

ISAZ 14th Annual Conference
July 11-12, 2005
Niagara Falls, NY

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Acknowledgements

☺ Thanks to **People, Animals, and Nature** and the **Humane Society of the United States** for providing generous sponsorship for this conference. The support of these two institutions has made it possible to present our four keynote speakers.

☺ Thanks to Keynote speakers Clif Flynn, Ádám Miklósi, Irene Pepperberg, and David Wolfson for generously sharing their time and talents.

☺ Thanks to Academic Affairs at Niagara County Community College for providing the printing for this program.

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☺ Special thanks to Penny Bernstein and Anthony Podberscek for their expertise and guidance in organizing the conference.

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☺ Thanks to Mary Wood at University of California, Davis who will post an on-line version of the conference program on the ISAZ website later in July.

Program Format

- Please note each keynote address is scheduled for 30 minutes plus 15 minutes for questions at the end of the presentation.
- Each podium presentation is scheduled for 12 minutes plus 12 minutes allotted for questions at the end of each session.
- Session chairs have been empowered to use any means necessary ☺ to strictly enforce to this time schedule.
- All presenters are respectfully requested to comply. Break times can be used for additional questions and discussions.

Editor's Note

I apologize in advance for any errors or omissions which may appear in the program. I have copied and pasted submissions as they were sent to me. Thank you all for the attending the conference and for providing me the opportunity to organize it.

I hope your visit to Niagara Falls and the beautiful natural attractions that Niagara County has to offer has been educational and enjoyable!

Kathy Gerbasi, Ph.D., Conference Organizer

Invited Keynote Addresses

(In order of presentation)

July 11, 2005

Legal Status of Animals

David J. Wolfson

Abstract

A brief overview of the reasons for the growth of "animal law" in the last decade. The presentation will also explore the most common areas of debate within animal law; for example, whether the classification of animals as "property" is appropriate or important, the problems relating to suing on behalf of animals, whether current legal protections for animals are sufficient, or, in the alternative, whether new legal strategies, such as "legal personhood" or fundamental "legal rights" for animals, should be pursued.

David J. Wolfson is a partner in the global corporate (mergers and acquisitions) group at Milbank, Tweed, Hadley & McCloy LLP. He has authored a number of articles on animal law and recently co-authored a chapter in "Animal Rights," edited by Cass Sunstein and Martha Nussbaum (published by Oxford University Press). He has taught animal law at Yale Law School, Harvard Law School and Benjamin N. Cardozo Law School, and will be teaching animal law at NYU Law School and Columbia Law School over the next year. He has represented a number of animal protection groups including ALDF, Farm Sanctuary and CIWF.

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***Women, Children, and Animals Last:
Connections between Animal Abuse and Family Violence***

**Clif Flynn
University of South Carolina Upstate**

Abstract

Recent scholarship regarding animal abuse has much in common with the early research on family violence in the 1960s and 1970s. Researchers were slow to study both topics, and when they did, they relied almost exclusively on psychological models of explanation. This presentation will examine animal abuse and its relationship to violence in families, focusing on social and cultural factors that help explain each form and their interconnections. In particular, gender, power, and control are offered as central themes for understanding violence against women, children and other animals. Ultimately, animal abuse should be viewed not just as an indicator of psychopathology, or as another form of wife abuse or child abuse, but as a separate form of family violence that deserves serious attention irrespective of its relationship to violence against humans.

Clifton P. Flynn is Professor of Sociology at the University of South Carolina Upstate where he has taught for seventeen years. He is the past Chair of the Section on Animals and Society of the American Sociological Association. Clif serves on the editorial boards of both *Society & Animals* and *Anthrozoos*. In 2001, his Animals and Society course was chosen as the “Best New Animals and Society Course” by the Humane Society of the United States, and was featured on “The Osgood File” on CBS radio. He has written numerous articles on animal abuse and its relationship to family violence, including a new chapter that analyzes animal abuse from a sociological perspective in Frank Ascione’s upcoming *International Handbook of Theory, Research, and Application on Animal Abuse and Cruelty*.

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July 12, 2005

Dog-human relationship in an evolutionary perspective

Ádám Miklósi
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Abstract

Most researchers agree that the history of dog-human relationship goes back at least to 10 thousand years. Some even think that the association between these two species has an even longer past. Even the earliest estimations, about 100,000-150,000 years, are dwarfed in comparison to most interspecific relationships found in nature. For example, in the case of cleaning fish symbiotic behaviour among various fish species led to adaptive behavioural changes emerging in both the cleaners and their clients. So what is so special in dog-human relationship that attracts biologist to the topic and evokes questions about evolution?

For many years scientists have worked to establish a plausible explanation of human evolution. Traditionally, the topic was left to anthropologists who by collecting pieces of human skeletal remains tried to solve this puzzle. However, it became clear that the task could not be solved only by one discipline. One of the new ways to find answers to the basic question was to take a closer look at our nearest "relatives", the primates including their ecology, behaviour and cognitive abilities. Although this approach proved to be very fruitful, important constraints remained.

More recently some research suggested that dogs evolving for living in a human dominated environment could provide some answers to understanding human behavioural and cognitive evolution. One hypothesis is that through behavioural adaptation to this new environment dogs evolved some behavioural traits that are functionally analogous to the respective human behaviour. Some recent experiments comparing the behaviour of dogs and extensively socialized wolves showed attachment behaviour could be one of such candidates. According to the criteria of attachment behaviour in humans and dogs, these wolves were not able to develop such a relationship with their caretakers.

Similar differences have been found in the case of communication when dogs and socialized wolves were compared in experiments testing the ability to rely on experimenter given cues for finding hidden food. Whilst dogs were successful in the case of most human gestures (e.g. pointing), in some cases their performance exceeded the performance of apes. Socialized wolves of the same age had a much difficulty with the same gestures, although some individuals could learn to find the food on the basis of human pointing but only after extensive training. Further comparative experiments showed that cats living in human households (together with dogs) achieve a similar level of performance like dogs in the case of simpler gestures.

Interestingly, more definite species differences emerge when dogs, cats and socialized wolves are compared in tasks involving problem solving in a social context. Dogs were more inclined to show communicative behaviour toward their owner when facing an insolvable problem whilst cats and wolves are more persistent in trying to solve the problem on their own.

A final example will be drawn from the study of barking in dogs. Recent results of human playback studies have shown that in dogs barking has evolved for signaling different inner states, which can be differentiated by humans.

In our view this suggests that during the evolution of dog-human relationship the behaviour of dogs has changed, possibly as an adaptation to human social environment.

Ádám Miklósi is a biologist and Assistant Professor in the Department of Ethology at Eötvös Lorand University (Hungary). He is the author of 60 publications in referred journals and associate editor for *Animal Cognition* and *Anthrozoos*. He has been awarded numerous International Fellowships, studying at both the University of Sussex, England and the University College London, England. Ádám's research has focused on the following topics:

the dog as a model for social evolution, social intelligence in dogs, the dog as a model for human personality, the evolution of referential communication and social learning in dogs.

He has identified the following as his five most important publications:

Miklósi, Á., Polgárdi, R., Topál, J., Csányi, V. 1998. Use of experimenter-given cues in dogs. *Animal Cognition*, 1, 113-121.

Miklósi, Á. 1999. The ethological analysis of imitation. *Biological Review*, 74, 347-374.

Miklósi, A, Kubinyi E, Topál, J, Gácsi, M., Virányi, Zs., Csányi, V. 2003. A simple reason for a big difference: wolves do not look back at humans but dogs do. *Current Biology*, 13, 763-766.

Miklósi, Á., Topál, J., Csányi, V. 2004. Comparative social cognition: What can dogs teach us? *Animal Behaviour* 67, 995-1004.

Byrne, R.W., Barnard, P.J., Davidson, I., Janik, V.M., McGrew, M.C., Miklósi, Á., Wiessner, P. 2004. Understanding culture across species. *Trends in Cognitive Sciences*, 8. 341-346

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***In Search of King Solomon's Ring:
Cognitive and Communicative Studies on Grey Parrots***

**Irene Pepperberg
Radcliffe Institute for Advanced Studies and Brandeis University**

Abstract

For almost 30 years, I have used a modeling (M/R) technique to train Grey parrots to use an allospecific code (English speech) referentially; I then use the code to test their cognitive abilities. My oldest bird, Alex, labels over 50 exemplars, 7 colors, 5 shapes, quantities to 6, 3 categories (color, shape, material) and uses "no", "come here", "wanna go X" and "want Y" (X and Y are appropriate location or item labels). He combines labels to identify, request, comment upon or refuse more than 100 items and alter his environment. He processes queries to judge category, relative size, quantity, presence or absence of similarity/difference in attributes, and show label and number comprehension. He semantically separates labeling from requesting. He thus exhibits capacities once presumed limited to humans or nonhuman primates.

Furthermore, studies with this bird and other Greys show that parrots given training that lacks some aspect of input present in M/R protocols (reference, functionality, social interaction) fail to acquire referential English speech. Other data suggest that the extent of learning also depends on the form of input. Studies on how parrots acquire an allospecific code may elucidate mechanisms of other forms of exceptional learning: learning unlikely in the normal course of development but that can occur under certain conditions.

All these findings confirm the importance of enrichment for captive parrots: An animal that has the intelligence of a four-to-six year old human child, and that learns in ways that are similar to those of a human child, needs a varied, exciting, interesting environment and extensive social interaction in order to thrive.

Irene Pepperberg received her SB from MIT and her graduate degrees from Harvard. Beginning in September 1999, she became a visiting associate professor at the MIT Media Lab, and later accepted a research scientist position there, leaving a tenured professorship at the University of Arizona. She is now a Radcliffe Fellow and also an adjunct associate professor in the Dept of Psychology at Brandeis University. She won a John Simon Guggenheim Foundation Fellowship for her 1997 sabbatical, was an alternate for the Cattell Award for Psychology, won the 2000 Selby Fellowship from the Australian Academy of Sciences, and was nominated for the 2000 Weizmann, L'Oreal, and Grawemeyer Awards. She has also received fellowships from the Harry Frank Guggenheim and Whitehall Foundations, and numerous grants from the National Science Foundation.

Her book, *The Alex Studies*, describing over 20 years of peer-reviewed studies on cognitive and communicative abilities of Grey parrots, received favorable mention from publications as diverse as the *New York Times* and *Science*. Her next book, on how social interaction affects communicative learning, will also be published by Harvard. She has presented her findings nationally and internationally at numerous universities and scientific congresses. She is a Fellow of the Animal Behavior Society, the American Psychological Association, the American Psychological Society, the American Ornithologists' Union, AAAS, and presently serves as consulting editor for four journals.

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Podium presentations (Listed Alphabetically by principle author)

Title: *Attitudes towards animals in a small Caribbean city: A case study from Roseau, Dominica*

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Background: Dominica, known as the “Nature Island of the Caribbean” is located in the Lesser Antilles between Martinique and Guadeloupe. The ever-increasing number of stray and roaming dogs and cats is currently a concern for the public and private sectors and constitutes environmental and public health issues, as well as an animal welfare problem. As tourism is the one of the largest foreign exchange earners for the country, animal overpopulation is an issue with immediate ramifications for the government. In an effort to find an alternative to indiscriminate poisoning of stray and roaming dogs in Roseau, IFAW (The International Fund for Animal Welfare) was approached by the local city council to assist in developing a humane and sustainable solution. IFAW began work in the summer of 2004 by conducting an estimation of the stray and roaming dog population in Roseau in and surveying the public to obtain a baseline of attitudes towards animals. This was done: 1. To test a frequent assumption that people in developing countries do not care about animal welfare issues, 2. to gauge the level of consciousness regarding animal welfare and, 3. to provide a baseline to measure IFAW’s progress in positively changing attitudes and behaviors about animal welfare through our humane education and public information programs.

Methods and Results: 241 households were asked to participate in in-person interviews, representing just over 4.7% of the entire existing households within Roseau. Thus far, preliminary results show that only 2.6% of respondents did not think pets have feelings. Fifteen percent of people were not opposed to violence against animals and 18.4% of people reported beating/striking their pet. Most people (62.4%) said they felt sorry for stray animals.

Discussion: Recognizing that many of Roseau’s citizens care about animals not only affects IFAW’s approach to educating people about humane solutions to overpopulation but it also serves as a reminder that all classes of people care *about* animals although they may not always know how best to care *for* them. The results of this study suggest that more a humane education program in Dominica could be a useful way of informing more people about what constitutes appropriate treatment of animals – both domestic and wild.

Title: *Further explorations into the Avian-human Bond*

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The human-avian bond continues to be an area that is under explored. In previous research exploring the avian-human bond (Anderson 2001a, 2001b, 2003) I presented an analysis of qualitative and quantitative data indicating that a growing number of companion bird owners consider their birds to be family members with whom they have deep emotional bonds. Based on a convenience sample of respondents to an electronic survey, bird owners discussed in an open-ended essay question the importance of avian companionship. A qualitative analysis of the essays revealed a series of key characteristics with “love/unconditional love” being the most common response. A close second was the conception of birds as fictive kin or “Fids” (feathered kids).

The current paper considers additional survey data derived from a larger sample of respondents, and will further explore the cultural and social dimensions of avian companionship, and its implications for avian welfare in light of this additional research. Interpretations are based on participant observation, survey response, and literature review, and serve to illustrate the way in which the human-companion parrot relationship is culturally constructed.

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- Anderson, P. (2003) A Bird in the House: An Anthropological Perspective on Companion Parrots. *Society & Animals: Journal of Human-Animal Studies*, 11 (4), 393-418.

Title: *Incorporating a Center for Human-Animal Interaction into an Academic Medical Center*

Author(s): Sandra B. Barker, Ph.D.*, Randolph T. Barker, Ph.D.

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The Center for Human-Animal Interaction was established in the School of Medicine at Virginia Commonwealth University in June 2001. The Center represents the first of its kind to be established in a School of Medicine in the USA. With its mission of “improved health and well-being through human-animal interaction”, the Center provides a structure for, and promotes, interdisciplinary research, clinical activity, and education. This presentation will begin with a description of the establishment of The Center. The evolution of the Center will then be addressed including research, clinical, and educational activities. Published research on the effectiveness of animal-assisted therapy at the medical center will be summarized. The Dogs on Call (D.O.C.) Program, the animal visitation and animal-assisted therapy program in the Medical Center, will be described as will the pet loss counseling services operated in collaboration with the veterinary community. Efforts to include the human-animal interaction into the medical and allied health curricula will also be discussed. Challenges to the development and growth of the Center will be posed with ample time for questions and discussion.

Title: *Evaluating the Value of Service Dogs for Children with Autism*

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A review of the use of assistance dogs for people with disabilities reveals the many social, psychological and economic benefits. Although some publications demonstrate the therapeutic value of using pets with autistic children in a clinical setting, few studies have focused on the value of trained service dogs. A recent study by Martin et al in 2002 showed that autistic children exhibited a more playful mood, were more focused, and were more aware of their social environments when in the presence of a therapy dog.

In 1996, National Service Dogs started training dogs to assist the parents of children with Autism Spectrum Disorder to improve the child's quality of life, independence and safety. Dogs are trained to prevent a child from bolting and running into traffic, or leaving the home or classroom without supervision.

In examining the impact of service dogs on autistic children, the proposed research: 1) Explores the benefits and challenges for both family and child; 2) Evaluates the service dogs' quality of life and welfare.

Semi-structured interviews were conducted with the study families before they received the dog, and at 3-month intervals after the dogs were introduced into the families for a study period of one year. In addition to video footage, the qualitative ethology approach allowed for a detailed analysis of what challenges these parents face, characteristics and behaviors of the autistic child, perceived benefits, canine interaction, and the evolution of a child-animal bond. Factors such as previous pet ownership, ability to maintain the dog's training, and the parents' expectations were also investigated to determine what family characteristics were most favorable of a 'successful' placement. Evaluation of the value of service dogs in this study provides crucial information for parents interested in pursuing a service dog for their autistic child, and the general implications of long-term human-animal companionship for children with special needs and their caregivers. This preliminary study allowed for a unique opportunity to explore human-animal relations with a focus on both human health and animal well-being.

Title: *Anthropomorphic Tendencies Among Pet Owners and Non-Owners*

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Anthropomorphism has been historically rejected by psychologists despite its potential usefulness for enhancing humans' understanding of animals. Lockwood (1989) proposed that there are five basic types of anthropomorphism: allegorical, personification, superficial, explanatory, and applied. Although he considered allegorical anthropomorphism to be harmless, personification, superficial and explanatory anthropomorphism were seen as harmful to varying degrees and the only type of anthropomorphism seen as useful was the applied type when it was used with proper "safeguards" in place. For example, anthropomorphic projections that increase empathy were seen as potentially helpful from an animal welfare perspective.

Despite the interest in different types of anthropomorphism, researchers have not examined individual differences in anthropomorphic tendencies (e.g., gender differences or differences between pet owners and non-owners) or the possibility that different individuals may exhibit different kinds of

anthropomorphic tendencies. The present study was designed to produce a broad measure of anthropomorphic tendencies that contained various subscales to measure different types of anthropomorphism.

A 208-item Anthropomorphic Tendencies Scale (Chin et al., 2005) was administered to 1506 participants (562 males, 927 females, 17 unidentified). The scale combined 20 forms of anthropomorphism with 12 different hypothetical targets of anthropomorphism (e.g., “A computer has a personality like a person has a personality.”). A factor analysis of the scale suggested four basic subscales: (1) General Anthropomorphism, (2) Anthropomorphism toward Gods and/or deities, (3) Anthropomorphism of pets, and (4) Negative Anthropomorphism. Participants also completed a brief questionnaire regarding whimsy, sentimentality, and pretend play, an abbreviated social desirability scale (Reynolds, 1982), and the Parent Attribution Test (Bugental *et al.*, 1989) as a measure of perceived control in caregiving situations.

To examine individual differences in anthropomorphic tendencies, pet ownership and gender were used as independent variables in a series of ANOVAs examining differences in the four types of anthropomorphic tendencies and the questions regarding whimsy, sentimentality, and pretend play. Results showed that pet owners showed less general anthropomorphism than non-owners but more anthropomorphism directed toward pets. Pet owners also reported greater agreement than non-owners with various statements indicating that they liked pets more than non-owners, engaged in more pretend play as a child, were more sentimental, had more difficulty letting go of favorite objects, were less skeptical people, and were more likely to still have a beloved toy from childhood. Several gender differences and a few pet ownership by gender interactions also were found. Overall, the current findings suggest that people show several different types of anthropomorphic tendencies and that factors such as pet ownership and gender may be important for understanding individual differences in the tendency to anthropomorphize.

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Title: “*Anthrozoophilia*” as a predictor of empathy

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In 1984, E.O. Wilson advanced the biophilia hypothesis, which holds that individuals have an innate tendency to attend to animals and nature. Although it includes all natural things, the biophilia hypothesis strongly attends to animal life, and the tendency to incorporate animals into a social environment (Katcher & Wilkins, 1993). Wilson (1993) later pointed to evidence of such a hypothesis, including the fact that more people in the United States and Canada visit zoos every year than attend major professional sporting events. Melson (2001) elaborated that biophilia is a natural attraction to animals and other living things, a product of the coevolution of people and animals and their

historically mutual dependence on one another. The significance of animals for humans is strongly supported by theoretical (Levinson, 1962, 1964, 1965, 1970, 1978), historical (Grier, 1999), and empirical (Beck & Katcher, 1996; Melson, 2001) research, emphasizing the value and importance of animals for people.

The animal aspect of biophilia is intriguing. In a recent examination of predictors of empathy, Daly (2004) found that a specific cluster of animal-related variables predicted empathy. As an aspect of biophilia, this theoretical framework was termed *anthrozoophilia*, and was determined by two scales: (1) Lovers of Pets (strong affect) and (2) Humanizers of Pets (strong valuation). Within a large sample size (N=450), *anthrozoophilia* was indeed a predictor of empathy ($r = .294$). There are numerous implications for anthrozoophilia as a theoretical foundation, given the way in which it correlates with empathy. It invites investigation that might offer more conclusive evidence for the way in which animals positively impact social and emotional development, particularly the development of empathy. Although the specific nature of the role is speculative, existing evidence and on-going research consistently points to the benefits of human-animal relationships.

Title: *Cultural considerations in human-animal studies*

Author(s): *Elissa Dresden, Debbie Coultis

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People exhibit a wide array of attitudes, beliefs and behaviors toward other animals based on personal experiences, social and cultural customs, and religious practices. While there are individual differences in any one group, some generalizations about what to consider when working with a population are possible. For example, an animal species may be considered taboo to touch in one setting but revered in another. The notion and practice of pet keeping varies widely across cultures. Some species may provoke fear responses in some groups, yet be embraced by members of a different group.

This presentation will provide suggestions about how to broaden and synthesize research about attitudes toward other animals, so that the research can be of practical use to those working in Human Animal Studies. We believe people involved in Human Animal Studies should strive for cultural literacy in order to provide the highest quality research, services, and avoid confusion and unsafe situations to both people and other animals. Practitioners integrating other animals into their work need tools to address cultural and other social grouping factors in order to provide comprehensive and competent services.

Cultural considerations need to be included in intake forms and assessments. Such assessments are vital to the success of programs that involve humans and other animals working together. We will describe some of the current research and offer suggestions for further research. The presentation will focus on the need to translate findings into practical tools for use in a variety of settings with diverse populations.

Title: *A Cross Program Statistical Analysis of Spay/Neuter and Adoption Programs to Reduce Dog and Cat Overpopulation*

Author(s): Joshua M. Frank, Ph.D., Pamela Carlisle-Frank, Ph.D.*

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Millions of healthy dogs and cats killed annually in United States shelters. One response to this tragedy has been the growth of the “no kill” movement in the last decade. Although the philosophy and the use of the term “no kill” is somewhat controversial in the animal welfare community, there is growing unity across all types of animal welfare organizations to work together to reduce dog and cat deaths at shelter through innovative programs and the use of broad coalitions. Perhaps the leader in these efforts is Maddie’s Fund, a privately funded organization with unprecedented financial resource and a goal of creating communities that do not kill any healthy or treatable dogs or cats. Maddie’s Fund has funded programs across the United States from small cities to entire states, with a focus on efforts to increase adoptions and increase the number of people spaying/neutering their animals.

These Maddie’s Fund programs present a unique opportunity to statistically analyze the impact of spay/neuter and adoption programs. The most important finding of this research is that it statistically demonstrates that increased spay/neuter rates are related to lower shelter intake. This is a very important finding since a vast amount of public and private funding and effort are put into spay/neuter programs and no prior statistical test has ever shown scientifically that such a relationship exists across regions and programs. The results also demonstrate that well-managed low cost spay/neuter programs need not come at the expense of reducing the number of full-cost procedures performed by veterinarians. In terms of adoption programs, the results demonstrate that “no-kill” shelter adoptions need not come at the expense of animal control/public shelter adoptions. The results are encouraging and suggest that the current programs are having a positive impact at reducing shelter deaths.

Title: *Gender and Animal Cruelty Cases: Conviction Data from www.Pet-abuse.com*

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The belief that males constitute the vast majority of animal cruelty perpetrators (Flynn, 2001) is an accepted fact about animal abuse. The issue of gender in animal cruelty is typically discussed only when the crime is that of hoarding, in which females are the most frequent offenders (Kuehn, 2002). A relatively new online resource, www.Pet-abuse.com, which is searchable and catalogues animal cruelty cases from the United States of America and several other countries, provides a different view of gender and animal cruelty.

Gender of perpetrator is recorded in www.Pet-abuse.com. For some cases the gender of the perpetrator is not always known; however for cases in which there has been a conviction, the gender of the perpetrator is always known and reported.

Pet-abuse.com uses 22 categories of cruelty. When these categories are collapsed into the types of cruelty more typically seen in behavioral science research and the gender of the convicted person is identified a pattern emerges in which males represent the vast majority of convicted perpetrators across all cases -- 65.8 % of the case convictions involved only males and another 12.1% of the cases involved both male and female perpetrators. Only 22.1% of all of the cases involved only female perpetrators. All but 30 of these 159 female only cases fell into one of two categories: animal hoarding or neglect and abandonment.

The conviction data from pet-abuse.com demonstrates that the representation of females in all of the categories except for hoarding AND neglect and abandonment is minimal and in line with other published data on gender and animal cruelty. When considering animal crimes other than abandonment and neglect and hoarding, only 30 of the 397 cases (7.6%) in the sample had convictions of only females and another 22 of these same 397 cases had convictions of both male and female perpetrators (5.5%). When looking at the 58 hoarding cases, females only were convicted in 67.2% of

the cases and an additional 19% of the hoarding cases had male and female perpetrators. These hoarding results for females are similar to those found by Patronek as reported by Kuehn (2002).

However, the frequency with which females are convicted of animal neglect and abandonment is very different from the frequency of their convictions for violence committed against animals. A chi-square goodness of fit test, using the rates of male, mixed gender, and female case convictions from violence cases as the expected frequency compared with the observed frequency of convictions for neglect and abandonment results in a $\chi^2 = 474.88$ with 2 degrees of freedom, ($p < .0001$). This indicates the distribution of gender across these two categories of cruelty cases is very different. Gerbasi (in press) has previously described these frequency data, but not provided any inferential statistics.

There is no stipulation that data from www.Pet-abuse.com represent a random sample of cases. Similarly the sources of many of the findings about animal cruelty-- self reports from college students, clinical and non-clinical samples, police records-- are also not random samples.

Conclusion: These data from www.Pet-abuse.com suggest behavioral scientists should conduct further investigation into the association of gender and the type of animal cruelty perpetrated.

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Title: *The Throw Away Society and the Family Dog: An Exploration of the Consumption and the Dispossession of Companion Animals*

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This qualitative study looks at how members of different Purebred Dog Rescue Organizations interpret the relinquishment of dogs as a sign of animal's disposable status in society. The theoretical perspective of symbolic interactionism highlights the slippery status of animals in contemporary society. As companions, animals are loved family members. As pets, animals are sold for profit, consumed on impulse, and then thrown away once they are no longer wanted. Therefore, the status of animals as companions or pets is a constructed category that is determined through social interaction. More specifically, as a social construction, the status of dogs is directly tied to the responsibility and commitment of their owners/companions.

Title: *The effect of stockpeople's personality and attitudes on dairy cow milk yield*

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Although much research has been undertaken to define environmental, nutritional or physiological correlates of performance in farm animals, less attention has been paid to the effects of the stockperson-animal relationship. This is despite research that has indicated the quality and quantity of stockpersonship influences production and welfare indices in dairy cows. These studies attempted to determine the main attitude factors related to working with cows and relate these attitudes, in conjunction with personality and demographic information, to the subsequent milk yields stockpeople obtain from their herds. The first step was to create valid and reliable attitude scales. The results of a factor analysis from a sample of respondents (n=201) who had experience working with dairy cows revealed four scales which were labelled *empathy*, *negative beliefs*, *job satisfaction* and *patience*. A second cohort (n=141) revealed that experience appeared to have an influence on attitudes. Finally, information from dairy farmers throughout Northern Ireland (n=311) was collected and path analysis was used to construct a causal model of the relationship between personality, attitudes and milk yield. It was concluded that personality (most notably the traits of *agreeableness* and *conscientiousness*) affected the attitudes held by the stockperson. In turn, attitudes influenced milk yield (this effect was presumed to be mediated through the stockperson's behaviour). High milk yields were related to high levels of the attitudes of *empathy* and *job satisfaction*, and lower levels of *negative beliefs*. It is proposed that the findings can be used as one of the criteria in selecting the most appropriate candidates for a career in stockpersonship and also to identify existing stockpeople that would benefit from training.

Title: *Animals as a Tourist Attraction?*

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Although animals are highlighted as attractions at many tourist destinations, their role as a rewarding focus for tourism has received little research attention. These inquiries sought to explore the gratifications associated with such tourism, and the effects of exposing people to animals in a tourism context. Some sources of gratifications are: seeing undisturbed animals; getting close to them or their settings; touching or feeding them; or vicariously observing others' interactions with them. In one study, people feeding Rocky Mountain sheep reported it as rewarding that animals trusted them in accepting food from them; they also liked to take pictures (Lott 1988). Those with long lens stayed at greater distances from the animals than those with smaller cameras (Lott 1992). Similarly, elephant drivers in Nepal described that tourists with long lens cameras put on less pressure to move close to wild animals than those with small cameras. Tourists in five venues were surveyed in this study. In Royal Chitwan National Park in Nepal, where tourists rode elephants to observe rhinoceroses, almost all tourists were satisfied with their experience. A common theme was a sense of contentment. The primary feeling ranged from excitement for one-third, to calm contentment for one-third, to a feeling of slight discomfort or intrusiveness for some of the remainder. The distance from the rhinoceros was not critical. In contrast, snorkelers in Hawaii and Grand Cayman preferred being within touching or arms reach of the fish. A majority agreed that the touching range meant that the animal trusted the person. Less oriented on animals, people on a cruise ship in the Inland Passage to Alaska said their preferred interaction with animals was to exchange looks, whereas touching, feeding, and exchanging vocalizations had low ratings. Finally, most people traveling to Antarctica reported that beauty was a most important aspect of encountering animals. Their interest in learning about the animals' behavior increased from 21% to 48% after experiencing Antarctica. These data illustrate that experience can increase a person's engagement and intellectual involvement with animals. Further explorations of

animals as a tourist attraction can clarify questions about the process from simply appreciating the beauty, shifting toward greater engagement, attachment, and knowledge of the animals. For whom are animals a significant attraction? What kinds of experiences enrich the perceived importance of the encounters with animals? How can the animals' behavior be profiled clearly for tourists without negatively impacting the animals?

Title: *The Reliability of Peer-Review in Anthrozoology*

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Progress in science depends upon the ability of experts to accurately evaluate the merits of research projects. However, numerous studies have cast doubt on the reliability (consistency) of the peer review process. We evaluated the inter-rater reliability of peer reviews of proposals submitted for presentation at the 2004 meeting of the International Association of Human-Animal Interaction Organizations (IAHAIO).

Methods: Each proposal submitted for presentation at the IAHAIO 2004 conference were reviewed by different sets of three experts in the field of human/animal studies who were blind as to the identity of the authors. The proposals fell into three categories: research reports (N = 119), applied programs (e.g., animal-assisted therapy programs) (N = 84) and critical reviews (N = 15). Reviewers rated the proposals on four dimensions using a five-point scale (1 = very low/very poor to 5 = very high/excellent) and these scores were summed to form the total score, which could range from 4 to 20. The dimensions were (a) overall clarity, (b) methodological/procedural/theoretical rigor, (c) quality of results and interpretation, and (d) importance for the field. Accept/reject decisions were made using a cutoff based on the total proposal scores as averaged over the three reviewers. Reviewer consistency was assessed using the intra-class correlation (ICC). ICC values can range from 0 (no agreement among reviewers) to 1.00 (complete agreement). ICC values are interpreted much like correlation coefficients.

Results: The reliability of the reviews varied with the category of the proposal. Reviewer ratings in the programs/applications category were particularly unsatisfactory (total score ICC = .14). The reliabilities of ratings of research proposals were better but still low (total score ICC = .38). In contrast, the reliabilities of scores in the critical review category were acceptable (total score ICC = .52). One way to increase the reliability of peer review systems is to base accept/reject decisions on the average scores of the reviewers. This procedure was followed by the IAHAIO organizing committee. Averaging considerably increased reliability coefficients (total score ICC = .60 for research presentations, .33 for applied programs, and .77 for critical reviews).

Conclusions. As in other areas of science, IAHAIO 2004 reviewers were often inconsistent in their evaluations of the merits of proposals. However, the use of averaging generally increased the reliability of the selection procedures to acceptable levels. We will discuss additional modifications that can enhance the quality of peer review systems in anthrozoology.

Title: *No Longer "Us" and "Them": Sociological Insights into the Connections between Humans and Animals*

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One of sociology's advantages is its unique emphasis on the connections between individuals and larger groups. Most other disciplines tend to focus on either one or the other. Thanks to the perspective known as symbolic interactionism, sociology has the tools to examine the communication of individuals in interaction and, consequently, the way that the social self emerges out of that interaction. The self allows individuals to understand and participate in the general workings of social life. However, symbolic interactionism has historically been limited to human beings through its emphasis on the role of spoken language in the creation and re-creation of the self. Drawing on ethnographic research in an animal shelter, in-depth interviews, and auto-ethnography, this paper articulates a model of the self that does not depend on spoken language. Interaction between people and animals reveals dimensions of self that appear among non-human animals, namely, the self as systems of *goals* on one hand and *experiences* on the other. The latter constitutes a "core" self consisting of agency, coherence, affectivity, and history. Conceptualizing selfhood in this way offers critical access to animals' subjective presence, which adds to the growing body of research on intersubjective experience between people and animals.

Title: *Walking for Healthy Hearts: Dog Walk Program**

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BACKGROUND: It is imperative to better meet health needs of economically disadvantaged, elders. The need is urgent because elders, rapidly increasing in number, are a high risk for cardiovascular disease and diabetes. "Healthy People 2010" identified walking as the number one leading health indicator; inactivity is linked to progression of devastating, costly chronic illnesses. Walking regularly helps minimize risk factors, prevents disability, maintains function, and reduces depression and anxiety. Elders in subsidized housing rely on Medicare and Medicaid for health care. Many chronic conditions do not qualify for physical therapy. Thus if these elders are to benefit from an activity program, it must be inexpensive, accessible and innovative. Studies show the benefits of human-animal interaction to elders. Pet attachment has been associated with lower systolic blood pressure, cholesterol, and triglyceride levels, greater likelihood of a healthy more social lifestyle including exercise, improved survival rate among those with heart disease, decreased depression and improved morale.

OBJECTIVES: The study tested health effects of coupling specially trained dogs and a handler with economically disadvantaged disabled elders from subsidized housing in a gradually advancing walking program. This presentation will focus on changes in body weight among participants during the program, and the extent to which they viewed the dog as a motivator for continued participation.

METHODS: After informed consent was obtained participants had their cholesterol, triglycerides, and blood sugar levels measured. Blood pressure, heart rate, body weight, lean body mass index, bone density index, and joint mobility were recorded. Walks began at 10 minutes 3 times per week progressively reaching 20-minutes 5 days per week over 12-months. Blood pressure and body weight were recorded weekly. Participant's comments about the program and the dog were recorded after each walk.

RESULTS: Thirteen participants included seven females and 6 males aged 40-80 (mean age 52). A total net weight loss across the group was 128 pounds (significant mean loss 14.4 pounds; $p=0.035$).

Participants described their relationship with the dogs as a positive force in their lives, inspiring them to “be better people,” to “get up in the morning,” and to “make them feel better.”

CONCLUSIONS: The program-associated weight loss surpasses outcomes reported for nationally advertised weight loss programs. Participants believed the dogs loved them unconditionally, and made walking a pleasant part of their day rather than a chore. This protocol may benefit others in subsidized housing; it is relatively inexpensive to implement and minimally burdensome to participants.

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Title: *Factors underlying people's attitudes towards animal use: Beliefs, perceptions, and cognitive processing*

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The term ‘animal use’ refers to a number of practices that involve the use of non-human animals by human beings, ranging from keeping ‘pets’ for companionship, to hunting for sport, to testing drugs for medical research. Attitudes towards animal use are complex and contradictory, and different people can hold strong and opposing views on the topic. Previous research has examined these attitudes as uni-dimensional (e.g., Armstrong & Hutchins, 1996; Matthews & Herzog, 1997), yet people hold different views depending on the type of animal use in question (Knight, Vrij, Cherryman, & Nunkoosing, 2004a). Furthermore, whilst most research has focused on personal characteristics such as gender, age, and experience of animals to explain differences in attitudes (e.g. Herzog, Betchart, & Pittman, 1991; Kellert, 1980; Paul & Serpell, 1993; Wells & Hepper, 1997), such factors rarely account for more than 5% of the variance (Driscoll, 1992). More recently, it has been suggested that it is more pertinent to examine people’s beliefs, perceptions, and cognitive processes in order to understand different views on the use of animals (Knight, Nunkoosing, Vrij, & Cherryman, 2004b). Knight et al. (2004b) used qualitative methods (i.e., Grounded Theory) to ask why people hold different attitudes towards different types of animal use, and to ascertain factors that had yet to be identified by researchers as important in relation to people’s opinions on this topic. From examining what people discussed when exploring their views on animal use, four ‘central’ themes and nine less important themes or sub-themes emerged. The present study used a questionnaire to seek quantitative evidence for these themes, and to establish the comparative importance of the themes in relation to attitudes toward animal use. Quantitative evidence was found for some of the themes, with different combinations of themes underlying attitudes towards different types of animal use. Such combinations accounted for up to 72% of the variance, and ‘perceptions of choice’ emerged as the strongest predictor of attitudes. It was proposed that different combinations of themes underlying people’s views explains why different attitudes towards different types of animal use exist. Thus, future research examining people’s attitudes towards animal use needs to (i) distinguish between different types of animal use, and (ii) acknowledge the impact of beliefs, perceptions, and cognition’s as more important than personal characteristics such as gender and age.

Title: *Comparison of the Effect of Animal- Assisted Therapy, Human Interaction, and AIBO-Assisted Therapy on Long-Term Care Dementia Residents*

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The number of elderly is projected to more than double to 80 million by the year 2050, which will likely result in an increased occurrence of dementia. Animal-assisted therapy (AAT) is accepted as an effective means of providing social stimulation, particularly for patients suffering from dementia, who often have difficulties making contact with the outside world. Although AAT programs have been instituted as therapeutic activities for residents of long-term care facilities, there is little research documenting their effectiveness, especially in patients with dementia. In addition, some long-term care facilities may be reluctant to include AAT in their facilities due to concerns about infection, injury, animal care, or cleanliness. The use of Sony's computerized, or robotic, "pet" called AIBO, may be a means of stimulating social interaction in residents with dementia without the drawbacks associated with live animal visitation. This study compares the effects of visitation by a person, a person accompanied by a live dog, and a person accompanied by an AIBO, on behavioral indicators of social interaction among nursing home residents with dementia. While all three types of visits stimulated nursing home resident social interaction, the success of the robotic dog in stimulating social interaction by dementia residents suggests that it may provide a viable alternative to live animal visitations. Interaction between residents suffering from dementia and the AIBO was not only similar to those with a live dog, but in some cases was even more effective. All three types of visits stimulated residents to initiate conversation, touches and looks and provided valuable contacts with the outside world. Both the live dog and AIBO stimulated resident social interaction beyond that stimulated by the visitor alone. The AIBO induced longer gazes and more resident initiated conversation than the live dog and provided a positive source of social interaction.

(Editor's note: Stephen Kramer was one of 40 finalists chosen from 1600 entrants in the Intel Science Talent Search (STS), which is America's oldest pre-college science competition for high school seniors. (Previously it was under the sponsorship of the Westinghouse and known as the Westinghouse Science Talent Search) It requires that students develop and complete an original science research project under the mentorship of a scientist. The students compete for honors through the papers they write to describe their research, their responses to questions about their research experiences, and the mentors' and teachers' evaluation of their research and promise as future researchers. The finalists met in Washington, D.C. for presentation of their work at the National Academy of Science, in person questioning and judging by top scientists, and a little R & R including a meeting with President Bush.)

Title: *Human-Horse Bond in the Second World War – The Finnish veterans' narratives on the war horse*

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The Finnish army had altogether 90 600 horses when it fought against the Soviet Union in the Second World War in 1939-1945. The memory of those horses is still alive in the oral tradition passed down by women and men to their children and grandchildren.

The Finnish Literature Society has in its Folklore Archives the stories of 129 men and 37 women that tell about the horses at war. I am using this material in my research on Finnish horse culture and horsemanship, and one part of it is to analyse the human-horse relationship in a crisis

situation. What and how do people write about the war horse, and how do they interpret the behaviour of the horses?

The horses were essential to the Finnish army especially during the Winter War, since its maintenance and supply troops were in some places totally reliable on horsemen and their horses. The horses, that all were the Finnish native breed the Finnhorses, were taken care of as well as possible in the war conditions. Most of them were civilian horses, taken from small family farms where they were bred.

The most striking thing in this material is the incredibly strong bond that some men and horses shared. They had a profound trust and respect for each other. Men sometimes even grieved more the death of horses than humans, because they saw the horse as an innocent creature suffering from man's insanity. When the war was over the veteran horses were respected, and got better treatment than other horses.

Most of the stories are very emotional. They portray a whole scale of emotions from joy, relieve, and attachment to fear, sorrow, and agony. When the men are interpreting the behaviour of the horses, they use their life long experience with the animal, but they also project their own feelings to the horses, and humanize them. There are many stories about wise and heroic horses, that warn about the enemy's presence, save men, and carry them back to safety. Men talk about them as fellow soldiers. The Finnhorse is in a way seen as a symbol of patriotism – persistent, hard working, self-sacrificing and undemanding.

This material gives a unique look to the relationship of man and horse in the harsh, arctic conditions in the Finnish-Russian borders during the last world war, and it makes me wonder how deep is the understanding humans and horses can reach.

Title: *Can Personality be Measured in Dogs*

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Dogs are valued by many people and organizations within our society. When the dog-human bond is strong, dogs contribute much to the wellbeing of their owners. While the costs of a fractured bond are obvious in animal shelters, very little is understood about how the bond between humans and dogs functions. Certainly the behaviour of the dog plays a large role in the success or failure of a bond. Canine behaviour is complex and well described and is affected, in part, by internal factors. Currently there is no model to help identify and measure these internal factors. It is proposed these internal factors are analogous to personality in people. Behavioural Individual Differences (BIDs) have been identified in dogs and other animal species. Comparisons of BIDs found in dogs and other animal species made using a variety of measurement techniques have found many similarities between a widely accepted trait-based human model of personality, the Five Factor Model (FFM), and non-human animal personality. This suggests that trait based personality theory can be successfully applied to animals. This study aims to develop a model of canine personality using the FFM as a template for an owner administered questionnaire. A pilot questionnaire consisting of approximately 200 behavioural and personality adjectives was administered to 92 dog owners with adult pet dogs. Principal Component Analysis was used to identify a factor structure for canine personality. Four factors, labeled Extroversion, Agreeableness, Conscientiousness and Social Confidence were identified. The first three factors show convergence with the FFM. The fourth factor, Social Confidence is not a FFM factor and unique to the dog. Conscientiousness has not been found in any species besides humans and chimpanzees. Emotional Stability and Openness to Experience are two

factors that were hypothesized but were not identified in this study. This is probably due to the small size of the sample population. The stability of this Four Factor model of canine personality requires further testing. A much larger study is currently underway.

Title: *A New Approach to Kennel Enrichment*

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Many dogs are relinquished to animal shelters because they have behavioral problems at home. Bad behaviors often worsen in shelter kennels, which also can induce new unwanted behaviors. Unwanted behaviors may persist in adopted dogs, causing them to be returned to the shelter where again their behavior continues to degrade.

Lack of control or learned helplessness in the kennel environment has long been hypothesized to cause the development of aberrant behaviors. Some animals become un-reactive to their kennel environment learning that their actions have no effect. This is often seen in continuously kenneled dogs. Lack of control has been cited as a factor in the development of cage stereotypies -- repetitive behaviors that have no apparent function. Acral lick dermatitis, where a dog licks its wrists so much that a sore develops, whirling, where a dog constantly circles as if chasing its tail, and tiggering, a constant jumping up and down are a few examples of stereotypies found in kenneled dogs. In addition, lack of control has been postulated as the cause of attention seeking behaviors such as barking and fence fighting, which elicit negative but predictable responses from humans or other dogs.

This study explores the notion that if a dog has more control over its environment there would be a decrease in these aberrant behaviors. Control is defined here as the ability to receive a predictable and positive response from one's own actions. To do this we clicker-trained dogs so that they could use the clicking sound to pinpoint behaviors to be rewarded. However, the procedure is confounded with an increase of human attention. To control for benefits received from human attention a control group of dogs was clicked and rewarded with a food treat by a computer.

In this ongoing study, dogs awaiting adoption at the Pioneer Valley Humane Society in Greenfield Massachusetts, that display unwanted behaviors, are treated by a human clicker trainer or robotically with computerized clicker training. All dogs are compared to their own baseline behavior before and after training as well as between groups. We will be reporting on the results.

Title: *It's How You Say It: Dog Owners Use Non-Verbal Vocal Cues to Communicate Their Emotional State*

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We studied the ability of dogs to use non-verbal cues in their owners' voices to interpret the emotional content of the voices. We also investigated the effect of presence or absence of a screen which blocked visual cues between dog and owner. Sixty-four pairs of dogs and owners were studied, with 42 in the screened and 22 in the unscreened condition. Owners' voices were recorded as they repeated the same test phrase in neutral, friendly/happy, and upset/angry voices (affect voices). Dogs were videotaped, and their behavior before, during, and immediately after each voice rendition was analyzed. The results show that dogs distinguished between neutral and affect voices, and that dogs

responded with appropriate behavior to the friendly/happy and upset/angry voice. Owners showed significant differences in average fundamental frequency (Fo) between different affect voices. The Fo differences were consistent with those expressed during similar emotions in people, and with those observed in friendly/submissive and threatening context in canids. The differences in acoustic structure between the affect voices, as measured by the time of peak Fo, were similar to those used by animal trainers when attempting to increase or decrease animal activity. The ability of dogs to understand human emotional intent from non-verbal vocal cues appears robust, as the attribute can be demonstrated without visual information and in an atypical context.

Title: *Post-Adoptive Training: The effect on the first month after adopting a shelter dog.*

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There is reasonable evidence that strong owner attachment to pet dogs increases canine retention, but also increases an owner satisfaction with their dog's behaviour. Many adopted shelter dogs are returned during the first month after adoption and the primary reason given for this is that the dogs are displaying behavioural problems. A recent study has demonstrated that increased positive physical contact can foster the rapid development of the dog's preference for their new owner and other studies have established that post-adoptive participation in obedience classes increases the probability of an adopted shelter dog being retained. This pilot study explores whether a short training program, incorporating positive physical-contact and rewards-based obedience training, can positively affect the owners post-adoption experience. The combined aims of such a program are to reduce the incidence of common behavioural problems and increase measures of owner attachment and increase retention rates. The program was made available, at no cost, to owners in the first week after adopting a dog from an animal welfare shelter and comprised four half-hour sessions conducted once a week thereafter. The sessions consisted of rewards-based obedience training, incorporating the massage/stroking that has been used previously and participants were surveyed at the end of four weeks. The results of the Treatment group were compared with a Control group that had not undergone such training. The groups did not differ significantly in human or canine demographic data. Training significantly reduced some problem behaviours experienced, such as jumping on people, and increased some indicators of human attachment. This study indicates that participation in such programs, early in the adoption period, may strengthen the human-dog bond and larger scale studies are needed to confirm this preliminary finding. If found to be true then interventions of this type are likely to increase the retention of adopted shelter dogs, thus contributing to animal welfare, but may also be of value to any new owner wanting to establish the best initial relationship with their dog.

Title: *Sleeping for Joy: The practical implications of companion animal emotion*

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The human projection of emotions on animals has long been recognized, but research now makes it clear that animals possess the physiological wherewithal to experience their own emotions, too. The issue is not *if* animals experience emotions, but rather whether they experience the same emotions the same way humans do under the same circumstances. This presentation briefly discusses

several familiar companion animal behaviors that may carry contradictory human and animal emotional charges.

The presentation concludes with an exploration of the dilemma facing animal-care professionals (behaviorists, trainers, veterinarians, shelter workers) and those who use animals in animal-assisted therapy or education: How do we reconcile the human benefits of projected emotions and the animal's own emotional needs? If we must choose, whose needs should take precedence? Although some maintain that human needs always come first, the high rate of burn-out in service animals and increased incidence of stress-related medical and behavioral problems in companion animals suggests that such an anthropocentric approach may cost us far more in the long run.

Title: *Good to pet and eat: The consumption of cats and dogs in South Korea*

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Over the past few decades there has been mounting criticism, mainly from Western societies, of the practice of consuming dogs and cats in South Korea. In the current study, I researched historical, cultural and demographic details on, and people's attitudes to, this practice. Data were collected in two ways. Firstly, relevant information on the history and current status of cat and dog consumption was sourced from academic literature and government statistics, and via personal communications with academics and animal welfare charity workers in South Korea. Secondly, in 2004, the polling agency Market & Opinion Research International (MORI) was contracted to survey 1000 adults (15 years and above) in South Korea on their attitudes to keeping cats and dogs as pets and to the consumption of these species.

The consumption of dogs has a long history in South Korea while the consumption of cats is more recent. Dogs are consumed most commonly in two ways: as a meat soup, *boshingtang* and as a liquid tonic, *gaesoju*. Cats are only consumed in the form of a liquid tonic, *goyangi soju*. Pet ownership is a more recent phenomenon and is growing steadily; recent figures show that there are about 2.2 million pets in South Korea.

The majority of respondents were against the use of cats as pets and as food for humans. A majority would support a ban on the eating of cats. The majority of respondents were in favour of using dogs as pets, while the majority were against the use of dogs as food for humans. However, when asked whether they would accept a ban on the eating of dogs, the majority were not supportive. Dog consumption, unlike cat consumption, is strongly linked to national identity in South Korea, and it seems that calls from the West to ban the practice are viewed by nationals as an attack on their culture. Hence, they do not support a ban.

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Title: *"The 'First Dog' at War: Fala, President Franklin D. Roosevelt, and World War II"*

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On September 23, 1944, President Franklin D. Roosevelt delivered his famous “Fala speech.” At the time Roosevelt was leading his nation through World War II and waging what had been a rather lackluster campaign for an unprecedented fourth term as President of the United States. Members of the rival Republican Party had circulated a rumor that Fala—Roosevelt’s dog—had been left behind on the President’s trip of summer 1944 to the Aleutian Islands and that the President had sent a Navy destroyer to find and return the dog. In his speech Roosevelt stated that, although he could accept attacks on himself and his (human) family, he and Fala resented the “libellous statements” swirling around the dog. The rumor had made Fala’s “Scotch soul...furious.”

As historians have debated the significance of the “Fala speech” (with some seeing it as a turning-point in the presidential campaign of 1944), they have given little attention to Fala or to the dog’s role in the military tour of summer 1944 that took Roosevelt from Pearl Harbor to Alaska and the Aleutian Islands. The present paper places the story of Fala’s visit to the Aleutians in the larger context of the dog’s many symbolic and real contributions to the American war effort, not the least of which were his visits with and entertainment of American troops at home and abroad.

Drawing on archival sources and contemporary newspaper accounts, the paper documents and analyzes the ways in which President Roosevelt, his family and close friends, the White House staff, and the American media integrated Fala into the country’s all-out war effort. Topics covered range from Fala’s symbolic enrollment as a private in the Dogs for Defense Reserve through his participation in the President’s tours of military bases and defense plants. The paper argues that, although Fala was not officially a “war dog,” during World War II the “first dog” went to war with the rest of the American nation.

Title: *Serious Leisure and Animal Related Volunteerism: Why Greyhound Adopters Just Can’t Quit*

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Most animal welfare organizations, including those concerned with animal adoption, depend upon a cadre of volunteers that give of their time, expertise, and personal resources. Despite the importance of volunteers to animal welfare organizations, there is a paucity of literature addressing volunteer characteristics and experiences specific to animal-related causes. Kidd, Kidd and Zasloff (1996) and Kidd and Kidd (1997a; 1997b) researched characteristics and motives of several categories of volunteers associated with wildlife rehabilitation and education, and Ferrari, Loftus and Pesak (1999) compared characteristics of volunteers at shelters for homeless people and animals. Given the central and sustaining role that volunteers play in animal welfare organizations there is a tremendous need to further understanding of the nature and implications of volunteerism from a variety of theoretical and applied perspectives.

Since volunteering is an activity that occurs outside of non-work time, it is appropriate to analyze it using leisure theories and concepts. The concept of “serious leisure”, introduced by Stebbins, describes the “systematic pursuit of an amateur, hobby, or volunteer activity that is sufficiently substantial and interesting for the participant to find a career there in the acquisition and expression of its specific skills and knowledge” (Stebbins 1992:3). This paper draws on the serious leisure framework to analyze volunteerism associated with the greyhound adoption movement as it unfolds for people over time and in the context of this unique animal-related cause.

The study involved in-depth interviews, with 17 volunteers who comprised a purposive sample. These volunteers were active in the greyhound adoption movement at local, regional, or national

levels. The interviews allowed respondents to comment on their motivations, satisfactions, volunteer careers, and social constructions of greyhounds (a companion paper on social constructions of greyhounds and greyhound racing was presented at the 2002 ISAZ conference in London, England). The interview data was analyzed using qualitative research procedures for developing grounded theory (Strauss and Corbin 1990).

Findings of the study supported the use of the serious leisure framework to describe the greyhound adoption experience, but suggested additional considerations not previously reported in the literature. While the serious leisure framework describes the development of a leisure career that is characterized by a progression in skills and involvement, this study suggested that greyhound adoption volunteerism involved dimensions of obligation that go beyond traditional understandings of leisure, blurring definitions of work and leisure. Additionally, findings offer insight to the development of unique social worlds and social capital associated with serious leisure, a topic that has received only limited attention in the literature.

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Title: *The Popularity of Animal Spectacles in Ancient Rome*

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The purpose of this paper is to discuss the reasons for the popularity in ancient Rome of spectacles in which animals were tormented and killed. The slaughter of animals as a public, urban spectacle developed from activities in rural areas, where people killed animals that preyed on their livestock or consumed their food plants. To celebrate their success, the community gathered together annually at festivals where animals, such as foxes and rabbits, were killed. The publicly-witnessed destruction of pest species provided reassurance that the orderly civilization that the Romans had created could subdue a chaotic and irrational Nature. Spectators had no moral reservations about causing pain to the animals because the animals were "enemies", and their suffering was the penalty they paid for threatening human welfare.

A second origin of the spectacles was the sport hunting enjoyed by wealthy men. Among town-dwellers, only the wealthy could afford to travel to hunting areas. However politically ambitious men, who wanted to win the support of lower-class voters, brought the hunting experience to the town by staging hunts in arenas. These events allowed even the poorest residents to be involved, at least as spectators, in an activity which was otherwise well beyond their means.

As the Romans expanded their territory, they began to import to Italy animals from the most remote regions of their empire: lions from Asia Minor, elephants from Africa, crocodiles from Egypt. The capture and transport of these animals entailed enormous expense and careful planning. Thus, the apparent ease with which the Romans brought vast numbers of animals to their city offered proof that their state was powerful and prosperous. The animals were viewed as representatives of the regions from which they had been imported, and their slaughter in the arena dramatically symbolized the triumph of the Roman military in battles with fierce, but ultimately weaker humans. The gathering together of the Roman people was an important element of these spectacles because it reaffirmed their existence as a community, united by their ability to gain control over savage elements of their environment, by their responsibility to impose order on the rest of the world, and by their right to enjoy the success of their state's military ventures.

Title: *Sex Roles Predict Recommended Punishments for an Extreme Case of Animal Cruelty*

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This research follows on our previous work examining beliefs about appropriate punishments for animal abuse and neglect. In those studies, participants' ratings of appropriate punishment varied mainly as a function of their gender and the type of animal abused or neglected. To further understand why gender was such an important predictor, the present study examines sex role as a subject variable. In addition, the hypothetical scenarios for the present study were more detailed and based on the real-life case of animal cruelty. Participants also were given information about state laws regarding animal cruelty. The present study tested whether recommended punishment is a function of several variables: participants' sex role, perpetrator's age (12, 18, or 28 years old), animal type (dogs, cats, or both), and crime location (boarding kennel or animal shelter).

Five hundred thirty eight undergraduates (153 males, 382 females, 3 unidentified) read one of 18 scenarios describing a hypothetical crime similar to that which took place at the Noah's Ark animal shelter in 1997. They then generated appropriateness ratings for different types of punishment and social restriction, and evaluated the morality of the perpetrator and the crime. Ratings were made on 7-point scales (1 indicating strong disagreement and 7 indicating strong agreement) or by recommending a specific strength for a punishment. Participants also completed the 24-item PAQ Sex Role Inventory. Scores on this inventory were used to classify participants as Masculine (N=146), Feminine (N=135), Androgynous (N=127), or Undifferentiated (N=127).

Each dependent variable was examined using a 4(Sex Role) x 3(Age of Perpetrator) x 3(Animal Type) x 2(Location) ANOVA. These analyses showed that for punishment ratings, sex role, either alone or in interaction with other variables, was predictive of many recommendations. Furthermore, animal type and sex role often interacted such that undifferentiated individuals recommended less stiff punishments for harm toward cats. Additionally, androgynous individuals were most likely to recommend monitoring for future crimes, awarded the largest optional amounts for pain and suffering, and considered the perpetrator most immoral. Follow-up analyses indicated that sex role is predictive independent of biological sex of the individual.

The data show that participant sex roles are an important predictor of punishment recommendations for animal abuse. Additionally, the present study suggests that when participants are asked to give punishment recommendations within the constraints of state laws regarding animal cruelty, participant characteristics are most important. However, when optional punishments are levied, specific details about the scenario become important. Together, these results suggest that the severity of the available legal punishments for animal cruelty within the state do not match what is thought to be the most appropriate by citizens residing within that state.

Title: *Naturalists and Novelists: Birds, Bewick, and the Brontës*

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Scientists typically present descriptions of the natural world first in articles, written in technical language and published in professional journals, that are commonly not easily accessible to the general public. Portions of the new information eventually reach parts of the public via routes mediated by popularizers, who may include scientists themselves, journalists, and authors of field guides and other "popular" non-fiction literature. Such knowledge is then available to the authors of fiction and poetry for use as factual background or as metaphor. Thus, some scientific discovery becomes part of the wider culture. Tracing the path of a fact from discovery to work of fiction can allow a better understanding both of the diffusion of scientific knowledge and of the literature.

I follow a piece of knowledge about animal behavior, the brood parasitic behavior of the Common Cuckoo (*Cuculus canorus*) of Europe, from its 1788 publication in the *Philosophical Transactions of the Royal Society*, through its wide dissemination in Thomas Bewick's *British Birds*, to its use first as a central metaphor in Emily Brontë's *Wuthering Heights* and then in a metaphorical response from Charlotte Brontë in *Jane Eyre*. Each step of influence is documented, giving detailed evidence for the impact of a scientific publication on a body of literature. Furthermore, I argue that understanding the behavior of this bird, and especially knowing what Charlotte and Emily Brontë knew of that behavior, can provide insight into their novels that would not otherwise be available.

Scientist, popularizer, novelist, and reader each have a relationship with the behavior of an animal, in this case the cuckoo, and that relationship changes as knowledge of the animal moves from the small subculture of the scientist to become imbedded in the larger culture. Finally, as a zoölogist, I note that, in addition to the traditional routes of influence via citation within science and via technological impact, a scientist has the opportunity of lasting influence via popular diffusion and literary use of discovery.

Title: *The construction of the meaning of animal in early sociological theory*

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In human and social sciences the relationship between nature and human beings has been a major topic in recent years. There has been lots of discussion about the place of humans as natural or cultural beings as well as about the impact of environment on humans. The reflection on societal

relationships to nature has been found crucial to our understanding of humans and their society. It has been suggested for example, that we should develop more inclusive sociology: one that takes in consideration the whole community of human and non-human actors, not just looks at the “human society”. This means we have to reconsider what kind of actors and phenomena really compose the structures of our society. Part of this ongoing discussion is the role of animals in society: both the human relationship to our own animality and the significance of other animals in human society.

Taking animals into sociological consideration means that we have to reanalyze some habitual formations of knowledge and conceptualizations characteristic to sociology, as well as presumptions, and constraints, connected to them. In my study I examine the construction of the meaning of animal in early sociological theory. Using the method of discourse analysis I investigate how animals are represented in early sociological texts. I search for origins of – and possible discontinuities in – the sociological use of concepts 'animal' and 'human', as well as meanings given to 'humanity' and 'animality'. I attempt to locate my study in the social and historical context and achieve understanding of how the use of these concepts is connected to the formation of sociology as an independent scientific discipline. I also compare ways the otherness of animals is constructed with other sociological findings on constructing otherness.

Title: *Exploring human-livestock relations: a division of (emotional) labour?*

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The nature of human-livestock relations is an emerging area of study within the social sciences, which to date has attracted minimal attention within the human-animal studies literature. My paper offers a sociological perspective based on ethnographic data into how commercial agricultural workers (livestock market workers, auctioneers, farmers, stock people, vets and slaughter workers) and hobby farmers, located primarily in Northeast Scotland, make sense of their interactions with the farm animals they work with. My research will illustrate that instrumental attitudes, understandably valued in commercial productive contexts, can co-exist, at times uneasily, with a less obvious but nonetheless important socio-affective component. It becomes clear that the commodity status generally ascribed to and associated with livestock is not fixed, and the status, roles and identity of such animals can shift as the nature of the human-animal relationship changes. Although livestock production and slaughter systems generally require the expression of instrumental-type attitudes by those working in such contexts, such attitudes may be disrupted when some animals cease to be mere faceless ‘sentient commodities’, and are regarded, albeit for a short time, as living individuated beings in their own right. One way of understanding the multifaceted and diverse range of attitudes, feelings and behaviours of those working with livestock, is to consider the position of people *and* animals in the division of labour, as well as the socio-economic context in which commercial and hobby livestock production and slaughter occurs. It is suggested that the juxtaposition of financial and affective concerns is a potential source of *structurally* induced ambivalence, given the potentially contradictory productive role of livestock workers as both *empathetic carers* and *economic producers*. It is under such conditions that people negotiate relationships of emotional detachment and emotional attachment to the animals that they work with. It would seem that the various stages of the production process provide workers with a range of opportunities to interact with animals; and each stage also sets constraints on the nature of that contact. Hence, livestock production and slaughtering practices in modern industrialised societies are highly rationalised and bureaucratically governed to promote maximum efficiency and public accountability. A sociological perspective that draws upon the ideas of Durkheim (on the division of labour) and Weber (on formal and substantial rationality) is thus

particularly well placed to develop our understanding of people's tension-ridden and always potentially disrupted relationships with farm animals in such productive contexts.

Poster Abstracts (Alphabetically by Principle Author)

Title: *Neurohormonal Responses to Human-Animal and Human-Robotic Dog Interaction*

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BACKGROUND: Research has demonstrated that interacting with companion animals may be beneficial in reducing humans' blood pressure, improving mood, and reducing stress. These effects are believed to be rooted in neurohormonal changes. Yet unstudied however, is the extent to which similar responses occur when a person interacts with a robotic pet.

OBJECTIVES: The present study tested the effects of interacting with a robotic dog on cortisol, oxytocin, serotonin, and prolactin in human blood, and compared these effects with those resulting when subjects interacted in three separate sessions with either their own dog or an unfamiliar dog.

METHODS: Pet owners and non-owners completed questionnaires and a health history prior to venipuncture. Blood pressure was monitored at 5-minute intervals while they quietly interacted with either, a robotic dog, their own dog, or an unfamiliar dog (randomly ordered). After a 10% blood pressure drop, the interaction stopped and venipuncture was repeated. Specimens were centrifuged at 0 degrees Fahrenheit; serum and plasma were aspirated and frozen at -70 degrees Fahrenheit.

Neurohormones were assayed via High Pressure Liquid Chromatography (HPLC). Data were analyzed using the Wilcoxon Signed Rank test for the null hypothesis of mean differences in neurohormones by group (live dog vs. robotic dog and own dog vs. unfamiliar dog vs. robotic dog).

RESULTS: Volunteers included ten healthy females aged 19-73 (8 pet owners, 2 non-owners). Cortisol significantly decreased in the robotic dog condition (-1.83 median difference, $p=0.0017$) more than with any live dog. This difference remained significant when the three groups were compared (-1.47 median difference, $p=0.0029$). Mean values of oxytocin, serotonin, and prolactin decreased in the robotic dog condition but did not reach statistical significance.

CONCLUSIONS: Findings suggest that robotic dogs may be beneficial in reducing cortisol, while requiring less care and responsibility than live dogs.

Title: *Inappropriate elimination behaviour in indoor cats – the owners perspective*

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In Sweden about 20 % of all households have one or more cats. A large proportion of these cats live their lives indoors. A study from Germany showed that about one third of all cats live indoors. Cats living indoors have to adjust to a totally different environment compared to cats with outdoor access. We know from a lot of different cat shelters both from US and from Sweden, that indoor elimination or marking behaviour is one of the major causes why people want to give away their cat. Further, inappropriate elimination or marking behaviour in cats is one of the most common behaviour problems reported among owners both in US and Germany. Many factors can contribute in causing different types of house soiling, including environmental and social stress, medical problems and preferences for other elimination sites. The purpose of this study was to generate an increased understanding of the owners' perspective concerning house soiling in cats. The aim was to use a qualitative approach and interview a number of owners to house soiling cats. Interviews were conducted with nine cat owners where the elimination problem behaviour of the cat was described and discussed. The interview guide was planned and organised from a questionnaire form used in Cooper L.L. 1997. Feline inappropriate elimination. *Vet Clin North Am Small Anim Pract* 27(3), 569-600. The views and opinions of the owners were the aim of this study. One of the important findings in this study was that knowledge about the importance and effects of the house-training period could be of greater value than is now stated in literature on inappropriate elimination. Further, and maybe more important was that all owners expressed a great interest in treating their cat/cats elimination behaviour disorders, but do not know where to go for professional guidance and have not received the help they have searched for.

Title: *Student Attitudes toward Animals in an Animal Behavior Class*

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Understanding the factors that influence human preferences or “liking” for different species is of practical significance to scientists and public policy makers interested in issues such as conservation, because these attitudes may impact peoples’ willingness to support conservation measures and preserve animal habitats. For example, previous studies have shown that people were more likely to donate money to support conservation of an animal that they perceived as being more attractive along a variety of dimensions.

We examined attitudes toward various species of nonhuman animals among students in an undergraduate animal behavior class. Our goal was to compare student attitudes with measures previously obtained from a much broader sample (Kellert, 1989), and to examine how these attitudes changed during the semester. Kellert proposed that several factors, including perceived intelligence, danger to humans, phylogenetic relatedness to humans, size, and cultural relationship to human society, contribute to attitudes toward different species.

Students in the class were surveyed twice: once at the beginning of the semester, and again at the end of the semester, in order to determine if experiences or knowledge gained during the course influenced their feelings of “liking” for different species. Our findings indicate that the students’ attitudes were similar to those reported for the larger sample. For example, participants rated companion animals and mammals in general very positively, and rated insects and pest species negatively. We also examined ratings across taxonomic group. Analyses indicated significant

differences between all taxonomic groups with the exception of Birds and the Fish/reptile group (no significant difference). Mammals were rated more positively than all other groups. Birds were rated more positively than Insects. Animals in the Fish/reptile group were also rated more positively than Insects. We also examined the impact of size within the mammal group; large mammals were rated significantly more positive than small mammals.

Our results indicate that exposure to a species through learning about its behavior may impact attitudes toward the species. However, the type of exposure which occurs during a class may not impact liking significantly, especially if these attitudes are largely determined by factors such as physical attractiveness, phylogenetic closeness to humans, or individual early experiences.

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Title: *Does human attachment to pets resemble attachment to other humans?*

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The relationships people have with their pets are powerful, and are not limited to certain cultures but have existed throughout human history and geography. People often describe their pets as "children," "family members," and "best friends." Despite their universality and significance, intense human-animal relationships have been neglected as a focus of psychological research.

Attachment theory suggests that unique emotional benefits are found in some intense relationships. According to Bowlby (1973), attachment is an innate drive, visible from birth and as central to the development of the individual as the need for food. A relationship with an attachment figure provides unique support and security that cannot be duplicated or replaced by mere friendship. In contrast, Freudian theory assumes that attachment is a secondary response to cues for food or sex.

Although the mother is usually the first attachment figure for an infant, as the child grows he or she becomes ready to form new attachments. With adulthood, the significance of the parents as central attachments recedes, and most individuals find a new attachment figure.

Shaver, Hazan and Bradshaw (1988) demonstrated that romantic love has much in common with descriptions of infant attachment. The infant feels confident in the presence of the attachment object (AO), seeks physical contact, feels anxious when separated, and enjoys nonverbal communication and feelings of union. An adult love relationship has equivalent features. Marriage in our culture typically begins with romantic love, and although the initial feelings of passion may subside, the spouse is usually the most significant relationship in a married person's life.

Thus, it seems that early attachment and adult attachment are expressions of the same innate process. Biology is parsimonious, and has provided humans and other social animals with one mechanism that can adapt to various situations and stages of life. The attachment instinct promotes survival and development in infancy, then in adulthood, it leads to sexual behavior and investment in the well-being of the mate and offspring.

The flexibility of the attachment mechanism can lead to less biologically significant, but equally powerful attachments. Mystics and even lay people can have intense, passionate attachments to God, sometimes resulting in heroic self-sacrifice and charity. Other attachments may be maladaptive. For instance, adults may become sexually attracted to children, or animals.

But most human-animal bonds are socially acceptable, even desirable. Pets are common targets of human attachment, and in Western societies, pets are viewed as all-but-essential components of a healthy childhood. Certain species are popular as pets because they recognize and respond to their human companions with easy-to-interpret behaviors. Others, like fish and reptiles, may require more patience and careful observation, but they, too, respond to human attention. More important, though, than the animal's capacity to give and receive affection is the human's interpretation of the relationship. Humans create a wide range of relationships with animals, from acquaintanceships to exclusive, jealous bonds.

We propose to investigate and compare the attachment styles for people with their pets and with other humans by developing a survey focusing on people's relationships with pets as well as human attachment figures. The survey will be based on Bartholomew and Horowitz's (1991) model of attachment, which predicts four types of attachment style: *secure*, characterized by trust and comfort with intimacy, *preoccupied*, characterized by jealousy and clinging, *fearful-avoidant*, characterized by distrust of other and feelings of inadequacy, and *dismissing-avoidant*, characterized by avoidance of intimacy because others are unworthy. Respondents will complete one section of the survey regarding their relationships with human "partners," and another section regarding their relationships with pets (using items adapted from Brennan, Clark and Shaver, 1998, originally designed to explore romantic relationships).

Do people display different attachment styles with their pets? Perhaps owners of less affectionate species such as fish and reptiles have avoidant attachment styles – they prefer less intimacy. Or preoccupied pet owners may prefer small, easily controlled pets that are very dependent, like lap dogs. The pet itself, depending on its personality or innate species-specific tendencies, may influence the attachment style of its owner.

Another possibility, also untested, is that pets provide an opportunity for anyone to experience a secure attachment, no matter what style of human attachment normally prevails. Animals are trustworthy - they don't reveal secrets or remind their owners of past failures; they are not judgmental, and they rarely suffer from mood swings and personal problems that would interfere with their relationship with the owner. Thus, people who have, or fear having, unsuccessful human relationships, can still enjoy a secure, mutually rewarding, yet non-threatening attachment.

Survey results will provide evidence about how people interact with their pets. Our findings will allow a clearer view of how attachment to pets compares with attachment to human friends and family members. The differences we find will point to future research on the special contributions of animal companions, and why pets are significant in so many people's lives.

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Title: *Companion Animal Renters and Pet-Friendly Housing in the U.S.*

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A recent estimate of companion animals euthanized at U.S. shelters indicates that 4.2 million dogs and cats are put to death each year (Clifton, 2003). Although some of these animals have untreatable health or behavioral issues, the majority of these animals could be adopted if there were homes available. Research indicates that one common reason for companion animals to be relinquished to shelters is housing issues. Though not all necessarily due to rental housing restrictions, Salman *et al* (1998) found that 29% of relinquishments were for “housing issues”.

The lack of available pet-friendly rental housing is puzzling when one considers the high number of U.S. households with companion animals. According to the American Veterinary Association nearly one out of every two renters in the U.S., for instance, has pets (Anon 1996) and 35% of people without pets have stated they would own a pet if their rental units permitted them (Hart and Kidd, 1994).

With such a sizeable potential tenant pool it would seem that there would be enough pet-friendly housing available to meet the current demand. In fact, according to economic theory, in perfectly functioning markets (i.e., markets with people making rational, profit-maximizing decisions, with full information, and no significant transaction costs), rental housing should be available for renters with animals if those renters are willing to pay a premium to cover any extra cost of permitting animals to landlords (Carlisle-Frank *et al* 2003). Yet, anecdotally, there is evidence that renters with animals frequently have trouble finding housing at any price.

The present study sought to investigate the variables surrounding pet-friendly and not-pets-allowed rentals. Factors investigated included the availability of pet-friendly housing, pet deposits, and rent differentials, length of tenancy, vacancy rates, and marketing requirements for pet-friendly versus no-pets-allowed housing. Common concerns of landlords regarding permitting pets were also investigated, as well as whether the concerns about pets were rooted in *actual* experiences. Also investigated was the average costs of pet-related damages to rental properties, the amount of time landlords must spend on pet-related issues in pet-friendly rental housing, the frequency of the use of screening tools when renting to tenants with pets, and the frequency of tenants who keep pets illegally in “no-pets-allowed” rental housing.

Title: *Therapy/Service Animals in the College Curriculum: Strategies for Developing and Implementing a Seminar on Animals in Health/Human Service*

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Introduction: To validate the significant purpose that animals serve in people’s health and well being this presentation will focus on the development and implementation of a college seminar on animals in health and human service. Service/therapy animals perform a wide variety of tasks for needed supportive care and this course was specifically designed for college students who are considering introducing animal service/therapy into their work environments. It is important for health/human service practitioners to understand how these animals improve quality of life for people in need. This presentation will provide participants with guidelines for development and implementation of a seminar for college students designed to increase awareness of the use of animals in health/human service.

Methods: Companion animals and human health served as a starting point for lectures and discussions. Additional content focused on animals in hospitals, nursing homes, and schools to demonstrate the

wide diversity of service/therapy opportunities. Other roles included animals in search/rescue and criminal justice. Students participated in site visits to observe therapeutic riding, therapy dogs in a rehabilitation center and training of service dogs for the disabled. Guest speakers addressed the use of animals in hospice, search and rescue and criminal justice. Students participated in discussions with trainers, owners and volunteers to gain understanding on how service animals are versatile reliable assistants serving an important role in supportive and therapeutic care. Throughout the course, students maintained reflective journals, created AAA/AAT Programs and prepared papers that incorporated service/therapy animals into their career plans.

Outcomes: After review of student evaluations and reflective journals, student outcomes included: (1) greater awareness of the depth and breadth of training needed to prepare animals to provide supportive care; (2) better understanding of the differences between service, therapy and activity animals; (3) increased respect for the role of volunteers in providing these important services; and (4) an understanding of how animals could be incorporated into their future careers as health and human service practitioners. This elective course should be considered for health/human service programs as it introduces these future practitioners and other college majors to the important role animals play in the delivery of supportive care.

Title: *Initiating a Community Led Animal Welfare (CLAW) project on a small Caribbean island*

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IFAW's Community Led Animal Welfare (CLAW) model was designed and developed in South Africa by Cora Bailey to address the animal welfare concerns of some of the most neglected animals in the world – those owned by disenfranchised people – who are some of the most neglected people in the world. The CLAW model relies on community members to directly participate in issues surrounding animal welfare. In turn, people feel vested not only in their own animals but also in the success of the program. This community led approach has been far more successful than a more conventional outsider approach to animal welfare.

The small capital of Roseau, Dominica has approximately 200-250 stray and roaming dogs on the city's streets. The Mayor of Roseau promised his constituents that he would solve the problem of nuisance dogs during his term and asked IFAW to help him achieve that goal. Dominica is an ideal place to institute a CLAW project because it has the support of the city council, federal government and other community members. Additionally, dog issues on an island habitat are generally considered more solvable than in places that allow for easier population emigration. In the summer of 2004, IFAW launched the CLAW project by hiring a local Veterinarian to oversee all activities. Dog population surveys and attitudinal surveys were conducted concurrently to assess the nature of the situation in Roseau.

Based on the findings of the dog population and attitudinal surveys IFAW is developing a campaign that utilizes the benefits of sterilization to reduce overpopulation, adoption of stray animals, education to inform people about animal care and welfare, and improved legislation and enforcement. It is hoped that this multi-faced, community led approach will result in a lasting humane solution to

human-dog conflict in the town of Roseau, Dominica proving the success of the CLAW model and resulting in new CLAW projects on Dominica and throughout the Wider-Caribbean.

Title: *Olfactory stimulation as a method of enrichment for sheltered cats, Felis catus*

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Thousands of cats end up in rescue shelters every year. This captive environment can inhibit feline behaviour and have adverse effects on the animals' welfare. Finding a way of improving the well-being of cats housed in such settings is thus of utmost importance. Recently, there has been a growing interest in the use of sensory stimulation as a method of enhancing the well-being of captive animals. Wild felids and domestic dogs have both been shown to benefit from olfactory enrichment. Yet to date, the effect of olfactory enrichment on the behaviour of the domestic cat remains unknown, despite literature suggesting its utility.

This study examined the influence of 4 types of olfactory stimulation on the behaviour and welfare of 120 domestic cats housed in a Cats Protection rescue shelter. Cats were exposed to four conditions of olfactory stimulation, comprising: 1) a *control* (no olfactory stimulation); 2) *catnip* (a herb renowned for its stimulating properties); 3) *lavender* (a herb with renowned relaxant properties), and; 4) the *body and faecal odour of a prey animal* (rabbit). All odourants were introduced individually into the cats' quarters on sterilised cloths for a 5 day period. Thirty cats were studied in each condition of olfactory stimulation. Each cat's behaviour and location within its environment was recorded using a time-sampling technique at 10 minute intervals for 3 hours, on days 1, 3 and 5 of each condition.

Results will be analysed using mixed design ANOVAs to determine the effect of olfactory stimulation on the cats' behaviour and welfare. Findings will be discussed in relation to the influence of each condition on the behaviour of the cats, their welfare implications and the effect of changing the cats' potential desirability to shelter visitors.

Title: *Research into the effects of visiting dogs on the well-being of elderly people in psycho-geriatric day-care facilities*

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Introduction: As positive effects of visiting dogs have been found in elderly people, living in institutions for the elderly (Churchill, Safaoui, McCabe & Baun, 1999, Robb, Boyd and Pristah in Brodie & Biley, 1999, Enders-Slegers, 2000, Johnson et al, 2002, Bank & Banks, 2002, Odendaal, 2002, Baun & McCabe, 2003), we suggest that the same is true for elderly people in psycho geriatric day-care facilities. Our hypothesis is that regular visits by visiting dogs and their handlers (within a program of Animal Assisted Activities) have positive effects on their well-being (decrease in depression scores and increase in motor activities, non-verbal and verbal interactions, positive emotions, alertness and initiatives), and have more positive effects than regular visits by visiting volunteers.

Participants (N= 31) were recruited from 2 psycho-geriatric day-care institutions. Two groups, (2 x N= 8) were visited by a visiting dog and handler; two groups (N= 8

and N = 7) were visited by a volunteer that interacted with the group by reading and discussing a story about animals.

The groups were matched as to cognitive functioning (Amsterdam Dementia Screeningtest-3, Lindeboom, 1988), as to emotional functioning (Depression List, Diesfeldt, 2004) as well as to their use of drugs (medication).

Visiting dog teams: 2 trained handlers, 2 trained dogs. Visiting (trained) volunteers: 2.

We used a quasi-experimental design with pre-tests and post-tests and 6 repeated measures (observations of the visits).

The observations before, during and after the visits were rated with the (extended) Kongable Observation Scale by two observers (inter-rater reliability .91). The results were analyzed by the Statistical Package for the Social Sciences 11.5). The results showed that within the experimental group motor activities increased significantly during the visits (Wilcoxon Signed Ranks $p < .05$), whereas this was not the case in the control group. Non-verbal social interactions did not differ between the groups before, after and during the visits. Verbal interactions between the groups did not differ before and after the visits, but differed significantly during the visits. The verbal interactions of the experimental group increased as did positive emotions and initiatives for interactions (Wilcoxon Signed Ranks $p < .05$). The alertness of the groups did not differ, not before, not during and not after the visits. At T2 the depression score had not changed significantly.

Conclusion: regular visits by visiting dogs and handlers have more positive effects than regular visits of volunteers. We found significant increase in motor activities, positive emotions and verbal interactions during the visits by dogs and handlers. No long-term effects were found and no significant effects on the depression scores.

Title: *Research into the effects of visiting dogs on the well-being of institutionalized, mentally handicapped elderly people*

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Introduction: As empirical evidence for the positive effects of visiting dogs and/or animal companionship has been found in several research populations (Garrity & Stallones, 1998, Enders-Slegers, 2000, Odendaal, 20002), we suggest that the same is true for mentally handicapped elderly people with multiple pathology. Our hypothesis is that regular visits by visiting dogs and their handlers (within a program of Animal Assisted Activities) have positive effects on their well being, and have more positive effects than regular visits by volunteers.

Participants: 3 groups, N = 25. Group A (N = 10) was visited (individually) by a visiting dog and handler; group B (N = 8) was visited (individually) by a volunteer; group C (N = 7) was not visited (control group). Age: range 47-88, M = 69.

The groups were matched as to cognitive, emotional and social functioning as well as to their functioning on daily life activities.

Visiting dog teams: 4 trained handlers, 6 trained dogs. Visiting (trained) volunteers: 3.

We used a quasi-experimental design with pre-tests and (2) post-tests and 6 repeated measures (videotaped observations) of the visits.

Group A and B: T1, x1,x2,x3,x4,x5,x6, T2, T3.

Group C: T1, T2, T3.

All videos were rated with the Kongable Observation Scale by two observers (inter-rater reliability .91). Furthermore, the participants were monitored by their caregivers who filled in weekly observations about participant's behavior.

The results were analyzed by the Statistical Package for the Social Sciences 11.5). All three groups were measured at T1, T2 and T3 (a month after the visits) on emotional state, behavioral characteristics and social interactions in 'normal' daily life activities. No significant differences were found within or between the groups, not before, immediately after or a month after the visits. All groups were rated as quiet, non-communicative and rather emotionless.

The visits did make a difference in groups A and B. The results demonstrated that positive emotions and verbal communication enhanced significantly in both groups, but did not differ between group A and B. However, motor activities differed significantly between the groups. Group A showed a significant increase in motor activities (Mann-Whitney 1-tailed sig. .000); group B did not. Furthermore, it was noted in group A that verbal communication was more 'natural' and emotions were 'warmer'.

Conclusion: visiting dogs do have more positive effects on the well being of mentally handicapped elderly people than visiting volunteers.

Title: *An Institutional-Economic Perspective on Meat Consumption: Meat as a Bad Habit*

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The concepts of path dependence and lock-in have received growing acceptance in economics. These concepts are used to explain why certain production and technological choices (such as the importance of the combustion engine or the configuration of the typewriter keyboard) can prevail in the economy even if they are socially inferior to other options. These concepts have generally been thought of as driven by positive feedback on the supply side of the economy. However, positive feedback can also impact the consumption side of the economy. This in part will occur through the experience-dependent nature of consumption preferences. The case made here is that meat consumption has "locked in" to a dysfunctional path. The argument presented utilizes behavioral, institutional, as well as neoclassical economic approaches to justify the conclusion. Meat consumption at one time was a preferred and dense source of nutrients and had positive individual and human social utility due to the scarcity of nutrients in the pre-industrialized world. This along with its scarcity led to positive associations being made with meat. However, in the developed world, where nutrient scarcity is not an issue and with the growth of increasingly intensive methods of animal agriculture, meat has increasingly negative consequences at the individual, social, and ethical level. Negative impacts include health consequences, low production efficiency, environmental damage, disease risk, and moral considerations relating to the welfare of animals. Nevertheless, preferences for meat are maintained by historical dependence of tastes, socially established meanings of consumption choices, and institutional inertia. Meat consumption using modern "factory farming" techniques causes great suffering to animals. However not only can it no longer be described as a "necessity", it is actually inferior in many respects to its alternatives. The forces that lead to a perpetuation of meat consumption in the current environment are related to the arbitrary path that human history has happened to take. The question then becomes what, if anything, should be done to "delock" the current path.

Title: *The Value of Dogs in Increasing Interpersonal Communication Levels in Long-Term Psychiatric Patients*

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A number of studies have indicated that the presence of a dog can result in an increase in communication levels in uncommunicative or withdrawn psychiatric patients. Many have been qualitative or anecdotal. This study looked at the difference in interpersonal communication levels between talking with individual patients on their own, or in the presence of a dog. Twelve psychiatric male patients (residents of a high-security hospital which admits patients with violent or criminal propensities), considered by their clinical team to be uncommunicative or withdrawn, were referred to the project. Patients were randomly assigned to one of three groups. Those assigned to two of the groups were interviewed over 8 fifteen-minute sessions at weekly intervals, with the dog present (4) or the dog absent (4), in a crossover design. The third group acted as control and were not interviewed. All three groups were assessed before and after the study by their key-workers, using an Interpersonal Communication Rating Scale. Interviews were video-recorded and participants were rated on verbal and non-verbal variables, using tick-box ratings, and an overall assessment of behaviour. Results indicated no significant overall increase in interpersonal communication levels, although there were fewer very short responses to questions when the dog was present. Using 'Observer' measures on half the sessions randomly selected, there were significantly more participant-initiated conversations. There were a number of individual gains: some participants appeared to benefit by being less tense, indicated by improved posture, increased amount of smiling, and in one case, absence of stereotypic movement. The study required participants to leave their wards, and failed to attract the most withdrawn patients. Future studies might be undertaken on-ward.

Title: *Assistance Dog Training in Prisons: Prevalence and Efficacy*

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In 1981 Sister Pauline Quinn pioneered the "Prison Pet Partnership" as part of her efforts to rehabilitate prison inmates and found that the level of training the dogs received made them eligible for formal assistance dog training. This model of early raising of assistance dog candidates by inmates has been adopted by multiple organizations and received extensive lay press. In this work, we sought to document the number of prisons currently raising assistance dogs in training and then compared outcomes between prison raised and volunteer home raised puppies.

We identified 77 domestic programs providing assistance dogs to clients with various disabilities and surveyed them using a standardized telephone or email questionnaire. 15 of 63 respondents contacted were currently partnering with prisons to raise all or part of their puppies in training. The number of prisons per program varied widely with 5 programs utilizing only a single facility and 4 using more than 5. Overall, a total of 43 state prisons and three federal prisons across 24 states were involved in the assistance dog industry. The vast majority of programs are currently taking place in minimum or medium security facilities with only five operating in maximum security situations.

We studied outcomes in a specific provider which utilized prison raising extensively. The National Education for Assistance Dog Services (NEADS) has partnered with prisons for puppy raising since 1998. From 1999 to 2004, a total of 231 puppies were brought into the puppy raising program. 128 were raised in volunteer homes and 96 in prisons. Information was unavailable for eight dogs. 49 dogs from home raisers were failed (38.3%) while only 21 from the prison program were

failed (21.9%). The average in kennel training time fell for almost all types of dogs trained in prisons (for example, 6 months for traditional service dog candidates versus 4.5 months for prison raised). Combined, these changes allowed the average waiting time for potential NEADS client to be more than halved from over two years to under one.

In this work, we have begun to document the extent to which a prison training paradigm is being used by the assistance dog industry, and documented a shorter training time and a higher success rate in a single such provider. Our future studies will focus on expanding this analysis to other training programs, and examining specific factors in the prison raising process which lead to success.

Title: *Human-Animal Bond: Implications for the Practice of Veterinary Medicine as Reflected in Perceptions of Practitioners, Owners' Expectations and the Law*

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The human-animal bond (HAB) has gained increased attention in society over the last 30 years. This increased attention has resulted in changes in veterinary education, the practice of veterinary medicine and owners' expectations of how their animals should be treated. Professionals working with animals, including veterinarians, recognize its significance at least in a general sense. Recent studies (Martin & Taunton 2005a,b) suggest that certain perceptions about the HAB by private practitioners, if generalized, may inhibit practitioners from taking measurable steps to facilitate the HAB in their practices and fully grasp how it impacts their practices (e.g., legally). When asked to rank ten non-technical skills according to their perceived importance to the practice of veterinary medicine, "legal" was ranked last by private practitioners in the state of Washington (Martin & Taunton 2005a).

The authors posit that increased sensitivity to the human-animal bond in recent decades has resulted in increased societal attention that affects animal care providers in a variety of ways. Animal cruelty statutes and their interpretation reflect enhanced expectations regarding expected or required treatment of animals, as does emerging legislation regarding the treatment of livestock. Standards of care, requirements for informed consent and novel claims based in the animals' status impact veterinarians and other care providers. Further, arguments based in the value of animals have changed measures of damages in a minority of states and changed the way in which lawyers and legal scholars discuss the value of animals generally (regardless of whether they are proponents of traditional or non-traditional measures of value and damages). Finally, proposed legislation shows an evolution in thinking about animals (which the authors posit is based in part in perception of the human-animal bond), whether or not such proposals have currently been accepted by the majority or adopted into law.

While at least some veterinarians may not fully understand the implications of the HAB for their practices or see its connection to legal issues, changes in the law show the connection quite vividly in the social context. This article and presentation review those in the context of perceptions about the HAB.

Title: *Preschoolers' Interactions with Live and Robotic Dogs*

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There has been growing interest in animal-assisted therapy (AAT), particularly for children with autism. Martin and Farnum (2002) found that children with varying forms of PDD were positively influenced (i.e., encouraged to communicate with a human therapist) by the presence of a live dog as opposed to a ball or a stuffed dog. Similarly, Celani (2002) found two of his twelve autistic participants preferred human beings to inanimate objects, but seven out of twelve preferred animals to inanimate objects. AAT with autistic children poses several problems. It is potentially dangerous for both the animal and the child, and logistics may make it impossible to interact with a live animal. Therefore, it is important to examine whether interactions with robotic animals may be able to supplement AAT. With such an application in mind, the intention of this study was to examine how normally developing children interact with both robotic and live dogs. This work will help elucidate the questions of where young children tend to draw the line between living and nonliving, whether their anthropomorphic tendencies differ from those of adults, and whether or not their own past interactions with animals influence their development in this area.

Sixteen normally developing non-autistic children, ages 3 and 4 were observed in their preschool classroom. Materials included a specially-designed ethogram and a Sony AIBO. A brown Labrador (medium-sized, age seven years) named T.J. also was observed interacting with the participants. Two coders were assigned to observe interaction with AIBO, and two more to observe interaction with T.J. Each child's interaction lasted one minute. While these were occurring, the coders recorded the number of touches, speech toward the animal, speech toward adults, and speech toward other children. In addition, they rated the children's mood and fear level on scales of 1-7.

Preliminary analyses showed that preschoolers interact with both real robotic dogs primarily through touch, and few differences were noted between the entities. Only one child spoke toward the dog, and none spoke toward the AIBO. Children did speak to adults during the interaction, and those children who had dogs at home spoke more about the dog. Preschoolers' interactions with animals are primarily scaffolded by adults and involve very little spontaneous speech. Children at this age also appear to treat artificial animals in much the same way as live animals.

Title: *Pilot study to determine the prevalence of abuse towards animals when women are victims of domestic abuse in Scotland.*

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Research conducted in the USA (Ascione, 1996), has shown when a woman is a victim of domestic violence her pet may also be abused. Fears of repercussions against her pet were cited as a reason for staying with the abuser. This pilot study aimed to apply Ascione's methods in Scotland to investigate whether similar results would be obtained and to draw attention to this issue.

The sample group comprised 33 women seeking refuge at North Ayrshire Women's Aid between 10th March 2004 and 10th July 2004. The sample group included pet owners (n=13) of which x had children and non-pet owners (n=20) of which y had children. Participation in this study was voluntary.

The women's key worker interviewed women-seeking refuge two days after they had sought refuge. The women were then asked a series of questions that aimed to establish; pet ownership; any abuse of pets; if concern pet welfare had affected their decision to leave; the location of pets left behind and if a Pet Fostering Service was used; if not, did they know of such schemes. This was the

first visit for sixty nine% of pet owners to a Women's Aid Refuge. Fifty three% of pet owners had children living with them. Eighty four% of pet owners reported that their partner had hurt or killed the animal, compared to fifty seven% in the Ascione (1996) study. Eighty four% of pet owners reported that their partner had threatened to hurt or kill the pet, compared to seventy one% in Ascione (1996) study. Seventy seven% of pet owners said that concern for the safety of their pet had prevented them from leaving the abusive environment sooner, compared to eighteen% in Ascione (1996) study.

These results present an initial investigation of the prevalence of pet abuse in Scotland when women are victims of domestic violence. It is hoped that this pilot study will generate further research into the link between the abuse of women, children and animals in Scotland and generate multi-disciplinary policies that help to combat this problem. Although these pilot study results should be interpreted cautiously, they suggest that the prevalence of abuse towards animals is greater in Scotland in the USA. The authors suggest that further research should be conducted in order to ascertain if this is the case and to investigate contributory factors.

Reference

Ascione (1996) *Battered women's reports on their partners and their children's cruelty to animals*. 4th International Conference on family violence, Durham, New Hampshire

Title: Securing government endorsement of the social legitimacy of dog walking in the UK, to counteract pressure for increased restrictions on dogs.

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Recent UK legislation enhancing the provision of public access to the countryside and open spaces, has prompted land managers to increasingly portray a negative perception of dogs, in terms of fouling and disturbance to livestock and wildlife.

The wider media and government advice has not promoted a balanced view of dogs as companion animals; the well-documented benefits are rarely mentioned. Emotive calls for restrictions, whilst seemingly compelling, are predominantly based on anecdotal evidence, with little sound scientific research into actual impacts or the effectiveness of different management approaches. Thus authoritarian, negative messages and restriction signs are the norm, rarely engaging with the owners of the nation's 6.2 million dogs, making them feel at best tolerated, and at worse, unwelcome.

The Kennel Club is the UK non-governmental organisation responsible for the regulation of dog breeding, health and competition. In late 2004 it met with several government agencies to get them to: endorse the benefits of dog ownership; promote balanced management practices; recognise the widening role of assistance dogs.

Instead of promoting the intrinsic value of dogs *per se*, the KC's campaign concentrated on benefits for people and government performance targets. Interest from government agencies has come from those who benevolently see how dog ownership supports targets for regular daily exercise, and safer, more inclusive communities, and those seeking to increase awareness of, and compliance with, restrictions. The KC's influence and contact with dog owners is thus a valuable commodity, made available to those partners adopting the balanced approach above.

At Crufts dog show in March 2005, the KC signed a concordat with the state forestry service, committing each party to such principles; practical implementation will follow to promote good practice and a consistent approach by all forest managers.

By Summer 2005, one million copies of “You and your dog in the countryside” will have been printed. For the first time in a national context, this 16-page booklet promotes positive images of dog owners as a welcome part of society, who are then asked to act responsibly at sensitive times and places. The KC commissioned its access advisor to produce the text, with the government’s Countryside Agency meeting the design and printing costs; a contribution to distribution expenses was made by a commercial sponsor. Traditionally restrictive messages have been integrated into the text alongside information about dog first aid, safe travel and training. The cartoon sheepdog from the popular Aardman Animation television programme “Creature Comforts” is used to add wider appeal. A bi-lingual version will also be produced for Wales.

The next stage in the campaign is identifying and promoting good practice for consistent, balanced management at a local level, supported by robust research to replace undue reliance on anecdotal and subjective data.

These outcomes illustrate the benefits of exploiting how dog owners can support the wider aspirations of government, and gain social legitimacy in the process. A conference poster will illustrate this work, with booklets available for delegates.

Title: *Bioart and the Animal; Ethics and Intent within the Realm of Biological Art.*

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Considering that methods of animal use within scientific research remain prevalent controversial issues, it is no surprise that the use of animals within the creation of biological art take these concerns to an extreme. Enter the realm of biological artmaking, in which individuals across the globe are engaging in artistic mediations of new biological technologies – by utilizing the very tools which they critique.

How do we interpret or begin to justify the use of animal materials in biological art; an area which operates without even a scent of promise for new scientific research or discoveries to enable the betterment of humankind? Can these artistic endeavours truly be successful in challenging and engaging an otherwise unsuspecting public in critical cultural debate, or are they in fact being played as advertising for the technology itself, whilst also acting as agents of cultural desensitization? This presentation is concerned with my PhD project which explores the potential of biotechnological practices to dissolve the physical boundaries between humans and animals, and the subsequent effects of these technologies and their artistic progeny on our sense of self, as a species, and as individuals. Emphasis is placed upon the semi-living tissue cultured sculptural forms, composed of hybridized human and animal skin, which I have created as part of my current PhD at the Tasmanian School of Art. These artworks deal with the potential of human-animal amalgamations to disrupt a notion of self as a fixed bounded entity, thus diminishing the framework of an exclusively human ‘self’ within an environment of ‘otherness’.

This presentation forms part of my PhD research at the University of Tasmania and SymbioticA (The Art and Science Collaborative Research Laboratory), which is investigating the relationship between the human-animal hybrid and the self/other dichotomy, through the creation of semi-living, human-animal hybrid sculptural forms.

Title: *Behavioural problems in indoor cats from the owner's point of view*

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In a Swedish questionnaire study, 70 owners of indoor cats answered questions about different behaviour of their cat, how often these behaviours occurred, if they regarded any of these behaviours as a problem and what they thought caused this behaviour.

Approximately 75% of the owners stated that their cats showed one or more behaviours they regarded as a problem. Many cats urinated (19% of the cats) or defecated (16% of the cats) at the wrong place and/or scratched on inappropriate places (67% of the cats), but not all owners of these cats regarded this as a problem. This could be due to the owner's theories or explanation of why the cat showed this behaviour and/or the attachment and bonding to the cat, all owners regarded their cat as a family member. Among the owners of cats that urinated or defecated at undesired places, 46% respectively 45% of the owners regarded this as a problem. 37% of the owners of cats showing anxiousness, 33% of the owners of cats showing aggression that were not related to situations of play or cuddling, and 25% of the owners of cats that woke their owner up during the night, regarded this as a problem. When comparing different breeds, owners of domestic shorthair experienced more often than owners of Siamese cats that their cat scratched on inappropriate objects ($p<0.05$), while owners of Siamese cats experienced that their cats were calling more ($p<0.01$). However, there were no differences between owners, if they regarded this as a problem or not, which might be explained by the fact that the expectations or acceptance of the behaviour of the cat may differ between owners of different breeds. Siamese owners were more often of the opinion that pure bred cats are more suitable than domestic shorthair to be entirely indoors compared to owners of domestic shorthair ($p<0.01$). A majority of all owners (72%) believed that cats in general benefits from an outdoor life. However, the main part of the owners in this study (76%) did not believe that just their cat would be happier if it was allowed outside.

Title: *Introducing humane education through technology and virtual animals*

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Technology has revolutionized our culture. Children currently in school were born in a world of interactive technology where elementary age-appropriate software is abundant. Computers, multimedia, and the Internet have given children access to immediate and almost unlimited amounts of information. However, educators may not always use technology at its full potential (Ferguson, 2001).

The College of Veterinary Medicine's People-Pet Partnership (PPP) at Washington State University has been educating children about the interconnectedness of all living things since the early 1980s. PPP first developed a printed K-8 curriculum, *Learning and Living Together: Building the Human-Animal Bond*. The curriculum provides children an opportunity to learn about animals, their history, their care, and the environment in which they live. The curriculum emphasizes the bond that exists between humans and certain animals. Recently, by taking advantage of the latest technological developments, PPP created an online version for children in grades K-3. The web site is divided into different educational modules according to school grades; the lessons are age appropriate and aligned to the fundamental concepts and principles that underlie the National Science Education Content

Standard for Life Science. This free curriculum can be found at www.vetmed.wsu.edu/depts-pppp/child.asp.

The curriculum uses interactive Internet-based technologies to teach children about characteristics of living organisms. Elementary school students are good observers. Thus, this is an appropriate age for them to use their powers of observation to discover similarities and differences in the characteristics and behavior of living organisms. Elementary aged children are gradually developing an understanding of the interactions between organisms and between these organisms and their environment. The activities found in the curriculum focus on three aspects of living organisms: their characteristics, their life cycles, and their environments. The format used allows children to gather information, to use their critical thinking skills, and to communicate what they have learned to their peers and their teacher.

The curriculum is composed of modules that organize learning around various activities, such as using the search for a missing Pharaoh in Ancient Egypt as a means to educate third graders about cats. The different modules involve complex tasks based on challenging problems. For example, students must identify cat bones based on what they just learned about the similarities between feline and human skeletal systems. Children are involved in problem solving, decision-making, and investigative activities related to the history of animals, their care and habitat.

This educational web site provides children with new and interesting science-based humane information that will act as a springboard for new learning. This web site places children at the center of an active learning process where teachers and parents facilitate and coordinate knowledge acquisition.

Title: *Perceptions on Human-Animal Bond (HAB) education and the role of the HAB in private practice by veterinarians in Washington state.*

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Recent reports have commented on the significance of integrating the HAB into veterinary practice (KPMG study, 1999; Lewis and Klausner, 2003) and veterinary education (Lloyd and King 2004). However, it is striking to note that little is known about the importance of the HAB to private practitioners and whether they believe the HAB should be presented in veterinary curricula and if they actually participated in HAB learning in school and/or as practicing veterinarians. In order to fill this gap, we asked Washington veterinarians in private practice to participate in an online survey addressing the role of the HAB in private practice and DVM and post-DVM education. The response rate was 25.9% (415/1602).

HAB in private practice: Overall, the responses suggested that the HAB concept was important to veterinarians, and the respondents believed they integrate the HAB into their practices. However, when asked specific questions about procedures to facilitate the HAB in their practices, veterinarians' responses suggested that the HAB may have limited actual impact. For example, despite the fact that only 19% indicated that the technicians in their practices were very prepared to facilitate the HAB, more than half (53%) offered very little or no HAB training to their technician(s). Over half (51%) of respondents offered little or no HAB resources to their clients. These and other responses seem to contradict the importance veterinarians report placing on facilitating the HAB in their practices.

HAB in DVM and post-DVM education: Only 19% of veterinarians believed that the best way for students to learn about the HAB while in school is through required or elective classes. The most popular answer (44%) was mentoring. Ninety-seven percent agreed that the best way to learn about the HAB is through experience. Less than 10% indicated that entry-level veterinarians were very prepared

to facilitate the HAB. Only about a third (32%) had participated in any HAB structured learning since having started practicing. However, 83% agreed that CE credits should be given for HAB classes.

Conclusion: The results of our survey suggest that, while the HAB is reported as being important by private practitioners in the state of Washington, the actual applications of the HAB in day-to-day practice may be limited. Our results suggest that there is an imbalance between (1) the reported importance of the HAB concept to private practitioners, and (2) the incorporation of actual means or procedures to facilitate the HAB into veterinary practice. In addition, practitioners strongly favor experiential learning (e.g., ownership, practica) over structured learning (e.g., classes, seminars) when it comes to learning about the HAB. More research on the HAB is necessary to better understand what the HAB encompasses and its actual implications for private practitioners.

Title: *Canine Species Intervention and its Relationship to Post Bereavement Morbidity in a Sample of 911 Families*

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This research proposal focuses on the examination of canine species intervention and its relationship to post bereavement morbidity in the families of the victims of the attack on the World Trade Center on September 11th and contains a review of the literature on canine species intervention (CSI) and its relationship to the bio-psycho-social morbidity in humans. Animal-Assisted Therapy (AAT) and the role of Companion Animals as an adjunctive treatment intervention with various populations are also discussed.

Over the last few decades, there have been numerous studies examining the effectiveness of animal assisted therapy on the bio-psycho-social outcomes of a myriad of human populations. A large portion of these studies, both case study design as well as the more controlled method, have discovered positive and significant findings, while others have produced somewhat vague and inconsistent results. Critics of research in this area point to methodological and sampling flaws and recommend the need for more rigorous procedures.

None of the research to date however, has examined canine species intervention (CSI) as an adjunctive treatment modality in post bereavement morbidity. This research proposal makes a case for the need to empirically investigate the phenomenon of canine species intervention (CSI) in a sample of 911 families who accessed services at the Family Assistance Center (Pier 94) and its impact on their post bereavement morbidity.

Title: *A Conceptual study about 'Animal-Assisted Intervention' programs in Brabant(Belgium)*

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For the past 20 years, a growing number of health care facilities, schools and riding stables have engaged in 'Animal Assisted Interventions' programs (AAI). These initiatives include 'Animal Assisted Therapy' in which client-oriented goals are set and progress records are kept, 'Animal Assisted Activities' without specific goals for each client and 'Animal Assisted Learning' programs in which teachers have goals for each student.

The aim of this study was to map the prevalence of AAI, the different modalities used, the most common logistical issues and reasons for program implementation (i.e. to treat autism, depression, conduct disorder) in Brabant, a Belgian province. We collected data from 431 institutions (304 care facilities and 127 riding stables) using a semi-structured telephone interview.

The results showed that 48% of the institutions included animals in activities, therapy or education. They were distributed as follows: 73% institutions for people with physical and mental challenges, 63% were homes for elderly, 32% clinics and 28% riding stables.

When AAI-programs were terminated, the main reasons were: clients' fear of animals (44%), abnormal or unwanted behavior of the animal (16%), human-animal interaction issues (12%), clients' allergies (9%), interfering with the daily routine (9%), animal abuse (7%), problems with animal management and housing requirements (2%).

Eighty-eight percent of the riding stables had recreational riding programs for people with mental or physical challenges. Some stables had active physiotherapy on horses, ground-work for people with disabilities, equine assisted psychotherapy and rides in covered wagon. Of all Equine Assisted intervention (EAI) initiatives, 91 % focused on people with physical or mental disabilities. Forty-four percent of the people who organized EAI program had attended special training in Animal Assisted therapy. Only 25 % of the horses involved had received preliminary training (dressage or Natural Horsemanship).

This study showed that the majority of institutions and riding stables (67%) involve animals in their program. However, no formal national education is available in Belgium. It is difficult to find funds or a global support network providing information. Seventy-three percent of all institutions said they would be interested in a virtual knowledge center about AAI.

There are no standard practices about how animal assisted interventions are delivered and the quality of programs varies greatly. Little conformity is seen between different AAI-procedures. This lack of a uniform quality control may raise questions about the efficacy of the interventions and may even be dangerous to the animals, clients and human service providers delivering services. Furthermore, the welfare of the assistance animals is not ensured since there are no minimum requirements when engaging them.

Title: *Preliminary observations on public feeding of goats in children's zoos and its influence on goat behavior*

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Domestic goats are a common feature of many children's zoos where various breeds are housed in contact yards to promote human-animal interaction. Public feeding of animals is encouraged in many contact yards as a way to facilitate child-goat interaction while generating additional revenue. However, there are questions about how the practice of public feeding influences goat behavior and the quality of subsequent human-animal interactions. The objectives of this pilot study were to

characterize the behavior of goats housed in public feeding yards and to compare their behaviors to goats residing in yards that did not allow public feeding. Observations were recorded during peak visitor hours (10:00 a.m. and 2:00 p.m.) at five different children's zoos located in Central Illinois and Missouri during the summer of 2004. Three zoos provided visitors with the opportunity to feed the goats with pellets purchased from a 25-cent vending machine. Two zoos did not allow feeding and instead provided visitors with the option of brushing the goats. Scan samples, conducted at 10-minute intervals, were used to characterize the general activity budgets of goats. In addition, continuous observations of focal goats were utilized between scan samples to record the occurrence of agonistic, investigative, and attention/food seeking behaviors. Sixty-four percent of public feeding yard goats displayed active attention/food seeking behaviors (e.g., walking up to and following zoo visitors around the yard, nudging, rubbing and chewing) as compared to only 19% of goats kept in brush yards. Public feeding yard goats directed more agonistic behavior towards both human visitors and conspecifics than did brush yard goats. Agonistic behaviors observed included both overt aggression, such as head butting and charging, as well as threats (e.g., pawing and foot stomping). On the other hand, brush yard goats were more likely to display indifference and active avoidance towards zoo visitors than were public feeding yard goats. One important goal of children's zoos is to provide a safe environment that promotes positive human-animal interaction. While public feeding yard goats were more active in seeking human contact, presumably for a food reward, the higher levels of aggression displayed by these goats may increase the likelihood of a negative experience for zoo visitors, especially young children. Additional studies are necessary to determine how goat behavior influences zoo visitors' perceptions of the quality of human-goat interactions.

Title: *“But They Said They Were Sorry”: Veterinarians’ reasons for not reporting animal abuse.*

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Research indicates that veterinarians believe they have an ethical obligation to report animal abuse, yet controversy over mandating abuse reporting continues. The discrepancy between perceived moral obligation and moral action has important implications for the protection of animals and people, and for policy development regarding reporting.

To understand how veterinarians make decisions relating to the ethical treatment of animals, 41 veterinarians engaged in private practice in Western Canada were interviewed. Although not directly questioned about animal abuse, participants frequently expressed concerns regarding their experiences with animal abuse. Interviews were audiotaped, transcribed and data were managed with NRS Q6 (non-numerical data software).

Reasons cited for failing to report animal abuse included uncertainty over the cause of injury (intentional versus accidental), uncertainty relating to defining abuse, frustration with enforcement agencies, and personal concerns. These findings concur with factors identified in other studies. Notably however, veterinarians cited client remorse and/or concern as reasons not to report abuse, viewing clients who expressed remorse or concern more favourably than those who did not. Some veterinarians viewed reporting of abuse as a punitive step directed to the animal owner/caregiver rather than a protective step for the animal. Thus, contrition or client concern reduced the likelihood that veterinarians would report an instance of animal abuse. As veterinarians generally lack training in psychology and criminology, they may lack the skills required to make assessments regarding their clients' abilities or desires to improve the care of an animal. Considering the correlation between

animal abuse and treatment of people, the ramifications of failing to report animal abuse cases, extend beyond the immediate concern for the involved animals.

The need for veterinary education regarding abuse recognition and the legal mechanisms surrounding abuse reporting are documented and discussed elsewhere. Legal protections to veterinarians may assist those inclined to report animal abuse however many proposed legal mechanisms do not require veterinarians to report. The ability of veterinarians to assess their clients' abilities or intentions in animal abuse cases, and the appropriateness of veterinarians making this type of assessment warrants further attention. Expertise from other disciplines is likely required in animal abuse cases and should have an impact on the development of policy or legislation surrounding abuse reporting by veterinarians.

Title: *Animal Assisted Therapy (AAT) with Adult and Elderly populations: A Meta-Analysis*

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INTRODUCTION: Interest in using animals to enhance traditional medical and psychological interventions has increased in recent years with adults and elderly, thus resulting in more empirical studies. To evaluate and provide a summary of such studies, a meta-analysis was conducted.

METHOD: Empirical studies were identified by searching 11 electronic databases using 19 key words. Hand searches of three journals and all retrieved articles were also conducted. To be included, studies needed to have five adult participants and provide sufficient data to calculate an effect size. These studies were independently coded by two researchers. Dependent variables were grouped into four classes: physiological, mental status, behavior, and emotional wellbeing. Predictor variables were organized around treatment and participant characteristics.

RESULTS: Only two studies reported the effect sizes for three outcomes of interest: physiological ($d = .30$), mental status ($d = .20$), and social skills ($d = 1.34$). More studies, however, examined improvements in behavior ($n = 14$, $d = .44$) and emotional wellbeing ($n = 11$, $d = .41$) allowing tests for moderator effects. Adults were more responsive to AAT in behavior change ($n = 3$, $d = .63$) than the elderly ($n = 11$, $d = .39$). AAT in medical treatments showed to be moderately useful ($n = 3$, $d = .52$). Hospitals were more effective in increasing both positive behaviors ($d = .64$) and emotional wellbeing ($d = .45$) compared to long-term facilities (d 's = .34 and .34, respectively). Of interest, several studies compared AAT with established treatments such as art or exercise therapy. In all treatment versus treatment studies, AAT was either equal to or superior to established interventions.

CONCLUSION: As the population grows older, alternative health services are needed to improve the quality of life. The results of our study suggest AAT is a viable intervention to help adults and elderly struggling with medical, psychological, and behavior problems. However, due to the low number of empirical studies these results need to be interpreted with caution and more scientific support for AAT is needed.

Title: *Animal Assisted Therapy with Children and Adolescents: A Meta-Analysis*

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INTRODUCTION: Interest in using animals to enhance traditional medical and psychological interventions has increased in recent years with children and adolescents. Such interest has resulted in more empirical studies investigating the efficacy of animal assisted therapy. To evaluate and provide a summary of such studies, a meta-analysis was conducted.

METHOD: Empirical studies were identified by searching 11 electronic databases using 19 key words. Hand searches of three journals and all retrieved articles were also conducted. To be included, studies needed to have at least five participants, involve children less than 18 years of age, and provide sufficient data to calculate an effect size. Three studies tested a basic research question; the remaining 11 studies included animals to compliment a standard treatment of either a medical, psychological, or behavioral treatment. Fourteen studies met this criterion of which there were three dissertations. These studies were independently coded by the authors until consensus was achieved on all variables. Dependent variables were grouped into three classes: medical, psychological, and autistic spectrum symptoms.

RESULTS: Using Cohen's classification most effect sizes were in the moderate to strong range. The three studies which tested a basic research question of children diagnosed with Autism, indicated a dog in a therapeutic setting was highly beneficial, ($d = .72$). The remaining 11 studies were coded for the following moderator variables: presenting problem, animal type, and child age. Six studies involved children with developmental delays: 54.5% used dogs, 36.4% used horses, and 9.1% used an aquatic animal. Across medical ($n = 4$, $d = .87$), psychological ($n = 8$, $d = .551$), and autistic spectrum ($n = 1$, $d = 3.7$) outcomes including an animal in treatment resulted in a strong overall effect size. The only moderator variable which was related to outcome was child age. Younger children tended to benefit more in animal assisted therapy.

CONCLUSION: These results suggest animal assisted therapy is a viable intervention to help children and adolescents struggling with medical, psychological and autistic spectrum problems. However, due to the low number of empirical studies these results need to be interpreted with caution. Importantly, we found that many empirical studies were excluded because of low methodological rigor or a failure to report sufficient statistics necessary for inclusion in a meta- analysis.

Title: *Does interruption in a 'Walking Program' cause stress in kennelled Beagles?*

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'Human Interaction Program' (HIP) is an environmental enrichment program in which dogs are walked and petted (Hennessy et al., 1998). However, dogs may form attachment bonds to people after minimal contact and severing these bonds may cause great stress to the dogs (Gasci et al. 2001). We investigated whether a sudden interruption of the HIP would cause any negative effects to the dogs.

Nine Beagles (5 females and 4 males), between the ages of 10 and 13, were involved. The Beagles were laboratory bred and housed in pairs at Ghent University – Department of Nutrition. One female was alone because her partner died a few months prior to the start of the study. The cages were 1.5m x 1.5m x 1.75m with an outside enclosure (1.5m x 1.6m x 1.6m). A heightened surface, 60 cm high table, was provided. The experiment lasted 30 consecutive days and consisted of three 10-day periods. In periods one and three, the dogs were walked and petted for 15 minutes each day. During the second period the dogs were not walked or petted.

Fresh faecal samples were collected each morning throughout the study. Cortisol was assessed using validated extraction and RIA procedures. The used anti-cortisol antiserum was an Anti-CORT-3-CMO-BSA. The validation procedures showed recovery rates with a mild overestimation of the added cortisol. A strong correlation ($r^2 = 0.993474$) was found between added and recovered quantities.

The intra-assay repeatability results gave a variation coefficient of 6.77%, 9.35%, 4.87% for low, intermediate and high-level samples respectively while inter-assay variation coefficient were 19.62%, 4.18% and 0.77%. A linear correlation was found among serial dilutions ($y = 3.9422x + 0.7665$; $r^2 = 0.9912$) in the dilution test. A Friedman Test for paired data was performed on faecal cortisol data ($\alpha = 0.05$). A Bonferroni corrected U-Mann Whitney test was used to assess differences in faecal cortisol levels between different days. Cortisol levels were significantly higher ($p = 0.0003$) in day 12 in comparison to days 4, 10, 13 & 14 which did not differ. No significant differences were found in days 14, 20, 22 & 13.

These results seem to agree that faecal cortisol increases, for a short period, as a result of a sudden interruption in a regular walking program. This could be interpreted as a sign of stress suggesting that walking programs should not be interrupted once started.

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Title: *Vocal Interactions with Robotic and Live Dogs*

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It has been argued that robots such as the SONY AIBO could be used as a companion for both humans (Tamura et. al., 2004) and animals (Kubinyi et. al., 2004). Implicit in this argument is the idea that if a robot behaves like an animal, then humans and animals will treat the robot as an animal, and that it will provide a similar level of companionship. The purpose of the present study is to examine this issue by comparing young adults' vocal interactions when they believe they are interacting with either a live dog or an AIBO.

Participants were introduced to either a dog ($N = 14$) or a SONY AIBO robotic dog ($N = 13$), and then they remotely directed the entity through a maze using verbal commands. Participants in both conditions received identical feedback as to whether the entity was following their directions. Feedback was provided in the form of an arrow moving through the maze. Participants also rated the entity on several characteristics and provided mood ratings at five times during the interaction. All verbal interactions were analyzed for content, pitch (Hz), and intensity (db). Because of inherent sex differences in the physical characteristics of pitch and intensity, analyses were completed independently for men and women.

Independent samples t-tests were computed for the content variables: number of utterances, questions, commands, asides, feedback, and characters/utterance. Additional t-tests were used to examine these physical characteristics for each of 4 segments: mean pitch, range pitch, mean intensity, and range intensity. For females, there were no entity differences for any of the content variables.

However, mean pitch differences were observed for three of the four segments. In all cases, higher pitch was associated with the belief that one was interacting with a live dog. For males, the only entity difference was for number of sounds made, with nearly four times as many sounds made for the live dog as for the AIBO.

In line with literature examining speech toward young children, females were more likely to show characteristic caregiver high pitch than were males. However, this caregiver pitch was only directed at the live dog. Although these women said nearly the same things to both the dog and the AIBO, the low level measure of pitch suggests that at a basic and perhaps automatic level, participants made a distinction between the real and non-real dogs. Low level voice analysis may be an important tool for understanding the subtle differences between humans' interactions with animals and other non-living intelligent entities.

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Title: *Cat Ownership in Australia*

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Cats are an ideal domestic companion animal – they are affectionate, provide company yet are quiet and easily contained. Despite this fact, and the increased urbanisation of the cities of Australia, cat ownership is decreasing - from a peak of 3¼ million in 1999 to less than 2½million in 2003 (Baldock, 2004).

When asked about problems associated with cats, residents of Mt Isa complained of cats on their car (43%), urine spraying (41%), noise of fights (41%), wildlife predation (34%) and digging in their garden (27%). Despite the fact that all of these could be controlled by confinement, only 15% of cats in Mt Isa were kept indoors (Perry, 1999). When owners were asked why they did not confine their cats, the most common responses were that it was unnatural or too difficult (many said impossible).

In the period 2000-2004, the two most common presenting problems for cats at the Sydney Animal Behaviour Service were inappropriate elimination and intercat aggression between members of the same household. Most cats presented with behaviour problems were purebreds (62%) and neutered males (66%). Possible reasons are that purebreds are genetically more likely to develop these behaviours, that people are more likely to keep purebreds indoors or they may be more willing to invest the time and expense to resolve these issues.

The RSPCA is the largest Animal Welfare Agency in Queensland. Most cats surrendered at their refuges are of mixed parentage. The main reasons for surrender are, for adult cats, moving house and for kittens, the fact that the owners have too many cats. Although the home move was not further investigated, it is probable that at least some were to high density housing, where animals are often prohibited.

Australia is predominantly a tropical/subtropical country and female cats are reproductively active during most of the year. Breeders, therefore, keep breeding cats in catteries, rather than as house

pets and select breeding animals by pedigree and physical characteristics rather than their suitability as indoor companions.

Australia is urbanising – more and more Australians are choosing high density housing. In the future, many of those who wish to keep a cat in Australia will need to keep them indoors. Breeders will need to take note of this in their breeding programs and greater public education will be necessary to enable people to avoid problem behaviours in their indoor cats.

Title: *Human-Wildlife Conflicts and the Language of Guardianship*

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Nationwide, urban and suburban communities are engaging in heated and destructive battles over the management of thriving resident wildlife such as white-tailed deer, Canada geese, and beaver. Improved management techniques and government infrastructure will certainly help resolve these conflicts. However, I believe that the greatest obstacle to the resolution of wildlife controversies is not technical, but cultural. The urban and suburban public which today grapples with wildlife conflicts is marked by the diversity of its views on wildlife: variously, as a resource to be utilized, an assemblage of individuals whose lived experience is primary, or a vital components of a healthy, diverse ecosystem. And some see no positive value in wildlife at all. Naturally, such conflicting views of wildlife yield divergent approaches to resolving human-wildlife conflicts, which rebound to accentuate the community's conflicting values. Polarization and antagonism ensue, blocking the development of satisfactory solutions, souring public views of wildlife, and preventing cooperation among otherwise like-minded individuals in areas of critical mutual interest, such as habitat protection and restoration and control of sprawl.

In the ontogeny of wildlife controversies, language plays a critical part in drawing cultural boundaries, identifying factions, and obstructing productive dialogue. To bridge the gaps of culture, tradition, values, and history that divide those who care about wildlife in different ways, we need new language and new vocabulary, with a more inclusive philosophical underpinning.

I propose here that we apply the language of guardianship to frame the human relationship to wildlife. The term “guardian,” which is flexible in interpretation and application, overlays the traditional conservation language of wildlife stewardship with an ethic of care and compassion that additionally encompasses animal protection and conservation medicine perspectives. In this framework, dialogue would be conducted over the identity of the objects of guardianship, the interests of these objects, the level of intervention, and the alternative means of intervention to achieve these interests. Although disagreements would continue to be voiced, I believe that the common use of the language of guardianship would temper the polarizing quality of the debate, to the benefit of communities, wildlife, and the environment that supports both.

Title: *Temperament test for guide dogs for the blind in Austria*

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Guide dogs enhance quality of life for their owners, providing assistance in respect to the handicap, thus leading to more independence. For many owners they have an important role in providing a social partner and may facilitate social contact with other humans also. Problems arise, when dogs are not

sufficiently trained or, though being well trained, do not act up to the owner's expectations otherwise. Problems arise not only for the human part (i.e from less effective work up to real danger), but also for the dog. Poor work can lead to surrender the dog, and in the course of poor work dogs may often live in a stressful state, i.e. under reduced welfare conditions.

Fearful dogs, dogs with a low tolerance level for stress and frustration and dogs with a strong interest in hunting are dogs not suitable for service dog work, as they might cause above mentioned problems quite easily. It is therefore of interest, not only for the human part, to effectively test dogs before training starts and/or at least before work starts. Puppy tests, so far, have not proven to be sufficiently useful in predicting adult suitability.

In Austria guide dogs for the blind are defined by the Federal Law for Handicapped Persons from 1999. The law stipulates that dogs are healthy, trained to a certain standard and suitable in temperament. As authorities and organisations of handicapped people were not satisfied with the then practised standard of testing dog's temperament, our group worked out a test in 2004 to reach the criteria set up by law and practical demand from handicapped persons.

We developed a test for adult dogs, not differentiating for pre- or after training. The test is for both groups with slight alterations in the tests and the conclusions drawn from the results respectively. The test comprises seven subtest blocks with altogether 27 test elements: optic and acoustic stimuli, dogs, humans (approaching friendly, running by, playing, stumbling, threatening, raising conflicts over e.g. food), wild animals (trained rabbits). A scaling was established to reach the following criteria:

- easy and on the spot to be done by people with no scientific background in ethology
- allow to compare between different testers
- allow to definitely decide on the dog's future as guide-dog
- allow to compare between dogs and same dog test/re-test results
- should lend itself to statistical evaluation.

Altogether we looked for four temperament characterisations: stress tolerance, tolerance for fear and aggression, abilities in social communication, tendency for hunting. Examples for test results, scaling and different behavioural displays are given in the presentation.

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Title: *Assessing the concept of commitment to pets: A comparison of the Miller-Rada Commitment to Pets Scale to two measures of pet attachment*

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In 1996, Staats et al. introduced the concept of commitment to pets, defined as “a resolve to keep a pet in spite of challenges that require expenditures of personal resources” (p. 88). The Miller-Rada Commitment to Pets Scale (M-R), comprised of ten questions asking whether the respondent would “get rid of” a pet who destroyed furniture or personal items, required extensive veterinary care, or was having problems with housebreaking, was developed to measure commitment. The scale was found to have high internal validity. Scale scores were significantly correlated with those of a pet attachment scale, with the level of shared variance indicating that the two were related but independent measures.

We used the M-R, the Lexington Attachment to Pets Scale (LAPS; Johnson, Garrity, & Stallones, 1992) and a second measure of attachment (Chumley et al., 1993) in a study of the pet

owner behaviors of 501 largely non-traditional students at a university in the Midwestern United States. Although scores on the three scales were significantly correlated, the pattern of responses to the M-R was heavily skewed. Scores for over 50% of respondents indicated strong denial of the possibility that the pet would be rejected in any of the circumstances provided; eighteen percent of respondents strongly disagreed with all ten items, in effect stating they would never get rid of a pet for the reasons given. One factor in these reactions may be the wording of the questions (e.g., “get rid of”).

Research on the human-animal bond should consider benefits to animals as well as to humans, and the concept of commitment to a pet despite personal and financial costs provides an additional way of looking at such benefits. Modifications of the M-R scale might improve its utility as a measure of commitment to a companion animal.

Title: *Eye Movements When Judging Affect in Cats and Dogs*

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Many methods have been used to examine how humans assess facial emotions of other humans. MRI scans show that many of the same parts of the brain are active when looking at a human face as when looking at 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 affect detection in other species. The purpose of the present study is to examine whether humans use similar cues for rating affect in companion animals as they do for humans.

Fourteen participants (mean age = 21.57) viewed 12 faces of dogs, cats, and young children, and judged the mood of the individual portrayed. These pictures were chosen to represent happiness, sadness, and anger. An additional picture for each species depicted an ambiguous facial expression. While completing the mood judgment task, participants' eye movements were recorded using a corneal reflection system eyetracker. Pictures were shown for five seconds, followed by a 20 second black mask. Data were coded by analyzing the amount of time spent on the following four facial features: eyes, nose, mouth, and ears.

A 3 (Species: Dog, Cat, or Human) x 4 (Mood: Ambiguous, Happy, Angry, or Sad) x 4 (Place: Eyes, Nose, Mouth, or Ears) within-subjects ANOVA yielded main effects for Species ($F(2,26)=9.39$, $MSE=1.45$, $p<.01$) and Place ($F(3,39)=22.34$, $MSE=41.13$, $p<.001$, with more time spent on each facial part for cat faces than either dog faces or child faces. Across species, the greatest amount of time was spent on the eyes. Ears were examined for the least amount of time, even for the animals. There also were a Species x Place interaction ($F(6,78)=8.41$, $MSE=1.80$, $p<.001$), a Mood x Place interaction ($F(9,117)=4.55$, $MSE=1.43$, $p<.001$), and a Species x Mood x Place interaction ($F(18,234)=2.12$, $MSE=0.52$, $p<.01$). Follow-up analyses showed that the Mood x Place interaction only was significant for the cat and dog faces.

When asked to determine facial affect, humans use similar cues for animal faces as they do for human faces. Although a great deal of emotion is conveyed through the ears of animals (Coren, 2001), humans examine ears very little. However, when a threat is perceived, (e.g., bared teeth), eye movements indicate that humans do focus on a danger signal. Humans appear to miss subtle cues of affect in animals, so responses to negative information are likely delayed.

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Title: *The Human Concept in Horses: Can They Tell Us Apart?*

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The human-horse relationship has a long evolutionary history. It is therefore no wonder that horses continue to play a pivotal role in the lives of humans. For instance, it is common for humans to think their horses recognize them by face. This human-horse bond contributes to the special understanding the two species tend to exude when together. This rich and satisfying relationship also underlies the curiosity that humans possess about horses, their behavior, learning capacities, and cognitive abilities. If a horse can distinguish his or her companion human from other humans, then evolution has supplied the horse with a very adaptive cognitive ability. Therefore, knowing how and what horses learn is vitally important information to therapeutic riding specialists, trainers, and enthusiasts. The current study examined whether horses have the cognitive ability to discriminate human faces, form a mental conceptualization of the face, and transfer this conceptualization to a novel setting. The results of the study supported three of the four hypotheses. Specifically, the horses (a) learned to discriminate the photographs of the unrelated individuals, the fraternal twins, and the identical twins, (b) demonstrated transfer of facial discrimination of the unrelated individuals and fraternal twins by spending more time with the reinforced person (S+) than non reinforced person (S-) in a real world field test, and (c) did not demonstrate transfer of facial recognition and discrimination of the identical twins as demonstrated by a non preference for either the reinforced twin (S+) or the non reinforced twin (S-). This cognitive ability should be tapped in all areas of the human-horse interaction. For instance, horse industry professionals could incorporate photographic stimuli rather than use abusive techniques in training methods. Because horse riding has been shown to rehabilitate various language, physical, emotional, and social disorders such as quadriplegics, those suffering from multiple sclerosis, cerebral palsy and other neurological impairments, training time could be reduced if the horse is simply shown a photograph of his or her new riders as a means of acquainting the horse to them and shortening the bonding period. Finally, this study provided a possible technique to strengthen the human-horse bond. For instance, human companions could hang photographs of themselves in the barn for their horse to examine. After all, humans display photographs of their horse in their homes, why not exhibit photographs of themselves in the horses' homes-the barn or stable.

Title: *The Path to Peace is Lead by a Cow*

Author(s): *H. Marie Suthers-McCabe, DVM and J. Rex Enoch, PhD

Affiliation(s): Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Virginia, USA and Heifer International, Arkansas, USA

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One of the most fundamental forms of human-animal relations is that between people and their food source. Animals can bring people together in a powerful way, even while they help them build self-reliance and achieve long-term sustainable solutions for food and income. The struggle over limited resources often leads to conflict or violence. Where there is no hope for change, conflict can intensify. Just as there is a recipe for war, there is also a pathway to peace. This path provides

communities with resources in the form of animals, fosters community development and tempers the stress of poverty, thereby helping them resist the calls to divisiveness and war. Peace begins when hunger ends.

Heifer International, a nonprofit organization devoted to ending world hunger, began over 60 years ago as a peace effort, recognizing that “peace happens when the hungry can feed themselves”. This insight guides much of what Heifer International has worked for since 1944. Heifer works to break the vicious cycle of poverty, which is both a root cause and result of war. The provision of sustainable resources of livestock and training in modern organic farming methods encourages goodwill and community-building through the sharing of resources. In traditionally antagonistic borders and throughout ethnic divisions in countries like Rwanda, Afghanistan, Pakistan, Guatemala, Kosovo, Albania, North Korea, and Cambodia, the struggle over limited resources has often led to violent conflict. The care and feeding of Heifer-provided cows have become a rallying point to encourage sharing and community work across borders, tribal distinctions or ethnic divisions. Ethnic groups that were enemies are now working together to eliminate hunger and poverty and to avoid conflict in the future.

Perhaps the clearest example of peace work is in Albania, one of the most heavily armed countries in the world. After the fall of communism, government armories were looted and more than one million weapons were in the hands of the people. With so many weapons and so much desperation, civil war seemed inevitable. Today in Albania the situation is stabilizing, and one reason is Heifer's Peace Project. In cooperation with the United Nations, Albanians may surrender weapons and receive a pregnant heifer in exchange. Farming, not fighting, is emerging as the future of Albania.

This and many more examples of human-livestock relations, leading to a vision of a world of communities living together in peace, will be illustrated in this presentation.

Title: *From Smokey to Sheba: The Naming of Cats*

Authors: Claire White and Penny Bernstein

Affiliation(s): Kent State University, Ohio, USA

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A preliminary study was conducted to examine the types of names most commonly given to cats. Surveys collected as part of a larger study (e.g. Bernstein 2001, 2003) were analyzed, providing names for 50 single cats, and 256 cats from 2-cat households, a total of 306 cats. Most cat names fell into five subjective categories: cute/endearing (e.g. Poopsie, Snickers, Fuzzers), exotic/foreign (e.g. Agatsu, Nubia), famous (e.g. Caesar, Tigger), everyday human (e.g. Katie, Betsy), physically descriptive (e.g. Whiskers, Mittens). Some names could not be easily classified or fit more than one category and were grouped as “other”. In two-cat households, an additional category became necessary, as some cats seemed to have linked names within the above categories, such as Mischief and Trouble (cute/endearing duo) or Sampson and Delilah (famous duo).

The most common categories of names were everyday human (23%) and cute/endearing (22.5%); somewhat surprisingly, the least common type was physically descriptive (10%). About 16% of names were in the “other” category. In two-cat households, about 23% of cats had linked names (or 19% of all cats). Although the data suggest that many owners provide names for cats similar to those for children, they are almost equally likely to provide “pet” names, using terms of endearment. It is clear from these and other cases, such as in the “other” category, with names such as Flash and PJ, that cat naming can be quite complex, depending on the individual owner, their personal history, and their experiences with a particular cat.

A second part of the study attempted to determine if there was a relationship between the types of names given to cats and whether or not their daily routine was controlled to a greater or lesser extent

by being kept indoors all of the time or allowed outdoors with or without restriction. The results show that in all naming categories, the majority of cats were controlled to some extent (52.8% inside only). Cats with exotic/foreign names were controlled the most by their owners (60% inside only, an additional 26% outside with restrictions). A breed analysis showed there was no correlation between breed of cat and whether or not they were kept inside. These results suggest that further study might be done to determine if the type of name given to a cat reflects the owner's perception of the animal and can be an indication of the treatment the cat receives.

News Briefs (in no particular order...some have been shortened by the editor, please contact the author of the "brief" for additional information)

From: Penny Bernstein, (Kent State University Stark, 330-244-3438)

...Irene Rochlitz was editor of the new book Welfare of Cats, published by Kluwer (The Netherlands) as part of the series in Animal Welfare and Nutrition. Penny Bernstein has a chapter in it, "Human-Cat Interactions". Debbie Goodwin had a chapter in the Welfare of Horses book in the series, but I'll let her tell you.

From: Kendal Shepherd, BVSc., MRCVS, CCAB - (will be attending conference)

kendal@lindenarts.co.uk

New teaching resource available shortly on ASAB web site - 'Understanding canine aggression and its prevention'

An educational resource is being developed under the auspices of the Association for the Study of Animal Behaviour (ASAB) shortly to be included on their website and aimed at 10 to 11-year-olds. It will be a distinct departure from standard advice that all dogs need is love, attention, exercise and vaccinations. Children will be asked to use their own experiences to predict what situations are likely to make both themselves and dogs feel good or bad, and how they might consequently react.... The canine 'Ladder of Aggression' will be explained as an escalation of body gestures designed to avert threat and result in calm interaction, with overt aggression expressed only if all else fails or has failed in the past. Comparing this to a similar progression in people will emphasize the response-dependency of what dogs do and that aggression is hardly ever a pro-active strategy, as well as discourage the labelling of dogs as 'submissive' or 'dominant'. Above all, children must understand as soon as they are old enough, that what a dog does is his own choice not theirs. True obedience involves altering a dog's choice of behaviour to coincide with our own. If such decisions are made in anticipation of a positive emotional state, aggression will become unnecessary. The teacher's resource will include information regarding the evolutionary development of the domestic dog, the loss of pack structure, the implications of scavenging for a living and the highly adaptive nature of appeasement behaviour (we love dogs who look like they love us) – as long as it is interpreted correctly....

From: Pamela Carlisle-Frank

New book: *Silent Victims: Recognizing and Stopping Abuse of the Family Pet*

By Pamela Carlisle-Frank, Ph.D. and Officer Tom Flanagan

This book offers students, professionals and laypersons an overview of the most critical scientific and anecdotal findings about the factors surrounding animal abuse. Presented in a user-friendly style the book examines the antecedents and consequences of animal cruelty followed by the strategies for recognizing and stopping animal abuse in everyday, real world settings.

The research findings presented in this book include notable studies on animal abuse, perpetrators, and abusive environments, as well as the possible causes and outcomes thought to be linked to animal

cruelty. The book also offers readers an insider's look at animal cruelty from those who work in the trenches to resolve animal abuse cases--the real life tales from the street segments weave theories and research findings with applied fieldwork, examining commonly used strategies and techniques for recognizing and addressing animal abuse cases.

Estimated soft-cover cost: \$30. To pre-order copies please contact: Dr. P. Frank, (The Foundation for Interdisciplinary Research & Education Promoting Animal Welfare) FIREPAW, Inc. 228 Main Street, #436, Williamstown, MA 01267, Telephone: 518-462-5939, Email: DrPFrank@firepaw.org -or- firepaw@earthlink.net, Web site: www.firepaw.org

From Marc Bekoff... Ecology and Evolutionary Biology, University of Colorado, Boulder, Colorado 80309-0334 USA, <http://literati.net/Bekoff>

New book: ANIMAL PASSIONS AND BEASTLY VIRTUES: RELECTIONS ON REDECORATING NATURE, Marc Bekoff, Temple University Press

recently published: ENCYCLOPEDIA OF ANIMAL BEHAVIOR, edited by Marc Bekoff, Greenwood

From Andrew Cuk, Ph.D, andycuk@lycos.com ...

Dissertation completed September 2005

TITLE: Animal Imagery in Contemporary Mexican Theatre-- Using contemporary animal liberation/rights theories, this dissertation categorizes and examines the use of animal imagery in six 20th century Mexican plays by 5 authors. Granting institution: University of California, Santa Barbara.

UMI Proquest Pub #: AAT 3145716

From: Anthony L. Podberscek (one of the book's editors)

News Item: "Companion Animals and Us" in paperback!

Contact information: www.cup.cam.ac.uk

Cambridge University Press has finally decided to release this book in paperback. Stock will be available from June 2005. ISBN: 0521017718. Cost: GBP 27.00.

1. Introduction Anthony L. Podberscek, Elizabeth Paul and James Serpell; Part I. History and Culture: 2. The social significance of pet-keeping among Amazonian Indians Philippe Erickson; 3. Motivations for pet-keeping in Ancient Greece and Rome: a preliminary survey Liliane Bodson; 4. Hunting and attachment to dogs in the Pre-modern period Sophia Menache; 5. Children, 'insects' and play in Japan Erick L. Laurent; 6. The horse bar mitzvah: a celebratory exploration of the human-animal bond Norine Dresser; 7. Creatures of the unconscious: companion animals as mediators James Serpell; Part II. The Nature of the Relationship: 8. Companion animals and human health: physical and cardiovascular influences Erika Friedmann, Sue A. Thomas and Tim Eddy; 9. Personality research on pets and their owners: conceptual issues and review Anthony Podberscek and Samuel D. Gosling; 10. Love of pets and love of people Elizabeth Paul; Part III. Pets, Families and Interactions: 11. The influence of current relationships upon pet animal acquisition Rachael M. Harker, Glyn Collis and June McNicholas; 12. Pets in the network of family relationships: an empirical study Sheila Bonas, June McNicholas and Glyn M. Collis; 13. The meaning of companion animals: qualitative analysis of the life histories of elderly cat and dog owners Marie-José Enders-Slegers; 14. Human-cat interactions: relationships with, and breed differences between, non-pedigree, Persian and Siamese cats Dennis C. Turner; Part IV. Welfare and Ethics: 15. Secondary victimization in companion animal abuse: the owner's perspective Arnold Arluke; 16. Veterinary dilemmas: ambiguity and ambivalence in human-animal interaction Joanna Swabe; 17. Rethinking bestiality: towards a concept of interspecies sexual assault Piers Beirne.

From: H. Marie Suthers-McCabe, D.V.M.

Associate Professor, Human-Companion Animal Interaction

Director, Center for Animal Human Relationships, Virginia-Maryland Regional College of Veterinary Medicine. E-mail msuthers@vt.edu

Dr. McCabe has been awarded the The Bustad Companion Animal Veterinarian of the Year Award. This is one of veterinary medicine's highest honors. The award was named for the late Dr. Leo K. Bustad, former President of the Delta Society, Dean of the Washington State University College of Veterinary Medicine, and a pioneer in recognizing the importance of the human-animal bond. The award is sponsored by the American Veterinary Medical Association, Delta Society, and Hill's Pet Nutrition, Inc. The Bustad Award recognizes the outstanding work of veterinarians in protecting and promoting the human-animal bond.

Virginia-Maryland Regional College of Veterinary Medicine

FROM: Ana Cristina Ramírez

Facultad de Filosofía, UMSNH, Edif. C-4, CU, CP 58030, tel. (52) 443 3223500 ext. 4148. Morelia, México. anacrb@umich.mx.

News Item: Table "Condición animal y cultura"/"Animal condition and culture". Congreso de Filosofía, Morelia, Mich., México.

The table "Condición animal y cultura"/"Animal condition and culture" will be held at the Symposium Philosophy of Culture II at the next Philosophy Congress (Morelia, México, November 14-18th 2005). These are the pre-registered participants (translated titles): Beatriz Vanda "Human responsibility in animal suffering", Felipe Monroy "Animal Rights Paradoxes", León Morales "Animal culture and semiotics", Arturo Argueta "Etnozoology of P'urhépecha people", Francisco Javier Martínez "Human-Animal Duality", Ana Cristina Ramírez "Anthrozoology in Herder".

From: David C. Anderson

email: rockydell@digitalpath.net, website: <http://RockydellResources.homestead.com/>

The Guide to Pet Loss Resources, 3rd edition, (Trafford Publ., 2005) should be available by the time ISAZ is held.

Measures for the Human-Companion Animal Bond has been accepted by Purdue University Press, but a lot of details remain to be thrashed out. And no date of publication is available.

FROM: Dr Anne McBride

Director Applied Animal Behaviour Unit, School of Psychology, University of Southampton, The Avenue, Southampton, SO17 1BG, UK
amcb@soton.ac.uk

News: Postgraduate Diploma / Masters in Companion Animal Behaviour Counselling

This multidisciplinary course provides the academic background to this rapidly expanding professional field. It call on expertise from a variety of areas including veterinary science, ethology, comparative and human psychology, pharmacology, law, training and clinical aspects of behaviour counselling.

The structure is modular, comprising 11 one-week modules and one shorter unit. It can be taken over a period of between 3 and 5 years. Each unit is assessed through a variety of course work. Its part-time modular structure means that it is attractive to students from the UK, Europe and further afield, including Canada and the USA.

FROM: Dr Anne McBride

Contact Information Director Applied Animal Behaviour Unit, School of Psychology, University of Southampton, The Avenue, Southampton, SO17 1BG, UK

amcb@soton.ac.uk

NEW BOOK

Title: *Older People and Pets : A comprehensive guide* Compiled by the Society for Companion Animal Studies, this book provides an invaluable resource for anyone who is concerned about the well being of older people, including health and social care professionals, veterinary staff and housing providers.

The reader is given insight into how companion animals improve health, provide social support and enhance the quality of life for older people in different settings – those living in the community as well as those in social housing and residential care homes – and in different ways. The book addresses a wide range of key issues, from animal assisted therapy programmes, to the challenges faced by older pet owners moving into sheltered housing, to the impact of pet loss for older people. The book also contains some very useful guidelines on pet policy for housing providers and staff working in institutions.

Drawing on recent research findings, this publication provides current information on key research studies and, importantly, reviews the significance of these findings for older people. Written in an accessible style, the book highlights good practice and offers useful pointers for the practical applications of research to support older people in health and social care settings.

Society for Companion Animal Studies (SCAS)

The Blue Cross, Shilton Road, Burford, Oxon OX18 4PF, UK

www.scas.org.uk

info@scas.org.uk

FROM: Philip Tedeschi and Jennifer Fitchett, University of Denver Graduate School of Social Work

Contact Information: Jennifer is attending the conference; contacts are (303) 931-5298,

jfitchet@du.edu. For Phil, (303) 886-4424, ptedesch@du.edu.

University of Denver Graduate School of Social Work Offers NEW Online Certificate in Animals and Human Health

- Animals play a critical role in helping people live healthy lives. Animal-assisted therapy, activities and learning demonstrate how the human-animal bond can bring about deep and lasting social, emotional, cognitive, physical, spiritual and psychological changes. As the only one of its kind in the United States, this unique online certificate program allows professionals and lay practitioners to become a part of this cutting edge field. Students may earn the full certificate by taking online the Core Course and three electives, as well as the final Capstone Session which is held on the DU campus. Students who do not wish to earn the certificate may also take individual courses as desired. The cost of individual courses is \$475 each. The full certificate is \$2,200 (a savings of \$175.) See contacts for more details.

From Sherril M. Stone, Ph.D,

Director, Division of Research, Department of Family Medicine, 1111 West 17th Tulsa, OK 74107, 918-561-8289

I had an article published last month in *Strides* 10(4), 36-39. Also, I have 4 articles coming out in late 2005 in *The Encyclopedia of Human Behavior*. The articles address human-animal issues.

From: Kasey Grier

University of South Carolina

kgrier00@gwm.sc.edu

Kasey Grier is the guest curator for the exhibition *Pets in America: The Story of Our Lives with Animals at Home*. It will open at McKissick Museum, University of South Carolina, in December 2005 and will travel to five venues around the U.S. The exhibition is accompanied by a website that will be up by November 2005 (www.petsinamerica.org). For more information on the exhibition, please contact Nathan Stalvey, Curator of Travelling Exhibitions, at McKissick Museum at 803-777-7801 or stalvey2@gwm.sc.edu.

Kasey's book *Pets in America: A History* will be published by the University of North Carolina Press in December 2005.

From: Kathy Gerbasi, Niagara County Community College

kcgerbasiphd@earthlink.net

New On-line Course PSY 180: The Psychology of Human-Animal Relations is a new online course in the SLN(State University of New York Learning Network). It is a 3 credit undergraduate course and may be taken by students anywhere in the world. It is approved by SUNY as a basic social science course.

Call for papers

Concentric: Literary and Cultural Studies

Concentric: Literary and Cultural Studies 32.1, scheduled to come out in January 2006, is inviting submissions. The special topic of this issue is "Animals." We encourage contributions from both Taiwan and the international community addressing the widest possible implications of this topic from any perspective that is of interest to current literary and cultural studies. In addition to the special topic submissions, articles on other aspects of literature and culture are also welcome. The deadline for submissions to Concentric 32.1 is August 31, 2005. All correspondence should be addressed to Concentric Editor, Department of English, National Taiwan Normal University, 162 Heping East Road, Section 1, Taipei 106, Taiwan, R.O.C. [e-mail: concentric.lit@deps.ntnu.edu.tw] or you may contact: Iping Liang at lip@cc.ntnu.edu.tw
Associate Professor