

# ISAZ Conference Abstracts

## Human-Animal Interaction: Impacting Multiple Species



October 20-25, 2009

Kansas City, MO USA

International Society for Anthrozoology (ISAZ)

18th Annual Conference

Oct. 20-23, 2009



Research Center for Human-Animal Interaction(ReCHAI)

1st Human Animal Interaction Conference

Oct. 22-25, 2009



University of Missouri  
[www.missouri.edu](http://www.missouri.edu)



| <b>Invited Sessions</b>  |   |                            |
|--|---|----------------------------|
|  |   |                            |
| <b>Keynote Sessions</b>  |   |                            |
|  |   |                            |
| <b>ISAZ Keynote Tuesday, October 20, 2009 6:00pm - 7:30pm</b>          |   |                            |
| Keynote-1  | Shared Feelings: Neuropsychological Interfaces Between Animal and Human Emotions  | Dr. Jaak Panksepp          |
|  |   |                            |
| <b>HAI Keynote Thursday, October 22, 2009 6:00pm - 7:00pm</b>          |   |                            |
| Keynote-2  | Bringing it All Together to Benefit All: An International Perspective on HAI Education, Especially in the Health/Human Services Sector    | Dr. Dennis Turner          |
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| <b>Plenary Sessions</b>  |   |                            |
|  |   |                            |
| <b>ISAZ Plenary Thursday, October 22, 2009 8:30am - 9:30am</b>         |   |                            |
| Plenary-1  | Wild Justice, Cooperation, and Fairness: What Humans Can Learn from Animal Play   | Dr. Marc Bekoff            |
|  |   |                            |
| <b>HAI Plenary Saturday, October 24, 2009 8:30am - 9:30am</b>          |   |                            |
| Plenary-2  | A Tale of Two Species: The Human Animal Bond  | Dr. Alan Beck              |
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| <b>NICHD and MARS/WALTHAM Special Symposium</b>                        |   |                            |
|  |   |                            |
| <b>NIH Symposium Friday, October 23, 2009 8:30am - 1:30pm</b>          |   |                            |
| NIH-1  | Introduction to Dog Walking and Physical Activity   | Ms. Jacqueline Epping      |
| NIH-2  | Epidemiology of Dog Walking for Fitness and Health  | Dr. Adrian Bauman          |
| NIH-3  | Innovative Physical Activity Programs and Obesity in Children   | Dr. Audwin Fletcher        |
| NIH-4  | Dog Walking as Physical Activity for Older Adults   | Dr. Roland Thorpe          |
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| <b>Special Presentation</b>  |   |                            |
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| <b>Special Presentation Saturday, October 24, 2009 8:30pm - 9:30pm</b> |   |                            |
| Special Presentation   | "The Power of Love: The Science and the Soul Behind that Affection- Connection we call The Bond"  | Dr. Marty Becker           |
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| <b>Workshop</b>  |   |                            |
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| <b>Workshop Sunday, October 25, 2009 8:30am - 9:30am</b>               |   |                            |
| Workshop-1   | "Maintaining the Disabled Person-Assistance Dog Team through Behavioral Intervention: A Case Study Approach" Presented by Ms. Cara Miller | Dr. Ed and Mrs. Toni Eames |

ISAZ Keynote Address  
Tuesday, October 20, 2009  
6:00pm - 7:30pm  
Dr. Jaak Panksepp

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## **SHARED FEELINGS: NEUROPSYCHOLOGICAL INTERFACES BETWEEN ANIMAL AND HUMAN EMOTIONS**

A variety of genetically based basic emotional systems in the brain allow newborn mammals to begin navigating the complexities of the world and to learn about the values and contingencies of the environment. Some of these systems have been identified and characterized. The fundamental emotional systems can now be defined by the behavioral and psychobiological characteristics of the underlying circuitries--characteristics that help coordinate behavioral, physiological and psychological aspects of emotionality, including the valenced affective feeling states that provide fundamental values for the guidance of behavior. Converging lines of evidence suggest that emotional feelings emerge from the interaction of these systems with a fundamental process of neuro-visceral self-representation that is concentrated in the medial strata of the brain (including anterior-cingulate and frontal cortices which are richly connected to various median diencephalic and mesencephalic structures), all of which control "resting states" and self-representation as monitored with fMRI. Our working hypothesis is that emotional motor-action coordinates may generate a variety of subjectively experienced feeling states that help energize and guide cognitive activities. In short, there are no mind-brain dichotomies in nature: Feelings emerge from specific types of subcortical neural system, providing a modern conceptualization of how the brain mediates raw (primary-process) emotionality. Affective feelings provide a solid neurological foundation for higher levels of consciousness as well as novel endophenotypic concepts for a future treatment of emotional problems in animals as well as humans.

HAI Keynote Address  
Thursday, October 22, 2009  
6:00pm - 7:00pm  
Dr. Dennis Turner

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**BRINGING IT ALL TOGETHER TO BENEFIT ALL: AN INTERNATIONAL PERSPECTIVE ON HAI EDUCATION, ESPECIALLY IN THE HEALTH/HUMAN SERVICES SECTOR**

Experts from many disciplines are, and *must be*, contributors to the field of HAI as well as in education/training programs in the health/human services sector. A quick look at the commonly used abbreviation, HAI, makes this quite clear: H – human, A – animal, I – interactions *or* interventions. From the human viewpoint, we can expect contributions from: cultural anthropologists, sociologists, historians, psychologists, medical doctors, public health experts, therapists from various branches, and even market researchers. From the animal side, we expect involvement of: veterinarians, zoologists – especially behavioral biologists, animal welfare experts and the like. ‘Interactions’ implies that we are examining a “two-party” system, i.e., both from the human and the animal side of the relationship, while ‘interventions’ involve both practitioners and researchers of outcome assessment/evaluation.

The fact that the field of HAI is multi-disciplinary is both its strength and its weakness. Contributors must keep abreast of the developments in their own, as well as all other disciplines resulting in a more ‘holistic’ view of the field (and the relationship), which in turn affects the goals set, the protocols followed, and the interpretation and application of the results secured. But for credibility’s sake, they must also publish their findings according to the standards of both their own, as well as those of other disciplines. Examples of such widely accepted studies from the various disciplines will be mentioned. International organizations in the HAI field, especially IAHAIO ([www.iahaio.org](http://www.iahaio.org)), ISAZ ([www.isaz.net](http://www.isaz.net)) and ISAAT ([www.aat-isaat.org](http://www.aat-isaat.org)) have always attempted to be inclusive (rather than exclusive) at least topic-wise, while still promoting an ever higher standard of research, practice, and education/training in the field. This will be illustrated by several of their policy documents, decisions, and standards. Additionally, North American colleagues will hopefully find the latest efforts at international co-operation on animal-assisted interventions across Europe just as inspiring as we in Europe have found the recent results of US National Institutes of Health efforts in the HAI field.

We’ve come a long way since the early days of anecdotal observations of what animals might mean for our health and well-being; we still have a way to go, but the path is set and the future is bright and promising for all parties involved – the people, the animals and the programs.

**WILD JUSTICE, COOPERATION, & FAIRNESS: WHAT HUMANS CAN LEARN FROM ANIMAL PLAY**

In this talk I will discuss material that is related to the evolution of animal emotions and moral intelligence ('wild justice'). I will take a strong comparative perspective and concentrate on how important it is to know the details about what animals do in specific social circumstances, especially when they play. We can learn a lot from studying animals about the evolution of cooperation, empathy, compassion, and justice in humans.

HAI Plenary Address  
Saturday, October 24, 2009  
8:30am - 9:30am  
Dr. Alan Beck

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**DOMESTICATION: A TALE OF TWO SPECIES: THE HUMAN-ANIMAL BOND**

Domestication is a tale of two species evolving together—humans and dogs. The selection process created animals that served as guardians, sentinels and even food, but also animals whose appearance naturally encouraged caring; domestication is a naturally occurring event which created dogs to be the companions of their creators.

## **PROMOTING PHYSICAL ACTIVITY AND HEALTH THROUGH DOG WALKING**

Lack of regular physical activity and increasing rates of obesity are significant health problems for both humans and dogs. There is a need to identify practical, accessible and effective strategies to increase physical activity at the population level that can be widely disseminated. Walking as a strategy to increase physical activity is of considerable interest to both researchers and practitioners, as walking is generally accessible to a large proportion of the population, and has been identified as a preferred form of physical activity among adults. Dog walking, due to several important characteristics, may help a wide range of individuals initiate and maintain regular physical activity, and contribute to weight loss and improved health in both humans and canines. Dog walking, for example, may provide social support, motivation and a sense of purpose for many individuals to walk.

**EPIDEMIOLOGY OF DOG WALKING FOR FITNESS AND HEALTH [HUMAN AND CANINE PERSPECTIVES]**

Increasing physical activity and preventing obesity is important to human health and well being, as well as to canine health. Despite several decades of epidemiological evidence of the health benefits of being physically active, policy makers in public health have found it challenging to increase human population levels of physical activity. Declines in total energy expenditure have occurred due to reductions in physically active time at work, around the home, during recreation and leisure time and through increasingly sedentary modes of travel and transport. In this context, efforts to utilize existing resources, local environments and facilities are possible solution to inactive lifestyles. An omnipresent opportunity for increasing “active living” is presented through the data on low rates of dog walking among dog owners (and the potential for increases). Dog ownership rates are high, but remain an under utilized resource, as around 40% of households have a dog, but between 40-60% of these dogs were not walked in the past week by anyone in the household. The potential gain (improvement) in human health through dog walking can be quantified, if dog walking contributed to humans reaching the health enhancing physical activity threshold of 30 minutes on most days of the week. There is also the potential for health benefits to the dogs themselves, in terms of obesity reduction and chronic disease prevention. Very little longitudinal data or intervention (experimental trial) data are available to provide better causal evidence of the specific benefits of dog walking in populations and communities, indicating major research gaps in the evidence base in this area.

## **INNOVATIVE PHYSICAL ACTIVITY PROGRAMS AND OBESITY IN CHILDREN**

**Design:** The proposed project is to develop a “Kids for Healthy Eating and Exercising” (KHEE) club model in the North Midtown area of Jackson, MS. The purpose of this project is to develop the first weight control program and model specifically designed for African-American (AA) children in the North Midtown area of the city of Jackson.

**Methods:** The KHEE Club will consist of a ten-month daily or weekly pilot program. The program will convene during the regular school semesters (Fall, August through December; Spring, January through May) from 3:00 pm – 5:00 pm. Enrollment and size of the groups are tentative, but 20 children per year is the estimated sample size. The conceptual model is based on a three-level approach to preventing and/or treating childhood obesity. Level 1 consists of baseline BMI screening of all children in the 39212 zip code between the ages of 10 – 19. Level II consists of initiating early interventions for children with BMI >25 but <30. Early interventions would consist of creating services and supports that address risk factors of obesity. Level III consists of coordinated, comprehensive, intensive, and sustained child-and family-focused services and supports.

**Concept:** The literature is replete with articles that support the effectiveness exercise and diet in weight reduction. However there is little evidence to suggest that integrating these regimes with parental input may increase the success of the weight loss program. The number of overweight and obese children in the Midtown area of Jackson is staggering. According to recent statistics more than 25% of Mississippians are overweight therefore it is imperative to implement comprehensive programs that integrate proper nutrition and exercise as a fun- and family-affair.

**Research Question:** What is the relationship between nutritional counseling and exercise in weight reduction for African American youth?

**Site/Population:** The KHEE Klub will recruit participants from an inner-city African American Community in Jackson, Mississippi. This four mile square area has a total of 4,865 households with 25% of families’ income falling below the poverty level. Health issues are characterized by high rates of hypertension, stroke, asthma, diabetes, and obesity.

NIH Special Symposium  
Friday, October 23, 2009  
12:30pm - 1:30pm  
Dr. Roland Thorpe

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## **DOG WALKING AS PHYSICAL ACTIVITY FOR OLDER ADULTS**

Although previous studies have suggested that pet ownership is associated with improved health among older adults, the basis for the association is unclear. Some investigators have suggested that an association between pet ownership and improved health is specifically related to increased physical activity that results from owning a pet. This presentation will focus on the relationship between dog walking and physical activity among older adults and how this affects health hypertension and walking speed.

Special Presentation  
Saturday, October 24, 2009  
8:30pm - 9:30pm  
Dr. Marty Becker

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**THE POWER OF LOVE: THE SCIENCE AND SOUL BEHIND THAT AFFECTION-  
CONNECTION WE CALL THE BOND**

Modern medicine is now discovering the amazing power of pets to detect, treat and cure a host of diseases and conditions. In the past we may have experienced, witnessed or intuited this to be true, but increasingly scientists are painting in the numbers of how this works and health care professionals are harnessing the amazing ability of pets to make and keep people happy and healthy.

**MAINTAINING THE DISABLED PERSON/ASSISTANCE DOG TEAM THROUGH BEHAVIORAL INTERVENTIONS: A CASE STUDY APPROACH. PRESENTED BY MS. CARA MILLER, DOCTORAL STUDENT, CLINICAL PSYCHOLOGY, GALLAUDET UNIVERSITY**

Initially, the work performed by guide, hearing and service dogs will be discussed. The 2008 version of our 12-minute video, Partners in Independence, illustrating a variety of dogs doing a variety of tasks, in DVD format will be shown.

Four case studies will focus on behavioral interventions which restored dogs to their working status. Maintaining the partnership is an essential goal where possible since extensive training has been invested in the canine assistant, and the relationship between disabled person and assistant dog is a symbiotic one.

Case Study 1. A six-year-old Golden Retriever guide dog diagnosed with bone cancer of the front left leg has undergone amputation followed by chemotherapy. His hips have been x-rayed to insure good hips. He seems anxious to resume his career as guide, but shows hesitation in performing his guide role. What behavioral interventions would you suggest?

Case Study 2. A nine-year-old Golden Retriever guide dog has suddenly begun showing stress and anxiety in situations where he had previously shown no concerns. He seemed incapable at times of decision-making. He was thoroughly checked for medical conditions and was found to be in good health. The blind partner did not want to retire this dog, despite his inconsistent guiding ability. What interventions would you suggest?

Case Study 3. A five-year-old Labrador Retriever service dog shows extreme stress when riding Greyhound buses. He does not show fear in riding city buses, trains, or planes, or under any other working conditions. Since the disabled partner frequently travels by Greyhound for work, what interventions would you recommend to eliminate the dog's fear?

Case study 4. An elderly hard-of-hearing man living alone is partnered with a five-year-old Labrador Retriever hearing dog. Because he has few visitors to his home, the dog has lost her willingness to alert to the doorbell. What interventions can you suggest to restore the doorbell alert task?

# ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009

10:00am - 12:00pm

Moderator: Ms. Amanda Taylor

|             |   |                              |
|-------------|---|------------------------------|
| Podium<br>1 | Pet Attachment Support and Older Adult Health: Impacting Professional Practice  | Dr. Cheryl A. Krause-Parello |
| Podium<br>2 | Canine Catalysts: Public Perceptions of Four Dog Breeds and the Ability of Dogs to Act as a Social Bridge Between Strangers | Ms. Alicia E. N. Glasier     |
| Podium<br>3 | Human-Animal Connections: Graduate Training at the University of Denver Graduate School of Social Work                      | Dr. Frank R. Ascione         |
| Podium<br>4 | Looking After Chronically Ill Dogs: The Carer's Quality of Life   | Ms. Stine B. Christiansen    |
| Podium<br>5 | Owner Autonomy and Shared Responsibility for the Decision to Euthanize a Companion Animal                                   | Ms. Stine B. Christiansen    |
| Podium<br>6 | Companion Animals in Obituaries: The "Hairy Heirs"  | Dr. Cindy C. Wilson          |

**Podium-1**  
**ISAZ Podium Presentation Session #1**  
**Wednesday, October 21, 2009 10:00am - 12:00pm**

**PET ATTACHMENT SUPPORT AND OLDER ADULT HEALTH: IMPACTING PROFESSIONAL PRACTICE**

**Authors:** C Krause-Parello, Kean University

**Presenter:** Dr. Cheryl Krause-Parello

**Introduction:** The enhancement of health is a fundamental focus in healthcare practice and researchers have an obligation to investigate the mechanisms that are associated with health so that through the evolution of this knowledge, evidence-based interventions can ultimately be designed and implemented. The utilization of pets as a supportive and coping resource is promising in the reduction of loneliness and the promotion of health in older adults.

**Methods:** The purpose of this descriptive study was to examine the relationship between loneliness and health, as well as examine the effect of pet attachment support which theoretically mediates this relationship in a sample of 159 community-residing older females. The stress, coping, and adaptation theory posited by Lazarus and Folkman (1984) was the overall conceptual framework for this study. The rights of human subjects were protected by obtaining approval from the Institutional Review Board of Rutgers University prior to data collection. Upon obtaining a signed, informed consent from each participant, the investigator gave participants an instrument packet to be completed at that time. The instrument packet included a general health scale, loneliness scale, and a pet attachment scale. Data were analyzed using Pearson product-moment correlation and regression analyses. Two-tailed tests were used to determine the level of significance at the 0.005 level.

**Results:** The result from this study support that pet attachment, as a form of social support, has a significant mediating effect on the relationship between loneliness and health in this sample of older females. The finding of this study suggests important health benefits for older adults cohabiting and caring for a companion animal.

**Conclusions:** Since attachment relationships can be found in many different forms, such as with a pet, healthcare professionals have an obligation to assess these relationships and utilize them to enhance older adults' health. Implications for healthcare practice and public policy are discussed.

## Podium-2

### ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009 10:00am - 12:00pm

#### **CANINE CATALYSTS: PUBLIC PERCEPTIONS OF FOUR DOG BREEDS AND THE ABILITY OF DOGS TO ACT AS A SOCIAL BRIDGE BETWEEN STRANGERS.**

**Authors:** A Glasier, University of Alberta; G Fasenko, University of Alberta; L Glasier, Northern Alberta Institute of Technology; E Goddard, University of Alberta

**Presenter:** Ms. Alicia Glasier

**Introduction:** Previous studies have determined that dogs promote positive interactions between people, but there is a dearth of data regarding the potential of different breeds to act as social lubricants.

**Methods:** Using a structured interview, the reactions of 295 participants to pictures of four dog breeds (Doberman Pinscher (D), Miniature Pinscher (MP), Bernese Mountain Dog (BMD), and King Charles Cavalier Spaniel (KCCS)) were examined. The breeds were chosen to match coat colour (black with tan markings), coat type (short vs. long) and similar body conformation between pairs. Demographic information was gathered from participants within an urban Canadian climate in order to understand how the social characteristics of people might influence their perception of the canine catalyst. Participant's recognition and attitudes towards each of the four breeds were compared along with the demographic information collected. People were asked whether they had positive, neutral or negative feelings towards the four different breeds.

**Results:** The BMD had the highest positive reaction (85%), compared to the KCCS (68%), D (40%) and MP (39%). The D and the MP had the most negative responses (29% and 26%, respectively) with few participants having negative feelings towards the KCCS (4%) or the BMD (3%). People who were able to name all four dog breeds had more positive feelings towards all four breeds, compared to people who did not know any of the breeds. Eighty-two percent of all participants said they were more likely to talk to a stranger with, than without a dog, and 66% said they trusted strangers with a dog more than they would trust strangers who were alone. People who have dogs in their household were more likely to talk to strangers accompanied by a dog, than people who did not have dogs (88% vs. 78%, respectively). Dog owners were 16% more likely to trust a stranger with a dog than people who do not have dogs.

**Conclusions:** These results show that the presence of a dog increases the likelihood of social interaction between strangers. The data also indicate that social stigmas may influence the ability of certain breeds to act as social catalysts; however improving the public's knowledge of dog breeds may positively increase people's perception of dogs.

### Podium-3

#### ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009 10:00am - 12:00pm

### HUMAN-ANIMAL CONNECTIONS: GRADUATE TRAINING AT THE UNIVERSITY OF DENVER GRADUATE SCHOOL OF SOCIAL WORK

**Authors:** F Ascione, University of Denver Graduate School of Social Work; P Tedeschi, University of Denver Graduate School of Social Work; K Trujillo, University of Denver Graduate School of Social Work

**Presenter:** Dr. Frank Ascione

**Introduction:** Interest in human-animal connections creates a need for competent clinicians with backgrounds in animal-assisted therapy and interventions as well as cadres of doctoral students studying the interactions between the lives of people and animals at all stages of human development. We describe the unique educational context at the University of Denver Graduate School of Social work in which students receive multidisciplinary training in animal-assisted educational and therapeutic practices and in research on human-animal connections. An online certificate program is also described.

**Methods:** We describe a) the curriculum components of this graduate training program, including courses in Animal-Assisted Social Work Applications and Integration of Animals in Therapeutic Settings, b) extensive, diverse internship and field-based experiences available to students. Developments in doctoral-level training are based on mentoring and community-of-scholars approaches to the development of theory and research.

**Results:** Annually, approximately 30 students complete the MSW program. Since the first offering of the course, Integration of Animals in Therapeutic Settings, in 1999, 120 students have completed Animal-Assisted Social Work Certificates. Three students are actively pursuing doctoral degrees and we describe one student's exemplary dissertation research. A brief description of online certificate projects is provided illustrating animal connections to human welfare.

**Conclusions:** We consider our program vibrant and innovative. We are committed to evidence-based practice standards in animal-assisted social work and to the highest ethical standards when animals are involved in therapeutic and educational programs. We are also pleased to contribute to the development of future generations of scholars who will focus their professional careers on the exploration of human-animal connections. We close with a description of the application process and the various forms of support offered by the University of Denver Graduate School of Social Work.

## Podium-4

### ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009 10:00am - 12:00pm

#### LOOKING AFTER CHRONICALLY ILL DOGS: THE CARER'S QUALITY OF LIFE

**Authors:** S Christiansen, University of Copenhagen, Bioethics; A Kristensen, University of Copenhagen, Small Animal Clinical Sciences; P Sandøe, University of Copenhagen, Bioethics; J Lassen, University of Copenhagen, Human Nutrition

**Presenter:** Ms. Stine Christiansen

**Introduction:** Studies in human medicine show that care of chronically ill family members can affect the carer's life, and that support from medical staff is important. Companion animals are offered increasingly advanced veterinary treatments; and since the bond between owners choosing such treatments and their animals may be strong, such owners could face similar challenges when caring for their animals. This study uncovers the physical and mental impacts, and hence the changes in an owner's quality of life (QoL), attending care of a chronically ill dog, including the importance of support from veterinary staff.

**Methods:** 12 dog owners were selected for in-depth interviews based on the dogs' diagnoses and the choice of treatment. A vital recruitment criterion was engagement in treatments and care that could be expected to affect owner QoL. Interviews were recorded, transcribed and analyzed qualitatively.

**Results:** The dog owners reported several impacts on QoL due to their dog's condition:

Practicalities and restrictions, like extra care, changes in use of the home, and restrictions relating to work, social life and finances. These were annoying but could often be dealt with through planning and prioritizing.

Expectations and disappointments, including changes in the owner-animal relation and activities. This caused sadness and frustration, which in turn led to feelings of guilt.

Uncertainties and worries, mainly about progress of the dog's condition, dog welfare and euthanasia. Such concerns brought emotional distress and many doubts.

Owners appreciated several kinds of support from veterinary staff, including information about proper care, medication techniques and what to expect and monitor in the dog. The creation of a trusting and welcoming atmosphere for both owners and animals was emphasized. Some owners wanted stronger involvement from veterinarians in decisions about euthanasia.

**Conclusions:** The care of a chronically ill dog affected owner QoL significantly both physically and mentally. Information and empathy from veterinary staff was important in owner QoL. Veterinary staff should inform owners about possible impacts on owner QoL and be aware of the need for support during treatment and in decisions about euthanasia.

## Podium-5

### ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009 10:00am - 12:00pm

## OWNER AUTONOMY AND SHARED RESPONSIBILITY FOR THE DECISION TO EUTHANIZE A COMPANION ANIMAL

**Authors:** S Christiansen, University of Copenhagen, Bioethics; A Kristensen, University of Copenhagen, Small Animal Clinical Sciences; J Lassen, University of Copenhagen, Human Nutrition; P Sandøe, University of Copenhagen, Bioethics

**Presenter:** Ms. Stine Christiansen

**Introduction:** The veterinarian's role in decisions to euthanize companion animals is receiving increasing attention. Should veterinarians encourage owner autonomy by providing information on the options and leaving owners to reach decisions? A hands-off approach may respect owner values and protect veterinarians from later blame. But an owner in doubt may want the veterinarian to take an active role. Is shared responsibility at the owner's request ethically acceptable and compatible with owner autonomy? This study identifies decisive factors and problem areas for animal owners considering euthanasia of their chronically ill or aged dog, and owner experiences of veterinary influence. Then, the role of veterinarians when owners seek advice on euthanasia is discussed.

**Methods:** 12 dog owners were selected for in-depth interviews based on the dogs' diagnoses and treatment choices. The interview guide encouraged considerations relating to euthanasia and the role of veterinarians. Interviews were recorded, transcribed and analyzed qualitatively.

**Results:** Some conditions (e.g. animal suffering or owner fatigue) warranted euthanasia. Others left owners hesitant and uncertain about the dog's welfare, how to weigh the concerns involved, and the burden of taking a life. Some owners recognized veterinary influence on decisions. Although owners accepted that the decision was ultimately theirs, some required help from the veterinarian and eventually took the veterinarian's advice.

From an ethical perspective, owners following veterinary advice and welcoming the veterinarian's active involvement can be seen to set up a dilemma, for the veterinarian, between concern for owner autonomy and concern for the owner's peace of mind. It can also be asked whether the owner may autonomously delegate part of the decision to the veterinarian.

**Conclusions:** Although some factors can ease the decision to euthanize, owners may face complex issues and seek guidance from veterinarians. The veterinarian's influence on decisions may be strong even when he or she attempts to remain neutral. Thus there is need for veterinarians to discuss their role in relation to owner autonomy.

## Podium-6

### ISAZ Podium Presentation Session #1

Wednesday, October 21, 2009 10:00am - 12:00pm

#### COMPANION ANIMAL IN OBITUARIES: THE “HAIRY HEIRS”

**Authors:** C. Wilson, Uniformed Services University of the Health Sciences; F. Netting, Virginia Commonwealth University; D. Turner, Institute for Ethology and Animal Psychology; C. Roth, Uniformed Services University of the Health Sciences; C. Olsen, Uniformed Services University of the Health Sciences

**Presenter:** Dr. Cindy Wilson

**Introduction:** Research exist that addresses the role(s) of a companion animal (CA) in families as well as the grief experience in response to the anticipated or actual loss of a (CA). Families report similar experiences of loss following the death of an animal and compare it to the loss of a human relative. Questions remain whether a CA becomes an extension of the companion person and/or the other surviving family members. This paper describes a bi-national, exploratory, pilot content analysis of CA-related content in obituaries written by survivors or authored by the deceased and the follow-up project defined by this initial research.

**Methods:** A sample of all obituaries (N= 14,720) from 3 major city newspapers (The Washington Post (WP; n=8634), Richmond Dispatch (RD; n=5402), and Daily News - Zurich (Switzerland) (Z; n=684) between 10/08 and 4/09 was reviewed for CA related content (i.e., mentioned a CA survivor and/or suggested donation to an animal related agency in lieu of flowers). Demographic data were collected when available and included gender, age, ethnicity, whether a pet was listed as a survivor, pet-related agency of donation, and obituaries that met both survivor and agency criteria.

**Results:** Of the 14,720 obituaries, 179 (1.22%) listed a pet survivor [Criteria #1]; 131 (0.89%) donated to pet-related agency or society [Criteria #2]; and 35 (0.24%) met both criteria. Both the WP and RD included equal numbers of males and females meeting #1 or #2. The only person from Zurich newspaper listing #1 and #2 whose gender could be determined was male. Pets listed as survivors were primarily dogs in the US (WP = 72.7%; RD = 39.02%) but cats in Zurich (Z=100%). Pet survivors were listed by name in 76.36% obituaries in WP; 52.84% in the RD and 100% in the Zurich paper. Donations to pet-related agencies occurred in all three papers (WP = 0.93%; RD = 0.67%; and 15 % in the Zurich paper and ranged from humane societies to breed specific rescue organizations and generic animal support groups

**Conclusions:** CA's are beloved survivors as seen by survivors or listed by the deceased. Including the CA in the obituary extends the fabric of the family system and may represent a symbolic manifestation that a part of the deceased remains with the family.

# ISAZ Moderated Poster Presentation Session #1

Wednesday, October 21, 2009

12:00pm - 2:00pm

Discussion Moderator: Ms. Brenda Bax

|          |  |  |
|----------|--|--|
| Poster 1 | Correlates of Pet-Keeping in Residence Halls on College Student Adjustment at a Small, Private, Midwestern College | Dr. Sharon E. Kist                     |
| Poster 2 | The Challenges of Researching and Implementing the Animal-Buddy Program in Rotterdam, the Netherlands              | Dr. Marie-José Enders-Slegers          |
| Poster 3 | Children's Perceptions of a Dog's Friendliness Based on Physical Characteristics                                   | Dr. Sandra Lookabaugh<br>Triebenbacher |
| Poster 4 | Loneliness and the Human-Animal Bond: A Relationship to Social Support   | Ms. Marcia E Braun                     |

**Poster-1**  
**ISAZ Poster Presentation Session #1**  
**Wednesday, October 21, 2009 12:00pm - 2:00 pm**

**CORRELATES OF PET-KEEPING IN RESIDENCE HALLS ON COLLEGE STUDENT  
ADJUSTMENT AT A SMALL, PRIVATE, MIDWESTERN COLLEGE**

**Authors:** S Kist, Southern Arkansas University-Magnolia; R Johnson, University of Missouri-Columbia

**Presenter:** Dr. Sharon E. Kist

**Introduction:** A limited number of colleges and universities permit pets other than in small aquaria in residence halls. No published research articles could be found related to the impact of students keeping pets in residence halls on adjustment to college.

**Methods:** A matched two-group comparison of college students (N = 50, 25 matched pairs) compared pet owners with non-pet owners on adjustment to college and grade point average (GPA). Participants completed the following instruments: Student Adjustment to College Questionnaire (SACQ), State-Trait Anxiety Inventory (STAI), Relationship Questionnaire (RQ), Lexington Attachment to Pets Scale (LAPS), and Demographic Questionnaire.

**Results:** The two groups were similar on nearly all demographic characteristics. No statistically significant differences were found on either adjustment to college, anxiety, or GPA. Statistically significant between-group differences were found on LAPS scores and patterns of attachment tendency. Participants with pets in residence halls were significantly more attached to their pets than those without pets in residence hall, even though a nearly equal number of participants had kept pets while growing up. Pet owners primarily demonstrated a secure attachment tendency, while non-pet owners primarily demonstrated a dismissing attachment tendency. Participants with pets in the residence hall demonstrated a pattern of attachment tendency more like the pattern of attachment tendencies of the general population, than those without pets in residence halls.

**Conclusions:** The findings suggest that pet keeping is not detrimental and that those students keeping pets are more attached to their pets than those without pets in the residence hall. Differences between pet owners and non-pet owners on patterns of attachment tendencies may be present. Further study related to the effects of pet keeping in residence halls and attachment tendencies is indicated.

**Poster-2**

**ISAZ Poster Presentation Session #1**

**Wednesday, October 21, 2009 12:00pm - 2:00pm**

**THE CHALLENGES OF RESEARCHING AND IMPLEMENTING THE ANIMAL-BUDDY PROGRAM IN ROTTERDAM, THE NETHERLANDS**

**Authors:** M. Enders-Slegers, University of Utrecht

**Presenter:** Dr. Marie-José Enders-Slegers

**Introduction:** Over the last decades, many empirical studies have documented beneficial effects of companion animals on the wellbeing of vulnerable populations. The implementation of AAI programs for those groups however, experiences many difficulties. Our observation is also, that researching the effects of AAI within those groups meets many methodological problems. This contribution is meant to share experiences with the implementation of and the research into the effects, of an AAI program in a psychiatric nursing home.

**Methods:** The implementation of the AAI program: writing and funding process, introduction to residents and staff, education of volunteers and animals, start interventions, evaluation processes. The research: an observational study with pre- and posttest, mixed methods. The qualitative data: observations and interviews during 8 weeks, the quantitative data are collected with the Care Dependency Scale, the GIP (behavior scale), Loneliness scale, Depression scale, Social Network scale. The number of participants: 48

Animals: fish tanks 4; birds 11; cats 2; rabbits 2; guinea pig 1; dogs staff 2; hens 2 (outside)  
Visiting dogs 2.

**Results:** Challenges implementation: lack of interest and support of staff, merge of the institution, change of managers, cultural issues, and ethical issues.

Challenges research: diversity in the (development of) the pathologies; small numbers, frailty of the participants, influence of medication, hospitalization, department characteristics, attitudes of staff towards patients and program, animal handler characteristics.

No statistical significant results at T2 were found within and between the groups as for loneliness, depression, and care dependency. A significant result was found for the growth of the network: 32% of the intervention group residents got more social contacts. The analysis of the observations and interviews reports enhancement of positive emotions, physical activities and feelings of self-worth.

**Conclusions:** The implementation of AAI programs needs a careful approach and good cooperation with the institution. Discussion point: qualitative research methods should be re-evaluated, since quantitative methods meet in this population too many pitfalls and may lack reliability and validity.

**Poster-3**  
**ISAZ Poster Presentation Session #1**  
**Wednesday, October 21, 2009 12:00pm - 2:00pm**

## **CHILDREN'S PERCEPTIONS OF A DOG'S FRIENDLINESS BASED ON PHYSICAL CHARACTERISTICS**

**Authors:** S Triebenbacher, East Carolina University; M Cauthen, East Carolina University

**Presenter:** Dr. Sandra Triebenbacher

**Introduction:** Numerous research studies have examined the benefits of pet ownership and the contributions of companion animals to children's development. Currently, dogs are the most common household pet in the U.S. However, when dogs and children are interacting in common areas (homes, yards, etc.), there is always a chance of a dog bite. Dog bites are common in young children and often come from a dog with whom the child is familiar. Previous researchers have not examined children's perceptions of a dog's friendliness based on physical attributes. Quite possibly children approach a dog because the animal "looks" friendly or looks like a familiar dog. They may misjudge a dog's temperament based on physical characteristics such as being small or having a curly tail. Thus, the purpose of this study was to explore children's perceptions of a dog's friendliness based on physical characteristics.

**Methods:** The sample included 140 children ages 4-8 years (pre-kindergarten through 3rd grade.) Children were individually interviewed and shown 14 pictures of dogs (7 pure breed and 7 mixed breed dogs.) Dogs in the pictures had varying: coat colors, lengths, and colors; ear styles; tail lengths and styles; and mouth positions. After each picture, the child was asked to rate the dog's friendliness along a 5-pt animated scale (adapted from the Wong Pain Scale.) After giving a rating, the child was asked to describe "why" they gave a specific rating.

**Results:** Preliminary results indicate:

- (1) developmental differences in ratings of "friendliness"
- (2) in general, children rate dogs that look similar to familiar dogs as more friendly
- (3) in general, children rate small dogs as friendly

**Poster-4**

**ISAZ Poster Presentation Session #1**

**Wednesday, October 21, 2009 12:00pm - 2:00pm**

**LONELINESS AND THE HUMAN-ANIMAL BOND: A RELATIONSHIP TO SOCIAL SUPPORT**

**Authors:** M Braun, University of Notre Dame; C Bergeman, University of Notre Dame

**Presenter:** Ms. Marcia E. Braun

**Introduction:** Pets are believed to play a role in reducing loneliness particularly for those lacking support from family and friends. Recent studies indicate having a pet doesn't necessarily reduce loneliness and may actually increase feelings of social isolation. In spite of these findings, many pet owners continue to state that pets provide support. This study considers how bonding with a pet may moderate the relationship between loneliness and social support from family or friends.

**Methods:** Participants include 225 older adults (60 % female), ages 61 to 79, and 44% own a pet. Participant questionnaires included: modified Pet Attachment Scale (Staats, Miller, Camot, Rada & Turnes, 1996), the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), and the Perceived Social Support from Family and Friends Scale (Procidano & Hiller, 1983).

**Results:** No differences were found between pet owners and non-pet owners. Two regression analyses were run using only those participants who own a pet: the first used family support as a predictor of loneliness, the second used friend support. A decrease in social support from both family and friends was related to increased loneliness, but no significant interaction was found between pet bonding and family support. In the analysis including friend support, women reported greater loneliness than did men. In addition, a significant interaction between level of pet bond and loneliness ( $p < .01$ ) was found, although directionality of this relationship will need to be determined using longitudinal data.

**Conclusions:** Although results suggest that having a bond with a pet affects perceptions of friend support, other explanations should be explored. This study demonstrates the complex role that pets play in the human-animal relationship, particularly as it relates to family and friend support and perceived loneliness. As pets continue to play an important role in people's lives, this relationship remains a worthwhile endeavor.

# ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009

2:15pm - 4:30pm

Moderator: Dr. Penny L. Bernstein

|              |   |                                |
|--------------|---|--------------------------------|
| Podium<br>7  | Influence of Human's Attentional Focus on the Response of Dogs: The Comparisons Between Guide Dog Candidates and Other Dogs   | Ms. Mariko Yamamoto            |
| Podium<br>8  | Pet Ownership, Depression and Survival in Community Individuals with a History of Myocardial Infarction   | Dr. Erika Friedmann            |
| Podium<br>9  | Dog-Assisted Group Training (MTI) with Drug Addicted Criminal Offenders: Evaluation of the Effects of AAT on Emotional Competencies and Emotional Status in Comparison to other Interventions | Dr. Birgit U. Stetina          |
| Podium<br>10 | A Window into the Veterinarian Mind   | Dr. Marie-France Boissonneault |
| Podium<br>11 | Gender, Culture, and Pet Care Attitudes and Practices   | Dr. R. Lee Zasloff             |

## Podium-7

### ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009 2:15pm - 4:30pm

## INFLUENCE OF HUMAN'S ATTENTIONAL FOCUS ON THE RESPONSE OF DOGS ~THE COMPARISONS BETWEEN GUIDE DOG CANDIDATES AND OTHER DOGS~

**Authors:** M Yamamoto, Azabu University Graduate School of Veterinary Science; N Ohtani, Azabu University; M Ohta, Azabu University

**Presenter:** Ms. Mariko Yamamoto

**Introduction:** It is reported that dogs can read human's attentional focus and change their responses to commands. Such dog's abilities are considered to be acquired through its domestication rather than the learning through the interactions with humans after the birth. In this study, we aimed to test if the abilities are affected by training. To conduct this research, we used guide dog candidates which were trained without depending on human's attentional focus and other dogs which were trained with normal human's attentional focus.

**Methods:** Fourteen guide dog candidates were used for experimental group and 6 service dog candidates, 2 search & rescue dogs and 6 pet dogs were used for control group.

All the dogs had been trained to "sit" and obeyed the command more than 80%. In the experiments, dogs were commanded to sit with the following postures of the experimenter: the eyes, head and body were directed to the dog (Control), body was directed to the dog, but eyes and head were turned away from the dog in a 90° angle toward a TV monitor (Condition 1; C1), eyes and head were directed to the dog, but body was turned away from the dog in a 90° angle to the right (C2), head and body were faced to the dog, but eyes were focusing on TV (C3), and head was turned to the dog, but eyes were focusing on TV and body was turned away from the dog in a 90° angle (C4). Each dog's responses to commands were recorded on video and the responses were compared within the situations. Friedman ANOVA and Wilcoxon signed-ranks test were used for the statistical analysis.

**Results:** The results showed that the overall comparison of the response scores in the five conditions resulted in highly significant differences ( $P < 0.01$ ). When the scores were compared to those in control condition, only when the head wasn't directed to dog (C1), the responses to command were significantly declined in both group ( $P < 0.05$ ).

**Conclusions:** The responses to command were declined when the human's head wasn't directed to a dog, suggesting that human's attentional focus on the dog influenced even the behavior of the guide dog candidates. Our result may support the hypothesis that the dog's ability has been acquired through its domestication, but not the training.

## Podium-8

### ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009 2:15pm - 4:30pm

## PET OWNERSHIP, DEPRESSION AND SURVIVAL IN COMMUNITY INDIVIDUALS WITH A HISTORY OF MYOCARDIAL INFARCTION

**Authors:** E Friedmann, University of Maryland School of Nursing; S Thomas, University of Maryland School of Nursing; H Lee, Greater Baltimore Medical Center; H Son, University of Maryland School of Nursing

**Presenter:** Dr. Erika Friedmann

**Introduction:** Pet ownership has been associated with one year survival in patients who have been hospitalized for ischemic heart disease. Depression is associated with one year and long term mortality in this population. The current study uses data from community members with a history of myocardial infarction (MI) to examine the independent contributions of depression and pet ownership to long term survival.

**Methods:** Community living individuals (N= 465; 14.6% women, 7.1% minority) with a history of myocardial infarction (MI) who were enrolled in the Home Automatic External Defibrillator Trial (HAT) at 30 sites in the US, Canada, Australia, and New Zealand completed demographic, health history and the Beck Depression Inventory – II (BDI-II) when they entered the study. Approximately half of the participants had MIs within one year prior to enrollment in the study. A total of 17 individuals died during a median follow-up of 2.8 years (range=.02 to 4.22 years). Cox proportional hazards regression analysis was used to examine the contributions of depression, pet ownership, and the interaction of these variables to survival. The skewed distribution of BDI-II scores was corrected with a square root transformation.

**Results:** At study entry, 25% of the participants were depressed and 57% owned pets (35% owned dogs, 32% cats). Average BDI-II scores did not differ according to pet ownership status. Both higher BDI-II (SQRT BDI-II HR=2.16, p=.009, 1 tailed) scores and lack of pet ownership (HR=13.82, p=.046, 1 tailed) were independent predictors of mortality after controlling for the interaction of pet ownership with depression, which was not significant.

**Conclusions:** The findings in this study are consistent with the established finding that higher depression is associated with mortality in individuals who have experienced MIs. Pet ownership was a significant independent predictor of survival beyond the effect of depression in this population. This study supports the long term contribution of pet ownership to better health in individuals with a history of MI. The mechanism for this effect has not been established. Other studies support the contribution of pets to healthier physical and emotional functioning.

## Podium-9

### ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009 2:15pm - 4:30pm

#### **DOG-ASSISTED GROUP TRAINING (MTI) WITH DRUG ADDICTED CRIMINAL OFFENDERS: EVALUATION OF THE EFFECTS OF AAT ON EMOTIONAL COMPETENCIES AND EMOTIONAL STATUS IN COMPARISON TO OTHER INTERVENTIONS**

**Authors:** B Stetina, University of Vienna, Institute for Clinical, Biological and Differential Psychology; B Gegenhuber, Penitentiary Vienna-Favoriten, Austria ; J McElheney, University of Vienna, Institute for Clinical, Biological and Differential Psychology; U Handlos, Special Education Center for Integrative Support, City School Board Vienna, Austria ; W Werdenich, Penitentiary Vienna-Favoriten, Austria ; I Kryspin-Exner, University of Vienna, Institute for Clinical, Biological and Differential Psychology

**Presenter:** Dr. Birgit U. Stetina

**Introduction:** The concept of emotional competencies can be defined as skills regarding recognition, understanding, regulation and the expression of emotions. As especially criminal offenders are known to have problems in these areas this study focused on the effects AAT can have on this specific population. Implementation of AAT is often refused, at least in Austria, due to the lack of knowledge about the effectiveness in comparison to other therapies. The goals of the present study were the comparison of MTI with other programs in prison and conclusions about the special outcome.

**Methods:** Within a treatment facility 61 male imprisoned drug offenders were examined regarding their emotional competencies and emotional status using a quasi-experimental pre-post design. One treatment group (n=36) participated in the dog-assisted training MTI. The second treatment group (n=13) took part in a work related rehabilitation program and the third group (n=12) solely received the basic treatment containing group therapy. Used instruments were SEE (Behr & Becker, 2004) for emotional competencies and EMI-B (Ullrich & Mynck, 2001) for emotional status. The hypotheses were tested using GLM with repeated measures. Effect sizes were calculated to gain further insight.

**Results:** All participants benefited from the different treatments. Additionally the participants of the dog-assisted training MTI even showed significantly higher improvements than the two other groups concerning some scales such as regulation of emotions ( $F(2,58)=4.907$ ,  $p=0.011$ ,  $\eta^2=0.145$ ), emotional self-control ( $F(2,58)=4.614$ ,  $p=0.014$ ,  $\eta^2=0.137$ ) and acceptance of emotions ( $F(2,58)=4.907$ ,  $p=0.011$ ,  $\eta^2=0.145$ ). Regarding the emotional status the effects of the dog-assisted training showed amongst other changes a significant decline of depressive ( $F(2,57)=10.267$ ,  $p<0.001$ ,  $\eta^2=0.265$ ) and aggressive feelings ( $F(2,57)=6.080$ ,  $p=0.004$ ,  $\eta^2=0.176$ ).

**Conclusions:** Due to the results it can be concluded that the dog assisted training can be as effective as other treatments with preponderance in some areas. As a consequence of human-animal interaction AAT might be even more valuable than other programs regarding regulation of emotions and emotional self-control as well as emotional status of deprived persons such as prisoners.

## Podium-10

### ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009 2:15pm - 4:30pm

#### A WINDOW INTO THE VETERINARIAN MIND

**Authors:** M Boissonneault, Ontario Veterinary College, University of Guelph; E Stone, Ontario Veterinary College, University of Guelph

**Presenter:** Dr. Marie-France Boissonneault

**Introduction:** The research explores the nature of the veterinarian memoir. The public image of the veterinarian is influenced by the prototypical characterizations formed by mainstream media, and the obstacles that veterinarians encounter are often overlooked or only tacitly suggested in the popular realm. The connection between veterinarians and their patients can also be overlooked, even though most practitioners see their patients throughout their entire life cycle. The narrative of a memoir arouses the reader to reflect on the description of events and develops a deeper personal interpretation of given contexts (Gianakos, 2007). By allowing self-reflection through the use of memoirs as a teaching tool, the reader is engaged into drawing upon “their own sensory systems and emotions to learn about behaviour” (Persson and Persson, 2008, p.111).

**Methods:** Eighteen memoirs were chosen for this study, with a selected sample from each decade over a span of fifty years. They were written by practitioners working with small animals and farm animals, and in circuses, military bases, zoos and conservation settings.

**Results:** Some of the thematic patterns that surfaced concerned the impact of the veterinary career on personal and family lives, veterinarians’ communications with clients, cross-species care, euthanasia, veterinarians’ sense of humour, and the human-animal bond. All memoirs covered topics pertaining to the complexity of veterinary communications, including the cost of care, euthanasia, and interactions with the client.

**Conclusions:** The use of the veterinary memoir points to real life events, enabling both the public and veterinary students to become more engaged in the learning process, and as a result, helps develop future practitioners’ professional skills, and also enables readers in general to carefully consider their own values and beliefs with regard to the treatment of animals and the human-animal bond. The veterinarian memoir also provides a medium through which a curious public can develop a greater appreciation and understanding of the veterinary profession and offers veterinary students the opportunity to experience the reality of their future professional responsibilities (Baños, 2007).

## Podium-11

### ISAZ Podium Presentation Session #2

Wednesday, October 21, 2009 2:15pm - 4:30pm

## GENDER, CULTURE, AND PET CARE ATTITUDES AND PRACTICES

**Authors:** R Zasloff, American River College

**Presenter:** Dr. R. Lee Zasloff

**Introduction:** Although cat and dog populations in U.S. shelters have declined greatly in recent years, reports estimate that 6-8 million cats and dogs still come into shelters annually. In spite of widespread education programs and easy access to affordable spay/neuter services; many people may still be unaware of, or unconcerned about, the ongoing problem of pet overpopulation. The purpose of this descriptive study was to identify factors related to pet care attitudes and practices. The study also explored whether people who have visited an animal shelter are more concerned about pet overpopulation than those who have not.

**Methods:** A sample of 686 students at a northern California community college volunteered to complete a written survey concerning pet care practices and beliefs about pet care. The participants also reported demographic information including age, gender, and ethnicity, and pet ownership.

**Results:** The mean age of respondents was 23.4 years and 68% were female. The sample was 65% Caucasian, including a small proportion of Eastern Europeans (7%). The remaining 34% were African-Americans, Latinos, Asians, Pacific Islanders, and Native Americans. Most respondents (65%) had a dog or cat at the time of the study. Half believed that pets should be sterilized and nearly two thirds had sterilized their own pets. With regard to gender, 57% of females and 46% of males thought that pets should be spayed or neutered. About two thirds of Caucasians believed that cats and dogs should be sterilized compared with one third of non-Caucasians and less than a third of Eastern Europeans. Two thirds of all respondents (67%) reported having visited an animal shelter and 50% indicated concern for pet overpopulation. Caucasians (76%) were more likely to have visited a shelter than were non-Caucasians (54%) and Eastern Europeans (32%). More Caucasians (60%) also reported concern for pet overpopulation compared with non-Caucasians (36%) and Eastern Europeans (32%).

**Conclusions:** The data from this study indicate that a better understanding of gender and culture with regard to pet care may contribute to further progress in controlling pet overpopulation. The findings also suggest that shelters may be able to do more to educate visitors about these issues.

## ISAZ Poster Presentation Session #2

Wednesday, October 21, 2009

4:30pm – 6:00pm

|             |   |                            |
|-------------|---|----------------------------|
| Poster<br>5 | Becoming an Ex-Vegetarian   | Dr. Harold Herzog          |
| Poster<br>6 | The Human-Animal Bond: Culture, Health, and the Biopsychosocial Model   | Mrs. Elizabeth G. Shoemake |
| Poster<br>7 | A Program to Develop Suitable Dogs for the Animal-Assisted Intervention                                       | Ms. Sato Arai              |
| Poster<br>8 | Dog's Behavior and Welfare as Co-Therapist: A Pilot Study   | Dr. Elsa (Fernandez) Reis  |
| Poster<br>9 | A Tail to Tell: Counselor Attitudes & Experiences Towards Incorporating Animal Assisted Therapy into Practice | Ms. Kathryn Kimbley        |

**Poster-5**

**ISAZ Poster Presentation Session #2**

**Wednesday, October 21, 2009 4:30pm - 6:00pm**

**BECOMING AN EX-VEGETARIAN**

**Authors:** M Childers, Western Carolina University; H Herzog, Western Carolina University

**Presenter:** Dr. Harold Herzog

**Introduction:** There are three times more ex-vegetarians in the United States than active vegetarians. The goal of this study was to characterize the demographics of this large and growing group and to discover their reasons for returning to the consumption of animal flesh after once giving it up.

**Methods:** We contacted vegetarians who had elected to resume eating meat through the social networking Internet sites Facebook and MySpace. The participants were referred to an on-line survey where they were asked about their former and present diets (including a meat consumption index), the relative importance of their reasons for originally giving up meat, and their reasons for subsequently returning to meat consumption. Participants were also given the opportunity to respond to a series of open-ended questions.

**Results:** Seventy-six former vegetarians (10 males, 66 females) completed the survey. Their average age was 28, and they had been vegetarians for an average of nine years before resuming meat (range = 1 to 41 years). Their reasons for originally giving up meat were moral/animal welfare concerns (56%), environmental issues (16%), health (15%), taste preferences (9%) and social reasons (4%). Their primary reasons for resuming meat consumption were health concerns (36%), the inconvenience of vegetarianism (27%), meat cravings (18%), social reasons (16%), and shifts in moral reasoning (3%). Individuals who originally gave up meat for social reasons as opposed to moral or ecological reasons had higher levels of present meat consumption. Forty percent of the participants indicated that they still considered themselves "vegetarian" even though they regularly ate meat. This finding is consistent with other studies indicating that many self-identified vegetarians consume some animal flesh

**Conclusions:** While moral concerns were the most common reasons the participant gave for originally giving up meat, shifts in attitudes toward the morality of killing animal for their flesh was the least common reason for resuming meat consumption. The resumption of meat-eating among vegetarians is a common phenomenon which has implications for human health and our understanding of changes in attitudes toward animal welfare.

**Poster-6**

**ISAZ Poster Presentation Session #2**

**Wednesday, October 21, 2009 4:30pm - 6:00pm**

**THE HUMAN-ANIMAL BOND: CULTURE, HEALTH, AND THE BIOPSYCHOSOCIAL MODEL**

**Authors:** E Shoemake, University of Mississippi

**Presenter:** Mrs. Elizabeth G. Shoemake

**Introduction:** Current challenges to human-animal bond (HAB) research include discovering the underlying mechanisms of the HAB and integrating those elements into existing research models. Evidence suggests that the HAB may be influenced by biological, psychological, and social factors. The following series of experiments is aimed at investigating cross-cultural attention and attitudes towards animals in social situations and evaluating the biopsychosocial model as an appropriate framework for HAB research.

**Methods:** Using eye-tracker technology, participants randomly examine counterbalanced images of possible human-animal interactions: human only (no animal), human/non-human (animal) presence, and human/non-human (animal) interaction. Participants perform a free recall task for details viewed in each image, and rate the human viewed in each image on scales for health, wealth, friendliness, attractiveness, happiness, and aggression. Participants also complete the following surveys: a demographic questionnaire, an Individualism/Collectivism scale, the Pet Attitude Scale-Modified (PAS-M), and the Interpersonal Expectancy Scale.

**Results:** Two 2 (Culture) x 3 (Image) MANOVAs will be used to analyze results. The free recall portion of the task will be assessed for significant cultural differences in the number and order of details recalled for each image viewed. Ratings from the social judgment scales will be assessed for cultural differences at each image level. A factor analysis will be performed on PAS-M results to validate the scale as a cross-cultural tool for examining human attitudes toward pet ownership and human-animal bonding.

**Conclusions:** Results are anticipated to show that images containing a human/non-human (animal) interaction will show earlier recall of an animal presence and significantly more favorable social judgments. Evidence of cross cultural differences may indicate different cultural responses to animals, while a lack of cultural differences may support possible underlying evolved response mechanisms to an animal presence. All experimental results will be evaluated with consideration to the biopsychosocial model to assess it as an appropriate theoretical framework for interpreting the role of the HAB in human health and wellness.

**Poster-7**

**ISAZ Poster Presentation Session #2**

**Wednesday, October 21, 2009 4:30pm - 6:00pm**

**A PROGRAM TO DEVELOP SUITABLE DOGS FOR THE ANIMAL-ASSISTED INTERVENTION**

**Authors:** S Arai, Azabu University Graduate School of Veterinary Science; M Izawa, School of Veterinary Medicine, Azabu University; N Ohtani, School of Veterinary Medicine, Azabu University; M Ohta, School of Veterinary Medicine, Azabu University

**Presenter:** Ms. Sato Arai

**Introduction:** The animal-assisted intervention (AAI) is not only the activities for human health, but also one of the enjoyable things for dogs and owners. To promote AAI, we need to train the dogs having aptitude for AAI. This study is a basic study about dogs' education to take part in AAI and the purpose is to create the useful programs to train better dogs for AAI

**Methods:** Once a week for 3 months, 7 dogs and their owners took lessons for AAI. These dogs had been already trained at a dog school in Azabu Univ., and had good relationship with their owners. However, they have little experienced with others than their owners. At the beginning of each lesson, the owners switched their dogs each other and did the basic training (sit, down, come) to socialize them. Before and after 3 months lessons, we performed the behavior test to evaluate how dogs interacted with the others and how dogs could obey their commands. At the same time, the owners evaluated their own dogs with a questionnaire and the C-BARQ (Serpell, 2003)

**Results:** Six of seven dogs were improved their behavior and one needs to train more. For a space restriction in this abstract, we'll report three cases. Case 1: A dog showed the escape behavior (19.8sec) and never closed to the tester while she tried to pet the dog (37sec). After the 3 months of lessons, he showed the escape behavior for only 3.17sec and the affinity behavior (21.2 sec) in the same situation. Case 2: A dog scared easily and couldn't pay attention when his name was called by owner 3 times. After the 3 months, he could pay attention twice out of 3. The nonsocial fear score of C-BARQ was also decreased from 1.5 to 0.8. Case 3: A dog was in a tense situation, shaking his body and barking during the test before the lessons. However, such behavior of the dog hasn't been improved after the 3 months.

**Conclusions:** The programs of the 3 months lessons that dogs have interactions with others and the training in the group are useful for most of the dogs which would attend AAI. However, there is still a dog that shows undesirable behavior. My next plan is to evaluate the dog's internal change with behavior and discriminate whether we should exclude him from attending AAI or train more.

## Poster-8

### ISAZ Poster Presentation Session #2

Wednesday, October 21, 2009 4:30pm - 6:00pm

#### DOG'S BEHAVIOR AND WELFARE AS CO-THERAPIST: A PILOT STUDY

**Authors:** E Reis, Hospital Centre of Porto, Ânimas; A Magalhães, IBMC, Ânimas; P Costa, ICBAS; L de Sousa, ICBAS, Ânimas

**Presenter:** Dr. Elsa Fernandez

**Introduction:** This is an investigation carried out from the join of human mental health care and ethology professionals.

The purpose of this study is to emphasize the importance of ensuring the health and welfare of animals used as co-therapists, interpret behavioral differences in dog interspecies interaction - with a patient with nervous anorexia (DHF), a strange (EHF) and a familiar one (FHF) - and show that's possible to achieve an AAA program ensuring that we don't stress out the working dogs.

**Methods:** Using an observational "AB design" case study, in phase A, we decided to test, in a familiar setting, the dog's circadian rhythm to determine basal variation of parameters to be assessed. At phase B, in a mental hospital environment, we studied physiological and behavioral variables. The evaluation was done by video recording and the measurement of physiological parameters. The analysis was performed by the Observer program, version 7.0 (Noldus, Netherland). For the data processing we used the SPSS program, version 16.0 (Chicago, USA), non-parametric statistic and spearman coefficient. The behavioral measures used were frequency and duration, treated by the Kruskal-Wallis and Mann-Whitney tests.

**Results:** a) The Dog moves up most in the company of FHF that with the other. He moves up more with FHF than with DHF. The behavior "distracted" never occurred with DHF.

b) Displaced activities have been demonstrated more frequently in interaction with FHF. This difference was significantly higher in relation to DHF ( $p=0.012$ ).

c) The speediest approximation occurs more often to DHF that to the other two ( $p=0.007$ ).

Through the exploratory behavior he distinguishes the DHF to the EHF ( $p=0.037$ ).

**Conclusions:** a) The animal stays calmer and more concentrate with the patients then with the familiar human figure which denote higher concentration in the task in that situation.

b) In therapeutic environment, the dog accepted to interact with DHF, but not with the EHF and much less with FHF manifesting internal conflict in these situations. The physiological findings support the observations at the behavioral level.

c) We suggest changes in canine behavior pattern with patients, including faster approximation and decreasing of the exploratory behavior.

**Poster-9**

**ISAZ Poster Presentation Session #2**

**Wednesday, October 21, 2009 4:30pm - 6:15pm**

**A TAIL TO TELL: COUNSELLOR ATTITUDES & EXPERIENCES TOWARDS INCORPORATING ANIMAL ASSISTED THERAPY INTO PRACTICE**

**Authors:** K Kimbley, Keele University

**Presenter:** Ms. Kathryn Kimbley

**Introduction:** The research was undertaken to demonstrate how & why AAT might be incorporated into counseling practice, what challenges existing AAT Practitioners have faced, & any areas for concern. More broadly, the research aimed to investigate attitudes & experiences of counselors using animal assisted interventions.

**Methods:** Semi-structured interviews were conducted with 3 counselors who have incorporated AAT into practice. A qualitative analysis of the data was undertaken through a Thematic Analysis of transcribed interviews.

**Results:** •All counselors said the way they implement & apply AAT within their counseling practice varies from client to client. None of the counselors work in a goal-directed way with their clients. All of the counselors stated that their therapy animals play a more passive role with their clients, mostly by simply being present in the room. Repeatedly, the counselors spoke of the dog as a “bridge” & “ice-breaker”, initiator of relaxation, short-cut to building a relationship with the therapist, as a calming & safe influence & comment that knowing the dog is there makes it easier for clients to attend.

•A consequence of interest is the concept that the therapy animal acts as a “distractor” but may also act as a “focuser”. During the beginning of the counseling session the dog “breaks down the smokescreen” thus leading the client to talk about their real issues. As a “distractor” it was suggested that thanks to the presence of the dog, the client's anger was diffused.

•Interestingly, one of the most striking finds has been that each of the counselors note that their therapy animals demonstrate an “initiative” towards the client's state of being.

**Conclusions:** Findings indicate that current counseling practitioners incorporating AAT into practice have mostly come across AAT by chance. Education regarding AAT has been through independent research. Despite this practitioners show a good awareness of the need to take into account animal welfare, efficient practice, protocol & ethical considerations. However, it is clear that there is a great need for further research & specifically support in order to develop & maintain safe standards & effective AAT practice in counseling.

# ISAZ Podium Presentation Session #3

Thursday, October 22, 2009

10:00am – 12:20pm

Moderator: Dr. Anthony Podberscek

|              |  |                        |
|--------------|--|------------------------|
| Podium<br>12 | Mountain Lions and Mountain Women  | Dr. Ralph Mann         |
| Podium<br>13 | How to Do Things Without Words: Whispered Dialogues with Other Animals                             | Dr. Mary Trachsel      |
| Podium<br>14 | Kitten Socialization Program Improves Acceptance of Care Procedures                                | Dr. Jill A. Villarreal |
| Podium<br>15 | Compatibility with Cats: Genes and Gender Impacting Behavior                                       | Dr. Lynette A. Hart    |
| Podium<br>16 | What Are Cats Doing When They Rub? Differing Targets, Social Aspects, and Questions about Function | Dr. Penny L. Bernstein |
| Podium<br>17 | Always Wild: The Show Business Origins of the 20th-Century Study of Animal Psychology and Behavior | Dr. Susan Nance        |

## Podium-12

### ISAZ Podium Presentation Session #3

Thursday, October 22, 2009 10:00am - 12:20pm

## MOUNTAIN LIONS AND MOUNTAIN WOMEN

**Authors:** R Mann, University of Colorado

**Presenter:** Dr. Ralph Mann

**Introduction:** Nineteenth century Appalachian settlers lived in a world where hunting was a necessary supplement to a subsistence regime based on corn and salt pork. Hunters of bear and deer necessarily took pride of place in folklore and family stories. Defending subsistence from predators--be they squirrels in the corn field or wolves in the sheep pen--was again, a celebrated, vital role, but unlike deer and bear hunters who were adult males, these protectors of the home place could be young and female. But even in the context of conflict with large, scary, animals, gender stereotypes are carefully followed.

**Methods:** I've collected family tales and folk history over a wide range of the nineteenth century Appalachian South, and two themes repeatedly appear in these tales of mountain life. First, value of subsistence determines how realistic a tale would be--white tail deer hunts are described in terms of real deer behavior--venison and deer hides were basic commodities. Bear meat, fur, and oil were valuable--but bear hunts were called bear fights, and emphasized bears standing and fighting--when most threatened black bears would climb a tree, and fight only if cornered. Panthers have no subsistence value, and are simply threats; their described behavior has little to do with reality--except their attack behavior.

**Results:** Most interestingly, interactions with predators are strongly and stereotypically gendered. Bears stand and fight like a man; killing one validates male roles of provider and protector. But mountain lions attack from above and behind; male stories stress narrow escapes. And panther tales are frequently domestic--they menace cabins and endanger women and children. Indeed they are commonly identified with women; they stereotypically scream like women in childbirth, or orgasm, but most importantly, women must defend their domestic sphere and children--men are absent in these stories--using article identified with women--brooms, cloth, and especially quilts. Women show courage and ingenuity in coping with panthers--equal to that demonstrated by men with bears--but only in the narrow confine of cabin and children.

**Conclusions:** Subsistence, gender roles, and animal images were inseparable in the nineteenth century Appalachian south.

**Podium-13**

**ISAZ Podium Presentation Session #3**

**Thursday, October 22, 2009 10:00am - 12:20pm**

**HOW TO DO THINGS WITHOUT WORDS: WHISPERED DIALOGUES WITH OTHER ANIMALS**

**Authors:** M Trachsel, University of Iowa

**Presenter:** Dr. Mary Trachsel

**Introduction:** I interpret Josephine Donovan's call for a dialogic ethic of care in the treatment of animals with Austin's pragmatic theory of speech as social action or behavior. Animal training approaches broadly construed as whispering provide both rhetorical and ethical models of nonverbal interspecies dialogues.

**Methods:** Discourse analysis is the methodology. Primary data are autobiographies, how-to books and instructional materials by animal "whisperers" who present animal training as learning and using other species' languages. Whisperers consulted are Konrad Lorenz, Barbara Woodhouse, Henry Blake, Jan Fennel, Monty Roberts, Ray Hunt, Tom Dorrance, Temple Grandin, Cesar Millan, Stanley Coren, and Phil Owens. Secondary sources include histories of the Horsemen's guild, and scientific accounts of interspecies bonds (Budiandy's co-evolutionary narrative of domestication; Olmert's biochemical analysis of human-animal ties).

**Results:** A consistent moral theme of whisperers is replacing acts of violence with speech-acts. Whisperers are rustic authorities or folk psychologists who seek ethical improvement of human-animal relations by transforming violence into gentle persuasion and fear into willing cooperation. Whisperers assume the intentional stance (Daniel Dennett) toward other animals, regarding them as speaking subjects. Their approach emphasizes receptive language-learning as the initial step toward dialogue--listening, watching, and paying close attention to discover what animals are saying in behavioral languages. Upholding virtues of respect and trust and denouncing violence and coercion, whispering does not exclude dominance but redefines it as responsive leadership within the social structures of other species.

**Conclusions:** Whispered interspecies dialogues require us to reconfigure the social to include other animals. Including nonhumans as answerable dialogic subjects begins by eliminating verbal interference in order to pay fine-grained sensory attention to other animals. Whispering contributes an ethic of attentive bodily presence to our understanding of caring for and about other animals.

## Podium-14

### ISAZ Podium Presentation Session #3

Thursday, October 22, 2009 10:00am - 12:20pm

## KITTEN SOCIALIZATION PROGRAM IMPROVES ACCEPTANCE OF CARE PROCEDURES

**Authors:** J. Villarreal, Nestle Purina; F. Martin, Nestle Purina

**Presenter:** Dr. Jill A. Villarreal

**Introduction:** Studies have demonstrated that early socialization is an important contributing factor in a kitten's ability to develop a strong bond with a caregiver (e.g. Horwitz 1983; Collard 1997). Past studies have mainly focused on the effects of early human-cat cuddling and play on the frequency and intensity of human directed behaviors (e.g. McCune 1995). Little work has focused on the effect of early positive exposure to care procedures (e.g. brushing, cleaning ears or trimming nails) on the response of cats to these procedures. Care procedures are important to the wellbeing of cats; yet, owners and healthcare professionals often face difficulty executing them because of the fear responses these events elicit. It is crucial to develop methods to reduce negative and increase positive behavioral responses to these activities.

**Methods:** We developed a 12-month Kitten Socialization Program (KSP) where kittens (n = 41) received daily structured interaction with caregivers. These interactions included early positive experiences of routine procedures associated with grooming and care presented in a warm and playful manner. The behavior of kittens involved in this program was compared to that of kittens raised in a more traditional manner (n = 57). Kittens were assessed monthly for 1 year using a 9-item 6-point scale (0 = engaging negatively; 5 = engaging positively).

**Results:** Kittens that received positive early exposure to care procedures as part of the KSP demonstrated greater acceptance of these activities than kittens that were not involved in the program. Kittens in the KSP had higher mean acceptance scores for brushing (4.3 vs. 3.8,  $t = -2.8$ ,  $p < .01$ ), nail trimming (3.7 vs. 2.4,  $t = -9.1$ ,  $p < .01$ ) and physical examination and ear cleaning (3.3 vs. 2.4,  $t = -5.2$ ,  $p < .01$ ).

**Conclusions:** Early positive exposure to routine care procedures as part of a structured socialization program helped kittens learn to approach these activities in a calm and confident manner. Further, these activities elicited positive human directed behavior in cats raised with the KSP program, suggesting that with early positive exposure cats come to perceive routine care activities as positive experiences.

## Podium-15

### ISAZ Podium Presentation Session #3

Thursday, October 22, 2009 10:00am - 12:20pm

## COMPATIBILITY WITH CATS: GENES AND GENDER IMPACTING BEHAVIOR

**Authors:** L Hart, University of California, Davis; B Hart, University of California, Davis

**Presenter:** Dr. Lynette A. Hart

**Introduction:** The behavior of cats, as in being affectionate or aggressive to people, may affect the compatibility of the relationship.

**Methods:** Using telephone interviews of 80 feline practitioners, we investigated whether such behavioral patterns are influenced by breed-related genetics and gender. The authorities were asked to rank 7 cat breeds on 12 behavioral traits, including affection towards family members, aggression toward family members, activity level and ease of litter box use. The generic, non-purebred Domestic Shorthair (DSH) and Domestic Longhair (DLH) cats were always included in the list given the authorities to rank, along with 5 randomly chosen breeds of 15 purebreds including the Abyssinian, Bengal, Persian, Ragdoll and Siamese.

**Results:** Significant differences were found on all traits (least squares means). As examples of differences, the Ragdoll excels at affection towards human family members and significantly above most of the other breeds, whereas the Bengal, selected for a jungle cat look, ranks lower. For aggression towards human family members, the Bengal scores higher and the Ragdoll ranks lower than most breeds. On activity level, the Bengal and Abyssinian rank highest, whereas the Persian and Ragdoll, the least active. Ease of litter box use concerns cat owners, but breeds do not widely differ. The DSH and the Bengal rank highest on urine marking (spraying), significantly above half of the other breeds. The role of gender in behavior was also a highly significant result. Contrasting with dogs, neutered male cats are more outgoing and affectionate than spayed females. Females far outrank males in being more aggressive. The results confirmed that male cats far outrank females in the likelihood of urine marking.

**Conclusions:** The finding of significant breed-related differences among domestic cats indicates that many characteristics involving human family members were intentionally selected, in contrast with dogs where many behavioral traits involving human family members were a side effect of selection for working roles. An affectionate, non-aggressive male in a single-cat home is less likely to engage in urine marking.

## Podium-16

### ISAZ Podium Presentation Session #3

Thursday, October 22, 2009 10:00am - 12:20pm

## WHAT ARE CATS DOING WHEN THEY RUB? DIFFERING TARGETS, SOCIAL ASPECTS, AND QUESTIONS ABOUT FUNCTION

**Authors:** P Bernstein, Kent State University; K Commings, Free Lance

**Presenter:** Dr. Penny L. Bernstein

**Introduction:** Cat rubbing is familiar to all cat owners. Yet there are surprisingly few formal studies of this behavior in the home and most have focused on pheromones; there is little study of possible social aspects. In this preliminary, descriptive study, we sought to gather data that could be used to develop a framework for future studies.

**Methods:** Fifteen cats of both sexes and various ages living in Commings' home were observed. The group was large and diverse enough to provide a high number of cases with a variety of variables. While we examined three different situations in which rubbing occurred, we focused our analysis on cases occurring in the kitchen prior to meals or snacks (frequent and easy to observe). Twelve cats participated in these sessions over 4 months. Observations included who was present, who rubbed, their target (a specific cat, the human Commings, or an object such as a door frame), the body part used for rubbing (e.g. top of head, cheek/mouth, etc), and whether there was a single rub or a sequence (e.g. top of head only, or top of head then cheek).

**Results:** A total of 482 cases of rubbing were observed. The most obvious pattern was that rubbing behavior was quite variable across individuals (chi-square  $p < 0.01$ ). For example, Boromir had the highest frequency of rubbing (128 cases), but he mostly targeted Commings (63%); Sammy (a female) also had a high frequency of rubbing (79 cases) but mostly targeted Warrick (a male and her father; 57%). Being a target was also quite variable: Cosmo was never a target; Warrick and Sammy were the cats targeted most frequently (12.9% and 11.4%), but mostly by one another; Commings was the most frequent target (49.2%) but mostly because of Boromir. A single rub rather than a sequence of behaviors was most likely to be used (81.5%), with the side, a part not usually linked to glands and chemical deposition, as the most common body part used (57%).

**Conclusions:** These data and other patterns that emerged suggest that rubbing has a strong social component and is not always linked to chemical deposition. A larger study of more cats in more homes is a necessary next step to see if these patterns persist.

**Podium-17**

**ISAZ Podium Presentation Session #3**

**Thursday, October 22, 2009 10:00am - 12:20pm**

**ALWAYS WILD: THE SHOW BUSINESS ORIGINS OF THE 20TH-CENTURY STUDY OF ANIMAL PSYCHOLOGY AND BEHAVIOR**

**Authors:** S Nance, University of Guelph

**Presenter:** Dr. Susan Nance

**Introduction:** This paper problematizes the standard narrative with respect to the development of theories of animal cognition, psychology and “intelligence” that credits a series of scientists from Darwin through Morgan, Romanes, Tolman and Pavlov to Skinner. In fact circus animal trainers were the most knowledgeable people about animal learning and psychology during the nineteenth century. Many worked with dozens of different kinds of animals, from dogs to tigers and elephants. Through this vast experience, they learned how to persuade many species to perform dependably by systematically observing how animals responded to their surroundings and testing hypotheses on how those responses might be managed to support the circus show. This paper examines the degree to which the animals themselves—in this case big cats like tigers, lions and leopards—inspired the trainers’ theory of perpetual wildness with respect to large predators in captivity. That is, by their behavior what did big cats (even if not consciously) contribute to entertainment industry philosophies of animal psychology and behavior that scientific researchers would look to later in order to design their own research questions?

**Methods:** The project analyzes of animal trainers’ published accounts of their work and methods in books, magazines and newspapers, with special attention to the big cat trainer Frank Bostock.

**Results:** At the turn of the twentieth century Bostock and others proposed that their methods of big cat acclimatization and training—strict routines in housing and operant conditioning with both positive and negative reinforcement to shape animal behavior—constituted a mode of “scientific animal training” that could powerfully if only temporarily shape animal behavior.

**Conclusions:** Lions, tigers and other big cats shaped training practices considerably by responding to training and human contact in often ambivalent or unpredictable (to humans) ways. Thus did they inspire the human belief that “wild” animals like captive predators might temporarily acquiesce to (or appear to acquiesce to) human direction, but were hardwired to ultimately reject this control. These findings shed light on the degree to which human-animal interactions shape cultural concepts like “wild” or “tame.”

# ISAZ Poster Presentation Session #3

Thursday, October 22, 2009

12:20pm – 2:00pm

|           |  |                         |
|-----------|--|-------------------------|
| Poster 10 | Behind Closed Doors: The Pastimes of Pigeons in Two Different Laboratory Housing Conditions        | Ms. Mikel Maria Delgado |
| Poster 11 | Ecotourism and Knowledge of Sea Lions: Visitors vs. Residents                                      | Dr. Rosanne B. Lorden   |
| Poster 12 | Assessing Dogs' Temperament: Behavior in Test  | Ms. Karine Silva        |
| Poster 13 | Avoiding Parrot Relinquishment and Improving Foster Situations through Applied Behavioral Analysis | Ms. Rebecca K. O'Connor |
| Poster 14 | Are Cute Dogs More Playful?  | Dr. Björn A. Forkman    |
| Poster 15 | Animal and Adopter Characteristics that Influence Adoption Decisions                               | Dr. Linda Kline         |

**Poster-10**

**ISAZ Poster Session #3**

**Thursday, October 22, 2009 12:20pm- 2:00pm**

**BEHIND CLOSED DOORS: THE PASTIMES OF PIGEONS  
IN TWO DIFFERENT LABORATORY HOUSING CONDITIONS**

**Authors:** M DELGADO, CALIFORNIA STATE UNIVERSITY, EAST BAY; D CERUTTI, CALIFORNIA STATE UNIVERSITY, EAST BAY; L WENDEL, CALIFORNIA STATE UNIVERSITY, EAST BAY

**Presenter:** Ms. Mikel Maria Delgado

**Introduction:** While standards for housing laboratory pigeons account for basic needs, these may not be sufficient to fulfill their physical and behavioral wellbeing. Current guidelines make no accommodation for mental stimulation or flying—the recommended space allotment is 0.8 ft<sup>2</sup> per pigeon. Environmental enrichment has received increased attention but there has been little research on how it could be applied to pigeons. Pigeons exhibit several behaviors in the wild which they may be deprived of in captivity.

**Methods:** Four White King pigeons were observed, individually housed in stainless steel and wire mesh cages in a laboratory room. An aviary was constructed using PVC tubing and plastic sheeting, containing two perches, a table and two cages. Birds were recorded in their cages, and then alone in the aviary at the same times. The video was coded by recording activity levels for 10 s at 2 min intervals. Eating/drinking, grooming, walking (or pacing when caged), and flying (or attempting to flap wings when caged) were considered “activities.”

**Results:** The pigeons were active in their home cages for a large portion of the day. There was a significant effect of housing type (cage vs. aviary) on the activity levels of the pigeons,  $t(21)=-2.99$ ,  $p=.007$ , indicating that birds in an aviary with various enrichment features such as cubbies and perches are significantly more active. Grooming and walking are the most frequent activities in both conditions.

**Conclusions:** Pigeons maintain activity levels in a cage setting that average about 30%. This could mean that pigeons are restricted by standard cage requirements. Indeed, many of the active moments recorded included repetitive movements, attempts to squeeze through the bars of the cage and trying to flap their wings. The activity levels of the pigeons were significantly higher in an environment where they could fly and more easily groom themselves and the pigeons were never observed voluntarily entering the cages provided while in the aviary. The significant difference in the behavior of the pigeons between the two conditions indicates that traditional laboratory housing could be detrimental to the well-being of pigeons. These findings are relevant to concerns about appropriate housing for the laboratory pigeon.

**Poster-11**

**ISAZ Poster Session #3**

**Thursday, October 22, 2009 12:20pm - 2:00pm**

**ECOTOURISM AND KNOWLEDGE OF SEA LIONS: VISITORS VS. RESIDENTS**

**Authors:** R Lorden, Eastern Kentucky University; R Sambrook, Eastern Kentucky University; R Mitchell, Eastern Kentucky University

**Presenter:** Dr. Rosanne B. Lorden

**Introduction:** A tenet of ecotourism is that it “builds environmental awareness. Ecotourism means education, for both tourists and residents of nearby communities” (Honey, Ecotourism and sustainable development, 1999, p. 22). Yet little research has examined tourists’ and residents’ knowledge in ecotourism destinations. In this presentation, we provide evidence of the knowledge of tourists and residents in a famous ecotourism destination: the Galápagos Islands. We focus on knowledge of one signature animal in the Galápagos, the sea lion. Tourists enjoy the Galápagos, in part, because of their interactions with sea lions, and sea lions appear on brochures used to advertise travel to the island. Residents also appear to enjoy the sea lions, although conflicts have occurred between resident (and visiting) people and sea lions.

**Methods:** A survey battery (English and Spanish version) requesting, in part, demographic data and answers to 22 true-false questions about sea lions was administered to a convenience and snowball sample on San Cristobal island in the Galápagos in June, 2008. Spanish speakers filled out 196 questionnaires and English speakers filled out 85 questionnaires, which they received at work, school, or airport locations. Almost all Spanish speakers lived in the Galapagos, and almost all English speakers were visitors.

**Results:** In general, most people had accurate knowledge of sea lions. For example, most knew them to be warm-blooded fish-eaters that mate in the water, play with objects, and do not usually mate for life or give birth to twins. However, there were some questions for which Spanish and English speakers differed in the frequency of their accuracy. For example, of those who answered the question, 93% of English speakers knew that female sea lions recognize their pup’s voice, whereas only 80% of Spanish speakers did; by contrast, 99% of Spanish speakers knew that female sea lions recognize their pup by smell, whereas only 87% of English speakers did.

**Conclusions:** It would appear that, in relation to knowledge of sea lions, ecotourism is functioning well to educate visitors and residents in the Galápagos, though some information is more widely known to one group than to another.

## Poster-12

### ISAZ Poster Session #3

Thursday, October 22, 2009 12:20pm - 2:00pm

#### ASSESSING DOGS TEMPERAMENT: BEHAVIOUR IN TEST

**Authors:** A Ribeiro, Animas; K Silva, Institute of Biomedical Sciences, Department of Behavioral Sciences; Animas; A Magalhães, Institute of Molecular and Cell Biology; L de Sousa, Institute of Biomedical Sciences, Department of Behavioral Sciences; Animas

**Presenter:** Ms. Karine Silva

**Introduction:** Driven by theoretical and applied goals, the study of dog temperament (i.e. individual differences in behaviour that are consistently displayed when tested under similar situations) has been concentrating attentions, with accumulating publications on the subject. Attentive surveys of the literature reveal, however, a considerable bias regarding the attributes of the subjects assessed in these studies. For example, the majority of published tests were conducted in working contexts, with a small number of pet or shelter dogs being studied. Also, most tested dogs were purebred, Labrador Retriever and German Shepherd Dog, young or still in puppyhood, and only a few studies looked at dogs over the age of 4 years. Castration effects have also been rarely studied.

**Methods:** The present study represents a first step towards fulfilling such gap through the assessment of temperament in pet dogs across different breeds, age-classes and sexual status. Two evaluation methods were conducted. Dog owners filled out a questionnaire about their dog's behaviour. Parallely, a test battery was used to score the dogs' reactions in different contexts and to specific stimulus. Statistical parametric tests were then conducted to test for a significant effect of breed, age-classes and sexual status on the obtained scores. Data from each sub-test were also subjected to a cluster analysis as to statistically identify correlated measures and place the animals into temperament groups.

**Results:** Breed, age and sexual status were found to significantly affect the behavioural responses of the tested animals. In respect to the cluster analysis, two clusters were consistently formed across tests, one dominated by Labrador Retriever dogs and another by breed mixtures, pointing to the strong differences in temperament among these animals.

**Conclusions:** By contributing to a better understanding of the various factors shaping dog temperament, the present study is of particular importance to a vast range of organizations and individuals consumed with such practical issues as matching dogs to appropriate services and homes. In this way, further research with an increasing number of animals and breeds, is highly demanding and should provide important contributions to animal welfare.

Poster-13

ISAZ Poster Session #3

Thursday, October 22, 2009 12:20pm - 2:00pm

## **AVOIDING PARROT RELINQUISHMENT AND IMPROVING FOSTER SITUATIONS THROUGH APPLIED BEHAVIORAL ANALYSIS**

**Authors:** R O'Connor, Duck Unlimited, Inc

**Presenter:** Ms. Rebecca K. O'Connor

**Introduction:** The number of pet parrots relinquished to rescue organizations and sanctuaries is increasing annually and for some organizations has reached the crisis point. Most parrots are no more than a second or third filial generation from wild parents and do not respond to a human environment in a domestic manner. This results in parrot caregivers being unprepared for encouraging appropriate behavior and completely unable to problem-solve unacceptable behavior such as biting and screaming. Difficult parrots are frequently relinquished to rescue organizations when the caretaker realizes they are unable to shape their pet's behavior.

**Methods:** Through documenting statistics and experiences from parrot rescue organizations, this paper demonstrates the level of crisis. In discussing experiences, successes and the unexplored possibilities of embracing applied behavioral analysis (ABA), operant conditioning and positive reinforcement, this paper explores the vast possibilities for problem-solving when caregivers are given the appropriate tools.

**Results:** By teaching fostering volunteers and adopters the basics of ABA, behavior problems with parrots can be resolved and appropriate behavior shaped. The simple steps of mapping the antecedent, behavior and consequence are a powerful tool for identifying the cause and the solution of a behavior issue. Learning to use the science of behavior in conjunction with completely positive interactions has proven to create pleasant relationships between parrots and people and also contributes to the physical and mental well-being of avian companions. Parrots do not respond well to negative interactions, nor do they interact with the desire to please human partners. This makes it all the more critical from parrot caregivers to understand the science of behavior.

**Conclusions:** Parrot caregivers who utilize the basics of ABA have diminished and eliminated behaviors such as screaming, biting and plucking, the three main reasons parrots are surrendered. More than this, professionals applying positive reinforcement and ABA have trained behaviors such as accepting a blood draw without restraint or sedation. The possibility for a better life for avian companions is immense and only beginning to be explored.

**Poster-14**

**ISAZ Poster Session #3**

**Thursday, October 22, 2009 12:20pm - 2:00pm**

**ARE CUTE DOGS MORE PLAYFUL?**

**Authors:** B Forkman, University of Copenhagen

**Presenter:** Dr. Björn A. Forkman

**Introduction:** In 1997 Goodwin et al published an influential article on "behavioural paedomorphism" i.e. that there is a difference in the behaviour between breeds and that this difference is related to the physical similarity of the breed to the wolf. The aim of the current study is to investigate this hypothesis using a different motivation; playfulness. A high level of playfulness is considered to be characteristic of a young animal.

**Methods:** The method used is to compare the results from the Swedish Dog Mentality Assessment (DMA) for the 10 breeds included in Goodwin et al's study. The DMA is a battery of 10 different tests with the behaviour being measured on an intensity scale from 1 (low) to 5 (high). In the present study three of the measures are used: Interest in play, Grabbing a rag when it has been thrown, and Tug of war. The breeds included were Cavalier King Charles, Norfolk Terrier, French Bulldog, Cocker Spaniel (least wolf-like, N=267), Shetland Sheepdog, Large Munsterlander, Golden Retriever and Labrador Retriever (slightly wolf-like, N=4'392), and German Shepherd and Siberian Husky (most wolf-like, N=13'392) - division made by Goodwin et al (1997).

**Results:** If the results of all breeds are included the least wolf-like breeds had an average of 3.1 (Interest), 2.6 (Grab) and 2.1 (Tug), with the slightly wolf-like breeds had 3.7, 3.2 and 3.0, and the most wolf-like breeds had 3.4, 3.1 and 2.8, i.e. almost the reverse of what was predicted. If only breeds with more than 20 individuals are included (i.e. Large Munsterlander and Siberian Husky excluded) it is even more evident that the prediction is not supported by the data: 3.1 (Interest), 2.6 (Grab) and 2.1 (Tug), vs 3.6, 3.1 and 2.7 (slightly wolf-like) and 3.9, 3.6 and 3.7 (most wolf-like).

**Conclusions:** The hypotheses that less wolf-like dog breeds show more puppy-like behaviour is not supported in the current study. There are several possible reasons for the negative result (apart from the hypothesis being wrong), including the influence of the specific test situation or the type of play investigated.

**Poster-15**  
**ISAZ Poster Session #3**  
**Thursday, October 22, 2009 12:20pm - 2:00pm**

## **ANIMAL AND ADOPTER CHARACTERISTICS THAT INFLUENCE ADOPTION DECISIONS**

**Authors:** L Kline, California State University, Chico

**Presenter:** Dr. Linda Kline

**Introduction:** Relatively few research studies have been published on decisions about adopting companion animals and the focus of this research has been on animal characteristics (e.g., size, breed, etc.). The present study explored particular animal characteristics that might influence decisions to adopt, as well as individual differences in potential adopters. Examination of adoption applications at the local animal shelter indicates that animals with hard-luck stories are especially attractive to some potential adopters. Interest in these animals might vary by individual differences in self-presentation capabilities of potential adopters. It was predicted that animals with a story that invoked a sense of heroism in potential adopters would be rated as more adoptable by persons scoring high in self and other deception. These individuals see themselves as heroes rescuing unfortunate animals.

**Methods:** Undergraduate students (n = 213) considered 10 different animals and rated their adoptability. Counterbalanced descriptions varied type of animal (dog, cat), gender of animal, age of animal, size of animal (dog only) and background information of the animal (saved from a natural disaster, saved from abuse, surrendered by owner, or stray animal). Participants also completed Paulus' Balanced Inventory of Desirable Responding to assess self and other deception.

**Results:** Two 1-way repeated measures ANOVAs were conducted to compare adoptability scores on small, medium and large dogs and to compare adoptability scores on young, adolescent and older animals. Supporting past research, results indicated a preference for small dogs (versus large dogs) and the desirability of puppies and kittens (versus older animals). A mixed between-within subjects ANOVA was conducted to assess the effect of individual differences in desirable responding (high or low deception) on adoptability of animals with varying background information (noted above). Results indicated that persons scoring high on desirable responding rated the adoptability of an animal with a hard luck story higher as compared to persons scoring low on desirable responding.

**Conclusions:** These results provide useful information for shelters to consider when writing the biographies for adoptable animals.

# ISAZ Podium Presentation Session #4

Thursday, October 22, 2009

2:00pm – 4:20pm

Moderator: Dr. Harold Herzog

|           |  |                          |
|-----------|--|--------------------------|
| Podium 18 | Empathy in Males with a History of Exposure to Animal Abuse: Is there a Cognitive/Affective Disconnect?    | Dr. Beth Daly            |
| Podium19  | Exploration of Approval of Dog and Cock Fighting in College Students                                       | Dr. Hiroko Arikawa       |
| Podium 20 | Methods Used to Identify Feral and Frightened Pet Cats in US Shelter and Rescue Programs                   | Dr. Katherine Miller     |
| Podium 21 | Evaluation of a New Screening Tool for Assessing Temperament and Behavior in Dogs Relinquished to Shelters | Ms. Katherine A. Kruger  |
| Podium 22 | The Ethics of Submission: Classical Dressage and the Limits of Egalitarianism                              | Dr. Angela D. Hofstetter |
| Podium 23 | Attributions of Companion Animal Behavior by Adopters and Relinquishers of Companion Animals               | Dr. Linda Kline          |
| Podium 24 | American "Therapy Dogs" of World War II: Typology, Roles, and Humane Treatment                             | Dr. Helena M. Pycior     |

## Podium-18

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm - 4:20pm

## EMPATHY IN MALES WITH A HISTORY OF EXPOSURE TO ANIMAL ABUSE: IS THERE A COGNITIVE/AFFECTIVE DISCONNECT?

**Authors:** B Daly, University of Windsor; L Morton, University of Windsor

**Presenter:** Dr. Beth Daly

**Introduction:** Differences were explored between cognitive and affective empathy related to history of exposure to animal abuse. The focus was on males (N=136) because: (1)the measures used-- the Empathy Quotient(EQ), Interpersonal Reactivity Index(IRI), and Animal Attitude Scale(AAS)-- are known to reveal differential response levels for males and females; (2)such violence is typically male-related; and (3)preliminary analyses found no significant female differences.

**Methods:** A MANOVA used eight dependent measures: four IRI subscales-- Perspective-Taking(PT) and Fantasy(FS) measuring cognitive empathy, and Empathic Concern(EC) and Personal Distress(PD), measuring affective empathy-- three subscales of the EQ--Cognitive Empathy (CE), Emotional Reactivity (ER), and Social Skills (SS)-- and the AAS. Three levels of the independent variable, Witnessing the Killing of Animals (WKA), were: Never(N), Once(O), and Multiple(M).

**Results:** The MANOVA omnibus test was significant,  $F(16,198)=2.64, p<.01$ , as were univariate tests for the IRI-FS ( $p<.01$ ), IRI-EC ( $p<.05$ ), and EQ-ER ( $p<.01$ ). Post hoc analyses showed: (1) WKA-O correlated with increased FS, with a subsequent decrease following WKA-M; (2) EC decreased as WKA incidents increased; (3) ER decreased after WKA-O, but increased with M; and (4)AAS increased with WKA-M. A second MANOVA used the same dependent measures and the independent variable of Witnessing Animal Abuse (WAA) in two categories, Yes (Y) and No (N). The omnibus test for the MANOVA was significant,  $F(8, 99) = 2.35, p<.05$ , as were univariate tests for the IRI-FS ( $p<.01$ ), the EQ-CE ( $p<.05$ ), and post hoc examination of PT ( $p<.05$ ). Post hoc examination indicated that WAA led to higher FS, PT, and CE.

**Conclusions:** This echoes previous findings suggesting that witnessing animal abuse leads to higher cognitive empathy, underscoring emotional detachment and raising questions: Is it a positive effect to show enhanced cognitive of empathy, or a dissociative one where cognitive and affective split? Both interpretations are valuable. While one's ability to detach cognitive from emotional empathy is important in areas such as veterinary, shelter, and helping professions, the absence of emotional empathy may contribute to a callous or dismissive attitude to people in need.

## Podium-19

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm - 4:20pm

## EXPLORATION OF APPROVAL OF DOG AND COCK FIGHTING IN COLLEGE STUDENTS

**Authors:** H Arikawa, Springfield Missouri; M Molina, Alliant International University

**Presenter:** Dr. Hiroko Arikawa

**Introduction:** Animal fighting has been conducted around the world for thousands of years. Its extent and cruelty was recently brought to the attention of the American public by the arrest, conviction, and incarceration of Michael Vick, the star quarterback of the Atlanta Falcons. Dog and cock fighting are far from rare in the US and the rest of the world. Most of the previous literature regarding the demographic and personality correlates of dog and cock fighting is not based on quantification and statistical analysis. The present study explored the extent and correlates of approval/disapproval of such fighting in college students.

**Methods:** The 206 volunteer participants were recruited in undergraduate courses in Fresno, CA. Four psychometric instruments were used: (a) Interpersonal Reactivity Index (Davis, 1980), (b) Pet Attitude Scale (Templer et al., 1981), (c) Animal-Human Continuity Scale (Templer et al., 2006), and (d) Personal Attributes Questionnaire (PAQ; Spence et al., 1974). A questionnaire assessed participant approval/disapproval of dog and cock fighting.

**Results:** Only 2.9% of 206 community college students approved of dog fighting and only 6.2% approved of cockfighting. The 74 White and 68 Hispanic participants did not differ in approval vs. disapproval. Disapproval of dog fighting was associated with higher scores on the Pet Attitude Scale, scoring in the continuity rather than dichotomous direction on the Human-Animal Continuity Scale, and scoring higher in empathy toward humans. Disapproval of cockfighting was associated with female sex.

**Conclusions:** Females, empathic persons, and those with a positive attitude toward animals tend to disapprove of animal fighting. It is likely that those persons, who approve of animal fighting share characteristics with other animal abusers who tend to be antisocial and aggressive. It is recommended that programs to prevent and/or to stop animal fighting should be especially directed toward males that are antisocial or appear to have an antisocial trajectory.

## Podium-20

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm - 4:20pm

## **METHODS USED TO IDENTIFY FERAL AND FRIGHTENED PET CATS IN US SHELTER AND RESCUE PROGRAMS**

**Authors:** M Slater, Animal Health Services, ASPCA; K Miller, National Programs, ASPCA; E Weiss, Community Outreach, ASPCA; K Makolinski, Animal Health Services, ASPCA

**Presenter:** Dr. Katherine Miller

**Introduction:** Many organizations have to determine whether a cat is feral or not when the cat enters their building, adoption program or colony. Separating owned frightened cats from truly unsocialized and unadoptable cats is extremely difficult in many settings. Yet, the results of this decision may lead to euthanasia, sometimes of someone's pet cat.

**Methods:** This survey was designed to document the guidelines used by animal welfare professionals to determine whether a cat is feral or not, to summarize the minimum time periods over which this evaluation occurs, and to determine the ability of animal welfare groups to collaborate to increase live release rates from their shelters. The nine-question survey was made accessible online, and an invitation to participate was disseminated via email among multiple national and regional professional organizations, listserves, and informal contact networks.

**Results:** Five hundred and fifty five respondents from 46 states provided fully or partially complete survey responses. Only 15% of respondents had written guidelines for differentiating feral from non-feral cats. Half of the responding organizations hold cats for up to 3 days for evaluation. Trap, neuter, return (TNR) groups and foster programs hold cats longer than non-profit shelter and animal control agencies. Almost half of respondents neuter and return a feral cat to a colony themselves or transfer to a group that could, at least occasionally. Only 5% of non-profit shelters and animal control agencies are able to transfer feral cats to a local TNR group. Most commonly, these organizations euthanize feral cats after a holding period or as soon as the cat is identified as feral.

**Conclusions:** The lack of detailed, validated guidelines for differentiating feral from non-feral cats puts many pet cats at risk of euthanasia unnecessarily. Longer holding periods for more thorough assessment and transfer of feral cats into appropriate TNR programs are hampered by limited resources.

## Podium-21

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm - 4:20pm

## EVALUATION OF A NEW SCREENING TOOL FOR ASSESSING TEMPERAMENT AND BEHAVIOR IN DOGS RELINQUISHED TO SHELTERS

**Authors:** K Kruger, Center for the Interaction of Animals & Society, University of Pennsylvania School of Veterinary Medicine; D Duffy, Center for the Interaction of Animals & Society, University of Pennsylvania School of Veterinary Medicine; J Serpell, Center for the Interaction of Animals & Society, University of Pennsylvania School of Veterinary Medicine

**Presenter:** Ms. Katherine A. Kruger

**Introduction:** Behavioral assessments of dogs relinquished to shelters are often subjective, and valid concerns exist regarding the predictive value of behavioral tests. Although a variety of such tests have been developed over the years, limited published information is available concerning the ability of these screening methods to accurately capture and characterize the behaviors that they purport to measure.

**Methods:** The present study utilizes a shortened version of a standardized behavioral assessment survey (Canine Behavioral Assessment and Research Questionnaire, C-BARQ) that meets established criteria for reliability and validity. This shortened 42-item version, the C-BARQs, asks owners to rate their dogs' typical responses to a variety of everyday situations and stimuli, and was administered to individuals surrendering dogs at three U.S. animal shelters.

**Results:** Preliminary analyses suggest that the C-BARQs can detect behavioral problems in dogs even when their owners indicate that they are not experiencing problems. We compared C-BARQs scores of dogs whose owners were relinquishing them to shelters (N = 268) to a breed and sex matched convenience sample of pet dogs (N = 256). The results indicate that relinquishing owners are less likely to report any problems with their dogs' behavior compared to non-relinquishing owners (32.4% versus 73.4%, respectively; Mean = 86.43,  $p < 0.0001$ ). However, the dogs of relinquishing owners obtained consistently worse C-BARQs scores for a multitude of behaviors, including aggression (toward strangers and owners; Mean = 12.4,  $p < 0.0001$  and Mean = 10.6,  $p < 0.001$ , respectively) and fear (toward strangers and dogs; Mean = 22.9,  $p < 0.0001$  and Mean = 23.6,  $p < 0.0001$ , respectively).

**Conclusions:** Shelters often assume that owners relinquishing dogs will attempt to conceal behavioral problems to make their pet appear more adoptable. The results of the present study suggest that the C-BARQs can detect behavioral problems in dogs even when owners report that they are not experiencing problems. The implications of these findings will be discussed.

## Podium-22

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm - 4:20pm

## THE ETHICS OF SUBMISSION: CLASSICAL DRESSAGE AND THE LIMITS OF EGALITARIANISM

**Authors:** A Hofstetter, Butler University

**Presenter:** Dr. Angela D. Hofstetter

**Introduction:** It appears troubling that the United States Dressage Federation grants submission a privileged status among its collective marks. This position contradicts a dominant trend in animal rights discourse which seeks to dismantle hierarchy in human-animal relationships. By emphasizing “attention and confidence, harmony, lightness and ease of movements, acceptance of the bridle, and lightness of the forehand,” the USDF’s understanding reflects classical traditions which seek harmony and partnership. Is this merely semantics which conceal an abuse of power? Or is it possible that submission thus defined actually increases the potential happiness of the horse through interaction with the rider?

**Methods:** This presentation analyzes classical training manuals, veterinary texts, and popular equine publications alongside philosophical explorations of power and the human-animal bond utilizing Foucault, Derrida, Grandin, and Hearne.

**Results:** Paul Patton provocatively argues that dressage can teach “that hierarchical forms of society between unequals are by no means incompatible with ethical relations and obligations toward other beings.” In fact, ignoring the dominance hierarchy that structures equine society and substituting progressive concepts of power in the interspecies dynamic may rob the horse and rider relationship of its own sense of justice. Debates over how to define submission—even though morally loaded and therefore apparently unscientific—highlight the progressive impact of the increased attention to the importance of the emotional welfare of animals by respecting the horse’s subjectivity.

**Conclusions:** If dressage is the ne plus ultra of human and equine interaction, it is the responsibility of the rider to earn what Hearne calls “the right to say fetch.” Viewing training as a linguistic relationship illustrates that ethical submission allows a horse to respond rather than react. The implications for riders who seek to earn the high marks on submission necessary for success in the dressage arena has significant benefits to the horse’s happiness. Moreover, the metaphorical importance of horse training opens a dialogue that explores the potentially tyrannical underpinnings of excessive egalitarianism.

**Podium-23**

**ISAZ Podium Presentation Session #4**

**Thursday, October 22, 2009 2:00pm- 4:20pm**

**ATTRIBUTIONS OF COMPANION ANIMAL BEHAVIOR BY ADOPTERS AND RELINQUISHERS OF COMPANION ANIMALS**

**Authors:** L Kline, California State University, Chico; J Bibbo, California State University, Chico

**Presenter:** Dr. Linda Kline

**Introduction:** Previous research has indicated that behavior problems are a common reason for relinquishing dogs to shelters. It seems logical that individuals who relinquish their pets because of behavior problems may interpret the behavior problem as one that cannot be remedied. The cause of behavior (attribution) is internal to the animal and expected to occur again. This type of attribution would imply a potentially difficult future with the animal. The present study sought to examine the possibility that persons who successfully adopt a companion animal have a different understanding of companion animal behavior as compared to persons who have unsuccessful adoptions (i.e., the animal is returned to the shelter).

**Methods:** Ninety-six persons who were either adopting or relinquishing an animal at a local animal shelter completed a questionnaire assessing attributions of companion animal behavior. This questionnaire contained 16 scenarios [8 scenarios involved cat behavior (4 positive and 4 negative behaviors) and 8 addressed dog behavior (4 positive and 4 negative behaviors)]. Respondents indicated whether the behavior in each scenario was internally or externally caused, permanent or temporary, and global or specific to the current situation. Respondents also indicated the closeness of their relationship with a current or past pet.

**Results:** Independent-samples t-tests were conducted to compare attributional elements of locus of cause, stability of cause and globality of cause for adopters and relinquishers. There were no significant differences in attributions. An independent-samples t-test was conducted to compare closeness of relationship with one's pet for adopters and relinquishers. Results indicated that adopters had a significantly closer relationship with a pet than relinquishers. This finding suggests that successful adopters do differ in their relationships with companion animals as compared to unsuccessful adopters.

**Conclusions:** Unsuccessful adoptions were underreported in this sample as compared to the data provided by the local animal shelter, which may explain the lack of significant findings for attributions of companion animal behavior. Additional data on adoption outcome may yield significant findings and is currently being pursued.

## Podium-24

### ISAZ Podium Presentation Session #4

Thursday, October 22, 2009 2:00pm- 4:20pm

## AMERICAN "THERAPY DOGS" OF WORLD WAR II: TYPOLOGY, ROLES, AND HUMANE TREATMENT

**Authors:** H. Pycior, Department of History, University of Wisconsin-Milwaukee

**Presenter:** Dr. Helena M. Pycior

**Introduction:** Popular accounts trace the history of therapy dogs back to World War II and especially to Smoky, a Yorkshire terrier who visited wounded soldiers. During WWII many dogs assisted American soldiers, sailors, and marines. Thousands were formal "war dogs," highly trained as guards, messengers, scouts, and so on. But many (like Smoky) were untrained "comfort" or (in modern terms) "therapy" dogs, who offered comfort and affection to servicemen and women scattered across the globe.

**Methods:** Based on close reading of primary sources largely from 1940 to 1945, including newspaper and magazine articles, books, letters, and photographs, this paper offers a typology of WWII therapy dogs, delineates the roles they played in the war, and explores their relationships with the servicemen and women they served.

**Results:** There were at least four types of WWII therapy dogs: (1) the mascot or "good luck" dog (who, e.g., routinely flew on bombing missions); (2) the camp or ship dog; (3) the war/therapy dog, a trained war dog who was a fighting partner as well as comforter of his/her handler(s); and (4) the personal comfort dog, including pet dogs who went to war with their owners. Servicemen and women fed, petted, trained, played with, talked to, sponsored competitions between, worried about, nursed, decorated, and occasionally mated therapy dogs; the dogs slept with, licked, did tricks for, and nuzzled them. These activities not only provided physical and emotional comfort but also, in a symbolic way, brought a part of home to the war front. Generally, mutual dependence for survival and comfort led to human-canine relationships marked by caring and respect. A marine wrote his wife that his war/therapy dog was now his "buddy, girl and wife." Sailors risked their lives to save dogs on sinking ships; soldiers and marines carried dogs on stretchers off battlefields as others saluted the wounded canines; and servicemen arranged to fly mascot or personal comfort dogs to the widows of fallen masters.

**Conclusions:** During WWII dogs witnessed to the benefits of therapy dogs for groups and individuals caught in stressful conditions. War seemed to shrink the human-canine divide and many American servicemen and women modeled a humane approach to therapy animals.

# ISAZ Poster Presentation Session #4

Thursday, October 22, 2009

4:20pm – 5:30pm

|           |  |  |
|-----------|--|--|
| Poster 16 | Household Circumstances and Outcome of Cats Exposed to Lilies                                      | Dr. Margaret R. Slater                             |
| Poster 17 | Attitudes Toward Service Dogs among the Deaf and Hard of Hearing                                   | Mr. Sol Fried                                      |
| Poster 18 | Reunited!! The 911 Parrot Alert International Lost & Found Bird Database and the Human-Avian Bond  | Dr. Patricia K. Anderson                           |
| Poster 19 | Animal Welfare Issues and Elder Adult Maltreatment: A National Survey                              | Dr. Frank R. Ascione                               |
| Poster 20 | Measuring Stress and Attachment Behaviors of Shelter Cats  | Ms. Kathryn Dybdall                                |
| Poster 21 | The Relationship Between Nonverbal Sensitivity, Dog-Ownership and Knack for Dogs                   | Mrs. Iben Meyer                                    |
| Poster 22 | Seeing Birds: Visitor Perceptions of Avian Exhibits in a Small Zoo                                 | Ms. S. A. Robinson                                 |
| Poster 23 | The Circle of Violence in the Netherlands: The Relation Between Animal Abuse and Domestic Violence | Dr. Marie-Jose Enders-Slegers                      |
| Poster 24 | Evaluating Indicators for Humane Communities   | Dr. Stephen Zawistowski and Dr. Margaret R. Slater |

**Poster-16**

**ISAZ Poster Presentation Session #4**

**Thursday, October 22, 2009 4:20pm - 5:30pm**

**HOUSEHOLD CIRCUMSTANCES AND OUTCOME OF CATS EXPOSED TO LILIES**

**Authors:** M Slater, Senior Director of Epidemiology, ASPCA; S Gwaltney-Brant, Vice President and Medical Director, Animal Poison Control Center, ASPCA

**Presenter:** Dr. Margaret R. Slater

**Introduction:** Lilies (*Lilium* sp and *Heimerocallis*) are toxic to cats and can cause renal failure and death with even a small amount of leaf or pollen ingestion. All parts of the plant are considered toxic. Extensive educational efforts have been made to inform cat owners about the risks of lilies. Despite this, cats continue to access lilies in the house.

**Methods:** A study was done at the ASPCA Animal Poison Control Center (APCC) about lily exposures in cats to determine the circumstances under which owned cats were exposed to lilies in the house. Follow-up phone calls to cat owners were made.

**Results:** Full follow-up information was obtained on 44 cats and some data on an additional four cats. Thirty three owners were able to identify lilies; only 14 knew that lilies were toxic prior to the cat eating or vomiting parts of the lily. Of the 14 owners who knew lilies were toxic, nine had put the flowers where they didn't think the cat could reach or where the cat was not normally allowed, three owners had briefly taken the lilies out where the cat could get at them and two owners had other family members who did not know lilies were toxic and gave the cats access. For owners who knew lilies were toxic, two learned from a friend or relative, two from a brochure or newsletter, one from previous experience and one owner each was a veterinarian or a veterinary technician. Of the 31 owners who did not know lilies were poisonous, 20 looked them up on the internet and subsequently called the APCC. Forty four cats were taken to the veterinarian and were treated with intravenous fluids and monitoring at minimum. Three cats were euthanized with acute renal failure that was not responding to treatment. One cat continued to have complications as a result of treatment and three cats had elevated kidney test values without additional outcome data.

**Conclusions:** Cats are still being exposed to this completely preventable and potentially fatal health risk. Cat owners are still coping with their cats eating a poisonous plant they brought into the home. Additional education focusing on lilies as toxic plants and on the eagerness of cats to eat lilies is needed.

**Poster-17**  
**ISAZ Poster Presentation Session #4**  
**Thursday, October 22, 2009 4:20pm - 5:30pm**

## **ATTITUDES TOWARD SERVICE DOGS AMONG THE DEAF AND HARD OF HEARING**

**Authors:** S Fried, University of Toronto/OISE; B Spray, The School of Professional Psychology at Forest Institute

**Presenter:** Mr. Sol Fried

**Introduction:** The aim of this study was to investigate the attitudes that deaf and hard of hearing individuals have towards the use of service dogs for the deaf.

**Methods:** A survey was developed and a link was posted on the SpeakUP Listserv of the Alexander Graham Bell Association for the Deaf and Hard of Hearing Website.

**Results:** The survey was completed by 65 individuals. The participants were adult, US or Canadian citizens who identified themselves as deaf. The sample was 89% White and 66% female. The mean age was approximately 40 years old.

**Conclusions:** The findings suggested that the majority of participants were aware of the use of service dogs for the deaf. Approximately 85% agreed with the use of service dogs for the deaf. There was no difference in age, education level or gender distribution between participants who agreed compared to those who disagreed. While service dogs have been proven useful in the deaf community, about 30% of the participants in this study felt that they did not require a service dog even if given the opportunity to own one.

**Poster-18**  
**ISAZ Poster Presentation Session #4**  
**Thursday, October 22, 2009 4:20pm - 5:30pm**

**REUNITED!! THE 911 PARROT ALERT INTERNATIONAL LOST & FOUND BIRD DATABASE AND THE HUMAN-AVIAN BOND**

**Authors:** P. Anderson, Western Illinois University

**Presenter:** Dr. Patricia K. Anderson

**Introduction:** The “911 Parrot Alert International Lost & Found Bird Database” is an Internet resource for those who lose birds. The resulting collection is a rich series of narratives describing human-avian interactions. A sample of the “lost and reunited” stories from the United States is analyzed in an effort to better understand owners’ attitudes toward their birds, and the factors that contribute to loss and to a successful recovery of companion parrots.

**Methods:** A qualitative analysis of a sample of 100 accounts of bird-owner reunions from the United States, include owner’s attitude toward their birds, species lost, how lost, length of time missing, how far the bird traveled, and how the bird was recovered and identified.

**Results:** Quickly publicizing the event is critical when a bird is lost. The bird may travel less than a mile to hundreds of miles (via human intervention), and be gone for days to years, depending on the circumstances. Bird owners are advised to search well beyond the local area in which the bird was lost, and not give up hope. Analysis of the texts gives insight into owners’ attitudes toward their birds. Owners most commonly make supernatural references to the act of being reunited with their birds, describing the event as “miraculous.” Bird owners tend to refer to their birds as “children” and “family members,” thus contradicting the assumption that lost parrots become lost because the owners are uncaring. This research has potential significance relative to a further understanding of the importance of the human-avian bond.

**Conclusions:** These findings have implications for enhancing companion parrot welfare through the potential prevention of future escapes, and the ability to recover birds that do escape. This research is of significance to the study of the human-avian bond, an area that continues to be underrepresented in human-animal studies, despite the popularity of birds in American households. 911ParrotAlert · International Lost & Found Bird Database.

<http://pets.groups.yahoo.com/group/911ParrotAlert/>.

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**Poster-19**  
**ISAZ Poster Presentation Session #4**  
**Thursday, October 22, 2009 4:20pm - 5:30pm**

## **ANIMAL WELFARE ISSUES AND ELDER ADULT MALTREATMENT: A NATIONAL SURVEY**

**Authors:** F Ascione, University of Denver Graduate School of Social Work; T Peak, Utah State University; J Doney, Utah State University

**Presenter:** Dr. Frank R. Ascione

**Introduction:** One recent survey reported that older individuals (one adult more than 65 years of age) have a pet ownership rate of 29.7% (Wise, 2002). We could not, however, identify any empirical research on animal abuse and elder adult welfare and maltreatment. Assessment of animal abuse in the context of elder abuse could enhance understanding of the maltreatment of elder adults and associated pet-welfare issues.

**Methods:** A 50-state survey of Adult Protective Service agencies was implemented to determine whether states were asking questions about pets at any point in their interactions with or about older adults. Respondents were asked whether their agency included any screening for animal-welfare related issues that may occur in connection with Adult Protective Services or any other elder abuse screening. Respondents were promised confidentiality and anonymity and were assured that only aggregate data from respondents would be reported. Forty-one states responded.

**Results:** The survey results were as follows:

In your screening process for elder abuse, do you ask if pets are present in the home?

Yes: 19 (46.3%) No: 22 (53.6%)

If YES, do you ask about the kind(s) and number of pets?

Yes: 14 (73.7%) No: 5 (26.3%)

Do you ask any questions concerning pet abuse or animal welfare in general?

Yes: 5 (12.2%) No: 36 (87.8%)

Do you ask any questions about other pet welfare issues an elder adult might have (e.g. can't afford pet food/veterinary care, hard to exercise pet, pet has become difficult to control)?

Yes: 7 (17.1%) No: 34 (82.9%)

Besides your screening protocol, are pet/companion animal issues included in any other protocols or assessments used by your agency – for example, investigation protocols?

Yes: 12 (29.3%) No: 29 (70.7%)

**Conclusions:** There appears to be wide variation among the states in what they ask about pets – and remember 51% do not ask anything pet-related at all – and then in how they respond. If assessments include pet-related questions, it is not clear whether the focus should be concern specifically for the pet's welfare or only as it relates to the welfare of its older adult owner. This topic has resonated with many of the Adult Protective Services respondents and indicates a need for better assessment strategies.

**Poster-20**

**ISAZ Poster Presentation Session #4**

**Thursday, October 22, 2009 4:20pm - 5:30pm**

**MEASURING STRESS AND ATTACHMENT BEHAVIORS OF SHELTER CATS**

**Authors:** K Dybdall, University of Nebraska at Omaha; R Strasser, University of Nebraska at Omaha

**Presenter:** Ms. Kathryn Dybdall

**Introduction:** Separation from an attachment figure or social bond can increase stress in an animal. In a recent study we found the behavioral stress response of cats surrendered by their owner (OS) significantly higher than stray (S) cats (Dybdall, Strasser & Katz, 2007). Recent involuntary separation of a social bond in OS cats may be the primary reason for higher stress ratings, and these cats may represent an under recognized group at greater risk for the effects of stress in a shelter setting. The goals of the present study were to corroborate a behavioral measure for cat stress by comparing it to fecal cortisol measures, and to examine whether disruption of the human-cat bond in OS cats resulted in a greater tendency to restore a social bond with human caregivers.

**Methods:** To validate a behavioral measure of stress, seven cats were videotaped each afternoon and fecal samples collected the following day for the first three days of their stay in the shelter. Videotapes were scored using the Cat Stress Score (Kessler & Turner, 1997). Fecal samples were assayed for cortisol using EIA. Due to intestinal lag time (Schatz & Palme, 2001) behavioral stress scores from one day were correlated with fecal cortisol measures the next day. To examine attachment behavior, 65 cats in the adopt area were videotaped and scored for latency to approach and proximity maintenance. A member of the team played the role of adopter. Latency to approach was the time it took the cat to approach the adopter. Proximity maintenance was the time the cat remained in a pre-defined area near the adopter.

**Results:** In agreement with the previous study by Dybdall, Strasser, & Katz (2007) data revealed that on average OS cats were adopted sooner than S cats. Results of behavioral and physiological stress measures, as well as owner surrender and stray cat differences, will be presented at the conference.

**Conclusions:** The data suggest that adoption decisions are likely multi-factorial and attachment behaviors may play a role. Latency to approach and proximity maintenance time may represent dimensions of personality or cat-human attachment patterns. This study adds to the limited base of scientific data on cats in the shelter setting, measuring stress, and differences in the human-cat bond.

**Poster-21**

**ISAZ Poster Presentation Session #4**

**Thursday, October 22, 2009 4:20pm - 5:30pm**

**THE RELATIONSHIP BETWEEN NONVERBAL SENSITIVITY, DOG-OWNERSHIP AND KNACK FOR DOGS**

**Authors:** I Meyer, University of Copenhagen, Faculty of Life Sciences; H Kristensen, University of Copenhagen, Faculty of Life Sciences

**Presenter:** Mrs. Iben Meyer

**Introduction:** When interacting with dogs, communication relies almost solely on nonverbal signals. We therefore hypothesized that a general ability to detect nonverbal signals could be associated with having a knack for dogs, but also that being around dogs might affect a person's nonverbal sensitivity.

**Methods:** In a pilot study we tested 76 veterinary students on their ability to recognize facial emotion in humans using the Micro-Expression Training Tool (METT)<sup>®</sup>, developed by Ekman (2003), as a measure of nonverbal sensitivity. In a multiple choice test, the students were tested on 28 faces showing the following seven emotions four times each: sadness, anger, surprise, fear, disgust, contempt and happiness. The faces were shown for 3 seconds each, and the students were asked to identify which one of the seven emotions they had just seen. The METT score was calculated as number of correct responses. Information about dog ownership (owning or having owned a dog) and knack for dogs (self reported) was collected by questionnaire.

**Results:** There was a significant interaction between dog ownership and knack for dogs (Fishers Exact,  $X^2=7.27$ ,  $df=1$ ,  $p=0.02$ ) with a larger proportion of the 53 dog owners reporting a knack for dogs (90.5%) compared to the 23 non dog owners (65.2%). Dog owners had lower METT scores (mean=23.9, SD=2.64,  $q1=22$ ,  $q3=26$ ) than non dog owners (mean=24.9, SD=2.92,  $q1=24$ ,  $q3=27$ ), Kruskal Wallis ( $X^2=3.53$ ,  $df=1$ ,  $p=0.06$ ). Within dog owners, those with a knack for dogs,  $n=48$ , had significantly higher METT scores (mean=24.2, SD=2.52,  $q1=22$ ,  $q3=26$ ) than those without a knack for dogs,  $n=5$ , (mean=21.6, SD=2.97,  $q1=21$ ,  $q3=23$ ), Kruskal Wallis ( $X^2=3.87$ ,  $df=1$ ,  $p=0.05$ ).

**Conclusions:** Owning or having owned a dog seems to improve one's feeling of a knack for dogs. Dog ownership does not necessarily increase a person's nonverbal sensitivity however. On the contrary this pilot study may suggest that dog owners are inferior to non dog owners in recognizing human facial emotion. Within the group of dog owners, those with a low nonverbal sensitivity reported to lack a knack for dogs. This result could suggest that a general nonverbal sensitivity, different from what is learned through dog ownership, affects the feeling of a knack for dogs.

**Poster-22**

**ISAZ Poster Presentation Session #4**

**Thursday, October 22, 2009 4:20pm - 5:30pm**

**SEEING BIRDS: VISITOR PERCEPTIONS OF AVIAN EXHIBITS IN A SMALL ZOO**

**Authors:** S Robinson, Western Illinois University; P Anderson, Associate Professor Sociology and Anthropology Western Illinois University

**Presenter:** Ms. S. A. Robinson

**Introduction:** The challenge most zoos face today is to focus on conservation and education while meeting the expectations of visitors, who may be more interested in entertainment. A way to address both concerns is through interactive educational exhibits. Lorikeet Landing is part of the Australian Walk-About exhibit of a small Midwestern zoo. In this exhibit visitors walk along a pathway among free-roaming wallabies and emus, and enter a small mesh enclosure where they may feed nectar to free-flying lorikeets. Birds are also housed in more traditional exhibits in the zoo's birdhouse. The major goals of the study are to compare visitor perceptions of the interactive exhibit to those of the birdhouse, as well as assess general cultural perceptions about birds, and the educational impact of signage.

**Methods:** The 60-question survey is based on a Likert scale and was administered to visitors who attended both exhibits between August 28, and September 28, 2008. The 105 complete surveys were entered in a database.

**Results:** Visitors viewed the two enclosures and birds differently. The Lorikeet Landing visitors enjoyed the interactive experience and felt it also benefitted the birds. While visitors to the birdhouse (where the Lorikeet Landing birds are housed off season) believed the birds were well cared for, over 95% believed more enrichment (activities and toys) was needed. Although the majority of visitors believed the signage information was informative and well written, less than 10% of the participants could remember information presented including which species were housed in the enclosures. In addition, overall attitudes toward birds were conflicting; over 50% considered birds ecologically important, beautiful, and "good," but a majority had concerns about avian flu and felt birds could be "mean" or "vicious."

**Conclusions:** The results suggest people tend to find an interactive exhibit to be more positive for birds and visitors, pay little attention to signage or individual species of birds, and have conflicting attitudes about birds that may be rooted in cultural beliefs, misperception, and personal experience.

**Poster-23**

**ISAZ Poster Presentation Session #4**

**Thursday, October 22, 2009 4:20pm - 5:30pm**

**THE CIRCLE OF VIOLENCE IN THE NETHERLANDS: THE RELATION BETWEEN ANIMAL ABUSE AND DOMESTIC VIOLENCE**

**Authors:** M. Enders-Slegers, University of Utrecht, Clinical and Health Psychology; M. Janssen, Adsearch

**Presenter:** Dr. Marie-Jose Enders-Slegers

**Introduction:** Domestic violence is a huge problem worldwide. It affects tens of thousands women, children and men every year. Not so commonly known in the Netherlands is the fact that pets are victims as well. Our study serves to illustrate that connection in the Netherlands and is the first study in this area in our country.

**Methods:** A literature review, a questionnaire filled in by veterinarians (N = 108) and interviews with experts (N = 35). The literature was only found in English.

The questionnaire was sent out on line and was based on a list composed by Green and Gullone (2005). The interviews with the experts had as topics: explicit or implicit knowledge of the relationship, experiences of the link in professional life, how to raise social and political awareness, how to prevent and to intervene.

**Results:** Connections between animal abuse, partner violence and child abuse are witnessed in the Netherlands by veterinarians as well as by experts.

More than half of the veterinarians (N = 108) reported animal abuse (365 cases), while one third of them suspected or were sure of other forms of violence in the family. Many barriers were brought up when reporting animal abuse and domestic violence: (lack of) evidence, disturbance of the relationship, privacy rules, lack of knowledge, lack of rights, lack of economic benefits, not knowing what social/professional help organization to approach.

**Conclusions:** The relationship between animal abuse and domestic violence in the Netherlands exists. One out of two veterinarians that completed the questionnaire could identify animal abuse in their practice and one out of three identified was suspicious of other forms of domestic violence. However, almost none of the cases were reported. The interviews learned that all experts knew about the link between animal abuse and domestic violence, few experts were aware that animal abuse by children can be an indicator of domestic violence, fewer experts are aware that severe animal abuse can lead to violent crime against human beings.

Recommendations were made for working alliances, research, interventions, education, campaigns, setting up safe shelters for the pets etc.

## **EVALUATING INDICATORS FOR HUMANE COMMUNITIES**

**Authors:** S Zawistowski, ASPCA; S Notaro, University of Illinois; R Lockwood, ASPCA

**Presenter:** Dr. Stephen Zawistowski and Dr. Margaret R. Slater

**Introduction:** Numerous welfare issues affect pets in the United States. Most relate to dogs and cats, and to a lesser extent horses and other domesticated animals. This study had two objectives: (1) to establish a set of indicators that, if present in a community, could be used to assess whether the community might be considered humane in its treatment, care and integration of pets into everyday life; and (2) assuming that no indicators would have an equal impact, to determine the relative weight of each.

**Methods:** This was a qualitative study using a modified Delphi technique to establish a list of weighted indicators to determine if a community is humane. Five stakeholder groups (Animal Control or humane society professionals; Animal focused corporations, Legislators, Pet Owners; Veterinarians) participated in three rounds of surveys. The study began with an initial group of twenty-four indicators suggested by a mixed group of animal care professionals. Surveys One and Two established a list of ten humane community indicators. Survey Three weighted those variables and further consolidated them.

**Results:** Following the third survey, seven indicators were ranked and weighted. These indicators and their order (with relative weights in parenthesis) were:

1. Animal anti-cruelty laws (31.0)
2. Funding and budgets for animal welfare organizations (17.4)
3. Shelter performance saving pets (14.8)
4. The existence of low cost spay and neuter services for pets (13.7)
5. The presence of education programs concerning the humane treatment of animals in a community (8.7)
6. The existence of a coalition to promote animal welfare in a community (8.1)
7. The amount of pet friendly housing available in a community (6.4)

**Conclusions:** In general, it appears the indicators and the respective weighting provides insight that there may be two main areas when establishing a humane community. One deals with the infrastructure of laws and services as provided by government, animal welfare organizations, and the veterinarian community. The other is comprised of community activities, dealing more with community attitudes, pet owners, landlords and others.

# NIH Podium Presentation Session #1

Friday, October 23, 2009

1:30pm – 3:30pm

Moderator: Dr. Sandra McCune

|              |   |   |
|--------------|---|---|
| Podium<br>25 | Walk A Hound, Lose a Pound, & Stay Fit for Seniors  | Dr. Rebecca A. Johnson                        |
| Podium<br>26 | Walk A Hound, Lose A Pound A Community Dog-Walking Program for Families                                       | Dr. Rebecca A. Johnson                        |
| Podium<br>27 | Method Development and Preliminary Examination of Dog Walking As a Form of Human and Canine Physical Activity | Dr. Barbour S. Warren                         |
| Podium<br>28 | Enabling Young Voices in Three Cultures: Interviewing Children on their Relationship with Their Pets          | Dr. Brinda I. Jegatheesan                     |
| Podium<br>29 | Canine Interventions: Dogs Assist a Reading Program for Children  | Dr. Anne Alden                                |
| Podium<br>30 | The Use of Animal-Assisted Therapy in Reading Intervention Programs   | Ms. Megan Elene Kurtz and<br>Ms. Heddie Leger |

## Podium-25

### NIH Podium Presentation Session #1

Friday, October 23, 2009 1:30pm- 3:30pm

## WALK A HOUND, LOSE A POUND, & STAY FIT FOR SENIORS

**Authors:** R Johnson, University of Missouri; C McKenney, University of Missouri; S McCune, Waltham Centre for Pet Nutrition

**Presenter:** Dr. Rebecca A. Johnson

**Introduction:** The rising rate of obesity in older adults is linked with the national problem of limited physical activity (PA), resulting in chronic illness. Obesity-related illness and loss of function require innovative, effective interventions. Older adults who walk dogs have been found to maintain physical functioning over a 3 year period (Thorpe 2006). Dog walking may improve long-term PA by improving readiness and physical function. The purpose of the study was to test the association of dog walking with physical functioning.

**Methods:** A three-group, repeated measures design tested efficacy of a 12-week (5 days/week) shelter dog walking program for community-dwelling adults over age 65. Three retirement facilities were assigned to the shelter dog walking (DW), human walking companion (HWC), or no-treatment control (C) group. Facilities were comparable in size, demographic composition, & physical ability level of residents. DW group members selected a dog matching their walking capability & walked on a paved road at the animal shelter. HWC group members walked with a friend or spouse on a paved road at their residence. Both groups were accompanied by study staff. Pretest, mid-trial & posttest findings included physical function (6-minute walk), weight, physical activity during the previous week, physical activity stage of change, mood & social support.

**Results:** Fifty-four adults participated {DW n=12, HWC n=23 & C n=19}. Fourteen males & 40 females, ranged in age from 67-97 years (Mean=85). The 6-minute walk compared pre and post for the DW group increased 28% (p=0.012), the HWC had a 4% increase (p=0.32) and the C group a 6% increase (p=0.18).

**Conclusions:** DW group participants immediately expressed affinity for the shelter dogs. The DW group's walking ability improved significantly. They stated that their balance & walking confidence improved. They repeatedly thanked the researchers for the program because it "gets me out," "is helping me to feel more confident," & "is fun." Dog walking may be a beneficial way to improve or maintain functioning in older adults. Walking speed is an important indicator of balance.

**Funding:** Waltham Foundation and American Association of Human Animal Bond Veterinarians.

**Podium-26**  
**NIH Podium Presentation Session #1**  
**Friday, October 23, 2009 1:30pm - 3:30pm**

**“WALK A HOUND, LOSE A POUND” A COMMUNITY DOG-WALKING PROGRAM FOR FAMILIES**

**Authors:** R Johnson, University of Missouri; C McKenney, University of Missouri

**Presenter:** Dr. Rebecca A. Johnson

**Introduction:** Research shows the benefits of people walking dogs to lose weight and maintain active lifestyles. The high rate of obesity creates a compelling need for innovative projects aimed at increasing physical activity. Our previous research showed that adherence to a walking program could be motivated by commitment to walking “loaner” dogs. The aims of this community dog-walking project were to increase physical activity among children and adults while educating them about nutrition and the health benefits of walking.

**Methods:** In Walk a Hound, Lose a Pound (WAH) adults and families with children participated in weekly (Saturday morning) one-hour walks with shelter dogs. Shelter dogs were selected based on their adoptability, amicable personality and ability to be walked. They were led through a group warm-up exercise, selected the dog to walk with on a shady gravel trail as far as they wished to walk. Educational information on nutrition and physical activity was provided to participants.

**Results:** Participants spent the hour walking, socializing with, and petting the dogs. Some chose to stay longer than one hour to take additional dogs for walks. Many returned for subsequent sessions to walk with the dogs. Participants reported “that it feels good being able to help the dogs get exercise, socialize with people and with dogs.” Some completed volunteer training at the animal shelter to be able to walk the dogs more frequently. From the animal side, we found that by participating in WAH, the dogs became better socialized, improved their leash-walking skills, and because of their increased exercise levels had better behavior in the shelter when being shown to prospective owners. Staff at the shelter reported that they were more likely to give a dog an extra chance at living longer when it had successfully participated in WAH.

**Conclusions:** The program has been very successful and supports our theory that participating in WAH, a meaningful, socially supportive activity program can motivate adults and families with children to expand their overall physical activity beyond what they do in the program. Participants reported being more aware of options at home for increased physical activity, by walking, running or doing yard and household cleaning projects.

## Podium-27

### NIH Podium Presentation Session #1

Friday, October 23, 2009 1:30pm - 3:30pm

## METHODS DEVELOPMENT AND PRELIMINARY EXAMINATION OF DOG WALKING AS A FORM OF HUMAN AND CANINE PHYSICAL ACTIVITY

**Authors:** Barbour S Warren, PhD; Joseph J Wakshlag, DVM, PhD; Mary Maley, MS; Tracy Farrell, PhD and Carol M Devine, PhD, RD, Cornell University, Ithaca, NY 14853

**Presenter:** Dr. Barbour S. Warren

**Background:** Human levels of overweight and obesity have increased at epidemic rates in the United States. Parallel increases are seen in dogs. Increased sedentarism plays a role in this problem.

**Purpose:** This study was designed to develop and test methods for assessing owner and dog walking activity and attitudes.

**Methods:** Participants and their dogs were recruited from: 1) a Canine Obesity Clinic (38 participants) and 2) by an advertising in an Upstate New York community (48 participants).

Dogs and humans wore pedometers and logged steps for 3 weeks during a canine weight loss program or on three weeks of a twelve week period in the spring of 2009. The community human participants wore pedometers during all waking hours while dogs wore pedometers whenever they were outdoors. Participants were encouraged to follow their normal behavior patterns. Each dog's weight and body condition score was taken at the beginning and end of the study. Surveys on owner characteristics and attitudes were composed, tested and completed both before and after the study.

**Results:** Existing pedometer methodology for dogs was modified such that accuracy in medium and large dogs was approximately 97%. Accuracy for smaller dogs was much lower at 64%.

Clinic participant dogs averaged 6,896 daily steps. The human community participants, on average, walked 11,906 steps per day while their dogs walked 11,748 steps. Surveys indicated high enthusiasm for dog walking. There was no correlation between weight change and average daily steps for dogs in either group.

There was a significant nonparametric correlation between the dogs' average number of steps and: 1) their body condition score (Spearman's  $r = -0.515$ ) and 2) the average daily number of human steps (Spearman's  $r = 0.442$ ). No change in the dog's average body condition score or weight was noted over the course of the study.

**Conclusions:** Tools and methodologies were developed to examine the effects of human and dog walking in both humans and dogs. These results suggest that dogs' physical activity, as measured by steps, plays a noteworthy role in body condition and may play a significant role in the pathogenesis of obesity in the canine population.

## Podium-28

### NIH Podium Presentation Session #1

Friday, October 23, 2009 1:30pm - 3:30pm

## ENABLING YOUNG VOICES IN THREE CULTURES: INTERVIEWING CHILDREN ON THEIR RELATIONSHIP WITH THEIR PETS

**Authors:** B Jegatheesan, University of Washington Seattle; S Omori, University of Washington Seattle; A Jalani, University of Washington Seattle; J Wallen, University of Washington Seattle; S McCune, Waltham Center For Pet Nutrition

**Presenter:** Dr. Brinda I. Jegatheesan

**Introduction:** The objective of this paper is to illustrate the effectiveness of drawing as a means of facilitating children's responses about their relationship with their companion animals.

**Methods:** Forty five children (Islamic immigrant, Japanese immigrant and Native American) aged 7-10 years old in the United States, were interviewed using the 'draw and tell' technique about their relationship and bond with their companion animals. Questions focused on the child-pet dyad and addressed topics such as communication and interaction style, emotions, and care giving. The children were asked to respond to the questions through illustrations. They were also instructed that they could write alongside their drawings if they preferred.

**Results:** Results indicate that the children utilized a range of drawing forms to communicate their responses. Specifically some children from particular cultures used art forms that were culture specific such as the use of anime drawings among the Japanese children (e.g. comedic pet expressions, speed and motion lines) to describe the intensity of their emotion or the urgency of their thoughts (e.g. Momo loves bonito flakes). Similarly, older (9 and 10 year old) Islamic children used the campfire effect (imagery as a starting point) for a more intense conversation/story telling about their pets, particularly in communicating acts of kindness and compassion. This is in line with the oral tradition of the Hadith (sayings and deeds of Prophet Mohammad) in Islamic theology. Children from the Lummi and Blackfeet Native American tribes used circular and stick drawings to describe their relationships with their pets.

**Conclusions:** Overall children produced insightful drawings that lead to more descriptive information about their relationship with their pets.

## Podium-29

### NIH Podium Presentation Session #1

Friday, October 23, 2009 1:30pm - 3:30pm

## CANINE INTERVENTIONS: DOGS ASSIST A READING PROGRAM FOR CHILDREN

**Authors:** A. Alden, Independent Scholar

**Presenter:** Dr. Anne Alden

**Introduction:** The use of therapy dogs has been gaining popularity in animal assisted education. However, there is very little research on programs that promote literacy by encouraging children to read books to dogs in libraries and other settings. Studies have shown that the presence of a dog reduces stress and promotes relaxation (Burton, 1995; Friedmann, 2000; Friedmann & Thomas, 1995; Hart, 2000; Serpell, 2000, Wilson, 1991). Further, dogs provide a safe, non-judgmental atmosphere, making it more comfortable for a child to open up and communicate with a counselor in a therapy setting (Burton, 1995; Chandler, 2001; Nebbe, 1991). It follows that reading aloud to a dog may help children gain confidence in their skills and increase their enjoyment of reading, particularly if they face language, learning or emotional challenges.

**Methods:** Non-participant observation and semi-structured audio-taped interviews were conducted with children who read aloud to dogs and with volunteers and librarians involved in the Peninsula Humane Society and SPCA "Paws for Tales" reading program. Interviews were conducted at libraries in Foster City, Belmont, Redwood City, Atherton, Pacifica and San Mateo, California and also at the Shelter Network, which provides housing and services for homeless families in San Mateo County. Data from interviews were analyzed to find themes that emerged from the three groups. A general description of reading programs and therapy dog and volunteer training was reviewed and analyzed with suggestions for future refinement and development of animal assisted reading programs.

**Results:** Themes were based on feelings and perspectives of participants, librarians and volunteers for the "Paws for Tales" program.

Several themes emerged, including children's enjoyment of interacting with dogs and reading, attachment to dogs, projection of emotions onto dogs, and the non-threatening and comfortable situation created by dogs.

**Conclusions:** Comprehensive training for dogs and volunteers and involvement of human service professionals is discussed as an important aspect for the effectiveness of future reading programs.

**Podium-30**  
**NIH Podium Presentation Session #1**  
**Friday, October 23, 2009 1:30pm - 3:30pm**

## **THE USE OF ANIMAL-ASSISTED THERAPY IN READING INTERVENTION PROGRAMS**

**Authors:** M Kurtz, Don Bosco Charter High School

**Presenter:** Ms. Megan Kurtz and Ms. Heddie Leger

**Introduction:** This research project sought to determine the impact animal-assisted therapy can have on reading intervention programs. Such programs typically rely on oral reading, which, according to the literature, many students find stressful and intimidating. In spite of this, oral reading is an important method in helping students become better readers. To help negate the negative emotions associated with oral reading, reading intervention programs have begun using therapy animals (particularly dogs).

**Methods:** To analyze the effectiveness of therapy animals, the researcher conducted a review of the literature and designed a study. The literature supported the hypothesis that therapy dogs help to negate stressful situations. The study interviewed 16 2nd grade students who had participated in a therapy dog-based reading intervention program for the past school year. The interviews focused on students' feelings towards dogs, oral reading, and the therapy program. Overall results were calculated and were also broken down by those subjects with and without disabilities.

**Results:** The study found that approximately 1/3 of the subjects enjoyed reading orally, while approximately 2/3 of the subjects reported being nervous or scared when reading orally. All of the subjects enjoyed working with the therapy dogs and their handlers. The majority enjoyed reading more after the program and about 80% of students read more after the program. Students with disabilities were more likely to report increases in positive feelings about reading, while students without disabilities were more likely to report increased reading levels. Otherwise there were few differences between students with and without disabilities.

**Conclusions:** Animal-assisted therapy is a good compliment to reading intervention programs. Students enjoy the time spent practicing reading more with the therapy dogs present. They found the process less stressful than practicing oral reading in the classroom. Their level of reading outside the program increases, as do their positive feelings towards reading. Such programs provide benefits for students with disabilities as well as those simply struggling with reading.

## NIH Podium Presentation Session #2

Friday, October 23, 2009

3:45pm – 4:45pm

Moderator: Dr. Sandra McCune

|              |   |                       |
|--------------|---|-----------------------|
| Podium<br>31 | Llama-Assisted Research Program to Develop Empathy In Children      | Ms. Hannah-Leigh Bull |
| Podium<br>32 | Companion Animals and Their Impact on Children with Chronic Illness | Dr. Barbara McClaskey |
| Podium<br>33 | Children's Coping Strategies and the Role of Animals                | Dr. Barbara McClaskey |

## LLAMA-ASSISTED RESEARCH PROGRAM TO DEVELOP EMPATHY IN CHILDREN

**Authors:** H Bull, Llama Deara Ranch, Synergy Holistic Healing

**Presenter:** Ms. Hannah-Leigh Bull

**Introduction:** Interaction with animal species helps children to enlarge their world and learn to observe, understand, and empathize with themselves and others. The research describes a llama-assisted program to train children in empathy and skills of observation and imagination. The program shows that interspecies collaboration increases the empathy of children, as measured quantitatively by the Empathy Assessment Tool administered before and after the program.

**Methods:** The program incorporates field trips to a llama farm in New Mexico for grades from two primarily Hispanic grammar schools over a 2-yr period. Pupils interact with llamas in cooperative exercises involving observation, problem-solving, and play. Llama curiosity and children's innate attraction to animals enhance the experience of interspecies collaboration. Llama activities focus on mutual observation and trust establishment. Gradually, students come to better understand the llama's needs and their own, and build a facility to connect with the experiences of others through interpersonal perception and empathetic responding.

**Results:** Each child commented independently on the validity of 13 statements in the tool, by answering Untrue (1), True (2), or Don't Know (3). The raw answers (1, 2, or 3) for each child for each statement were converted to a numeric empathy coefficient from -1.0 (least empathic) to 1.0 (most empathic) using a key based on the tool. The expected variance was calculated using four classes, one class (third to fourth grade) from each school and year. The overall student variance was 0.105. The expected variance for a class of N is  $\text{var}1/\text{sqrt}(N)$ . For 11 students providing data in a class, the class average is expected to have a random width of  $0.105/\text{SQRT}(11) = 0.032$ . A change of average at least twice this is considered significant. Both schools showed significant change, 0.08 and 0.15 respectively.

**Conclusions:** Programs that provide children interaction with other animals can result in increased empathy in their views and behavior. This program showed that collaboration between llamas and children resulted in a gain in empathy in the pilot population. The initial work looks promising; more work needs to be done in other applications and with other cultures, however.

## COMPANION ANIMALS AND THEIR IMPACT ON CHILDREN WITH CHRONIC ILLNESS

**Authors:** B McClaskey, Pittsburg State University

**Presenter:** Dr. Barbara McClaskey

**Introduction:** Up to 20% of children in the U.S. have a chronic or disabling condition. With longer life expectancy it's increasingly important to focus on children's adaptation to illness so as to help optimize their psychological well-being. The purpose of the study was to examine influences on self-concept, competence & behavior problems of children with and without chronic illness and to identify factors associated with adaptation including the role of companion animals.

**Methods:** The study used a descriptive, correlational design and self-report questionnaires. The conceptual framework was based on Roy's theory of adaptation and Grey and Thurber's model of adaptation to childhood illness. The sample included 78 children with chronic illness and 156 children without illness. Children completed the Piers Harris Children's Self Concept Scale & Schoolager's Coping Inventory. Parents completed the Child Behavior Checklist & Family Adaptability and Cohesion Evaluation Scale. Independent variables included age, socioeconomic status, family cohesion, & pet ownership. Multiple regression analyses examined influences on the dependent variables of self-concept, competence, & problem behavior scores.

**Results:** In the total group of children the only significant variable associated with self-concept was pet ownership with pet owners having higher self-concepts ( $p < .05$ ). Children had a significantly higher competence score if they were without illness, had higher income & owned a pet ( $p < .01$ ). Children had higher problem behavior scores if they had an illness, lower income & lower family cohesion ( $p < .01$ ). In addition to examining the total group, influences on the chronic illness group and the no illness group were compared. Pet ownership was positively associated with self-concept in the chronic illness group ( $p < .05$ ). Pet ownership was a positive factor for both groups of children in regards to competence ( $p < .05$ ).

**Conclusions:** It is essential to promote healthy psychological adjustment among those with a chronic illness when striving to maintain quality of life. If higher self-concept, higher competence & lower problem behaviors reflect adaptation to chronic illness, then based on this study, higher family income, higher family cohesion & having a pet may be beneficial.

**Podium-33**  
**NIH Podium Presentation Session #2**  
**Friday, October 23, 2009 3:45pm - 4:45pm**

## **CHILDREN'S COPING STRATEGIES AND THE ROLE OF ANIMALS**

**Authors:** B McClaskey, Pittsburg State University

**Presenter:** Dr. Barbara McClaskey

**Introduction:** Promoting positive mental health among children and adolescents has become increasingly important. The percentage of individuals experiencing mild to severe cases of stress, anxiety, depression, and other mental health problems is approximately 25%. It has been reported that half of all mental illness begins by age 14. Stress research indicates individuals use a variety of coping strategies. One strategy that may help buffer the impact of negative life conditions is contact with social support systems. The purpose of this study was to assess coping strategies reported by children and whether companion animals, or pets, may be a part of the support system for some children.

**Methods:** In this descriptive study, school-aged children completed the Schoolager's Coping Strategies Inventory (SCSI), a self report instrument that assesses coping strategies from the child's perspective. Developed by Ryan-Wenger, the SCSI was based on Lazarus's stress and coping theory. The 234 participants indicated frequency of use and effectiveness of a variety of coping strategies, including 'cuddling my pet or stuffed animal'. Pet-owners also completed a Child Pet Interaction Scale that included a score for emotional closeness, responsibility, and a total interaction score.

**Results:** Descriptive analysis revealed that the coping strategy that had the highest percentage of children stating it was helpful was cuddling my pet or stuffed animal. Correlation analysis revealed significant relationships between the scores on the Child Pet Interaction Scale and the reported frequency and helpfulness of cuddling a pet or stuffed animal when stressed.

**Conclusions:** Based on the importance of positive mental health and the frequency with which mental health problems start in childhood, it is important to note that many children reported that cuddling a pet or stuffed animal was helpful in times of stress. Health care providers and others working with children should note that pet-owners may benefit from contact with their own pet especially if they have a strong interaction with their pet. Those children who do not own pets and those children whose pet is not available may benefit from the support of a therapy animal or stuffed animal when experiencing a stressful environment.

# NIH Poster Presentation Session #1

Friday, October 23, 2009

4:45pm – 6:15pm

|           |   |                           |
|-----------|---|---------------------------|
| Poster 25 | Owners and Pets Exercising Together: The Metabolic Benefits to the Owner of "Walking the Dog"                   | Dr. Mark B. Stephens      |
| Poster 26 | Owners and Pets Exercising Together (OPET): Preliminary Canine Response to Prescribed Exercise                  | Dr. Christopher Byers     |
| Poster 27 | Owners and Pets Exercising Together (OPET): Interdisciplinary Challenges in Research                            | Dr. Cindy C. Wilson       |
| Poster 28 | Nonverbal Sensitivity and Success in Human-Dog Interactions   | Mrs. Iben Meyer           |
| Poster 29 | Canine Therapy and Healthy Behavior Modification for Overweight Children  | Mrs. Kathy Wright         |
| Poster 30 | Dog Therapy and Language Acquisition  | Dr. Sheela L. Stuart      |
| Poster 31 | The Effects of Companion Dogs on Families of Children with Autism Spectrum Disorders                            | Mr. Cosmin G. Coltea      |
| Poster 32 | Another Way to Look - The Effect of a Therapy dog on the Behavior and Communication Skills of an Autistic Child | Ms. Karine Silva          |
| Poster 33 | Islamic and Japanese Childrens' Understanding of Their Relationship with Their Pets                             | Dr. Brinda I. Jegatheesan |
| Poster 34 | Pet Ownership in a UK Birth Cohort: A Resource for Studying Human-Animal Interactions                           | Dr. Carri Westgarth       |
| Poster 35 | A Review of the Literature: Animal-Assisted Therapy with Children   | Mrs. Lori A. Friesen      |

**Poster-25**

**NIH Poster Presentation Session #1**

**Friday, October 22, 2009 4:45pm - 6:15pm**

**OWNERS AND PETS EXERCISING TOGETHER: THE METABOLIC BENEFITS TO THE OWNER OF “WALKING THE DOG”**

**Authors:** M Stephens, USU; C Wilson, USU; J Goodie, USU; C Byers, VCA Veterinary Referral Associates; C Olsen, USU; E Nutting, VCU; M. Yonemura

**Presenter:** Dr. Mark Stephens

**Introduction:** There is a “parallel problem” of rising overweight and obesity in both pets and pet owners (PO) in American society. This represents a unique opportunity to improve weight management and increase physical activity in both groups. Our study is designed to use the human-animal bond to promote weight loss for both owner and animal. We specifically aim to (1) Evaluate the relationship of PO weight and that of their dog; (2) Determine whether counseling provided by veterinarians and focused on the companion dog results in weight loss for both animals and humans; and (3) Determine the extent to which the level of attachment to the dog impacts PO participation in healthy activities such as exercise.

**Methods:** Using a blinded, prospective, randomized control design, we are investigating the health impact of veterinarian-delivered physical activity counseling directed to the companion animal on PO physical activity levels. The study involves two phases. During the first phase POs provide self-reported activity data and their height and weight are obtained. Canine body condition scores and metabolic panels are also obtained. During Phase 2, POs are randomly assigned to one of two interventions, either a standard of care or a physical activity group. The activity group receives veterinarian-directed counseling aimed at increasing the companion dog’s level of physical activity. Subjects return for a veterinary appointment after three months where weight, body condition score and blood tests are repeated. Our primary outcome measure is physical activity, defined as the average number of daily steps recorded by pedometer. Secondary outcomes include weight and metabolic changes in both pet owner and animal.

**Results:** Among the 12 POs who have completed both phases of the study, we have seen reductions in total cholesterol, low-density lipoprotein cholesterol, serum triglycerides and a trend towards reduced serum glucose and reduced body weight among POs who are more active. High-density cholesterol has remained the same.

**Conclusions:** POs who engage in more physical activity following brief veterinarian-directed counseling exhibit metabolic improvements. This has long-term implications for cardiovascular health and wellness.

**Poster-26**

**NIH Poster Presentation Session #1**

**Friday, October 22, 2009 4:45pm - 6:15pm**

**OWNERS AND PETS EXERCISING TOGETHER (OPET): PRELIMINARY CANINE RESPONSE TO PRESCRIBED EXERCISE**

**Authors:** C Byers, VCA Veterinary Referral Associates; C Wilson, Uniformed Services University of the Health Sciences; M Stephens, Uniformed Services University of the Health Sciences; J Goodie, Uniformed Services University of the Health Sciences; C Olsen, Uniformed Services University of the Health Sciences; F Netting, Virginia Commonwealth University; M Yonemura, VCA Veterinary Referral Associates

**Presenter:** Dr. Christopher Byers

**Introduction:** Lack of physical activity negatively impacts the health of pet owners (PO) and their animal companions. 'Walking the dog' represents an opportunity to improve both owner and pet physical activity and cardiovascular fitness. This study examines: (1) the relationship of PO weight to that of their dog; (2) whether veterinarian-initiated counseling increases physical activity in POs and their dogs; and (3) the extent to which the level of PO attachment to the dog impacts the ability to achieve recommended physical activity levels.

**Methods:** Dog owners presenting to a veterinary referral center are asked to participate. Those agreeing are then randomly assigned to either a physical activity or standard care group. Dogs undergo an initial physical examination that includes a body condition score (BCS). POs in both groups receive an activity monitoring log and pedometer. Owners are asked to return in 3 months for reevaluation of the dogs. Only those in the physical activity group are given specific instructions to increase their activity level with their dogs.

**Results:** Forty POs have enrolled in the study, and 28 have completed the study. The mean age of the dogs is 7.0 years (SD = 3.9 years). Mean BCS of the 28 dogs in Phase I is 5.98 +/- 1.17. Among the 12 dogs that have complete data for Phase I and Phase II, their mean BCS was 6.58 +/- 0.67 at Phase I, and their mean BCS at the end of Phase II was 6.17 +/- 0.94. Of the 28 POs enrolled in Phase II, 16% have dropped out due to declining health on the part of one dog, 2 POs who did not adhere to the study directions and provided neither pedometer data nor activity logs, and 1 PO who had "second thoughts" about driving long distance for additional study visits.

**Conclusions:** POs with a diverse group of dogs are willing to enroll in and complete a study involving veterinarian-provided recommendations for increased physical activity and extended participation involving daily data collection. At this early stage it is unclear whether veterinarian-initiated physical activity counseling will result in an improved BCS compared to the group that does not receive counseling. Additional investigation is needed to determine if further increased activity will achieve a desired BCS improvement.

**Poster-27**

**NIH Poster Presentation Session #1**

**Friday, October 22, 2009 4:45pm - 6:15pm**

**OWNERS AND PETS EXERCISING TOGETHER (OPET): INTERDISCIPLINARY CHALLENGES IN RESEARCH**

**Authors:** C. Wilson, Uniformed Services University of the Health Sciences; J. Goodie, Uniformed Services University of the Health Sciences; M. Stephens, Uniformed Services University of the Health Sciences; C. Byers, VCA/Veterinary Referral Associates; C. Olsen, Uniformed Services University of the Health Sciences; F. Netting, Virginia Commonwealth University; M. Yonemura, VCA/Veterinary Referral Associates; S. McCune, WALTHAM Centre for Pet Nutrition

**Presenter:** Dr. Cindy Wilson

**Introduction:** Lack of physical activity has a negative impact on the health of pet owners (PO) and their dogs. 'Walking the dog' represents an opportunity to improve both pet and owner physical activity (PA) and cardiovascular fitness. Our multidisciplinary team includes a clinical health psychologist, public health educator, primary care physician, tertiary care veterinarian, social worker, and animal behaviorist/research staff to promote using the pet-owner relationship to increase PA for owners and dogs. The study examines: (1) the relationship of PO weight to that of their dog; (2) whether routine counseling provided by veterinarians increases PA in dogs and owners; and (3) the extent to which the level of PO attachment to the dog impacts the ability to achieve recommended PA levels. This paper describes 8 challenges encountered in the development and implementation of a multidisciplinary research project.

**Methods:** We are recruiting 300 dog owners from a veterinary specialty care clinic. Dogs will undergo a complete physical examination and PO's will complete demographic and biopsychosocial self-report measures. Of the initial sample, 76 owners with an overweight dog are randomly assigned to either a PA or standard of care group. PO in both groups receive a monitoring log and pedometer and are asked to return in 3 months; only those in the PA group will be given specific instruction by the veterinarian to increase their PA with the dog.

**Results:** Challenges unique to this study include: (1) role of institutional review committees and their oversight (IRB vs. IACUC); (2) conflict in terminology (who's the "patient"); (3) collection of human data in an animal care setting; (4) communication among veterinarian staff and with the project director; (5) delineation of professional "turf" and individual roles and responsibilities; (6) how to manage protocol "offenders;" (7) ethical quandaries; and (8) issues regarding publications.

**Conclusions:** Lessons learned offer insight into the development of multidisciplinary health promotion interventions for PO and their dogs in an alternative setting as well as into the use of language and professional boundaries.

**Poster-28**

**NIH Poster Presentation Session #1**

**Friday, October 22, 2009 4:45pm - 6:15pm**

**NONVERBAL SENSITIVITY AND SUCCESS IN HUMAN-DOG INTERACTIONS**

**Authors:** I Meyer, University of Copenhagen, Faculty of Life Sciences; B Forkman, University of Copenhagen, Faculty of Life Sciences

**Presenter:** Mrs. Iben Meyer

**Introduction:** Looking at different people interacting with dogs, it looks as though some human-dog interactions seem more successful than others. What is it that makes some people successful in their interaction with dogs and others less successful? Since communicating with dogs relies almost solely on nonverbal signals, especially for the dog-to-human part, a high sensitivity to nonverbal signals might improve a person's success with dogs, simply because being able to decode the signals of the dog makes it easier to adjust one's own behaviour accordingly. Earlier studies have shown that people who score high on the Profile of Nonverbal Sensitivity (PONS) ® test are rated as more popular among peers and more interpersonally sensitive than people with a lower score. The objective of this study is to investigate the relationship between nonverbal sensitivity, ability to handle dogs and popularity among dogs.

**Methods:** A group of dog owners, attending a dog training class with their dog, will be taking the PONS® test. The test consists of 40 two-second long video clips of the same woman expressing different emotions. The video clips are without sound and show either the woman's face or her body from knees to neck. For each video clip, test subjects have to judge which of two real life situations is represented by the clip just seen. Test results will be used as a measure of the dog owners' ability to decode nonverbal signals. After the test, all test subjects will be asked to rate themselves and each other on different variables including 'ability to handle own and strange dogs' and 'popularity among dogs'. In addition, test subjects will be rated on the same variables by their trainer. Using statistical tools I will analyze the relationship between dog owners' nonverbal sensitivity, their ability to handle dogs and their popularity among dogs.

**Results:** Results will be discussed in relation to other findings within the field of nonverbal sensitivity and human-animal interactions. Learning more about the interaction between humans and dogs and how this interaction is affected by human personality, might be useful for future research on human-animal interaction as well as for the field of animal assisted activities.

**Conclusions:**

**Poster-29**

**NIH Poster Presentation Session #1**

**Friday, October 22, 2009 4:45pm - 6:15pm**

**CANINE THERAPY AND HEALTHY BEHAVIOR MODIFICATION FOR OVERWEIGHT CHILDREN**

**Authors:** K. Wright, Florida Department of Health/Children's Medical Services/Kids and K9s for Healthy Choices

**Presenter:** Mrs. Kathy Wright

**Introduction:** We describe a pilot program educating families on the benefits of a healthy choices life style with a comprehensive approach that includes nutrition, exercise, self esteem, family unity and community awareness. The program is free, funded in part by the Robert Wood Johnson Foundation. The families enrolled choose a dog from the animal shelter that is compatible with their family. The walking exercise protocol with the dogs is discussed with the participants. Regular scheduled meetings and speakers, such as veterinarians, pediatricians, psychologists and nutritionists, are included in the education component. The main theme is to promote and encourage healthy choices and behavior.

**Methods:** Children identified for the program are followed by monthly BMI measurements. They walk the dog for 30 minutes twice a day with one time being with a family member. They wear a pedometer and log the steps. They also participate in exercises like jump rope and dance. They learn nutritional exercises like grocery store shopping, reading food labels and cooking methods. Self-esteem lessons are managed by a psychologist. Parents are encouraged to engage in positive parenting and address healthy choices.

**Results:** The small pilot project was the first of its kind to promote the family as the core of healthy choices. Its innovativeness was in the use of dogs for the exercise component. During the first 5 months of the program, 9 children were enrolled they logged in 365 miles of walking. The average loss of weight was 2.5 pounds collectively. The parents report their children feel more confident. The program was highlighted on the Rachael Ray daytime television program and presented to the Center for Disease Control and Prevention.

**Conclusions:** The program is a creative, innovative, family centered community based project. This program can be adapted to an afterschool program, integrated into the daily school curriculum and most importantly the lessons learned can be part of daily family life. It is now a 501 (C) (3) non profit program with chapters starting in other states. The idea of the program is not about stringent diets or harsh regimes rather making healthier choices and how those choices affect the child's and family's life style.

**Poster-30**

**NIH Poster Presentation Session #1**

**Friday, October 23, 2009 4:45pm - 6:15pm**

**DOG THERAPY AND LANGUAGE ACQUISITION**

**Authors:** S Stuart, Children's National Medical Center

**Presenter:** Dr. Sheela L. Stuart

**Introduction:** Tomasello (2000) describes emergence of language as based upon a psycholinguistic unit (the utterance) which involves one person expressing an intention that another person share attention with/toward some third entity i.e. joint attention. The goal of language development with augmentative and alternative communication incorporates joint attention and joint action.

Children who need to use AAC for expressive language frequently have challenges in participating within the environment in a manner that readily results in joint attention.

**Methods:** The problem generally is to find something appealing to the child!

Using a dog in therapy with one word messages that incorporate all the elements of joint attention has been found to be an avenue for this type of language development. The dog's natural response within the activity is motivating, reinforcing and meaningful. Very simple interactive routines can be designed that result in immediate responses. Example, 4 messages "eat" "shake" "down" or "wear scarf" can be used. There is no sequential or correct order and the dog will readily complete the directives as many times as requested.

**Results:** This poster will show results of 3 children's AAC language development therapy using a dog. Their progress has been assessed using Greenspan, et al. Affect-Based Language Curriculum. Our poster will show changes in each child.

**Conclusions:** Data represent a limited sample but support continued use of AAC/Dog therapy language development model. In the area of speech-language therapy, the goals of therapy must be defined for the patient, the handler/therapist, and the dog. Detailed description of our overall program and clinical observations will be included.

**REFERENCES:** Greenspan, S. & Lewis, D. (2002). Affect Based Language Curriculum. Bethesda, MD: ICDL

Tomasello, M. (2000). First steps toward a usage-based theory of language acquisition. *Cognitive Linguistics* 11 - 1/2 pp. 61-62.

## THE EFFECTS OF COMPANION DOGS ON FAMILIES OF CHILDREN WITH AUTISM SPECTRUM DISORDERS

**Authors:** C Coltea, Carleton University

**Presenter:** Mr. Cosmin G. Coltea

**Introduction:** Parents of autistic children report high levels of stress, moderated by symptom severity and social support (Siklos et al., 2006). Do companion dogs alleviate parental stress? Do the children benefit too? To our knowledge, this study is the first to examine the link between companion dogs and families of children with Autism Spectrum Disorders (ASD).

We expected that more strongly attached parents to the dog would report less stress and greater life satisfaction; that some children with ASD would be attached to their dogs and that the dogs would also be attached to them. Because presence of animals during therapy sessions can improve the language and social skills of children with ASD (Sams et al., 2006), we also expected that strongly attached children to the dog would have better language and social skills.

**Methods:** Twelve mothers of children with ASD (M child age = 9.00 yr) reported on both their own and their children's relationship with the dog by completing a set of scales: Autism Behaviour Checklist (ABC, Krug et al., 1980), Lexington Attachment to Pets Scale (LAPS, Johnson et al., 1992), Companion Dog Interaction Questionnaire (CDIQ, developed for this study), Parenting Stress Index (PSI-SF, Abidin, 1995) and Parent Life Satisfaction Scale (PLS, based on Schwartz et al., 1991).

**Results:** As expected, mothers of higher functioning children reported lower stress levels than mothers of lower functioning children [ $F(1, 10) = 22.94, p = .001$ ]. Unexpectedly, strongly attached mothers to their dog reported comparable stress levels [ $F(1,7) = .97, p = .36$ ] and lower life satisfaction [ $F(1,7) = 5.84, p = .046$ ] than less attached mothers. Four children (44.4%) scored above 75% on the LAPS, indicating attachment. Analysis of CDIQ scores confirmed the reciprocal nature of child-dog relationships ( $r = .74, p = .012$ ). Attached children had better language skills [ $F(1,7) = 8.45, p = .023$ ] but lower social skills [ $F(1,7) = 9.1, p = .019$ ].

**Conclusions:** Attachment was associated with better language and weaker social development in ASD children. No benefit in stress level was observed for mothers; they may have relied on the dog for solace or to compensate for lack of human social support. Marital status may have confounded overall life satisfaction.

**Poster-32**

**NIH Poster Presentation Session #1**

**Friday, October, 23, 2009 4:45pm - 6:15pm**

**ANOTHER WAY TO LOOK - THE EFFECT OF A THERAPY DOG ON THE BEHAVIOUR AND COMMUNICATION SKILLS OF AN AUTISTIC CHILD**

**Authors:** R, Correia, Odete Fachada Consultores, Lda.; K Silva, Institute of Biomedical Sciences University of Porto; Ânimas; M Lima, Institute of Biomedical Sciences University of Porto; Ânimas; A Magalhães, Institute of Molecular and Cell Biology; L de Sousa, Institute of Biomedical Sciences University of Porto; Ânimas

**Presenter:** Ms. Karine Silva

**Introduction:** Animal-assisted therapy is a healing procedure, involving a planned interaction between patients and trained animals with the aim of achieving a specified therapeutic outcome. Within the field of autistic disorders, animals are usually considered as "transitional objects" to human relationships, capable to combat, through multiple stimuli, the low sensory and affective arousal levels of the patients. Despite the numerous reports pointing to such benefits there are still few controlled studies and little evidence-based research.

**Methods:** The current study, evaluated the effects of dog-assisted therapeutic sessions on the behaviour and communication skills of a child with autism. More specifically, this work assessed the effectiveness of the interaction with the dog in i) creating an attachment bond able to reduce the child's isolation, aggressive behaviour and obsession for inanimate objects and ii) generalizing this attachment-bond to the human therapist. Animal-assisted and non-animal-assisted therapeutic sessions were held weekly for a total of 60 sessions. During each session the therapist followed a predetermined protocol aiming at eliciting the child's interest and engagement in the environment. All sessions were videotaped as to allow for the scoring of the frequencies and corresponding durations of both behaviours and verbalizations.

**Results:** A general linear model analysis, with random factors, provided quantitative indications for a significant relation between the interaction with the dog and an increase of pro-social behaviours, an improvement in communication skills and a decrease in self absorption, aggressive impulses and obsessions. Not only did the child establish a bond with the dog, as he clearly extended it to the therapist as shown by the behavioural differences observed between the initial and final non-assisted sessions.

**Conclusions:** Despite being a single case study, thus prohibiting generalizations, this work provides tentative support for the efficacy of animal assisted therapy for children with autistic disorders. With the knowledge obtained from such rigorous scientific studies, researchers and clinicians can work together on the delineation of effective methods to serve this population through animal interventions.

**Poster-33**

**NIH Poster Presentation Session #1**

**Friday, October 23, 2009 4:45pm - 6:15pm**

**ISLAMIC AND JAPANESE CHILDREN'S UNDERSTANDING OF THEIR RELATIONSHIP WITH THEIR PETS**

**Authors:** B Jegatheesan, University of Washington Seattle; S Omori, University of Washington Seattle; A Jalani, University of Washington Seattle; J Wallen, University of Washington Seattle; S McCune, Waltham Center For Pet Nutrition

**Presenter:** Dr. Brinda Jegatheesan

**Introduction:**

Children are shaped by the socio-cultural worlds in which they live. It is important to identify beliefs, attitudes and actions of particular cultural groups in order to help us understand how animals are viewed and treated, the reasons behind such views and treatment and the impact it has on the children in their relationship with animals. However, limited empirical work has explored the influence of culture and religion on the relationships and bonding of humans with companion animals. The purpose of this study was to examine the influence of socio-cultural and religious factors on children's relationship with their companion animals and the potential impact these factors have on the child-animal bond and relationship.

**Methods:** Thirty children (Islamic and Japanese immigrants) living in the United States participated in the study. The children were interviewed using the child friendly 'draw and tell' technique. Interviews focused on the child-pet dyad and issues such as their communication, emotion, care-giving, and interaction. The constant comparative analysis was the primary method of data analysis. Analysis was an ongoing and multileveled process.

**Results:** Results indicate that Islamic children understood their relationship with their pets (e.g., cats, dogs, birds) in primarily religious terms. The teachings of Islam were prevalent throughout the children's explanation of their views and actions (kindness and compassion) towards their pets. The Japanese children did not indicate the influence of Buddhism in their responses. Parents in both cultural groups played an important role in shaping their children's beliefs, attitudes and actions towards their pets.

**Conclusions:** The study documents the rich and complex cultural aspects of children's relationship with their companion animals.

**Poster-34**

**NIH Poster Presentation Session #1**

**Friday, October 23, 2009 4:45pm - 6:15pm**

**PET OWNERSHIP IN A UK BIRTH COHORT: A RESOURCE FOR STUDYING HUMAN-ANIMAL INTERACTIONS**

**Authors:** C Westgarth, University of Liverpool; J Heron, University of Bristol; A Ness, University of Bristol; P Bundred, University of Liverpool; R Gaskell, University of Liverpool; K Coyne, University of Liverpool; A German, University of Liverpool; S McCune, WALTHAM; S Dawson, University of Liverpool

**Presenter:** Dr. Carri Westgarth

**Introduction:** The Avon Longitudinal Study of Parents and Children (ALSPAC) - which is also known as Children of the 90s - is a long-term health research project. It recruited 14,541 pregnant women resident in Avon, UK with expected dates of delivery 1st April 1991 to 31st December 1992. The health and development of their children has been followed in great detail ever since. These data include measures of pet ownership, and are available as a resource to the research community.

**Methods:** ALSPAC has collected data from pregnancy onwards using postal questionnaires, hands-on clinic assessments, biological samples, linkage to routine information, abstraction from medical records and environmental monitoring. Full details of the resource can be found at [www.bristol.ac.uk/alspac/](http://www.bristol.ac.uk/alspac/). The carer of the child (usually the mother) was asked how many of each pet type they owned during gestation, and at child age 8 months, 21, 33, 47, 85, 97 and 122 months (up to 10 years old). At age 47 months (nearly 4), the carer was also asked four other questions relating to pets: whether they thought owning a pet helped their health; how often they take their pet to visit friends or relatives; how are their feelings towards people affected by the way they react to their pets; and do they keep a picture of their pet on display.

**Results:** Fifty-eight percent of the mothers owned pets during gestation. Pet ownership of the carers, and therefore the children, rose to approximately 73% at 10 years (Chi squared tests for trend  $P < 0.001$ ). The most substantial increase in pet ownership was seen between ages 3 and 7 years, particularly for rodents. Cats were the most popular pets throughout. The answers for the pet-related questions at child age 47 months differed by pet type owned. Thirteen percent of respondents reported that they thought that owning a pet had improved their health, and 3% made it worse.

**Conclusions:** ALSPAC should be considered an important resource for research into human-animal interactions, in particular for children. The pet ownership data outlined here will encourage the use of birth cohort data in human-animal interaction research.

**Poster-35**  
**NIH Poster Presentation Session #1**  
**Friday, October 23, 2009 4:45pm - 6:15pm**

## **A REVIEW OF THE LITERATURE: ANIMAL-ASSISTED THERAPY WITH CHILDREN**

**Authors:** L Friesen, University of Alberta

**Presenter:** Mrs. Lori Friesen

**Introduction:** Over the last thirty years, the unique form of support that animals and dogs in particular, offer to children has been examined in the home, in therapeutic settings, in schools and hospitals, and in special-needs classrooms. Research which examines the relationship between children and animals has demonstrated marked benefits for children physiologically, emotionally and socially, and physically. Physiologically, the presence of a dog has been found to significantly lower behavioural, emotional, and verbal distress in children when participating in a mildly stressful activity, and lower blood pressure and heart rate when a child reads aloud. Dogs have been found to contribute to elementary students' overall emotional stability and to more positive attitudes towards school in children diagnosed with severe emotional disorders. Further, students tend to be more attentive, more responsive, and more cooperative with an adult when a dog is present in the classroom. In therapeutic settings, children have experienced increased alertness and attention span, and an enhanced openness and desire for social contact when involved in therapy sessions with dogs.

**Methods:** A thorough review of the literature on AAT with children was completed by the researcher over the past two years.

**Results:** Research exploring AAT with children in homes, therapeutic settings, schools and hospitals, and in special-needs educational environments suggests that AAT may offer physiological, emotional, social, and physical benefits for children. Further, AAT seems to be offer benefits for children aged 0-12 years in particular medically, behaviourally, and/or by positively affecting children's well-being (Nimer & Lundahl, 2007).

**Conclusions:** Although there are an increasing number of controlled studies which have examined the benefits of AAT with children in therapeutic, medical, and special-needs settings, an exciting and as-yet unexplored area of research is how animal-assisted programs might benefit 'typical' children emotionally and socially in classrooms, particularly when children are engaged in literacy activities.