Type) x 6(Feature Type: right-eye, left-eye, right-ear, left-ear, nose, mouth) within subjects ANOVA with fixation duration as the dependent variable yielded a main effect for Feature ($F(5,1050)=10.34, p<.001$), and a Feature x Animal interaction ($F(50,1050)=1.44, p<.05$). Participants examined the eyes for the longest duration (right eye+left eye). The interaction indicated that the nose was given more attention than the sum of the eyes for the dolphin, sheep, raccoon, and tortoise. Humans use different strategies to identify specific animals, suggesting that a hypothesized “face module” in the brain may not be stimulated by all creatures equally. Animals that do not activate a face identification mechanism may be less likely accorded with human qualities.

Blonder, L. X., et. al. 2004. *Cognitive Brain Research*, 20(3): 384-394.

Bornstein, B., Sroka, H., & Munitz, H. 1969. *Cortex*, 5(2): 164-169.

34. Gift or recipient: Attitudes toward pets and presents

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The purpose of the current study was to examine attitudes toward animals as presents, as well as views of giving presents to animals. Research shows that pets do not make good gifts. Animals given as unexpected gifts may be mistreated, released into the wild, or returned to shelters, especially if given during holiday time (Woodward, 2008). Animals require care and attention, exercise, visits to the vet, and money – things that the receiver must be willing to give. Yet, the media continues to promote the idea of the happy animal, complete with a bow, who becomes a member of the family. Research also shows that increasingly, family members give presents to their pets, a practice that does not seem to be detrimental (Zasloff & Kidd, 1994; Voith, Wright, & Danneman, 1992).

A scale was created to measure attitudes toward gift giving. 867 college students completed a 151 item questionnaire on gift-giving. Each item was rated on a five point scale with strongly agree and strongly disagree as endpoints. Factor analysis of the data showed 7 distinct factors, two of which are related to pets: belief that pets are good gifts and belief that pets should receive gifts. Analysis of the means for these factors showed that participants tended to endorse giving a pet as a gift and tended not to endorse giving gifts to pets. One-sample t-tests confirmed that both were significantly different from the midpoint. Further analyses showed no sex differences in these views. However, a one-way ANOVA with ethnicity as the subject variable showed that Asians were more likely than Caucasians to endorse giving pets as gifts. Participant attitudes were the opposite of what animal welfare research shows regarding pets and gifts, indicating a need for greater education on this topic.

Voith, V. L., Wright, J. C., & Danneman, P. J. (1992). *Applied Animal Behaviour Science* 34: 263-272.

Woodward, S. (2008). <http://www.bestfriends.org/theanimals/pdfs/allpets/petsasgifts.pdf>.

Zasloff, R. L. & Kidd, A. H. (1994). *Psychological Reports* 74: 747-752.

35. Socially conscious decision making in vegetarianism, environmental and animal rights activism

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In today's society, it seems that various social movements are expanding, evolving and receiving greater attention. With the increasing number of people adopting a vegetarian diet and becoming involved in environmental and animal rights groups, it is important to gather information on how conscious decision making in one area of life is connected to other aspects of conscious living.

This paper will be based on the findings of my MA thesis research, as my exploration of this topic is currently in progress and expected to be complete in late spring of 2008. This research explores the possible relationship between vegetarianism and personal involvement in environmental and animal rights organizations in Ottawa, Canada. The questions guiding my research include: How does one aspect of conscious living translate into other areas of social awareness? Do vegetarians make the links between vegetarianism and other aspects of animal rights/environmental activism? Research is being conducted by sampling for meaning through the use of open-ended, intensive interviews. Approximately 40 qualitative interviews will be conducted and analyzed using grounded theory.

Through the process of doing this research, I have constructed a concept I call “conscious living”. In short, conscious living can be defined as the way in which people make decisions and take action on a daily basis in order to alleviate non-human suffering. In order to demonstrate the ways in which conscious living can be used to explain sociological phenomena, I use vegetarianism as my case study. My research is sociologically significant because it builds upon, and contributes to, existing theories of the bystander in society (Bauman, 2001; Cohen 2002; Clarkson, 1996). While theorists writing about the bystander have briefly alluded to the fact that humans can be bystanders to non-human suffering, bystander theory does not discuss what happens when humans witness the suffering of non-humans, such as distress experienced by animals or the environment.

Bauman, Z. (2002). *Society Under Siege*. Oxford: Blackwell.

Clarkson, P. (1996). *The Bystander: An End to Innocence in Human Relationships?* London: Whurr Publishers Ltd.

Cohen, S. (2001). *States of Denial: Knowing about Atrocities and Suffering*. United Kingdom: Polity.

36. Measuring dog’s greeting behavior towards humans

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Although a number of recent studies has investigated the dog-human relationship, to our knowledge no one has focused on the greeting behavior. The aim of the present research was to develop tools to study this specific behavior in respect to the type of relationship with humans. We performed an observational study of dog interaction with humans, in order to verify if greeting behavior presented repeatable patterns within and between dogs. To elicit greeting responses, dog owner dyads (N=20) underwent Ainsworth’s Strange Situation Test (SST) as previously described (Marinelli et al., 2007). Examination of the videotaped greeting sequences allowed us to identify three clearly distinguishable patterns between dogs: proximity seeking, toy showing, jumping on. Behavior performed by a given dog was characterized by the same pattern towards the owner and an unfamiliar person, but it differed in duration and intensity. Since greeting

behavior is strictly dependent on the type of relationship with human, we elaborated and validated a questionnaire aimed at assessing the level and quality of inter-specific stimulation received by the dog. Items in the questionnaire investigated the daily amount of time spent by the dog with each person in his living group and the type of activity (play, exercise, petting, company, no activity) in which the dyad was engaged. Statistical analysis of questionnaires (N=75) showed highly significant correlation among items (Spearman's rho; $P < 0.0001$) and high internal consistency (Cronbach's Alpha = 0.92). Factor analysis of the questionnaire scores revealed two main factors (factor 1: play, exercise, petting, company; factor 2: no activity) which account for the 64,1% and 25,1% of total variance, respectively. Findings suggest that these tools could be successfully applied to study the effect of inter-specific stimulation on dog behavior towards humans.

Marinelli L., S. Adamelli, S. Normando, G. Bono. (2007). *Applied Animal Behavior Science*, vol. 108, pp. 143-156.

37. Studying our emotional reactions to animals and robots

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Emotion is a key component in how we interact with others. While there is a growing body of research on human emotional reaction to other humans, there is little on our emotional reaction to non-humans. This study investigates using the appraisal theory of emotion (Roseman, Scherer, Schorr, & Johnstone, 2001) to explore how we understand and evaluate situations involving animals and robots.

In this experimental study participants interacted with a teammate (a shetland sheepdog, a doglike robot, or a non-anthropomorphic robot) attempting to accomplish a set of tasks. The appraisals of motive consistent/ inconsistent (the task was performed correctly/incorrectly) and high/low perceived control (participants were told the teammate was well trained/not well trained) were manipulated.

Results (using univariate and multivariate ANOVAs with $p < .05$ for significance) show that this live interaction test bed is a valid way to influence and study participants' appraisals when interacting with animals and robots. Manipulation checks of motive consistent/inconsistent, high/low perceived control and the proper appraisal of cause were significant. Teammate form was shown to influence both the positive (Gratitude, Appreciation, and Affection) and negative emotions (Dislike and Anger) experienced, (e.g. lifelike teammates were rated significantly higher in positive emotions and significantly lower in negative emotions). Audio analysis (Fundamental Frequency and Intensity) indicate a significant difference in how females talk to the three teammates. Participants also rated the entities significantly different on seven attributes (cooperative, intelligence, likable, friendly, aggressive, easy, and difficult).

This study has shown that the appraisal theory of emotion is applicable to the study of

human-robot and human-animal interactions. This framework allows us to determine the elements of a situation which cause positive or negative emotional reactions when interacting with a robot or animal. This should be of interest to those seeking to reduce negative or increase positive emotional reactions in their work.

Roseman, I. J., Scherer, K. R., Schorr, A., & Johnstone, T. (2001). *A model of appraisal in the emotion system: Integrating theory, research, and applications*. New York, NY, US: Oxford University Press.

38. Habituating Highland Cattle calves to tolerate humans

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Highland Cattle calves are born outdoors, live in interaction with dams, and communicate with other calves and cows of their herd. It is difficult to take care of free animals unless they are easily caught and habituated to humans. Their treatment must be easy and safe for humans and they should not experience fear stress due to humans. A procedure to habituate Highland Cattle calves to humans evolved with four years' experimentation on one farm by one male human handler.

The procedure is modelling the behaviour of the dam to its calf during bonding. She vocalises frequently and licks the head of the calf intensively. The calf becomes fond of dam's touch, voice and smell. The aim is to habituate daily the calf similarly to rubbing touch of human hands, voice, and smell starting straight after birth. The dam's trust in humans is helpful. The calf is fearless when it allows human to scratch itself without escaping. The human must approach animals peacefully and patiently without any frightening or enforcement. A wooden stick helped to better reach and scratch animals.

Data includes results of 18 bull and 20 heifer calves, from 14 dams and 4 sires. In 24 cases, they were fearless and easy to handle all the time. Fearful 8 heifer and 6 bull calves got little or unpleasant handling during first weeks. The dam did not permit the human to touch her calf or the calf got another reason to avoid humans. Scared calves were fearless generally at the age of 18 to 60 days. During early experiments, four calves with aggressive dams got minor manipulation and needed from 110 to 197 days to overcome their fear. Fearful calves will finally accept human approaching attempts because they are curious and will learn by example of the fearless companion calves.

39. Comparison of cognitive and manipulative abilities in six species of primates

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Do some species of non-human primates have a cognitive ability that allows them to process and complete cognition tasks differently and more efficiently than other species? Can we provide for this ability in captivity? These questions were explored by introducing six species of primates, Brown-Headed Spider Monkey (*Ateles fusciceps robustus*), Black Lemur (*Eulemur macaco macaco*), Lar Gibbon (*Hylobates lar*), Ring-Tailed Lemur (*Lemur catta*), Dusky Leaf Monkey (*Trachypithecus obscurus*), and Red Ruffed Lemurs (*Varecia variegata rubra*) to a cognitive device. The “Box Puzzle Feeder”, a Plexiglas cube with a pivoting lid, tests cognition in the form of manual dexterity (manipulation of object to obtain the reward) and identifies, at various taxonomic levels, differences in: 1) amount of time spent interacting with the device, 2) the time it takes to “solve” the device, 3) methods and body parts used in manipulating the device, and 4) social dynamics that may come into play. Whereas the data show little differences in the amount of time taken by the different species to “solve” the device, there are considerable differences in how quickly they interact with it, social dynamics when the box is present, and the ways in which the different species manipulate and physically interact with the box. Specifically, the lemurs use their front hands to maneuver the lid while leaving the box in place, whereas *A. f. robustus* and *T. obscurus* pick up or roll the box to maneuver the lid. These data suggest that additional components should be considered when designing and implementing enrichment projects and protocols, including morphological differences, manipulative abilities, and limitations, and patterns of foraging behavior. By looking for and recording these differences we will be able to create new ways of assigning and assessing the value of cognitive and enrichment objects that we provide for animals in our care.

40. The effects of dog and owner personality on adoption outcomes

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This study tracked the development of the dog/owner relationship in 93 individuals for the first month after adopting a dog from one of two local animal shelters in an attempt to find personality/temperament trait matches. Participants completed surveys that included two personality inventories, an ideal rating scale for dog behavior, measures of the level of attachment and commitment to the new dog, a rating of the new dog’s behavior in the home, and a series of questions about experience with owning and caring for pets. These surveys were completed at the time of adoption and 30 days post adoption. A total of 1,396 dogs were assessed prior to selection for euthanasia or adoption. Euthanized dogs had higher scores for aggression and fearfulness than adopted dogs, but lower scores for excitability, playfulness, and separation anxiety. A logistic regression indicated that dogs that were housed at the Arlington shelter, pure breeds, smaller in size, prick ears, lighter in color, female, and more playful were more likely to be adopted. There was a positive

correlation between gregariousness in people and aggression in dogs, a negative correlation for trust in people and separation anxiety in dogs, and a negative correlation for warmth and dog-directed aggression. A discriminant analysis was unable to predict successful placements from human personality and dog temperament. However, people who returned their dog indicated different priorities in desired traits and levels of those traits than people who kept their dogs. Although the results did not reveal any significant effects of human personality matching with dog temperament, there was a significant positive correlation between both openness and conscientiousness with level of attachment to the new pet, and a significant correlation between attachment and keeping the dog. This implies that these traits may be important in maintaining the pet/owner bond.

Research supported by a grant from PETsMART Charities

41. The Well-Being of Heifer International's Animal in the Communities around the World

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Heifer International provides high-quality livestock, training and related support to men, women, youth and communities to assist with food security and to improve livelihoods. Heifer provides training and extension services so families can provide improved animal housing, management, breeding, nutrition and veterinary health. Animals receive humane handling and protection while providing food and other by-products. Training in agroecology integrates livestock production into sustainable farming systems, which protect and enhance the local environment while providing families with food and income. Animals become a vital part of family activities without causing a burden on farm resources and are integrated into the community.

Heifer International puts emphasis on the *well-being* of project animals. Animals are considered in the social environment of project families as they strive to become more self-sufficient and improve nutrition as well as income. *Heifer's Animal Well-Being Recommendations and Guidelines* are to be used for training project partners and field staff.

Heifer's focus is on holistic development integrating the resources of the community with training to all members to help them lift themselves up from poverty and hunger to a better life. Heifer International is also intentional about striking a balance between animal well-being and production. Animals produce at a level corresponding to the care and nutritional inputs they receive. However, Heifer projects are not necessarily designed to produce at maximum levels. Instead, farm animals become part of the family's process of living within the means of available natural and economic resources. Heifer International families do not normally have the means for optimum rations and housing. Instead, they live and produce within the limitations of the social and ecological environment of the area. Animals participate in this relationship with the family.

Heifer International Animal Well-Being Recommendations.2008. 1 World Avenue, Little Rock, AR, USA.

Aaker, J. 2007. *The Heifer Model: Cornerstones Values-Based Development*. Heifer International, 1 world Avenue, Little Rock, AR 72202, USA.

Photography Exhibit and Art Installation (Atrium)

Caring Canines

Aadra Cole & Maura McIntyre, Centre for Arts-informed Research, Ontario Institute for Studies in Education, University of Toronto, Canada. acole@oise.utoronto.ca

Materials: corrugated plastic, metal, found objects

This installation is one part of a much larger research-based art installation about caregiving and Alzheimer's disease. In three regions of Canada we gave disposable cameras to family caregivers in diverse circumstances, locations and care relationships with a loved one with Alzheimer's disease, and asked them to show us, in pictures and words, what care looks like. Some accompanied images with captions and stories; others allowed the pictures to speak for themselves. In all we gathered images and stories from 45 people in cities, towns, and rural contexts who, alone or with other family members, were caring for their loved ones at home or in long term care facilities.

For many the 'look of care' includes the family dog. The caring canines in this installation were created from the photographs we received from family caregivers. They are life-sized representations of the dogs who play a significant role in the health and well-being of both people with dementia and their caregivers. Whether by providing companionship or psychological or physical security; creating opportunities for physical and social interaction; or by restoring a sense of agency through basic care-related tasks, dogs are an important source of comfort, reassurance and pleasure and they make very few demands.

In advancing the concept of "personhood" within the context of dementia care, Tom Kitwood (1994) draws on Martin Buber's (1958) idea of "I-Thou" relationships. This mode of relating, says Kitwood, involves "making contact with the pure being of another, with no distant purpose, explicit or ulterior." Words used to describe such a relationship include: "awareness, openness, presence (presentness) and grace" (Kitwood, 1994, p. 224). These qualities aptly describe the relationship between people with Alzheimer's disease and their caring canines.

We gratefully acknowledge the support of the the Social Sciences and Humanitites Research Council of Canada.

Buber, M. (1958). *I and thou* (2nd ed.). (R. G. Smith, Trans.). New York: Scribner's.

Kitwood, T. (1994). In G. Jones and B. Miesen (Eds.). *Caregiving in dementia*. London: Routledge.

Humans and Orangutans: An Exhibition of Photography

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