11th International Conference on Human-Animal Interactions

IAHAIO 2007 Tokyo

October 5-8, 2007

People & Animals: Partnership in Harmony

Venue: October 5th at Yasuda Hall, The University of Tokyo
October 6th to 8th at Keio Plaza Hotel

Website: http://www2.convention.co.jp/iahaio.tokyo/

Conference hosted on behalf of the International Association of Human-Animal Interaction Organizations by the Japanese IAHAIO Members.

IAHAIO has been officially designated a working partner of WHO-The World Health Organization.
Organizer

Japanese IAHAIO Members

National Members:
Japanese Animal Hospital Association (JAHA)
Society for the Study of Human Animal Relations (HARS)

Affiliate Members:
Companion Animal Information and Research Center (CAIRC)
Japanese Service Dog Resource Academy (JSDRA)
Hill’s-Colgate (JAPAN) Ltd.

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IAHAIO 2007 TOKYO
Conference President : Yoichi Shoda
Endorsements

Government

Ministry of Agriculture, Forestry and Fisheries
Ministry of Environment
Ministry of Health, Labour, and Welfare
Tokyo Metropolitan Government

Organizations and Institutions

Anthrozoology Institute, University of Bristol, United Kingdom
Center for Companion Animal Behavior & Human-Animal Interactions, University of California at Davis
Center for the Human-Animal Bond, Purdue University
Center for the Interaction of Animals & Society, University of Pennsylvania
Humane Society International
Institute for Applied Ethology and Animal Psychology in Switzerland
Institute for Social Learning with Animals in Germany
International Society for Anthrozoology
Konrad Lorenz Research Center, Austria
Singapore Society for the Protection of Animals
World Small Animal Veterinary Association
World Society for the Protection of Animals
World Veterinary Association

Japanese Organizations

All Japan Veterinary Co-operative
Association of Tokyo Psychiatric Hospitals
Hearing Dog Prevalence Association
Japan Animal Health Technicians’ Association
Japan Animal Welfare Society
Japan Association of Zoos and Aquariums
Japan Equestrian Federation
Japan Guide Dog Association
Japan Kennel Club
Japan National Tourist Organization
Japan Pet Care Association
Japan Small Animal Veterinary Association
Japan Society for the Prevention of Cruelty to Animals
Japan Veterinary Medical Association
Japanese Association for the Promotion of Canine Good Citizens
Japanese Association of Occupational Therapists
Japanese Coalition for Animal Welfare
Japanese Service Dog Users Association
Japanese Society of Animal Nursing
Japanese Society of Animal Science
Japanese Society of Humane Care of Animals
Japanese Society of Service Dog Research
Livestock Technology Association
Nagoya City Rehabilitation and Sports Center
Nihonken Hozonkai (Japanese Society for the Preservation of Indigenous Breeds)
Science Council of Japan
The Japanese Society of Veterinary Science
Tokyo Convention & Visitors Bureau
Tokyo Zoological Park Society
Yokohama Rehabilitation Center
Zoorasia

Universities

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Iwate University
Obihiro University of Agriculture and Veterinary Medicine
Rakuno Gakuen University
The University of Tokyo
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Pet Food Manufacturers Association, Japan
Pet Food Institute(PFI)
Dainippon Sumitomo Pharma
Tokyo Zoological Park Society

Cooperation & Support

Japan Livestock Technology Association
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Preface

Welcome to the 11th International Conference on Human-Animal Interactions (the IAHAIO 2007 Tokyo Conference)!
We are proud to present the first IAHAIO conference held in Asia, planned by the Organizing Committee, made up of the Japanese members of IAHAIO. The Program Organizing Committee and the International Program Committee members have also done a remarkable job in choosing interesting programs in various fields of human-animal interactions.
As you can see from the number of the participants, interest in this field is growing more and more every year in Japan, which has led to the development of the Access Law of the Assistance Animals and the Cruelty to Animal Act; but we still are seeking improvements for humans and animals to live in harmony. We are very sure that this Conference will be a good opportunity to exchange information internationally, and will be able to help us enter a new phase in the field of human-animal interactions.
We hope you will enjoy the program and events in the Conference, and we also hope you will have a pleasant and impressive stay in Tokyo, JAPAN!

Yoichi Shoda, Ph.D.
Chair, Organizing Committee of IAHAIO Tokyo, 2007
Professor Emeritus, The University of Tokyo
I have had the privilege of serving as IAHAIO president since 1995 and being involved in its triennial conferences in one way or the other since 1992. I have witnessed the growth of interest in the field of human-animal interactions during my own personal involvement over the past two and a half decades. Looking over the abstracts included in this Abstract Book for the IAHAIO 2007 TOKYO Conference, I feel confident when I say: Research, programs and education in the field of human-animal interactions have indeed come of age and become recognized in the modern world. As you know, this 11th IAHAIO conference is the first to take place in Asia. Any fears that attendance from “the rest of the world” would be small due to the great travel distances have proven ill-founded. The “rest of the world” has come to Tokyo to learn from our Asian colleagues, and again, considering the high quality of the abstracts from Japanese and other Asian researchers and practitioners, we can indeed learn much. But this conference will also give Western colleagues a chance to present their latest research findings and programs to a new audience in the Far East. Through this information exchange, both of our partnerships - with animals and with colleagues from around the globe - will be enhanced, allowing even greater “harmony” in the field.

Prof. Dr. Dennis C. Turner
President of IAHAIO

On behalf of the program steering committee I cordially welcome you to Japan, to Tokyo and to the conference. We have a marvelous line-up of plenary talks, oral/poster presentations, workshops and other events. I am sure that you will learn a lot and experience fruitful discussions during the meeting. Besides the conference, you are recommended to enjoy the local environment as October is the most beautiful season here. I hope you have a great time and take home wonderful memories.

Yuji Mori, DVM, PhD
Chair, Program Steering Committee of IAHAIO Tokyo, 2007
Professor of Veterinary Ethology, The University of Tokyo
Program
<table>
<thead>
<tr>
<th>Time</th>
<th>The University of Tokyo</th>
<th>Keio Plaza Hotel</th>
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<tbody>
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<td>13:00</td>
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<tr>
<td>13:30</td>
<td>Opening Ceremony</td>
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<td>Chair: Yuji Mori</td>
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<td>(13:30-14:30)</td>
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<td>Press Conference</td>
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<td>(12:40-13:10)</td>
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<tr>
<td>14:00</td>
<td>Break (14:30-14:50)</td>
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<tr>
<td>14:50</td>
<td>Special Guest Lecture:</td>
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<td></td>
<td>His Imperial Highness</td>
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<td>Prince Akishino</td>
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<td>Chair: Yoichi Shoda</td>
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<tr>
<td></td>
<td>(14:50-15:30)</td>
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<tr>
<td>15:30</td>
<td>Break (15:30-15:40)</td>
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<tr>
<td>16:00</td>
<td>Plenary-1: Prof. Yoshih</td>
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<td>iro Hayashi</td>
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<tr>
<td></td>
<td>Chair: Dennis Turner</td>
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<td>(15:40-16:20)</td>
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<td>Introduction of the</td>
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<td>Conference</td>
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<td>(16:20-16:40)</td>
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<tr>
<td>16:40</td>
<td>bus to Keio Plaza</td>
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<td></td>
<td>(16:40-17:20)</td>
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<tr>
<td>18:00</td>
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<td>Welcome Reception</td>
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<td>(18:00-19:30)</td>
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<td>(Room: 5F Eminence Hall)</td>
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**Saturday, October 6th**

Keio Plaza Hotel Tokyo

<table>
<thead>
<tr>
<th>Time</th>
<th>5th floor</th>
<th>4th floor</th>
<th>4th floor Exhibition Hall(Hana)</th>
<th>4th floor(kaede)</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Concord A</td>
<td>Concord B</td>
<td>Concord C</td>
<td>Nishiki</td>
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<td>10:00</td>
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<tr>
<td>10:00</td>
<td>Plenary-2: Prof. Bruce Headey</td>
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<td>Chair: Lynette Hart (9:30-10:10)</td>
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<tr>
<td>10:00</td>
<td>Break (10:10-10:20)</td>
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<tr>
<td>11:00</td>
<td>Plenary-3: Prof. James A. Serpell</td>
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<td>Chair: Mitsuaki Ohta (10:20-11:00)</td>
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<tr>
<td>11:00</td>
<td>IAHAIO/ISAZ Distinguished Scholar Award</td>
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<td>(11:00-11:30)</td>
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<td>11:00</td>
<td>Lunch break</td>
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<td>(11:30-12:40)</td>
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<tr>
<td>12:00</td>
<td>AAT for adults I</td>
<td>Cultural aspects</td>
<td>Workshop-4:</td>
<td>Workshop-5:</td>
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<tr>
<td>12:00</td>
<td>Oral-1,2,3</td>
<td>Oral-13,14</td>
<td>&quot;Teaching Modalities for Animal-Assisted Interactions&quot;</td>
<td>&quot;The Meaning of the Bond: Owner Support in Animal Health Professions&quot;</td>
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<tr>
<td>12:00</td>
<td>Chair: Schu Kawashima</td>
<td>Chair: Megumi Kaneko (12:40-13:20)</td>
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<td>(16:20-17:20)</td>
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<td>Break (13:20-13:40)</td>
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<td>13:00</td>
<td>Break (13:40-14:00)</td>
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<tr>
<td>13:00</td>
<td>AAT for adults II</td>
<td>Workshop-2: &quot;Feral Cats: Problems and Solutions&quot;</td>
<td>Workshop-3: &quot;Teaching Modalities for Animal-Assisted Interactions&quot;</td>
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<tr>
<td>13:00</td>
<td>Oral-4,5</td>
<td>(12:40-13:40)</td>
<td>(12:40-14:40)</td>
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<tr>
<td>13:00</td>
<td>Chair: Tomoko Takeyamagi</td>
<td>Chair: Joseph Leibetseder</td>
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<tr>
<td>13:00</td>
<td>Break (14:00-14:40)</td>
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<tr>
<td>15:00</td>
<td>Coffee Break (14:40-15:10) at Exhibition Hall 4F Hana</td>
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<tr>
<td>16:00</td>
<td>Attitudes toward animals I</td>
<td>Assistance dogs</td>
<td>Workshop-4: &quot;Animals in the Law-a Global Perspective-Update 2007&quot;</td>
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<tr>
<td>16:00</td>
<td>Oral-6,7,8</td>
<td>Oral-18,19,20</td>
<td>(15:10-16:10)</td>
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<tr>
<td>16:00</td>
<td>Chair: Elizabeth Ormerod</td>
<td>Chair: Larry Norvell (15:10-16:10)</td>
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<tr>
<td>16:00</td>
<td>Break (16:10-16:20)</td>
<td>Break (16:10-16:20)</td>
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<tr>
<td>16:00</td>
<td>Attitudes toward animals II</td>
<td>Dealing with loss</td>
<td>Workshop-5: &quot;The Meaning of the Bond: Owner Support in Animal Health Professions&quot;</td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td>Oral-9,10,11,12</td>
<td>Oral-21,22,23,24</td>
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</tr>
<tr>
<td>16:00</td>
<td>Chair: Tanja Hoff</td>
<td>Chair: Tsukimi Washizu (16:20-17:40)</td>
<td>(16:20-17:20)</td>
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<tr>
<td>16:00</td>
<td>Break (16:10-16:20)</td>
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<tr>
<td>17:00</td>
<td>Coffee Break (14:40-15:10) at Exhibition Hall 4F Hana</td>
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<tr>
<td>18:00</td>
<td>Conference Dinner (18:00-21:30)</td>
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*Exhibition Hall Close 17:40*
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<th>4th floor(kaede)</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Plenary-4: Miss. Julie Lee Chair: Tristan Follin (9:00-9:40)</td>
<td>Nishiki Posters</td>
<td>Stage Program</td>
<td>Press Room</td>
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<tr>
<td>10:00</td>
<td>Break(9:40-9:50)</td>
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<tr>
<td>11:00</td>
<td>Plenary-5: Prof. Benjamin L. Hart Chair: Yuji Mori (9:50-10:30)</td>
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<tr>
<td>11:00</td>
<td>Break(10:30-10:40)</td>
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<tr>
<td>11:00</td>
<td>Plenary-6: Sir Patrick Bateson Chair: Dennis Turner (10:40-11:20)</td>
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<tr>
<td>11:20</td>
<td>HCAB Presentation &amp; Awarding by IAHAIO (11:20-11:30)</td>
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<tr>
<td>12:00</td>
<td>Lunch break (11:30-12:40)</td>
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<td>Break (16:10-16:20)</td>
<td>Break (16:10-16:20)</td>
<td>Break (15:50-16:00)</td>
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<tr>
<td>18:00</td>
<td>Optional Night Tour (18:30-)</td>
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<tr>
<td>9:00</td>
<td>Visitations effects I Oral-53,54,55,56 (9:00-10:20)</td>
<td>Nishiki Poster &quot;The Scientific Assessment of Service Dog Programs in Japan&quot; (9:00-10:00)</td>
<td>Interzoo (9:00-9:20)</td>
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<tr>
<td>10:00</td>
<td>Breakfast (10:20-10:30)</td>
<td>Workshop-14: &quot;Hearing Dogs as Risk Communicators&quot; (10:10-11:10)</td>
<td>Press Breifing (11:30-12:00)</td>
<td>Interzoo (12:10-12:40)</td>
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<tr>
<td>11:00</td>
<td>Visitations effects II Oral-57,58,59 (10:30-11:30)</td>
<td>Workshop-11: &quot;Violence Toward Humans, Violence Toward Animals: The &quot;Connection&quot; (10:30-11:30)</td>
<td>Service Dog Demonstration (11:30-12:00)</td>
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<tr>
<td>12:00</td>
<td>Lunch break (11:30-12:40)</td>
<td>Exhibition Hall Close 12:40</td>
<td>Press Breifing (11:30-12:00)</td>
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<tr>
<td>13:00</td>
<td>Plenary-7: Prof. Richang Zheng Chair: Kurt Kolrschah (12:40-13:20)</td>
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<td>14:00</td>
<td>Plenary-8: Prof. Gail F. Melson Chair: Jo-Ann Fowler (13:30-14:10)</td>
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<tr>
<td>15:00</td>
<td>Plenary-9: Dr. Andrea M. Beetz Chair: Keiko Yamazaki (14:20-15:00)</td>
<td>Poster Clearance (12:40-16:30)</td>
<td>Exhibition Clearance (12:40-16:30)</td>
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<tr>
<td>16:00</td>
<td>Closing ceremony Chair: Keiko Yamazaki (15:10-16:00)</td>
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## Special Guest Lecture

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>October 5th</td>
<td>14:50-15:30</td>
<td>The origin and domestication process of chickens</td>
<td>His Imperial Highness Prince Akishino</td>
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## Plenary Sessions

<table>
<thead>
<tr>
<th>Plenary Session</th>
<th>Date</th>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>Plenary-1</td>
<td>October 5th</td>
<td>15:40-16:20</td>
<td>The importance of education about the HAB in veterinary curricula and the veterinarian’s role in the field of HAB</td>
<td>Yoshihiro Hayashi</td>
</tr>
<tr>
<td>Plenary-2</td>
<td>October 6th</td>
<td>9:30-10:10</td>
<td>Pet Dogs Benefit Owners’ Health: A ‘Natural Experiment’ in China</td>
<td>Bruce Headey</td>
</tr>
<tr>
<td>Plenary-3</td>
<td>October 6th</td>
<td>10:20-11:00</td>
<td>From Different Perspectives: Cultural Variation in Human Attitudes to (Nonhuman) Animals</td>
<td>James A. Serpell</td>
</tr>
<tr>
<td>Plenary-4</td>
<td>October 7th</td>
<td>9:00-9:40</td>
<td>Samsung’s Work with People and Animals</td>
<td>Julie Lee</td>
</tr>
<tr>
<td>Plenary-5</td>
<td>October 7th</td>
<td>9:50-10:30</td>
<td>Problem Behaviors and the Human Animal Bond: Clinical Models for Preventing and Resolving Problem Behaviors</td>
<td>Benjamin L. Hart</td>
</tr>
<tr>
<td>Plenary-6</td>
<td>October 7th</td>
<td>10:40-11:20</td>
<td>Animal Behavior in the Human-Animal Relationship</td>
<td>Patrick Bateson</td>
</tr>
<tr>
<td>Plenary-8</td>
<td>October 8th</td>
<td>13:30-14:10</td>
<td>Children and companion animals, the importance of education</td>
<td>Gail F. Melson</td>
</tr>
<tr>
<td>Plenary-9</td>
<td>October 8th</td>
<td>14:20-15:00</td>
<td>The development of empathy in children through interaction with animals</td>
<td>Andrea M. Beetz</td>
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Child education (October 7th 16:20-17:40)

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Oral-35 Dog bite prevention: effect of a short educational intervention on preschool children Nelly N. Lakestani
Oral-36 A Survey of Agricultural Literacy of Children, Their Guardians and Teachers in Japanese Kindergartens Yuki Koba
Oral-37 Lucy's House Renata Fossati

Effective pets I (October 7th 12:40-13:40)

Oral-39 The human animal bond as a motivator for physical activity via dog walking Rebecca A. Johnson
Oral-40 People And Pets Exercising Together (PPET). Owners Reported Quality Of Life As Influenced by Their Pet Dennis E. Jewell

Effective pets II (October 7th 13:50-14:50)

Oral-41 An Animal Assisted Programme for adults with psycho-physical and/or psychiatric disabilities in the chronic phase Debra D. Buttram
Oral-42 Social benefits of dog ownership Anna Maria Berardi
Oral-43 A Review of Benefits of Companion Animals on Children Wei Wen Chen

Effective pets III (October 7th 15:10-16:10)

Oral-44 Presence of pets in Medicine and Veterinary undergraduate students Claire A. Diederich
Oral-45 Brain Mapping of Effects of Human Animal Bond using Positron Emission Tomography and FDG Masatoshi Itoh
Oral-46 Dog owners’ perceptions of visiting their dog in an intensive care unit Rebecca A. Johnson

Stray animal control (October 7th 15:10-15:50)

Oral-47 An investigation of Australian shelter cat admissions Linda C. Marston
Oral-48 A survey of stray dog population control practices in Europe Louisa Tasker

Higher education (October 7th 16:00-17:00)

Oral-50 A Master of Science (MSc) Course on Animal Assisted Activity and Therapy (AAA/AAT): an answer for the future? Silvana Diverio
Oral-51 Development of an introductory course at a Canadian university to examine the changing role of companion animals in society Gaylene M. Fasenko

Human-farm animal bond (October 7th 17:10-17:30)

Oral-52 Miniature Pigs’ Abilities to Recognize People from Photographs Hajime Tanida

Visitation effects I (October 8th 9:00-10:20)

Oral-53 Qualitative and quantitative analyses to confirm the benefits of AAA in paediatric units and specialized institutions Brigitte Collette
Oral-54 Randomised controlled trial of a visiting companion animal intervention in the assessment of wellbeing and quality of life Lauren S. Prosser
Oral-55 Resident and/or visiting companion animals in institutions for the elderly: is there a difference in beneficial effects? Marie-Jose Enders-Slegers
Oral-56 Do dogs and Reminiscence improve the efficacy of volunteer visitation programs for institutionalized persons with aged dementia? Linda C. Marston

Visitation effects II (October 8th 10:30-11:30)

Oral-57 Is Animal Assisted Activity beneficial for residents in nursing homes in terms of sleep time and quality of sleep? Fumihiro Toyama
Oral-58 Crossing the generation gap; mentally challenged students who bring animals to a group of elderly folks in nursing home Robin I. Zelcer
Oral-59 Innovating Anthropozoological Approach and Methodology in AAA AAT in Rest Home Maria Chiara Catalani

Societal issues (October 8th 9:00-10:20)

Oral-60 Men in prison who abused animals and who abused their wives and girlfriends: Voices of perpetrators Frank R. Ascione
Oral-61 Prison Dog Training Program in South Korea Ju-yeon Lee
Oral-62 Animal victims in families experiencing violence against women: An agenda for research progress Frank R. Ascione
Oral-63 Birth and Death: A Comparison of Violence against People and against Animals Doris Janshen

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Oral-65 Why is Japanese owner’s pet attachment negatively correlated with psychological health?: Differentiating the effects of two kinds of “attachment” Megumi Kaneko
Oral-66 Human Attachment and Animal Attachment among At-Risk-Juveniles Kristina Saumweber
Oral-67 Factors that contribute towards obesity in dogs Jill White
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Note: Workshop No.12 has been cancelled
### Poster Sessions

**Poster briefing October 6th-8th 11:30-12:00**  
**Poster vote deadline October 7th 15:10**

**AAT/AAA/AAE/Human Health**

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<td>The Study Dog School® at Azabu University to develop a good relationship between dogs and human</td>
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<td>Social Participation can be Fun !</td>
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Plenary Sessions
The importance of education about the HAB in veterinary curricula and the veterinarian’s role in the field of HAB

Yoshihiro Hayashi

The University of Tokyo
Pet Dogs Benefit Owners’ Health: A ‘Natural Experiment’ in China

Bruce Headey\(^1\), Fu Na\(^2\), Richang Zheng\(^2\)

\(^1\)Melbourne Institute, University of Melbourne, \(^2\)Beijing Normal University

This paper reports results from a ‘natural experiment’ taking place in China on the impact of dogs on owners’ health. Previous Western research has reported modest health benefits, but results have remained controversial. In China pets were banned in urban areas until 1992. Since then dog ownership has grown quite rapidly in the major cities, especially among younger women. In these quasi-experimental conditions, we hypothesize that dog ownership will show greater health benefits than in the West. Results are given from a representative sample survey of women aged 25-40 in Beijing, Shanghai and Guangzhou (N=3031). Half the respondents owned dogs and half did not.

The key result is that dog owners reported substantially better health-related outcomes. They exercised more frequently, slept better, had higher self-reported fitness and health, took fewer days off sick from work and were seen less by doctors. The concluding section indicates how these results may be integrated into an overall model and suggests further research on the potential economic benefits of pets.
From Different Perspectives: Cultural Variation in Human Attitudes to (Nonhuman) Animals

James A. Serpell, PhD

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Different human societies and cultures differ greatly in their attitudes to other animals. These differences may take the form of taboos or preferences related to contact with, or consumption of, particular animals; culture-specific religious or ritual practices involving animals; more general cultural perceptions of animals, and/or views about what constitutes ‘appropriate’ relations between people and animals. Often, cultural attitudes and beliefs involving animals appear strangely arbitrary and inexplicable, presumably because their original significance has been obscured by the passage of time.

Despite all of these differences between human cultures, certain ‘core’ attitudes to animals appear to be widespread, if not universal; particularly, the notion that humans share some degree of affinity or kinship with other animals, and, arising directly from this, the idea that harming or killing animals is therefore to some extent morally hazardous or culpable.

The purpose of this presentation is to trace the role that these moral anxieties about the exploitation of animals have played in the evolution of religious ideas and practices in three very distinct cultural settings: in an indigenous hunter-forager society represented by the Ainu people of northern Japan, within Judaeo-Christian theologies of Europe and the Americas, and among the Buddhist traditions of Asia. The goal will be to illustrate how many different and seemingly inexplicable cultural beliefs and practices involving animals may represent just different ways of coping with (or neutralizing) the same primordial ethical concerns.
Samsung's Work with People and Animals

Julie Lee

Senior Manager, Samsung Office of International Relations

Samsung has a strong corporate responsibility (CSR) to the communities it operates in - both in Korea and worldwide. The company believes in putting something back into communities by placing animal welfare high on its agenda of concerns. Nowhere is this more evident than in Samsung’s unique activities in the animal welfare arena. Samsung believes that the relationship between people and pets - especially dogs - makes for a better and less self-centered world. Samsung understands the long-term importance of responsible pet ownership and its role in ensuring that Korea’s young people become the animal lovers of the future.

No other company in the world the size of Samsung dedicates its efforts to CSR animals in quite the same way as this multinational, and it is providing a role model for what can be done for society by a company with a determined corporate and community welfare philosophy.

Officially launched in 1995, the programs are headed up by the Office of International Relations which works with all the staff in all the various projects to deliver results. Here is an overview of Samsung’s work and its programs:

Samsung Canine Center for Companionship is where mainly toy breeds are carefully bred and then are adopted by Samsung employees who provide loving homes for life.

The Assistance Dog Center provides a number of services, centered on Hearing and Therapy dogs. Hearing dogs provide assistance to people with hearing impairments while therapy dogs with volunteers take part in AAE and AAA activities at various organizations in and around Korea.

Samsung’s Guide Dog School for the Blind since 1993, has helped people with visual impairments gain independence and become active members of society. There are now 59 guide dog teams in Korea, 17 dogs in training and 30 puppies in the puppy walking program.

The Search & Rescue Dog Center/Detector Dog Center, established in 1995, is one of the world’s leading search and rescue dog associations and the center has taken part in a number of international rescue efforts. The center provides specialized facilities and qualified trainers and currently has 17 certified search and rescue dogs and a further 30 dogs in training which are then later deployed as free contracted dogs to Korea’s armed forces, police and fire stations for not only rescue work but also for narcotics, explosives and environment detection work.

Samsung Riding for the Disabled (RDA) program is one of the latest additions to Samsung’s comprehensive portfolio of animal related activities designed to create greater human-animal understanding in Korea and is the first of its kind to be established by a private company in South East Asia. The Riding for the Disabled program, which currently supports over 60 people, the majority of whom are under 16, is underpinned by a scientific methodology and approach, with patients referred to the program by the physical therapy department of the Samsung Medical Center in Seoul.
Problem Behaviors and the Human Animal Bond:
Clinical Models for Preventing and Resolving Problem Behaviors

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Davis, California 95616, USA

Introduction

Our relationship with companion animals is highly dependent upon their behavior. It is the tendency of dogs and cats to seek interaction, and display affectionate behavior toward their human family members, that play such a remarkable role in our own mental wellbeing and physical health. There are many examples where the presence of a companion animal has influenced measurable parameters of physical and mental wellbeing.

All of these benefits are at risk when the companion animal engages in a problem behavior that is disruptive of interactions with human family members. Examples of such disruptive behaviors are: aggressive behavior of dogs towards human family members; separation anxiety in dogs leading to destruction of household items; and urine spraying in the home by cats. Thus, an important aspect of nurturing the human-animal bond is our husbandry of animal companions to prevent such disruptive problem behaviors and to recognize that there are established procedures for resolving the problems once they occur.

The clinical approach to dealing with problem behaviors falls under the purview of clinical animal behavior, also referred to as behavior therapy or behavioral medicine, and is dealt with in veterinary clinical practice as one of the medical specialties. In the United States, the American College of Veterinary Behaviorists is the recognized, board-certifying specialty for veterinarians specializing in this field.

Philosophical Approaches

Now that the field of clinical animal behavior is well established, there are emerging two philosophical approaches, or models, for understanding and treating problem behaviors. One of these is what I will refer to as the "illness model" which views behavioral problems as representing a type of abnormality or pathology. Most commonly, an imbalance of neurotransmitters is envisioned as the cause of the problem behavior. While this model may sometimes be superficially appealing because it parallels that of the human discipline of psychiatry, it does not mean it is accurate for understanding problem behaviors in companion animals. In fact, this model can lead to inappropriate therapeutic approaches to resolving problem behaviors, especially in the use of psychotropic medication.

The ethological model, as applied to clinical animal behavior, stems from the concept that most problem behaviors in companion animals are not abnormal or pathological, but quite normal, at least from the animal's standpoint. The behavior, although normal, may still represent a major problem for human family members. The ethological model stresses understanding the origin or cause of the problem behavior, and arriving at clinical approaches that revolve around the animal's evolutionary background, breed identification, prior learning and early experience. I am not the only one to champion this important distinction in the approach to clinical animal behavior; others have made the same point, distinguishing between the "medical paradigm" and the role of the environment and biology in shaping behavior.
It is interesting that even in the human field of psychiatry, the idea that an abnormality in neurotransmitters is responsible for most human mental problems has been convincingly challenged by an approach stemming from the field of human ethology. It is argued that a number of syndromes such as panic disorder, depression, anorexia nervosa, and even child abuse, can be viewed as having had some role or adaptive value in human evolution. It is the mismatch between human biology, including the ancient behavioral predispositions of our species, and the modern environment, that can be viewed as a major factor in these behavioral syndromes.

Applying the Ethological Model to Clinical Examples

Aggression in dogs towards human family members can be understood by reflection on dog-dog interactions usually within a pack or group structure and the use by dogs of aggressive strategies in interactions with people. While there is no indication that a neurotransmitter imbalance, or other abnormality, is involved in most instances of problem aggression, we have to recognize that the development of dog breeds for various utilitarian roles, such as guarding, hunting and bull baiting, has played a part in enhancing aggressive tendencies in various breeds. Managing our interactions with the animals turns out to be the most successful way of resolving important aggressive behaviors and includes the use of affection control, management of social interactions and the use of food reinforcement to shape the behavior. There is no established track record of effective use of psychotropic medications in resolving such aggressive behavior.

With the syndrome of separation anxiety, we see a way in which the ethological approach offers an insight into the behavior, guiding strategies for both prevention and resolution. The behavior can be seen as a reaction to being abandoned by the pack or family. The anxiety-inducing stimuli caused by separation may be habituated in puppies by leaving them alone frequently, much as would happen in a wolf pack when pups are repeatedly left alone. If a food treat is left with the dog to classically condition the departures to a positive reinforcement, the process of habituation to separation may be facilitated. The ethological approach to resolving this behavior in adult dogs requires multiple, graded departures. Here is a normal behavior where a psychotropic medication may prove beneficial. When the “labor intensive,” departure training approach is not feasible an anti-anxiety medication may be used in an attempt to reduce the emotional distress, allowing for more rapid habituation to the separation than might otherwise occur. The medication is gradually phased down and the habituation process continued. In keeping with the ethological model, one can envision an anti-anxiety, serotonergic medication, not correcting a neurotransmitter imbalance, but rather raising levels of the neurotransmitter, serotonin, above normal for temporary therapeutic effects.

Urine marking in cats is a problem behavior understood from the standpoint of a cat’s natural behavioral tendencies. It is a behavior prominently engaged in by gonadally intact males and plays a role in territorial maintenance and identification. In males, the behavior is androgen sensitive, and for them, castration has a major effect in reducing urine marking. Almost universally, male cats intended to be companion animals are gonadectomized. Here is an instance where “abnormal” behavior—that of not urine spraying—is the goal for a companion animal. Even though cats may be gonadectomized, about 10 percent of males, and a smaller percentage of females, still urine mark inside the home. When the problem occurs behavioral guidelines are usually given to cat owners, however, resolution of problem urine spraying usually requires psychotropic medication. The serotonergic medications have a strong track record of efficacy for this problem behavior. In fact, treatment of problem urine spraying in cats is the best example of successful alteration of a problem behavior in companion animals by the use of anti-anxiety drugs. In all likelihood, the drug does not correct a neurotransmitter imbalance but raises the neurotransmitter, serotonin, above endogenous normal levels.

In conclusion, using the ethological model for understanding and treating problem behaviors, and even the use of psychotropic medications within the ethological context offers a promising and evolving perspective on the prevention and resolution of problem behaviors that have the potential to disrupt the bonds we have with our companion animals.
What criteria should be used to assess whether the organisation of animal behaviour resembles that of humans? Are our sensations, emotions, intentions and self-awareness found in other animals? This is the question that is highly relevant to animal welfare concerns and the ethics of using animals in research (Bateson, 2005). The approach has to be a human-centred because the only subjective experience that we have access to is our own. Nevertheless, we can ask whether the anatomy and physiology of the animal in question is comparable to that of a human and whether it would behave like a human if it were in a situation that would cause suffering to a human. We would also want to ask whether it was ill-equipped with adaptations that, if it only had them, it would be able to cope with a challenge that might cause suffering. Answering these questions is not only important for approaches to animal welfare but also relates centrally to the relationship that humans have with their companion animals.

Before we gallop too far down this road, we have to place some rein on our enthusiasms by remembering two very important facts. First, humans have a great weakness when it comes to projecting human intentions and emotions into other animals – and not only other animals; plants and even inanimate objects are endowed with feelings and a remarkable capacity to understand human language. We do it all the time. Second, seemingly complex behaviour can be established by simple rules. The circus trainers intuitively arrived at the understanding of experimental psychologists when establishing a link between an animal’s action and a food reward. The conditions in which the animal’s action is reinforced may then be used to reward a new action. By degrees a chain of behavioural actions is established in this fashion. Or to take another example, polymorphous concepts are often described as incredibly complicated. These are the groupings where two distinct categories may share many features in common and what distinguishes one from the other is that more than half of the characters diagnostic of that category must be shown by it. Complex though this may seem, it becomes easy to discriminate between the confusing sets once you have been exposed to pure examples for long enough. The same is true for an unsupervised neural net (Bateson & Horn, 1994). The perceptual problem of discrimination is solved by straightforward stimulus generalisation.

And yet, it is hard not to describe the behaviour of a pet cat as “jealous” when a new kitten is introduced into the household. It is hard not describe the behaviour of a pet dog as “guilty” when its owner returns from an absence to find that the dog has taken food that it is forbidden to eat. Denying ourselves such aids to thought seems foolish and, indeed, many instances can be found in the professional literature where scientists have used such projections to design brilliant experiments that would not otherwise have been carried out. Some of the work on the caching of Western scrub jays by Clayton and her colleagues provides a good example (e.g. (Dally, Emery, & Clayton, 2006).

Shepherds have extraordinary intuitive relations with their Border Collies. The understanding seems to work both ways and the dogs behave as though they have anticipated the shepherds’ intentions. While it might be possible to reduce a description of their behaviour to the Skinnerian chaining used to account for circus acts, it seems clumsy to do so. Similarly the extraordinary teamwork between owner and dog when racing over the dog show agility circuits of tunnels, seesaws and jumps seems to require a level of understanding by the dog that is not easily explained in simple terms.

Signalling is another area where human empathy and intuition have proved to be important. In the heyday of the selfish gene approach to animal communication, it was fashionable to describe
all animal communication as manipulative. It was supposed that no animal should reveal what it is about to do next. Those days have passed and so they should because a great deal of animal behaviour directed at another animal can be correctly interpreted by humans. Classically the facial expression of cats could be used to assess the probabilities of subsequent attack or escape and the same was true for wolves. If we can tell what the animal is about to do next, it seems highly improbable that its competitor cannot also do so (Bateson, 1990a).

The final topic that I shall address is the issue of socialisation. What could be more important to the owner of a companion animal than the way in responds to humans in general and to its owner in particular? If a dog does not wag its tail when talked to in a welcoming way or a cat does not purr when it is stroked, the human feels rebuffed. What are the factors that influence such behaviour? Inheritance matters as was shown by Turner et al, (1986). Friendliness to humans was assessed in male cats. They were then mated. The kittens, which never met their fathers, were subsequently assessed and those that were most friendly had the most friendly fathers. However, that is only a small part of the story. It has been known for many years that dogs and cats that have close contact with humans early in their lives are much more friendly to humans than the animals that were exposed later on. This is a matter of great significance to breeders of pedigree animals who hold many different families at the same time in outside pens. In cats the breeders are meant to hold the kittens until they are three months old before they are released to their new owners. If the human contact has been slight up to the point that the cat is sold it will very rarely make a good pet. It will be aloof and make no effort to have physical contact with its owner. If the new owner wanted a pet, he or she will be disappointed.

Descriptively the restricted age-ranges within which such attachments are most readily formed are known as “sensitive periods”. The mechanism has been well worked out in the case of behavioural imprinting in birds and is known as “competitive exclusion” (Bateson, 1990b). When the period of sensitivity starts the young animal is ready to form an attachment to a wide range of objects. As it receives experience with one object, it narrows its preferences to that object. The effect is to shut out the effects of experience with others and the animal is no longer able to form new attachments. If the animal is exposed to several views of the same object while it is still narrowing its preferences, each of those views will be equally effective. If it is exposed to several different objects or distinctly different animals (including human animals), it will form attachments to each of them, the strength of the attachment to a particular individual being related to the length of exposure to that individual. The significance of this phenomenon for breeders of pet animals is obvious. If the breeder does not give the young animals sufficient experience with humans the breeder will not have animals that should be sold for pets. (Under some conditions animals that have not been exposed to humans in early life can be socialised in adult life – but these conditions will usually involve chronic stress.)

It is hardly surprising that so much of cognitive ethology relates what animals do to the so-called “higher cognition” of humans. For all the sympathy that anybody who cares for animals may have for such an approach, it is not the best way to obtain scientific purchase on the various components of the “emotions” and the “higher cognition” that may be observed in animals. In the end the scientist wants to know in any particular case how the behaviour evolved, developed in the individual and how it is controlled. In relation to the last issue, the most powerful scientific approach in the long run is to ask: “What is the simplest way in which we can explain the mechanisms that underlie behaviour?” I fully accept and, indeed, have often argued that a teleological approach, with all its implications of conscious planning, enables us to hold in frame the complexities of a dynamic process (Bateson, 2006). By focussing on supposed intentions and goals we are helped to characterise behaviour in a way that we find satisfying. But that is a heuristic. Just because it helps to suppose that an animal (or a robot, or any dynamical system) thinks, doesn’t mean that it does so.

Given the temptation to be anthropomorphic, it is important also to look for mechanisms to explain complex behaviour and to remember that developmental and evolutionary approaches also bring useful perspectives in understanding how simplicity can generate complexity. Gaining understanding of how behaviour evolves, develops and is controlled is of central concern to the scientist. This may involve the discovery of straightforward rules underlying seemingly complicated behaviour. Do such discoveries demean the animals that turn out to be less complicated than we thought at first? Does it lead to animals being treated worse than they are already? My own view is that work on behaviour that reveals how it evolves, develops and is controlled does not fall into the
category of scientific findings that should be suppressed as some might argue. If a phenomenon turns out to be simpler than it was at first supposed, then it should no longer be used as an example of how complicated are the expressed behaviour patterns. To do otherwise is likely in the long run to bring science and, indeed, arguments in favour of animal welfare into disrepute.

References


Pet Dog: Effects on the Health of 25-40 Old Women

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Abstract: The research is conducted to study relationship between pet ownership and physical health by investigating 3000 25-40 old women using questionnaires. In the sample, there are 1500 pet owners, 1500 non pet owners. T-test shows, there are significant difference between research group and control group in physical health, medical visits and sleeping quality. Correlation analysis shows there is relationship between owning pet and health. Log regression analysis the relationship between owning pet and physical health, medical visits and sleeping quality, it shows whatever physical health, medical visits and sleeping quality there are significant difference between two groups, the research group is better than the control group.

Key words: pet ownership physical health medical visits sleeping quality
Children and companion animals, the importance of education

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Summary

The importance of companion animals as part of the ecology of childhood is increasingly being recognized. Pets not only are common but they play multiple roles for children, affecting their cognitive, social, emotional, and moral development. However, the processes by which animals influence children are far from clear. Moreover, too often, children and companion animals are considered in isolation, apart from other contextual influences. Because of this, the study of human-animal interaction during human childhood is emerging as a specialized field not well integrated into the basic disciplines on which it draws. Textbooks on child development and developmental psychology still fail to mention (or mention only in passing) children's connections with animals when discussing social relationships, emotional development, or moral reasoning. There is need, therefore, for an inclusive framework that integrates scholarship on children and animals within the broader study of child development.

In this address, I offer such an inclusive framework, using as an example, children's experiences with pets. This is not the only way that children encounter animals, but it is a common, significant, and central way that they do so. The framework I draw on and adapt is that of "situated learning," a form of experiential education based on engagement, observation and practice. The framework of situated learning requires us to consider children and companion animals in context, understanding the human and non-human environments within which children and pets encounter one another. In addition, this framework identifies key processes by which pets-in-context affect children. From the constructs of situated learning, we can derive principles by which parents, teachers, therapists and other adults shape children's experiences with animals and thereby affect them.

After describing the principles of situated learning, I examine three contexts within which children experience companion animals: the home and neighborhood context, the educational and therapeutic context, and the mediated context. For each context, I then apply the framework of situated learning. My goals are to show how this framework helps us integrate existing research evidence, develop new hypotheses to direct future research and draw implications for parents, teachers, therapists and others.

In the U.S. and in Western Europe, pet ownership rates for families with children are as high as 75%, with most families having multiple resident animals. When compared with other household types, households with children under 18 years of age are most likely to also contain animals. In Japan, as well, pet ownership rates are rising rapidly. In addition, as Prof. Serpell has ably demonstrated, companion animals have been part of human experience, living in families with children, throughout human history and in virtually every culture. In other words, animals are found wherever children are growing up.

In addition, there is ample evidence that when pets are present, children invest them with emotional and social significance. Surveys of motivation for acquiring animals find that parents most often cite "for the children." Most family members, adults and children, identify their pets as "family members," although what they mean by this is unclear. There is considerable evidence that many children develop emotional ties to their pets, using their presence to derive social support, especially in times of transition or need. From the perspective of attachment theory, pets can (and sometimes do) serve as a "secure base," reassuring children when their sense of security is
threatened.

However, rather than simply being attachment figures and sources of support, pets are more accurately described as a "flexible alliance," playing shifting and multiple functions for children. Among other functions, pets can be playmates and companions; lifestyle accoutrements; amusing diversions, the source of 'antics' and family jokes; family workers or servants, such as guard, hunting or herding dogs; 'the family baby,' the perennially immature, dependent family member; trophy signifiers of status or identity; symbolic carriers of family dynamics; and victims of neglect, exploitation and abuse. When considering children's optimal development, these multiple functions can be positive, negative or neutral. Thus, we can only understand which functions companion animals play, when different functions become active, and how they affect the child by examining this child-pet relationship in its full context of human and non-human elements and processes.

Principles of situated learning

1. Learning is active, continuous, and dynamically changing.
2. Learning occurs in all contexts, formal and informal.
3. Learning takes place in intentional contexts of teacher (educator, demonstrator) and learner as well as in unintentional contexts, where no educational program or goal exists.
4. Learning takes place within and is part of its context; hence, the term "situated learning" (also called "learning-in-context") refers to all the human and non-human elements of a context.
5. The most significant elements of a context are the social and interactive ones, those animal (human and non-human) and other living elements that respond contingently to the child.
6. Learning is constructed by the learner (the child) from meanings derived from prior experience and knowledge along with current engagement physically, mentally and emotionally with all context elements (Driver & Bell, 1986; Piaget, 1970).
7. The processes of learning include observation, manipulation, exploration, discovery, practice, and apprenticeship (i.e., approximating the behavior of a model). It is assumed that the least effective method of learning is through unidirectional didactic teaching to transmit new knowledge.
8. Learning involves multiple sensory modalities.
9. The child and the context of learning comprise one dynamic system; characteristics of the child as well as of the context contribute to the system.

Situated learning in home and neighborhood context

As noted above, children's experiences with companion animals take place primarily within their homes. However, children encounter pets in the homes of their friends and in their neighborhoods. As an illustration, when Brenda Bryant (1986) asked ten- and 14-year olds to name ten "special friends", on average 2-3 neighborhood pets were included. From the perspective of situated learning, studies of children and companion animals must go beyond interviews and surveys about their relationship. We need to know the context, the presence of other children and adults, the child's relationships with these others. What opportunities do children have for the processes of situated learning--observation, exploration, practice, discovery, and action? To what extent are these processes shaped and guided by adults or by normative rules, internalized by the child, for how the animals are to be treated?

Situated learning in therapeutic and educational settings

Animal-assisted therapies and activities with children are by now widespread, despite absence of rigorous outcome evaluation. From the perspective of situated learning, we need detailed descriptions of structure and processes of therapy and educational contexts. The relationship of the therapist to the therapy animal, the behaviors and experiences afforded by the physical setting, the presence and behaviors of other people, for example in a group therapy or in a classroom--all are important. The complexity of such situated learning may help explain findings that positive behavior change and symptom reduction for children with conduct disorder are slow to generalize beyond the AAT context.

Situation learning in mediated settings
Mediated settings, those in which children encounter animals indirectly through books, video, internet, television and robotic or virtual emulations, are increasingly the dominant form of engagement with animals. Mediated settings vary in the sensory modalities they engage--most rely on visual and aural stimulation without the senses of touch and smell--the representation of the animal and the processes of behavior that are elicited. For example, companion animals experienced through books or television lack contingent responsiveness, while video games with virtual pets and robotic pets incorporate limited responsiveness. As situated learning, contextual elements such as the presence/absence of other children, the child's own sociability, and the rate of contingent responsiveness of robot have been shown to predict children's engagement with robotic pets.

Finally, the address draws implications for assessing, structuring, and modifying contexts of learning within which children experience companion animals.
The development of empathy in children through interaction with animals

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It is a prevailing assumption in the field of human-animal research that interacting with animals, mostly in the form of own pets, supports the development of empathy not only towards animals but via generalization processes also towards humans. However, available studies on animal ownership and empathy among children, juveniles, and students report contradictory results including no differences at all between animal-owners and non-owners. It is now also a widely accepted truth that not the actual and current ownership of a pet, but the animal-ownership history and, more important, the quality of the human-animal relationship are factors with explanatory value with regard to differences in empathy.

A concept that is frequently used as a theoretical framework is attachment theory. However, as frequent is the lax use of the term “attachment” in reports on human-animal interactions. Attachment theory, as described by Bowlby, is a motivational-emotional developmental theory, that was postulated base on observations of primates and mother-child dyads with regard to the adaptive function and value for survival of attachment relevant behaviors. It was shown that the need for closeness and attachment behaviors of the child serve a function independent from mere survival, protection, being fed and learning from their caregivers. Irrespective of a person's age, the ability to form and maintain close social relationships to other humans – and probably animals as well – is fundamental for an effectively functioning personality and psychological well-being.

Attachment of a child to a caregiver, but also between two juveniles or adults, develops over a longer period of time. In childhood, the adult attachment person provides care to the child when it shows distress or attachment behaviors like crying, seeking closeness, calling etc. The caregiver serves the purpose of emotion regulation, especially when negative emotions like anger, fear, sadness are experienced. Over time, the child integrates the behaviors in an internal working model that organizes expectations about if and how support and external emotion regulation is provided and how interpersonal relationships work. Based on differences in child and caregiver characteristics and behaviors, four attachment groups are normally distinguished: secure children trust in the availability of their caregiver and feel self-worth and are easily soothed by their attachment person. Insecure-avoidant children pretend not to be bothered by separation from the caregiver and tend to down-regulate their feelings themselves and do not actively seek closeness in stressful times. Insecure-ambivalent children react with anger to separations but are at the same time rejecting and closeness-seeking when experiencing negative emotions. The fourth category describes a disorganization of the attachment strategy.

Research shows that empathy is most developed among securely attached children and adults, as is emotional or social competence. Parents who raise a secure child at the same time influence via effective emotion regulation strategies those competences and also the ability to put oneself into the place of others and imagining their perceptions and feelings (via mind-mindedness). Having the confidence of being helped with emotion regulation if needed, secure children are more open to their own emotions and those of others and learn more about emotions. Thus they are able to build the competence for one important aspect of empathy: to know what other persons feel.

What now distinguishes an attachment relationship from other forms of relationships, which nevertheless can be quite close and important with regard to shared time? Attachment, in comparison to other forms of relationships, fulfills the following requirements, which are certainly more obvious in child-parent relationships, but nevertheless the key characteristics also of
attachment relationships in adulthood:

1. Secure base: the attachment person (caregiver) serves as a base for exploration; it instates calmness and trust in oneself in the child.
2. Haven of safety: in times of trouble, hurt, and negative feelings, the attachment person is a safe haven where the child seeks comfort, help, safety, and security.
3. External emotion regulation: the attachment person's actions or mere presence helps to regulate the emotions of the child
4. Felt security: the child has a feeling of security when the attachment person is present.

While some friendships may be very close, only when they fulfill these functions they also qualify as an attachment relationship.

These criteria need to be applied to the human-animal relationship as well, when describing it in terms of attachment. Obviously, some adaptations to the child-mother-attachment need to be made - like in adult attachment research. Roles of care-seeker and caregiver are switched alternatively in adult relationships – one time one partner seeks comfort, another time the other. With pets, people in some situations seek comfort in the presence of or interaction with their pet. In many situations, however, the person provides the care and in some cases fulfils his own need for nurturance and caregiving. Nevertheless, many pet-owner-relationships do not meet the criteria for an attachment quality, but rather a normal friendship or even just ownership. The assessment of this attachment quality in the human should closely relate to already existing methods of attachment research in human-human dyads. For children, this includes observation of behaviors in relevant situations of negative affects - adult attachment is usually investigated via the internal working model of human-animal relationships in general and the current pet-relationship via interviews or questionnaires.

Attachment theory provides a useful concept for emotional and social development in childhood. Research shows a positive connection between a secure (trusting, closeness-seeking, attachment-valuing) internal working model and empathy. Probably the same positive connection would be found with regard to attachment to pets and empathy if the attachment concept and methods were applied more strictly – in contrast to research that just investigated e.g. current ownership without investigating aspects of the internal working model. An important difference between caregiver-child attachment and pet-child attachment is probably that with the latter usually only the strength, not the quality (secure, insecure patterns) of attachment was investigated.

The next question is, how can animals influence the development of empathy? First, probably via the effects of a secure attachment quality in regard to a child-pet relationship and emotion regulation processes. It is known that many children use their pets as secure base and haven of safety and feel more secure in their presence. Second, via the unconditional love that influences the factor self-worth that is connected to the internal working model. One main question is, how human-human attachment and human-animal attachment correlate within one child. Can a child with an insecure human attachment compensate via an attachment to an animal and thus still develop empathy and emotional competence to the same extent? Or are the findings that children with an attachment relationship do show higher empathy influenced in the following way: maybe parents who can raise securely attached children tend to own pets more often than parents with insecurely attached children – explainable via the trans-generational transmission of attachment patterns?

Furthermore, the research on mirror neurons provides a neurological basis for the most basic aspect of empathy: to feel with another person or animal, to be able to experience what they experience. Mirror neurons are active when the action of another human is observed, or when acoustic, olfactory, gustatory or kinesthetic information is perceived that is typical for their experience. Mirror neurons function without conscious perception and work spontaneously. They are also activated when the (observing) person himself experiences the same or performs the same action. Every person is born with a set of mirror neurons, however, they need activation and "training" in a close interpersonal context with mirroring interactions for their optimal development during early childhood. It has not yet been investigated if mirror neurons are also activated in humans during the perception of actions or expressions from animals. However, it does not seem unlikely, and would explain positive effects of "training" the mirror neurons also in interactions and relationships with pets.
Thank you for gathering at the First Session of International Conference on Human-Animal Interactions. As a professor at the University of Tokyo, I greatly appreciate to be held the Session at this Yasuda Auditorium. The University of Tokyo is the most prestigious university in Japan, celebrating the 130th anniversary of the founding this year. Japan’s earthquake frequent occurrence is world-famous. Great Kanto Earthquake of 1923 caused more than 100,000 fatalities and missing persons. But Yasuda Auditorium was completely undamaged; all of us could be at ease!

The University of Tokyo has 15,000 undergraduates and almost the same numbers of postgraduates. Although undergraduates at the course of veterinary medicine are only 120 people, they are learning the advanced veterinary medicine at animal hospitals equipped with the state-of-the-art facilities.

I have worked hard as a faculty of veterinary school for the purpose of helping animals. But unfortunately I had to sacrifice many animals for education and studies. As I will tell you later, more than 70% of the Japanese are religion unaffiliated persons—I am one of them—however, such people usually have high religious spirituality and I myself have underwent painful conditions.

I have been lucky enough to be able to mourn for animals through publishing my books. Now there are more than 60 publications, which I concerned myself more or less, are registered with the National Diet Library. As a result, the former Prime Minister Junichiro Koizumi happened to read my book “Happy Life the Dog Appeals to Us” and he decided to change administrative reform policy 3 years ago.

The Government party executives didn’t understand the meaning of new policy. The former Prime Minister Koizumi said a word to them. “Have you read Happy Life the Dog Appeals to Us?” Most Japanese politicians, higher
bureaucrats and executive officers have no interest in animals, so that they
couldn’t find words to say and all of them had a terrible upset. Ironically my
book could affect those people being indifferent to animals at other times. Let
me add more, my book gave me a chance to chair the Expert Committee at
Program for Innovation of Rural Areas in Japan, which Mr. Koizumi
promoted, and this program continues after 3 times changing premiers.

When we look at Japan Veterinary Medical Association, both membership
and annual fees are hugely small, compared with Medical Association,
Dental Association and Pharmaceutical Association, so that Veterinary
Medical Association cannot evolve the effective publicity activities.
Veterinarians should be on behalf of animals. But they can’t appeal to the
nation for the animal welfare sufficiently through social activities. It’s
unhappy situation for animals. These situations must be also seen in other
Asian countries. Now, it’s the point. In spite of the bad conditions, Veterinary
Medical Association has been evaluated highly by the Japanese people,
because of its animal rescue operations at big earthquakes and preservation
activities for endangered wild animals since Great Hanshin-Awaji
Earthquake of 1995.

Let’s give an example. When this First Session closes, you’ll move to Keio
Plaza Hotel. On October 7, could you join in the Animal Thanks Day
sponsored by Japan Veterinary Medical Association (JVMA) at Tomin-Hiroba
(Tokyo Citizen Park) next to Keio Plaza Hotel? More than 10,000 people will
thank animals and not God, because as I said before most Japanese are
religion unaffiliated persons. I am grateful to Mr. Yoshihisa Yamane, the
JVMA president, planned this event as part of World Veterinary Day.

Give another example. Ogasawara Islands lie in the Pacific Ocean, some
1,000 kilometers south-southeastward from Tokyo. In this mysterious
islands with lavish greens and surrounded by beautiful waters there are
precious native species such as Wood Pigeon and Brown Booby. Tokyo
Veterinary Medical Association has sent veterinarians to these islands over
10 years. The veterinarians have done the spay-neuter operations on the cats
without a fee, so as to keep off the extinction of native species.

Automatic photography equipment proved that abandoned stray cats
attacked these rare species. In fact, a cat named Michael was taken a picture at the moment to raid a Brown Booby. Captured Michael wasn’t killed but sent to the mainland and got adaptation training at an animal hospital until. The result was marvelous. Anybody surprised Michael transformed from a brutal cat to a gentle one. The credit for this accomplishment should go to the veterinary nurses who took care of Michael, rather than the veterinarians. 80% of the 15 stray cats at the animal hospitals were very aggressive, but all of the trained cats lost aggressiveness within 3 months.

In addition, the veterinarians insert microchips in pets and strengthen preventive programs not to abandon cats under the leadership of Dr. Shinichi Hayama at Nippon Veterinary and Life Science University. These activities are very useful and straightforward. It is little wonder that the veterinarians are popular among the young people.

Animal rightists stand against the enclosing animals. But it’s well known that many endangered animal species breed successfully at zoos, and as Mr. Michael Hutchins at American Zoo and Aquarium Association say it, if we gave way to animal rightists, we would lose more species.

Mr. Eugene Lapointe who was Environment Minister in Canada also assesses the situation. He says, “Most people can’t afford to appreciate the scientific findings and scientists are apt to say nothing to animal rightists. Some extreme activists presuming on these situations will impress the population that their arguments are scientifically and ethically correct.” Veterinarians must prevent such things.

Fortunately Japanese animal social position makes great progress for the past 10 years. It is thanks to the endeavor of the people who are not veterinarians: the people taking part in Companion Animal Partnership Program, training family dogs and getting involved with mobility service dogs, hearing dogs, and guide dogs.

Such trend must be very important to think and carry out the good relationships between people and animals. The role of Society for the Study of Human-Animal Relations (HARs) founded in 1995 isn’t small to do so. The members of HARs have grouped animals into wild animals, farm animals and family animals based on our relationships with them. And the family
animals have been classified into private dogs and cats, community dogs and cats, and feral dogs and cats. Then the members have studied the relations between each animal and people considering the diversity of history and culture. HARs has had a good influence on many people for the past 12 years, and the mass media have reported the activities of HARs. For example, Asahi Newspaper, one of the national papers in Japan, has covered HARs at the section “Tensei-Jingo” (The Heavens’ Voice and Human’s Words) 4 times.

HARs activities spread abroad: the member Miss Yoshiko Kato set up Donation Unit of Rabies Vaccine to Nepal with Dr. D. D. Joshi in Nepal. Rabies had also broken out in Japan. The Rabies Prevention Law had been enforced in 1950, and vaccination of dogs had become duty, and stray dogs had been captured. (Please look at this picture. Dogs infected with rabies would even eat a burning stick.) 7 years later, the occurrence of rabies had stopped. Japan is a rare country to succeed the eradication of rabies in a short period, and this year is the 50th anniversary of the eradication.

But rabies are still threat in many Asian countries, it’s a vital task to decrease the stray dogs. In Thailand, His Majesty King Bhumibol Adulyadej took care of a stray puppy. This triggered the nation’s attention to rabies and the dogs’ welfare. The puppy named Tongdaeng was very smart and His Majesty did a computer search for this puppy’s origin. Then Tongdaeng turned out to be a hybrid between basenji and Thai native dog. His Majesty’s book The Story of Tongdaeng became a blockbuster in Thailand, sold more than 700,000 copies, was translated by Isao Akagi who was the former president of Osaka University of Foreign Studies last year in Japan.

According to Pet Food Manufacturers Association, Japan 12.1 million dogs and 9.6 million cats live with their owners in all parts of Japan but Okinawa. Cats usually exceed dogs in number in the developed countries, the above data shows that the Japanese people are dog lovers.

Go back to the Edo period, more than 200 years ago, the people common sense was to keep dogs outside and cats inside. This situation was unchanged till just 20 or 30 years ago. But now, over 63% of the dogs are kept in the house, especially purebred dogs’ 77% live in the rooms. It’s a good example to change the long lasted custom quickly through spreading the
veterinary knowledge.

In the case of cats, more than 80% of the cats, both purebreds and hybrids, still live in the houses, yet there are considerable house cats which come and go and community cats which are fed outside. Those cats' behavior and breeding are never constrained. Besides they excrete at the backyards freely and catch valuable animals. NGO and local government are coping with such things.

Overall the relationships between the Japanese and pets are improved rapidly. This fact is reflected the decreased numbers of the abandoned dogs and being killed at health centers. The numbers of the yearly killed dogs account for only 1% of the whole dogs. However it still needs to clarify the responsibility of owners to lower the numbers of 100,000 killed dogs and 200,000 killed cats. Japan Veterinary Medical Association is now trying to come into wide use of microchips.

Then, how about the dog training? Many people who just begin to keep pets admit that “I didn’t expect the training of dogs are so similar to teaching my child good manners. I should have done the practice with a pet before child rearing.”

When I come across those people I always say, “Child rearing and keeping pets are falsely similar. The former is to make a child being independent in the future and the latter has no end. We are training a dog whom we should take care of all his life. The purposes are quite different. As the book The Little Prince by Antoine de Saint-Exupéry emphasizes it, we always have a responsibility to “apprivoiser” (tame) one.

“Apprivoiser” is very important word that appears 16 times in a chapter. Also, it’s pretty difficult word as it has 15 different meanings among 17 translated versions. The author not only used this word to living things such as foxes in the earth and roses in Little Prince’s star but also to well water in a desert. Therefore “apprivoiser” must have the broad sense of “acting something to get along with” besides the meaning of tame.

When we look at the Japanese people till the Edo period, they had a concept of Ikimono which are not organisms based on Modern Science. One of the Ikimono is Mushi. Mushi included the unidentified strange animals, to
which the Japanese people believed the existence, as well as insects and earthworms. The Japanese people today still feel more strong affinity for fishes than the animals belong to Mushi in the researches of Ministry of the Environment. We should understand the concept of Ikimono to comprehend the Japanese animal view.

Now, let me talk about the worry of owners and veterinarians. It is the very shortness of dogs’ lives. The past 3 years researches show that hybrids aged 13 and over account for about 25%, while the same age of purebreds only 11%.

And Tomiya Uchino, the director of Veterinary ME Research Center, mentioned that the Japanese senior dogs including Shiba have a high incidence of cognitive dysfunction. The dogs affected with this disease just walk straight, bump the corner of 90 degrees, and don’t stop barking at night. Those conditions would interfere with owners and dogs communal lives.

Owners are usually conscious of the farewell day will come that the moment their dog comes in. Every owner hope the dog will have a peaceful final phase, but a large number of the Japanese owners and veterinarians are trying to avoid euthanasia. Letting your dogs “go” for Quality of Life, no one other than the dog’s owner can make the final decision. However, someone who is at a distance from the situation but who feel the same way about dogs as you do, and is knowledgeable about them, that is, veterinarians can provide valuable information and help in the decision-making process.

According to Eisho Ohmura at Kwansei Gakuin University, more than 90% of the Americans reply they have religion, whereas 30% of the Japanese have it. But given those 80 million people who go to shrines during the New Year, holding a dog’s funeral must be the way to overcome pet loss, and many people put this idea into practice.

I would like to finish the lecture by introducing the words of the poet and novelist Sir Walter Scott (1771–1832). “I have sometimes thought of the final cause of dogs having such short lives and I am quite satisfied it is in compassion to the human race: for if we suffer so much in losing a dog after an acquaintance of 10 or 12 years, what would it be were they to live double that time?”
Oral Sessions (October 6th)
Emotional Response in Interaction with Dogs

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Purpose: Increase of the dementia (especially Alzheimer’s disease) population is attracting a social concern because of an increase of medical expenses and burden of care for family members. Currently the only way to reduce the dementia population is in the early detection of decline in the brain neuronal activity accompanied by the effective rehabilitation, which would contribute to delaying the onset of dementia and improving the brain activity. So far several rehabilitations for brain activation have been tried, and one of the present authors and his colleagues have already confirmed a positive efficacy of the robot rehabilitation in which a small computer-controlled robot shaping after a pet animal was used as a mean of brain rehabilitation. This time we examined the efficacy of demented patients when they interact with dogs (Animal Assisted Activity: AAA).

Method: The Brain Functions Lab has developed new tools for estimating brain functions through analysis of electroencephalogram (EEG). One is ESAM (Emotion Spectrum Analysis Method) which allows numerical estimation of a change of the emotion response in terms of the four independent basic emotional states: mental stress/activity, joy/satisfaction, sadness/depression, and relaxation by means of correlation analysis of EEG signals recorded at specified ten positions on the scalp. The other is DIMENSION (Diagnosis Method of Neuronal Impairment) which estimates cortical neuronal impairment in which spontaneous EEG signals are recorded at specified 21 positions on the scalp. DIMENSION is very sensitive to a change in the neuronal activity in the brain as a whole and its difference before and after therapy can be detected. This technique is clinically used for monitoring effects of brain rehabilitation over five years.

Results: Effects of AAA were investigated in nine slightly demented patients for ten minutes AAA with the aid of ESAM and DIMENSION. Because of unwanted interferences such as body motions which deteriorated quality of recorded EEGs, the results for three subjects will be reported here. Subject #1 (female 87 year-old): neuronal activity was increased (DIMENSION) and at the same time the relax level was increased (ESAM). This combination is a sign of being ready to work. Subject #2 (male 77 year-old): neuronal activity was increased (DIMENSION) and mental stress or mental activity was decreased (ESAM). Subject #3: no remarkable change was observed in DIMENSION as well in ESAM. This study is part of the project improving elder people health by the Ministry of Health, Labor and Welfare, Japan.
Changes in automatic nervous activity before and after horse trekking measured by heart rate variability and salivary amylase activity

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Horse trekking has been expected to be effective for human health. However, very few works have taken into account the effects on autonomic nervous activities. In this study, the changes in heart rate variability (HRV) and salivary amylase activity during two exercises were compared between the horse trekking and the riding simulator. The aim of this study is to evaluate the effects of horse trekking on autonomic nervous activity of the rider.

One thoroughbred horse and 26 healthy person (from 19 to 25 years of age) were used. In the horse trekking, the subjects walked along the path in experiment forest and farm field of the university campus on the back of the horse for 30 min. The RR interval of heart rate were recorded for 20 min in the supine position at 120 and 60 min before riding, and 15, 60, and 120 min after riding. The power spectra were constructed from the recorded RR interval by the maximum entropy method, and integrated for low frequency (LF) and high frequency power (HF). The salivary amylase activity was also measured in parallel. In the riding simulator, the subjects rode on it for 30 min in a room as a control. The HRV and salivary amylase activity were measured similarly. A two-way repeated measures ANOVA was used to analyze interaction between the exercise and the time. When a significant main effect or a significant interaction was found, Dunnett’s multiple comparison test was used to locate differences between different time points.

There was a significant interaction between the exercise and the time with regard to the HF, the indicator of parasympathetic nervous activity (P < 0.01). HF was significantly increased at 120 min after riding (3104 ms²) compared to 120 min before riding (1890 ms²) only in horse trekking (P < 0.01), while there was no significant differences between different time points in riding simulator. There were neither significant main effects nor significant interactions with regard to LF/HF and salivary amylase activity, the indicators of sympathetic nervous activity.

These findings indicate that after the horse trekking, parasympathetic nervous activity was increased, while sympathetic nervous activity was not changed. The activation of parasympathetic nervous system is closely related to the improvement of the immune function. Therefore, horse trekking has a potential to improve also immune function.
Using AAT within Brain Injury Rehabilitation: Does it Enhance Social Communication and Participation?

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The pilot study on which this presentation is based involved the integration of Animal Assisted Therapy in speech pathology and neuropsychology services provided in a rehabilitation setting to young adults with an acquired brain injury. Specifically, the study examined the extent to which integrating AAT within ‘traditional’ therapeutic approaches influenced an individual’s participation in activities and their social communication. Trained and accredited dogs and their handlers worked with therapists in goal directed activities as part of individuals’ rehabilitation programs.

Using a single case design with a sample of twelve participants, individuals’ progress was compared against their own baseline measurements. Within the parameters of a six-week program for each participant, a ‘cross-over’ approach (where AAT was provided at varying stages and for varying periods of time) was used to control for possible spontaneous improvement in social communication and participation. Outcomes were measured using social communication discourse analysis, mood scales, participation logs and qualitative interviews.

While data from the study is still being collected and analysed, early indications are that AAT encourages and facilitates participation in traditional therapy sessions within a rehabilitation program. There is also evidence that social communication is improved through interactions within the four-pronged model of therapy involving therapist, animal, animal handler and participant. Another benefit identified through the study was the improved mood status of participants. Given that most (if not all) people experiencing the effects of acquired brain injury suffer from associated depression or flattened mood, the evidence of positive shifts in mood resulting from this program holds significant implications in terms of facilitating functional recovery. Fleminger et al. (2003 p. 82) point out that an inter-relationship between functional and emotional aspects of brain injury exists, and that depression following brain injury can jeopardise functional recovery.

Spin-off benefits were also evident from the program. These included: reported lowered frustration for therapy staff who were more readily able to engage participants in therapeutic activities when using AAT; a sense of ‘normalisation’ of the environment within which both participants and staff were situated; evidence of positive foci for communication between participants and their family members, and between participants and rehabilitation centre staff.
Relief of postoperative pain with animal assisted therapy (AAT) in comparison with music therapy (MT)

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Preface: Although postoperative pain is usually treated with analgesics, it is still fearful for the patients. For further alleviation of the pain, we tried to supplement them with AAT and had testified its significant effectiveness for postoperative pain by A.B design. This time, we compared the effect with that of MT. Also α-amylase, one of the substances increasing with the host’s stress was measured in their saliva.

Objects: Fifty four adult hemorrhoids patients who had consented with the trial were randomly divided into 2 groups of Group I ; 29 patients (m 12, f 17, average age 39 years, 4-13days postop.) in which AAT was performed in AM and MT in PM and Group II; 25 patients (m 10, f 15, 44.2 years, 3-10 days postop.) in which MT was performed in AM and AAT in PM.

Methods: In AAT, patients contacted with therapy dogs for 30 minutes under control of an AAT coordinator. MT was performed by listening to the music of the patients’ choice under the guidance of a music therapist also for 30 minutes.

Recording: The degrees of the pain were recorded in a self-checking visual analog scale (VAS) chart. The checking time is just before, just after, 15 min., 30 min. and 60 min. after the activities. Comments of the patients were also written on the same sheet.

Measurement: Degree of pain was judged as distance from zero level to each point marked by patients on a line of the VAS chart.

Results: Pain score of AAT which was initially 38 decreased with significance (P<0.001) to 24 just after the treatment. The scores thereafter continued almost the same level of approximately 26. The pain score of MT, initially 35, 3.8 lower than that of AAT, decreased to 27 just after the treatment with decreasing rate of 7.3, which continued almost the same level thereafter. The scores of AAT were always lower than those of MT after the treatments.

Discussion: For human being, canine healing effect is considered enormous. It is applied as AAA and AAT to various diseases. However, the data are yet scattered and the clinical approaches are not systematic. One of the most fundamental sensations is pain which so inflicts us and lowers QOL that we chose pain as the first object. We chose hemorrhoidectomy because it is popular and standardized and the effectiveness of AAT had been certified with significance. This time, we chose MT to compare the effectiveness of both therapies.

Conclusion: The result showed remarkable effectiveness of both methods for the alleviation of pain and more effectiveness with significance of AAT. A question now is “Is there any difference in the therapeutic quality between them?” The answer could be found in the patient’s recorded remarks i.e. some mentioned MT calms down their feeling and AAT makes them cheerful and alert. In this respect, data of saliva α-amylase shows some clues. Further investigation must be performed and therapies must be individualized on the knowledge.
Animal-assisted therapy: effects on persons with psychiatric disorders working with farm animals

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Although Animal-Assisted Therapy (AAT) for humans with mental disorders has been well documented with pets, there is almost a complete lack of controlled studies of farm animals as therapeutic agents for psychiatric patients. The aim of this project was to examine effects on self-efficacy, coping ability, quality of life, anxiety and depression of a three-month intervention with farm animals among adult psychiatric patients by using a randomized controlled protocol and follow-up registrations. Among the 90 included patients there were 59 woman and 31 men, with a mean age of 35 years (range 18-58 years). The main diagnoses were affective disorders, anxiety disorders, personality disorders, and schizophrenia. The patients worked with dairy cattle (mainly) twice a week for three hours. By measuring the same parameters of mental health six months after the end of the intervention, we sought to examine if the effects were permanent for a longer period for the treatment group (AAT group, n=60) compared with the controls (n=30), and if there were signs of different treatment effects in the different diagnostic groups. The treatment group received standard therapy (individual, group therapy or other kinds of therapy) and stable medical treatment in addition to the intervention, while the control group got treatment as usual. The health outcome measures were based on validated standardized instruments (Beck Depression Inventory; BDI, Spielberger State Anxiety Inventory; STAI, Generalized Self-Efficacy; GSE, Coping Strategies Scale, Quality of Life Scale; QOLS-N). We examined by video recording what kind of behaviours that were shown by the patients in their work with the animals, and the working ability during the intervention.

Forty-one completed the intervention (68 %) and 28 completed in the control group (93 %). The patients showed significantly increased intensity (p<0.0001) and exactness (p< 0.0001) of the work with the animals by the end of the intervention compared to during the first half.

There were no effects of treatment during the intervention, but six months after the end of the intervention anxiety was significantly lower than baseline in the AAT-group compared with the controls (F= 5.17, p= 0.03). Similarly, self-efficacy was higher six months after the end of the intervention than baseline (F= 4.20, p= 0.05) and than the end of the intervention (F= 5.6, p= 0.02) for the AAT-group compared with the controls. Among the diagnostic groups, the clearest effect was that patients with affective disorders showed significant increase in self-efficacy and quality of life during the follow-up registration.

Even if the health outcome effects were rather moderate, it is encouraging that some were found, based on the limited sample size and the rather unspecific intervention. In addition, the patients had had their symptoms for many years, which make it more unlikely to achieve a rapid and great improvement. The strengths of the project were the wholeness of the validated assessments and the moderate drop-out rate.

The results suggest that AAT with farm animals may be a useful addition to traditional psychiatric treatment, perhaps particularly for patients with affective disorders.
A comparative study of attitudes toward animals in seven countries amongst locals and expatriates: results from Japan and Brazil

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Given the globalization of interest in human-companion animal relations, there is a paucity of cross-cultural studies on attitudes toward and care of such animals and almost nothing set against cultural/religious differences in attitudes toward nature, wildlife, zoos, intensive farming, or animal welfare. This study compares attitudes (later behavior) \textit{in situ}, \textit{i.e.}, locally and within expatriate communities, which allows assessment of how malleable the original cultural effects are.

Phase I of the study has been conducted in 7 countries by questionnaire surveys in local languages (official translations with back translation checks) of adults, who were either nationals or expatriates from one of the other study countries living locally, and either sampled randomly (e.g., in local markets) or as "animal friends" (e.g., clients in waiting rooms of vet practices). Samples have been collected in the UK, the UAE, India, China, Singapore, Japan and Brazil. \textit{Results of the multivariate data analyses comparing samples from Japan (n = 1190) and Brazil (n = 448, resp. 782) will be presented here.} Phase II of the 4-year study will collect and compare behavioral data from direct observations of interactions with companion animals in selected countries.

\textbf{Methods}

Three-page, standardized questionnaires, taking 5-7 minutes to complete on a voluntary, anonymous basis, were distributed to adults (18+ yrs) and re-collected by volunteers ('random sample' or amongst 'animal friends') or by veterinarians/animal visitation volunteers/in vet schools/at dog grooming salons ('animal friends' sample) in waiting rooms or work facilities.

The questionnaires included demographic/historical data on the person, attitude questions (5-point Likert scales, also for 'control questions') and a question on time required to care for a cat and dog. Data were coded and analyzed using SPSS by MANOVAs, Pearson correlation, and post-hoc Kruskal-Wallis and Mann-Whitney tests to determine direction when appropriate.

\textbf{Results}

We found: Significant negative correlations between all sets of control questions indicating correct understanding by the subjects. Pet owners disagreed more strongly than non-owners that 'cats (or dogs) are disgusting animals', and that 'keeping pets is useless'. 'Pet keeping brings many benefits' was significantly influenced by sample (animal friends vs. random) and country/culture, with European-descent Brazilians agreeing most strongly, Japanese in Japan the least, and Japanese-descent Brazilians significantly in-between. Japanese in Japan agreed least that 'conservation of nature is very important', European-descent Brazilians agreed most and Japanese-Brazilians significantly in-between. On 'acceptable to eat meat of endangered wild animals' European-descent Brazilians disagreed more strongly than both Japanese groups. Japanese in Japan agreed more strongly that 'animals can think like people' than either European-descent Brazilians or Japanese-descent Brazilians, who did not differ on this.

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The effect of life stages on the pet-keeping rate and on owners' perceptions of pets in Japanese households

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To investigate pet-keeping circumstances and the role of pets in Japanese households, the present study examines how life stages -- centering on marital status, the presence of children or children living at home, and the age of children -- influence the Japanese pet-keeping rate and perception of pets. The combined data of the first and second Japanese General Social Surveys, JGSS-2000 and JGSS-2001, which include questions on pet-keeping, were analyzed by using a general linear model (GLM). The total number of respondents was 5,683 (2,601 males and 3,082 females) for the pet-keeping rate, and 2,139 (989 males and 1,150 females) for owners' evaluations of the presence of pets, obtained from 300 places in 18 regional blocks in Japan by two-stage stratified random sampling. The results of data analysis show the following: The pet-keeping rate is higher for married people with children living at home (CLH) aged above 6, and among them the rate is highest for married people with CLH aged 7 to 12. The pet-keeping rate is lower for unmarried people, childless married people, married people with CLH aged 0 to 6, and widows with CLH aged above 18, and it is lowest for empty-nesters. For both male and female pet owners, the degree of evaluation of pets (DEP) is highest for unmarried people and childless married people and lowest for married people with CLH aged 0 to 6. For males, the DEP tends to become higher as the age of CLH increases, but it becomes lower for empty-nesters. For females, as the age of CLH increases, the DEP tends to become higher except when grandchildren are present at home. Further, for females, the DEP becomes much higher for empty-nesters than for people with grown-up CLH. To summarize, the pet-keeping rate is increased by having children of more than school age, while it is decreased by not having children, having young children, or being empty-nesters. The DEP is increased by not having children, having grown-up children, or being empty-nesters, while it is decreased by having young children or grandchildren. The findings suggest that, although people keep pets mainly for their school-age children, pets are actually perceived as more important by childless people, people with grown-up children, or empty-nesters. For those people, pets may play the role of substitute children or even grandchildren. The findings also indicate that perceptions of pets differ between males and females, in that female empty-nesters highly value the presence of pets, but males do not. Females may have a stronger tendency to depend on pets to make up for the absence of children. Japan is currently in the middle of a pet boom, but this boom may not be temporary. If pets play the role of substitute children in Japanese households, as suggested by the findings of the present study, pets will gain much more attention in the aging society with a falling birthrate and an increasing number of nuclear families.
The effect of dogs on the impression management of women

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Basic research in social psychology has often revealed the influence of key first-impression stimuli (e.g. hair, clothing) on the ascription of sympathy judgements and of social competence concerning persons observed. The social cognition of positive or negative key stimuli classifies people to be either a desired or an undesired type of personality, without considering objective information. First impressions influence the on-going judgement of a person and play a central role in developing the social quality of the relationship with this person.

This study examines the dimensions of social impression and how much influence having a dog as a companion for different types of women has on the formation of cognition. Here, we assume that this triggers not only basic emotions such as sympathy and antipathy in the observer; starting out from the key stimulus "dog" the observer draws far-reaching conclusions about the owner, such as dimensions of personality, intelligence, physical sensibility.

Design of the study: 420 persons were interviewed in a demographically representative spot check; of them, 210 persons were shown a photograph with a dog, the other 210 persons were shown a photograph without a dog. In the study, three female types were used (each n=140). Those women with a dog were all depicted with the same breed of dog (golden retriever). Interview tool: standardised questionnaire (e.g. attractiveness, social and emotional competence, intelligence, physical health). Additional influence criteria were also checked: sex, age and pet ownership of the interviewed persons. Evaluation by means of statistical and practical significance tests, factor and regression analyses.

Results: Sex and pet ownership of the interviewees have no influence on the formation of cognition in the case of photos both with and without the portrayal of dogs. The increasing age of the interviewees reflects more profiled cognitive impressions, i.e. they increasingly agree with the pre-formulated statements. In terms of regression analysis the weight of the key stimulus "dog" has in all detected dimensions of impression the social cognition was examined, e.g.: Factor "Extraversion, social attractiveness and ability of self-assertion": corr. R²= 19.5%, β-weight: key stimulus dog=0.22(**), female type=0.17 (**), age of the interviewed persons=0.33(**) / Factor "Self discipline, patience, social family orientation": corr. R²= 2.0%, β-weight: key stimulus dog=0.15(**), female type n.s., age of the interviewed persons n.s. / Factor: "Health orientation, life-contentedness, optimistic active attitude to life": corr. R²= 7.0%, β-weight: key stimulus dog=0.26(**), female type n.s., age of the interviewed persons n.s. In the mean value comparisons (t=test) the key stimulus "dog" has a highly significant effect on a more positive cognition on personality features such as extraversion, social attractiveness and ability of self-assertion as well as on social competence expressed in patience, sense of responsibility and discipline. Women accompanied by a dog give a first impression of being health-oriented to a considerably high degree. They are considered to be more self-confident and self-satisfied and are considered to be more nature-loving and attached to environmental and political issues, and are evaluated as "financially better off" than women without a dog.
Companion animals share an growing place in human life (i.e. high numbers of pet owners and of pets per family).

Our working objectives were to identify i) the phonology and morphology of dogs names (French language); ii) if the naming of pet dogs reflected their position of family member (8 categories of classifications: human, adjective, affectionate, thing, art and religion, registered trademark, natural sciences, miscellaneous); and iii) to identify potential relationships between the dog names qualities and breeds.

The Federal dog’s identification file provided 431,859 names from 85 pure breeds, 46 crossbreeds and, mongrels. Ten pure breeds were selected according to the breed’s use, number of individuals, media impact, body size. The breeds were: German Shepherd (GS), Labrador Retriever (LR), Rottweiler (R), Border Collie (BC), American Staffordshire Terrier (AST) for large breeds and, Jack Russel Terrier (JRT), Bichon (B), Yorkshire Terrier (YT), Fox Terrier (FT), West Highland White Terrier (WHW) for small breeds; representing 189,165 dogs and 3,493 names with different spelling. The relationship between the qualities of dog’s name and its breed was evaluated with Chi-square test, at 0.05 level.

Vowels qualities from the dogs names divided up into 36% closed, 27% open, 21% half-closed and 16% half-open vowels. Types of consonants were of 41% plosives (i.e. aGathe), 30% fricatives (i.e. aSHa), 15% vibrants (i.e. yaHoo), 14% laterals (i.e. yeLLa). The names were made of two (79%), one (13%) and three syllables (8%) and classified into 8 categories as follows: 45% human, 20% art and religion, 9% miscellaneous, 8% natural sciences, 7% registered trademark, 6% thing, 3% adjective and, 2% affectionate.

Vowels distribution differed between breeds. The GS vowels proportions (36% open, 28% closed, 20% half-closed, 16% half-open) were not different from those of R (Chi-sq=0.50, N.S.), AST (Chi-sq=0.49, N.S.), BC (Chi-sq=2.98, N.S.) and L (Chi-sq=0.82, N.S.). The vowels proportions of the remaining breeds were not different from those of the JRT (38% closed, 26% open, 21% half-closed, 15% half-open).

Four breeds groups were identified due to their types of consonants: i) GS (42% plosives, 28% fricatives, 20% vibrants, 10% laterals) and R, AST; ii) L (respectively 43%, 31%, 12%, 14%) and JRT, FT, WHWT, B; iii) BC (32-49-9-10%); iv) YT (34-22-9-35%).

The different proportions of syllables clustered breeds : GS (83% 2-syllables, 11% 1-syllable, 6% 3-syllables) and AST - FT - L; JRT (respectively 75-19-6%) and R - BC; B (respectively 80-14-6%) and WHWT - YT.

With 50% human's names, 17% art and religion, 9% miscellaneous, 7% natural sciences, 6% registered trademark, 6% thing, 3% adjective, 2% affectionate, the L proportions were not different from those of JRT, R, AST, BC, FT, WHWT. The B and YT breeds shared the same proportions (respectively 36-20-7-9-6-11-5-6%). Only the GS was different from the others (respectively 40-19-21-7-7-4-2-0%).

In conclusion, the major meaning of dogs names has human connotation. The breed (and its use) influences the name of the dog in variable ways : number of syllables, types of vowels and consonants, and meaning.
There are thousands of tombs and memorial monuments for animals in Japan. The construction of them was begun 9,000 years ago. This custom has been continued till now. For the purpose of understanding Japanese perception toward animals, 44 tombs and 112 monuments were investigated in the present fieldwork on the motivation for the construction of them. The animal tomb is the place where special individual animal dead body was buried. On the other hand, no dead body was buried in the animal memorial monument, it is constructed for memorial to the death of many and unspecified animals. The oldest tombs are those for hunting dogs. The latest tombs are for pet animals. The animals in tombs are cattle, horse, dog, cat, monkey, wild boar, wolf, raccoon dog, rat, swan, crane, wild goose, sparrow, Japanese nightingale, water rail, whale, turtle, crab, and so on. The oldest monuments are those for dolphins and whales. The latest monuments are for experimental animals, animals for food, exhibition animals. There are many new monuments for those animals in university campuses, food industries, zoological parks and aquaria. Object animals of memorial are cattle, horse, pig, bear, deer, fox, chickens, wild duck, cormorant, whale, dolphin, fur seal, sea lion, eel, tuna, salmon, bonito, angler, globefish, sweetfish, snake, prawn, insects, and so on. The motivations of construction are classified into 10 groups; worship to animal relatives (snake, fox, turtle) of deities, memorial for animal for food, memorial for animal for human use (exhibition, sport, transport, farming), memorial for sacrificed animal (accident, experiments, extermination), memorial for pet animal, memorial for animal's faithfulness to human, animal in legend, memorial for animal giving a lesson to human, monument of appeal for peace, others. The forms of tombs and monuments are of same forms as those of human in the same era. The reason why many animal tombs and memorial monuments are constructed in Japan and people hold memorial services for them should be attributed to a characteristic Japanese perception toward animals. Japan is surrounded by the sea. Moreover, more than 80 percent of land is steep mountainous region. Accordingly, people have been well-off for abundant natural food from the sea and the forest of The Temperate Zone. This geographical and climatic condition nourished people to hold a profound feeling of awe toward nature. Human and animals are all one in nature. Consequently, Japanese has strong rejection to kill of animals. People lament the death of an animal. In the sixth century, Buddhism merged into the Japanese traditional religion and enhanced the rejection reaction to kill of animals. Most of modern Japanese still has a sense of sin to kill of animals in their depth psychology. Animal tomb and monument seem to be a mediator between human and dead animal.
Veterinary students’ attitudes about the legal status of dogs and cats

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Perceptions about companion animals and their importance have changed. For many, pets are now part of the family, and people report being emotionally bonded to them. Pets’ treatment reflects these changes: pets live in homes; they are given better food; they receive increasingly more sophisticated veterinary care; and some are provided with things traditionally associated only with humans (e.g., birthday parties, day care, and cremation). Since the law reflects the society it represents, this greater attention to companion animals has resulted in legal challenges to the way pets have been treated traditionally under law. Increased sensitivity to pets has impacted legal analyses in areas such as estate planning, criminal, family and tort law, as well as laws regarding maintenance of and commerce in animals. However, veterinary students’ attitudes about the status of pets and potential changes in that status are unknown.

Veterinary students (N=151) were surveyed about their attitudes towards the legal status of dogs and cats. The questions covered most of the dynamic legal concepts: property status; roles of owners vs. guardians; commercial status; controversial surgical procedures; and legal damages inhering upon liability for death or diminution of value.

97% of respondents reported concern about animal issues and 89% supported strong laws for animal protection. 9% agreed that pets should be granted the same rights as humans, and 48% believed that they do not deserve the same consideration as humans. 73% approved commercial marketing and selling of pets. 30% reported that de-clawing and ear cropping should be illegal. 20% concurred that veterinarians should provide services to an owner upon request, regardless of the veterinarians’ opinion of the animal’s best interest. 77% believed that humans are guardians of their pets and, therefore, must be guided by the animals’ best interests in decisions about them.

18% agreed that companion animals should have standing to bring lawsuits. 86% agreed that pets are personal property. 89% agreed that in the event of death or injury to pet that is the fault of another, legal monetary damages should be fair market value of the animal; 32% agreed it should include compensation for the pain and suffering of the animal; and 24% agreed it should include compensation for the pain and suffering of the owner.

Students’ attitudes varied according to practice interest and gender. Small animal and equine practice students appeared to have less traditional views. Female and male students showed a marked difference on how they answered the survey. Female students appeared to favor enhanced legal status of pets.

In sum, respondents hold generally traditional legal views regarding companion animals. These findings are consistent with current US law, i.e. pets are personal property and owners may treat them as they wish within constraints of animal cruelty prohibitions. However, important variations and contradictions exist. As with society in general, it appears that veterinary students are ambivalent about these issues and that their opinions about the legal status of companion animals are in a transitional phase.
Oral-12

Attitudes toward animals II (Oct. 6th 16:20-17:40)

The role of a flagship species (the platypus) in the formation of human conservation intentions

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Flagship species (those ‘cute,’ popular, relatively large, charismatic animals), are a form of human-animal interaction that are increasingly used as a tool to motivate community-wide conservation efforts. In theory, exposure to a flagship species such as pandas, tigers, or marine mammals, should trigger environmental concern and spark public actions to conserve the flagship species and its habitat. While there have been a number of conservation success stories tied to the use of a flagship species (such as giant pandas in China and lion tamarins in Brazil), the assumption that flagship exposure heightens environmental concern and leads to conservation actions has not been empirically tested.

This study aimed to determine whether exposure to a flagship species, the platypus (*Ornithorhynchus anatinus*, in Queensland, Australia), and/or a person’s level of environmental concern influences intentions to conserve the flagship species and its habitat. Exposure to the flagship was measured both specifically (i.e., direct experiences with the species, its habitat, and/or the conservation agencies promoting the species as a symbol for conservation) and generally (i.e., through involvement in related conservation activities). Data on platypus exposure, environmental concern (as measured by saliency, empathy, and responsibility), conservation intentions and other relevant conservation-related variables were collected from residents of the Barron River Catchment in north Queensland using self-administered questionnaires.

Logistic regression analyses of questionnaire responses showed that none of the exposure types were significant predictors of environmental concern or conservation intentions. However, having feelings of concern specific to the welfare of the platypus and its habitat did influence intentions to conserve the flagship species and its habitat. This suggests that future users of flagship species should focus on finding methods of flagship exposure that can act to instil concern for the species. Results of this study can help managers and other stakeholders improve their uses of flagship species to motivate community-wide conservation efforts. Results also provide a basis from which other human-animal interaction researchers and professionals can further investigate the ways in which animals can be used to influence community-wide environmentally-oriented thinking and actions.
Killer of the cane fields? A cultural history of an Australian snake, the taipan, Oxyuranus scutellatus

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Of all Australia's venomous snakes, it is the taipan that is most notorious. This snake occupies a special place in the Australian imagination as a lethal killer in a league of its own. The taipan is to Australia what the cobra is to India, the black mamba is to Africa, and the diamondback rattlesnake is to the United States of America. Each of these snakes contributes to narratives of national identity in their respective nation; each is a potent symbol of the danger that lurks in wild nature. While other Australian species are responsible for more bites (and deaths) than the taipan, it is this species that is most revered and mythologised, even if rarely seen by anyone outside a zoo or reptile park. It is the only Australian species to have been made the subject of two popular books and it has the distinction of being included in Jeremy Seal's 'rogues' gallery' of charismatic killer serpents in his book The Snakebite Survivors' Club (Picador, 1999).

In this paper we consider the following questions: How did this snake develop such a notorious reputation as a dangerous and deadly snake in the popular Australian imagination, particularly in the 1940s-1960s? What can a cultural analysis of this snake species tell us, not only about ideas concerning nature, but also about Australian identity and nationhood? This paper explores the ways in which the taipan has been constructed culturally through a critical analysis of scientific literature and popular culture. We trace the cultural history of the taipan from the discovery of the species by Western science through to its depiction in natural history texts and articles in the scientific, medical and popular literature. In particular we examine the writings of naturalists Donald Thomson, Charles Barrett, David Fleay and Eric Worrell in order to understand the social and cultural processes and practices that have shaped popular imaginings of this snake. In addition, using media reports, personal diaries and interviews with contemporaries, we examine the death in 1950 of Sydney-based reptile enthusiast Kevin Budden. Budden's death constitutes a significant moment in the cultural history of the taipan. His death from the bite of a taipan attracted national media interest and helped to create a kind of 'taipan anxiety' that was prevalent in the decade following his death.

Our cultural analysis of this species shows that the taipan was emblematic of a wild, untamed northern frontier where Anglo-Australians were intruders and where nature could still unleash its will upon those who sought to conquer it. Taming the taipan through the development of a specific antivenom can be seen to be part of the project of Australian modernity made manifest through the domestication and taming of the chaos of nature.
Two Types of Human-Animal Relations That Coexist in Modern Spanish Bullfighting: Verification of the Humanization of “Corridas de Toros”

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Even today in Spain, bullfights continue to be held, and these remain one form of human-animal relations. It is said that the history of the criticism of bullfighting is equally long as the history of bullfighting itself; that is, there have been repeated disputes involving its existence. The present report focuses on the historical process whereby, despite the existence of a critical view of bullfighting, bullfighting was not completely eradicated in the process of modernization but the preindustrial tradition lived on; and, from the latter half of the 19th century on, bullfighting secured its place in Spanish society as a commercialized leisure spectacle. Investigation is made of just what was concretely seen, and what was not seen, in the relationship toward animals within the reforms called the “humanization of the corrida” implemented at the beginning of the 20th century.

The dominant form at the peak of bullfighting as a commercialized leisure spectacle is called “corrida de toros” in Spanish. When in the latter half of the 19th century the argument criticizing bullfighting from the viewpoint of the pain of the animals was beginning to be developed, the focus was placed on “one type of cruelty” within the corrida: namely, the issue was not the action of humans inflicted on bulls, but rather the pain caused to the horses ridden by horse-riding bullfighters (picadors). In the corrida at the time, it was a common sight to see within the ring several corpses of horses whose bellies had been sliced by the horns of bulls. It was hard to imagine that the pain and death of horses occurring at the periphery of the focal point of the corrida, namely, that of “the battle between the bull and the bullfighter,” was an essential aspect of a corrida; instead, it was unnecessary pain, and the idea that the corridas in which this was occurring consisted of cruelty was accepted not only by those who opposed bullfighting, but also among its supporters. There were bullfight supporters who imagined that with the elimination of such unnecessary pain of the horses, the perfection of a humane corrida could be realized, with the end result being the avoidance of the danger of the complete abolishment of the corrida. It was these bullfight supporters who actively participated in the development of protective equipment to be worn by horses, and who gave this group of innovations the name “the humanization of the corrida.”

Corridas in which only the horses were “saved” were a distortion. The worship of corridas in which, while the “poor” horses were being protected, the brave bulls faced death was essentially the joining together of reason based on modern rationalism with human behavior towards animals which had been passed down by generations prior to modernity. Within this report, the author seeks to show how, with the recognition of the simultaneous existence of these two types of relationships toward animals, just how our contemporary views of animals are being formed on the basis of this dilemma.
The Analysis of opinions of staff members working in the institutions about visiting activities of the companion animal partnership program

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The voluntary activities of Japanese Animal Hospital Association (JAHA) Kumamoto branch were launched in 1993. Since then, the visiting activities based on the companion animal partnership program (CAPP) have been applied at 16 facilities consisting of 11 nursing homes, 4 hospitals and one seriously handicapped child institution. The aim of this research is to investigate and analyze the opinions of the staff members working in the institutions about our visiting activities of CAPP in order to improve the quality of visiting activities.

In November and December of 2005, the questionnaires concerning the CAPP visiting activities themselves, volunteers and companion animals in general were distributed to randomly selected total 800 staff members consisting of 50 members in each facility. Respondents were mainly medical workers and the collection rate of the questionnaire was 84.8%.

According to the summed up results, 95% of respondents knew the visiting activities at their facilities, and 68% had observed or had participated in CAPP activities. However, a quarter of respondents felt that the information about the activities was insufficient. When they observed scenes of CAPP, 90% of them felt the scenes were pleasant. A minority of 13% felt discomfort of putting animals in a hospital or nursing home because of risk of infectious diseases and prejudice against animals. On the other hand, 58% of respondents had encouraged the patients to join the CAPP visiting activities. Also, the impression of the volunteers and companion animals concerning their manners, communication skills, the way of handling animals, frequency and punctuality of the activities were relatively affirmative. It was pointed as a failing that the volunteers tend to think patients have the same favorable feeling toward animals as well. Generally, a dog was most popular (76%) and a cat was one of those “love it or hate it” animals. About 6% of respondents were allergic to animals, half of whom were allergic to cats. One third hated some animals because of their bad experiences such as being bitten, barked or chased. More than 80% were conscious of hygiene and infectious diseases related to animals and animal behaviors. About 37% of respondents had their own animals but 72% were unwilling to join the CAPP activities because of insufficient training of their animals. As the staff members of the facilities shift during these 14-year activities, periodic education and information for CAPP visiting activities may be necessary, e.g. lectures by a veterinarian could eliminate misunderstandings due to bad experiences and anxiety of infectious diseases. Then the staff members would familiarize themselves with the activities and properly understand the meaning and as the result, also encourage the patients to participate the CAPP visiting activities. Furthermore, using the data of the questionnaire, re-evaluation and reconsideration could be performed in each of the facilities for further progressed utilization of the activity.
Risks of infection associated with animals visiting hospitalized people in Ontario and Alberta, Canada

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Background: Animal-assisted activities are common in North American healthcare facilities. While the benefits of this practice are well documented, the risks of infection - both to and from pets - have not been adequately explored. We hypothesized that dogs that visit human healthcare facilities will be at higher risk of acquiring hospital-associated pathogens relative to dogs with no hospital exposure and, hence, will be at risk of spreading these pathogens within their households.

Methods: Both a prospective cohort study and a nested case-control study were conducted. In the cohort study, 2 groups of dogs were enrolled: 100 dogs that visit people in healthcare facilities (the "exposed") and 100 dogs that participate in other types of AAA but do not visit healthcare facilities (the "unexposed"). Between May 2005 and November 2006, fecal specimens and nasal swabs were collected from each dog every 2 months for 1 year, and submitted to researchers along with a brief log of places visited when in the role of AAA dog, antimicrobial use within the home and dog health status. Specimens were cultured for 3 bacterial species frequently linked to human hospital-associated infections: methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococci (VRE), and Clostridium difficile. Within 1 week of confirming a positive test result, follow-up fecal specimens and/or nasal swabs were collected from each dog that tested positive for MRSA or VRE, as well as from all people and pets that shared its home. On completion of the cohort study, a pre-tested questionnaire was mailed to owners of all test-positive (case) and test-negative (control) exposed dogs, inquiring about patient and dog practices during routine visits.

Results: Approximately 90% of the animals completed the cohort study, with attrition rates similar between the exposed and unexposed groups. Exposed dogs were at greater risk, relative to unexposed dogs, for acquiring MRSA or C. difficile (p<0.05). Specifically, 8 (8%) and 28 (28%) of exposed dogs acquired MRSA or C. difficile respectively, compared to 1 (1%) and 15 (15%) of unexposed dogs. Only 1 (1%) dog, which visited hospitals, tested positive for VRE. No association between antimicrobial exposure and the acquisition of drug-resistant bacteria was identified. Follow-up testing failed to recover MRSA or VRE from previously positive dogs, nor was MRSA or VRE isolated from any of their cohabitants’ specimens. Analysis of the questionnaire responses revealed that dogs that licked patients were more likely to acquire MRSA or C. difficile than dogs that did not (p<0.05). Patient hand hygiene was not promoted by any dog handler.

Conclusion: Dogs can acquire hospital-associated pathogens during their interactions with hospitalized people. While the present study did not find evidence of animals spreading these agents to others within the home, that possibility cannot be ruled out. Infection control policies for AAA programs should be designed to promote hand hygiene both before and after handling animals and to deter licking of patients and staff.
Background: The popularity of animal-assisted activity (AAA) and therapy (AAT) programs has grown to the point where most hospitals and long-term care facilities in North America currently permit animals to visit with their patients. Such animals may be those that are specially screened and trained for AAA/T, interacting with many patients over time, or they may be unscreened pets that belong to patients and their families or friends, visiting with specific patients on a temporary basis. While healthcare facilities have been quick to endorse animal visits, the development of relevant infection control policies has lagged, in large part due to the lack of scientific evidence regarding risks of patient infection associated with interacting with animals. The purpose of this project was to develop standard guidelines for animals in healthcare facilities, taking into account the available evidence, to protect the success of AAA/T programs.

Methods: Researchers in zoonotic diseases and AAA/T programs reviewed available guidelines for animals in healthcare facilities and developed a set of elements common to all, adding suggestions to address weaknesses with respect to disease prevention that had been identified through their own research. These draft guidelines were circulated to North American organizations identified as having a potential interest in AAA/T, along with an invitation to meet and brainstorm on the proposed guidelines further. A total of 29 individuals representing government, hospital and infection control associations, veterinary associations and AAA/T programs accepted the invitation and convened in Toronto, Canada on January 9, 2007. The day began with presentations on the evidence concerning both benefits and risks of allowing animals in hospitals. This was followed by discussion of each component of the draft guidelines, as facilitated by a professional moderator. Votes were taken at each step to determine whether a consensus had been reached (>80% agreement among participants). Items that remained unresolved at the end of the day were delegated to subcommittees for further discussion.

Results: A final set of guidelines was developed to address the following topics: hand hygiene, suitability of animals (including temperament testing, health screening and diet), requirements of animal handlers (both AAA/T and patients’ animals), preparation of animals for visiting, acceptable forms of animal-human contact, record-keeping and acceptable visit locations. Some of the more significant recommendations which may not have been addressed in other guidelines previously include:

- practicing hand hygiene before and after animal contact
- holding handlers of patients’ animals to the same standards as handlers of AAA/T animals
- discouraging the feeding of raw diets to AAA/T animals
- preventing AAA/T animals from licking patients
- designating one representative within the healthcare facility to oversee all animal visits and keep appropriate records.

Significance: Animals have been implicated as potential reservoirs for human infection with methicillin-resistant Staphylococcus aureus or toxigenic strains of Clostridium difficile, both of which were traditionally associated with hospitals and now appear to be evolving within the community. The recommendations developed by this group aim to protect AAA/T in hospitals by minimizing the opportunity for spreading infectious agents from, to and through animals.
Relationships between assistance dogs and people with physical disabilities; Background details and problems encountered

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The use of assistance dogs for people with physical disabilities, who are mainly wheelchair-bound, has grown in popularity in the last 20-30 years. However, there are few studies which have been carried out on the relationships between these people and their dogs, especially in terms of problems that may arise. Research on this association is necessary because these dogs are required to help their partner whatever and whenever needed, and hence there are concerns about the welfare of the dogs.

The aims of this research were to collect background data on people with physical disabilities and their dogs, as well as their partnerships, and to detail any problems that had occurred. The data were collected in cooperation with Canine Partners, a UK-based charity registered with Assistance Dogs (UK) in 2006.

Data were gathered on 118 partnerships: 83 (70%) were current (labelled “Currently Working Partnership”) and 35 (30%) were no longer active (labelled “Past Partnership”). The causes for termination of Past Partnership were analysed: 21 ended due to natural causes (death or poor health of the dog or owner), while 14 were classified as “Unsuccessful” (inability of the partner to manage the partnership, some form of neglect of the dog, or the dog proved unsuitable for that partner or assistant work).

In addition, 45 partnerships were randomly selected from the 118 partnerships. Reports that had been previously filled in on a regular basis by partners (Partner Reports) and their Aftercare Assistants (ACA Reports) were collected from the subset group to obtain further information about the partnership. It was revealed that behavioural problems and other concerns were found at some stage in 91% of partnerships, according to ACA Reports. For example, behavioural problems such as ignoring essential commands (40%) or displaying fear and anxiety (63%) were identified in Partner Reports. Despite these problems, however, it was found that the most partnerships were maintained, with the help of the organised aftercare service of Canine Partners. At the same time, it was found that the partners regarded their bond with their dog to be strong most of the time (98%), and generally had a good understanding of the dog’s work load (44%) and needs (65%). Also, these reports showed that a high proportion of the dogs were in good health (67% and 75% in Partner Reports and ACA Reports, respectively).

A better understanding of the relationships between assistance dogs and people with physical disabilities is necessary to prevent problems from occurring and to improve the situation for both dogs and partners. It also sheds light on the welfare of these dogs.
Beneficial effects of guide dogs in the visually-impaired

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Previous studies have shown that there are substantial health benefits from sharing our lives with pets, such as lower anxiety, depression and/or stress levels relative to those seen in individuals who do not have regular contacts with pets. The aim of this study was to determine whether the presence of a guide dog positively affects mental and/or physical health in the visually-impaired. Forty-four subjects participated in this study: thirteen participants were visually-impaired and owned a guide dog (5M,8F), 18 were visually-impaired and did not own a guide dog (6M,12F), and 13 participants were not visually-impaired but were dog owners (5M,8F).

The mean age ± SD was 50.3 ± 13.5 for the visually-impaired participants with a guide dog, 50.9 ± 16.5 for the visually-impaired participants without a guide dog, and 45 ± 16.9 for the non-impaired participants who were dog owners. All groups were matched on age (p > .26) and education (p > .74). Participants were administered questionnaires of anxiety (Spielberger, 1983), stress (Cohen et al., 1983), depression (Beck et al., 1988) and social support (Sarason et al., 1983). The two visually-impaired groups were also administered a question about ease of locomotion (to be rated on a 1-10 points likert scale) and the two dog owner groups were administered a questionnaire of attachment to their companion animals (Staats et al., 1996). All tests were administered in counterbalanced order. Results were analyzed using one-way ANOVAs with one between-group factor (visually-impaired with a guide dog vs. visually-impaired without a guide dog vs. non-impaired dog owners), and one within-group factor (the score on each test). When a main group effect in the ANOVA was significant, post-hoc Bonferroni t-tests were used to determine which of the groups differed from each other. The relation between the degree of attachment to the animal and social support was calculated using Pearson correlations.

The visually-impaired participants with a guide dog reported twice as much facility in locomotion as the visually-impaired without a guide dog (p = .0001). Moreover, the visually-impaired participants with a guide dog had lower symptoms of stress (p = .02), anxiety (p = .001), and depression (p = .01) than the visually-impaired participants without a guide dog. In addition, the visually-impaired with a guide dog had marginally lower symptoms of state anxiety relative to the non-impaired dog owners (p = .06). The visually-impaired without a guide dog had marginally higher symptoms of depression relative to non-impaired dog owners (p = .06).

The visually-impaired participants with a guide dog were also significantly more attached to their dogs compared to non-impaired dog owners (p = .004). Finally, the stronger the pet attachment, the greater the social support (number of people available) in the groups with (p = .09) or without visual impairment (p = .004) who where dog owners. No other significant differences were found among groups.

In conclusion, this study demonstrates that guide dogs lead to positive health benefits in both the physical and mental domains in the visually-impaired.
Behavior genetic study with temperament assessment in guide dogs

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Introduction
The number of actual guide dogs is much less than demands for them in many countries. The success rate of a guide dog raising remains only 30-40%, and the major reasons for rejection of candidate dogs include various temperament problems. Recent progress in behavior genetics could be applied for developing more efficient guide dog training by utilizing the genetic information about their temperament. However, a reliable method of temperament assessment, which is necessary for identifying the temperament-associated genetic polymorphisms, is yet to be established. In the present study, we tried two different types of temperament assessment and examined the relatedness to genetic polymorphisms of temperament-associated gene candidates.

Materials and Methods
We first conducted a questionnaire survey to experienced trainers on the temperament of their candidate dogs at the third month of training. The questionnaire consisted of 22 temperament items with 5-grade evaluation that were answered based on the long-term observation. Secondly, we introduced a behavior test with measurement of heart rate (HR) as an objective parameter of autonomic nervous activity based on our previous study showing the relation between HR trends and final accept/rejection outcome (annual meeting of American Veterinary Society for Animal Behavior, 2006). The dogs carrying a band-type HR monitor were kept alone in the kennel, where HR and behavior were recorded for 15 minutes. This test was performed at one and two months after the training had started. Genome DNA was extracted from blood and used for genotyping of 12 polymorphisms on 6 genes, which we had found to show intra-breed differences.

Results
Factor analysis on questionnaire responses (n=74) extracted five stable factors with moderate to high reliability (Cronbach’s coefficient alpha: 0.53-0.80). By comparing the factor score and polymorphisms, significant associations were found between Glutamate transporter 1-T471C and factor 2 (named "motivation"; one-way ANOVA with Bonferroni correction, p<0.001), and between Catechol O-Methyltransferase-G216A and factor 4 (named "cautiousness"; p<0.005). In the behavior test, on the other hand, average HR was calculated and a significant correlation was found between the first and second trials (Pearson product-moment correlation coefficient, r=0.586, Fisher’s z-transformation, p<0.005), suggesting the consistency of HR trends within individuals. By comparing the average HR and genetic polymorphisms, tyrosine hydroxylase-C264T showed a significant association with HR (One-way ANOVA, p<0.05).

Discussion
In this study, we examined two types of temperament assessment, namely the questionnaire survey to trainers and HR/behavior monitoring, for their feasibility of applying for behavior genetic study. Some parameters were found consistent and significantly related to genetic polymorphisms in candidate temperament-associated genes. The prediction of suitability for guide dog is required not only for the improvement of training efficacy but also for advancing the welfare of candidate dogs. Behavior genetics is expected to facilitate a prediction of training outcome at very early stage and thus to help establishing a tailor-made training program as well as early carrier change program for guide dog candidates.
Oral-21
Dealing with loss (Oct. 6th 16:20-17:40)

CARE in PRACTICE - A Human Companion Animal Bond Centred Approach to Providing Companion Animal Bereavement Support in Veterinary Practice

Susan Elisa Dawson
Blue Cross/SCAS Pet Bereavement Support Service, Society for Companion Animal Studies/Blue Cross, United Kingdom

Companion animals (CAs) can play hugely important roles in the lives of people. Over half of UK households own a CA (PFMA,* 2006). For the purpose of this paper CA will mean dogs and cats which represent the most frequently owned CA. Despite CAs being perceived and related to as family members by a significant proportion of caregivers, there are no socially sanctioned traditions for mourning of the deaths and remembrance of the lives of companion animals. Whilst in the United States of America social workers and counsellors have been integrated into selected veterinary practices, as a means of providing emotional support for caregivers at the time of terminal prognosis, euthanasia decision making, the euthanasia event and post death of a companion animal, this is not accepted, current UK practice. Indeed, grieving the death of a companion animal in the UK is often construed as being self indulgent, sentimental, perhaps pathological or even ridiculous. Consequently, companion animal bereavement is a disenfranchised loss, remaining largely unsupported in veterinary practice and unrecognised within mainstream bereavement counselling.

This paper outlines a progressive, innovative training programme currently used with qualified veterinary nurses, which is aimed at enabling a human companion animal bond centred approach to providing companion animal bereavement support in veterinary practice. Integrated within the Hill’s Pet Nutrition Veterinary Health Care Advisors’ Training courses in the UK, the CARE in PRACTICE programme involves nurses in real life case studies of grieving clients, providing a practical workshop forum which facilitates development of knowledge of new models for companion animal bereavement support which are grounded in caregivers’ lived experience and essentially informed by the key facets identified as constructing the human-companion animal bond. Nurses learn how to map clients’ experiencing of individual bonds with companion animals, using a specially devised clinical communication tool enabling CA illness trajectory mapping. This technique is employed within dedicated nurse run palliative care and bereavement clinics. The focus of this work is on family centred support, identifying and recognising the vital role of the companion animal within family structures. Possible rituals for remembrance including generation of linking items, e.g. swatches of tail fur, the making of paw prints and in practice memorialisation e.g. a veterinary surgery book of remembrance, walls and paths of remembrance are also explored. The crucial role of helping grieving clients in the construction of rituals of remembrance and developing individual, culturally sensitive approaches to after death body care and memorialisation of companion animals is integral within the CARE in PRACTICE programme. This paper is presented with the intention of inspiring others to develop similar programmes enabling increased recognition of the impact of companion animal loss on caregivers and encouraging provision of human-companion animal bond centred support in veterinary medicine.

*PFMA = Pet Food Manufacturers’ Association
The Lived Experience of Companion Animal Euthanasia - A Distinct Category of Loss

Susan Elisa Dawson

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Companion animals (CAs) can be strong attachment beings in the life-world of people, and are often construed as members of the family. Since a companion animal's life-span is typically one fifth that of a person it is realistic to expect that an animal caregiver could experience the loss of a CA a number of times. Although each caregiver hopes that the animal will die naturally, in reality this is rarely the case, as euthanasia is a major agent of death for CAs. Active, involuntary euthanasia is not usually legally practiced in human medicine, it is only relatively recently (2002) that the practice of voluntary, active euthanasia of people was legalised in The Netherlands. Yet, despite the uniqueness of the widespread, legal practice of euthanasia within veterinary medicine, human models of bereavement (Kubler Ross, 1969; Worden, 1982; 1991) are currently, exclusively, applied to understanding caregivers’ reactions relating the euthanasia of their companion animals and in informing methods of provision of emotional support in relation to what is, essentially, a distinct category of loss. These models, however, are not grounded in lived experiences of companion animal euthanasia nor do they take into account specific constructs of the human-companion animal bond (HCAB). This paper presents the findings of a three year, qualitative doctoral study that was conducted as an Organic Inquiry (Clements, Ettling, Jenett and Shields, 1998; Curry and Wells, 2003), which investigated twenty one caregivers' lived experiences of the euthanasia of their terminally ill companion animal. Narrative analysis and expressive interpretation of participants' euthanographies generated the new poly-relational model, grounded in self psychology (Kohut, 1971), which will be introduced in this paper, as a basis for explication of the HCAB in relation to euthanasia. A unique psycho-ethical dialectic was identified as inherent within the euthanasia decision making process, revealing subjective quality of life indicators and illuminating the critical stressors integral within recognition and acceptance of caregivers' personal responsibility for the death of their companion animal. Grief resulting from companion animal euthanasia was, thus, revealed to be distinct in that personal responsibility for the death of the animal does lie with the caregiver, which is unlike most other experiences of bereavement. Presentation of these findings includes expressive artwork and poetic re-presentations of lived experiences of grief generated through collaborative analysis, with individual participants The implications of these findings for provision of emotional support within veterinary practice and companion animal bereavement counselling will be discussed, illuminating the role of cognitive re-framing techniques enabling identification of responsibility as being separate from feelings of guilt, which were revealed as occurring simultaneously in caregivers' emotional reactions to companion animal euthanasia. This paper enables others a unique opportunity to bear witness to the stories of caregivers' lived experiences of companion animal euthanasia and invites affective, as well as cognitive engagement, in an effort to embody the gravity of the euthanasia decision and the intensity of grief experienced by caregivers in relation to this distinct loss.
An Analysis of Companion Animal Death as Seen Through a Pet Loss Hotline

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The Pet Lovers’ Meeting (PLM) is a group that was formed through a network of owners brought together by the illness of their pets. The PLM has 3 major activities, group meetings where owners are given the chance to share their loss, an internet site “Pet Loss Support”, and a free telephone service, the pet loss support hotline. This hotline was established in 2003 and is open once a week on Saturday afternoons. The hotline is manned by volunteers who have had basic training in counseling. There have been 350 calls as of the end of 2006. This study is an analysis of the contents of these calls. The contents of the calls were divided into categories in order to identify some of the major factors governing the owners’ condition following the death of a pet. Some calls would refer to multiple categories. The results are as follows: 1) Feeling of guilt 186 cases (53%) 2) Issues of veterinary care 137 cases (39%) 3) Feeling of loneliness 129 cases (36%) 4) Terminal care 127 cases (36%) 5) Family relations 69 cases (19%) 6) Accidents 34 cases (9%) 7) Funerary services 30 cases (8%) 8) Animal abuse 6 cases (1%) Family relations centered on issues concerning the gap in emotional reactions to pet death between family members, and abuse refers to cases that the death was related to an abusive situation. The feeling of guilt is at the top of the list as it is the single category that overlaps with the others. If there were regrets about the choice of a medical facility, then it would overlap with issues of veterinary care. Owners involved in terminal care may wish for the end at some time and thus feel guilty. Needless to say, those talking about accidents will oftentimes express their guilt. Issues of veterinary care could be divided into 3 major sub-categories, 1) dissatisfaction of owner due to lack of communication, 2) emotional damage to owner through words spoken by the medical stuff, and 3) issues of euthanasia. Terminal care was high on the list alongside the expected emotion of loneliness. This can be attributed to the fact that the Japanese are generally reluctant to face the issue of euthanasia. If terminal care is considered a sub-category of veterinary issues, then it may be concluded that veterinary issues is the single largest category. It would be extremely useful for veterinary professionals to take into consideration such data in order to further analyze and improve their clinical services and client relations.
Dealing with loss (Oct. 6th 16:20-17:40)

Love and Loss: Ellie and Oscar A Case Study Highlighting Implications of Attachment and Loss Within Animal Assisted Therapy Programmes

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There is currently a lack of studies documenting attachment relationships between person and animal within time limited animal assisted therapy (AAT) interventions. This paper presents a case study of Ellie, a ten year old child involved in a twelve month therapy programme, integrating the therapist's own dog, Oscar, into regular, weekly fifty minute therapy sessions. This case study illuminates the therapist's observations of the development of an attachment bond forming between child and dog that appeared to be, paradoxically, therapeutically and counter-therapeutic. Although, a single case study the findings suggest a need for more focussed research investigating the possible role and consequences of attachment and loss within AAT. It highlights the need to address ethical concerns arising from the potential counter therapeutic consequences resulting from experiences of grief in clients, following the completion of AAT programmes. Implications for careful management of attachment and loss within AAT are identified as pivotal in ensuring ethical, responsible practice.

Ellie was referred for therapy following concerns by her class teacher that she appeared isolated from her peers. Ellie had experienced repeated episodes of bullying by her classmates which seemed to be related to her dyspraxia. This was most pronounced during physical activities and at playtime. Ellie is physically tall for her age and acutely aware of her visibility as a taller child in class. She talks of her dyspraxia describing it as "clumsiness," locating feelings of embarrassment and self consciousness. Prior to the optional integration of Oscar into Ellie's therapy sessions she was reluctant to communicate preferring to select free play activities which involved painting or drawing. When given the option, Ellie identified a strong preference to integrate Oscar into her weekly sessions. This option was offered eight weeks into therapy. She talked of liking dogs and of hoping that she wouldn't be "too clumsy," so as not to frighten him. Preparation for integration included the use of a photo-talk book about Oscar's life (from being a puppy); illustrating his welfare needs and activities he participates in. This introductory period was carried out over the duration of three weeks before Oscar was present in the session.

Most noticeable was the touch-talk dialogue which occurred spontaneously with integration of Oscar into session; Ellie appeared to have increased motivation to participate and talked of increased enjoyment. The ten minutes of free play at the opening of each session up until ending of the programme involved exclusive play with Oscar. Initial observations by the therapist identified that Oscar functioned as a transitional object (Winnicott, 1971; 1986) in Ellie's life, as an animate responsive being onto whom she was able to project her fantasies of an idealised accepting friend. However, no antagonistic or disruptive responses to Oscar were observed. Ellie became very distressed by the possibility of her weekly relationship with Oscar coming to an end when the therapy programme neared completion. Despite careful, sensitive management in preparation for this ending Ellie experienced distress at ending her relationship with the therapy animal whom she claimed to, "love."
Oral Sessions (October 7th)
Oral-25

AAT & autism (Oct. 7th 12:40-13:40)

The effects of Animal Assisted Therapy (AAT) on the interaction abilities of children with autism

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From Boris Levinson's accidental discovery that the presence of an animal can be positive for problematic children, further studies have lead to different types of intervention, including Animal Assisted Activities and Animal Assisted Therapy.

Although there is increasing interest regarding this argument, also noted in various institutions in our country, research conducted with rigorous methodology finalized to understand the mechanisms of AAT are extremely limited.

The aim of this research was to asses the effects of AAT on children affected by Pervasive Development Disorder (PDD), developing an observational methodology to test the efficacy of AAT intervention.

The study was conducted between January and June of 2004. Five children (four males, one female) ranging from 3-5 years of age, all diagnosed with PDD (F84.0 according to the system of classification ICD10) participated in the study. Each child was involved in the weekly individual sessions in which the actors were the child, the female psychologist and one Pet Partners® team (one 6-year old male dog/female handler and one 3-year old female dog/male handler, according to the child’s needs identified by the treatment equipe). Observations were carried out in a medium-sized room, containing a mat, some equipment for playing with and taking care of the dog and a hidden videocamera for behaviour recording.

A pre-test session was conducted to obtain a base-line evaluation and to collect data about specific areas of interest; post-test session was carried out at the end of the programme to evaluate the effect of the programme and mainly of the interaction with the dog.

Pre-test and post-test sessions were structured ad hoc and consisted of a period of interaction without dog presence, followed by a period of interaction with dog presence. Each session consisted of an interaction game and the reproduction of an unfamiliar action demonstrated by the psychologist.

The behaviour of each child was scored from videotapes, and the behaviour of interest for children with autism were recorded in terms of frequency and/or duration. A single case methodology was utilised.

From the analysis of all the encounters, a clear trend in the children’s behaviour was not evidenced, due to the fact that each encounter had peculiar characteristics. We found that the dog’s presence had positive effects on:

- the children’s capacity for interaction;
- the duration of the interactions, which was longer in dog’s presence;
- the ability to complete actions requested by the psychologist.

The overall differences between pre-test and post-test sessions were limited; however differences between the encounters in presence of the dog and those in absence of the dog were evidenced.

Further research is needed to obtain a deeper understanding of the effects of dog presence on the behaviour of children with autism.
Canine Animal-Assisted Therapy Model for the Autistic Children in Taiwan

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Introduction: The purpose of this 3 years research was to develop and evaluate a canine animal assisted therapy (AAT) model for children with autism in Taiwan. The research procedure included: 1) training and screening canine animal assisted therapy teams for the research; 2) developing and implementing AAT protocols for children with autism; 3) evaluating the effectiveness of this AAT model.

Method: 33 paired autistic children, with 5.89 years old in average, from different communities participated in this research. Based on the multi-baseline across individuals design, all children experienced control and experimental stages. Children in Control stage were explored in regular living activities, while in experimental stage were treated by semi-structured small-group (5-8 persons), 40 minutes, twice a week, 8 weeks in total of AAT activities. All canine animals in this research were well trained and qualified therapeutic dogs. Vineland Adaptive Behavior Scale (VABS, Chinese version) and individual treatment goal attainment scales (GAS) were used for evaluating the effectiveness of AAT.

Results:

1) Cooperating with Formosa Animal Assisted Activity and Therapy Association (FAAATA), this research screened over 40 pet partner teams, including 4 stray dog teams. There were 36 well-qualified pet partners participating in this research.

2) The significant improvements of children’s VABS score were in the “social skill subscale” and “total scale”. The results supported a well designed AAT activity protocol could reconstruct the social skills of autistic children.

3) After playing with dogs, children revealed significant improvements on GAS in items of “oral express by sentences”, “amount of oral description”, “take turns for meaningful conversation”, “oral express under eye contact”, “continuing eye contact”, “active body express for asking helps”, “active invitation or assistance to/with others”, “increasing concentration time during activity”, and “presenting appropriate body reaction by order”(p<.0001****).

Conclusions: This research developed the substantial AAT protocols and effective goal-settings for the children with autism. It suggested that higher structured and social, communicating, and motor skill oriented activities were better for autistic children. The findings supported the AAT activities is helpful for autistic children to recognize environments and to practice higher level interpersonal skills.
A Speechless Child: Two Years and a Half of AAT Versus Autism

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This AAT project involves an autistic child with relational problems. He screams, gets overexcited, tries to injure himself by biting his hand < throwing his head against the wall. He doesn’t speak but communicates through gestures and the use of symbolic boards.

Our project started in 2004, when he was five years old, and is still continuing. For two years we met him in the kindergarten where he was attending. The third year, in elementary school, we met him once a week, for one hour. Up until now we met him fifty times. A psychologist and owner of the dogs, assisted by a supporting teacher were always present. The trained dogs involved were two: a six years old Dachshund female and a four years old Samoyed male. Also present was a small group of children of the same age.

The aim was to improve the link with the environment through the following steps:

1) To focus the child’s attention on the dog;

2) To have him sit on a chair with the dog in front of him on a table, in order to teach him how to pet and brush him, feed him and give him water.

3) To keep him on a leash

4) To improve integration with his classmates.

During the first meetings the Dachshund sat in her basket on the table. The child caught a glimpse of the dog and, sometimes, stopped to quickly pet her. After one month he sat for five or six minutes on the chair to pet the dog, holding the brush in one hand and touching it with the other. After two months, having made sure the child was not scared by dogs, we introduced the Samoyed. Seeing the dog, the child hugged him screaming with joy. After three months he started to brush him, sitting for as long as fourteen minutes while the psychologist counted from one to ten, then to twenty. This procedure caught his interest. Step by step he learned how to feed the dog and give him water.

By the end of the first year we started having four children of the same age coming to these meetings. The number of children attending increased all through the second year. The child learned to sit at a table with others while the dog was on the table. The children, took turns brushing him and giving him treats. The child learned to wait for his turn. Always taking shifts, they took him on the leash, a double one, one for the child and the other one for the psychologist.

The third year was satisfactory, the child fulfilled our requests and could sit for twenty minutes. Through the years the crisis during the AAT became very rare and short. Children of the same age learnt to think of him in a different way: they trusted him more and always took part with enthusiasm in our meetings.
**Influence of Pet Animals on Social Behaviour in a Child Psychiatric Population**

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Animal assisted therapeutic interventions increase in number and intensity throughout child- and adolescent psychiatric hospitals in Germany. However, the reasons for positive therapeutic effects in specific human animal interactions still remain unclear. The epidemiological part of our study examines, if the presence of domestic animals during childhood implies, under certain conditions, a positive effect on the psychosocial adjustment of children and therefore on their mental health. The experimental part of our study looks into specific analogous human animal interactions, exemplary into interactions between in-patient children and dogs. Based on psychophysiological considerations we presume that children with an internalising pattern of symptoms benefit from a dog with homogenous and stable features, whereas children with an externalising pattern prefer dogs with variable and stimulating temperament features.

A self developed questionnaire is used to examine the following epidemiological aspects (n=112): a) the existence of a domestic animal b) the extent of care and responsibility towards the animal c) the experience of an adequate coping in case of loss of an animal d) the psychosocial adjustment of the child. The experimental study includes in-patients (n=25) aged 7 to 14 years. The extent of the internalising and externalising symptoms in our in-patient sample is measured with the Child Behaviour Checklist (CBCL, Achenbach, T.M. 1991). Experimentally we examine, to what extent in-patient children show various disorder related assessments and preferences in different situations of interactions with a dog. With a semantic differential (Osgood, C.E., modified version), a polarity profile to capture different assessments, the individual subjective assessment of dog features by the child is examined through analysis of specific emotional and arousal factors. The evaluation is effected from variance and factor analytic methods and T-test for independent samples.

Our first epidemiological results confirm that children develop significantly higher social adjustment if they grow up with domestic animals, especially if they show responsibility towards the animal, but also, if they were able to adequately cope with loss of the animal during childhood (p=0.05). This finding applies for both children with an internalising and externalising symptom pattern. Children with internalising disorders benefit from homogenous and stable dog features, whereas children with externalising disorders benefit from variable and stimulating dog features (F=0.01).

Our results outline the important role of domestic animals for the development of adequate social adjustment in children. The extent of this positive effect in dogs depends on the quality of the interaction between child and animal. It also seems to depend on a suitable match of characteristics of the disorder as well as temperament features of the child on one hand and temperament features of the animal on the other.
Psychophysiologically and psychometrically detectable therapeutic effects in the interaction between dogs and adolescents psychiatric patients

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Starting point of our study is the examination of therapeutic variables of the interaction between dogs and adolescents with psychiatric disorders. We assume that besides different characteristic features of dogs also the quality of the interaction with the animal has a specific therapeutic influence. As different qualities of interaction we compare human animal interaction with activating and calming contents. Our hypothesis implies that externalizing patients benefit more from an activating modus of interaction, whereas internalizing patients prefer a calming modus of interaction.

In our experimental study adolescent patients aged 13 to 17 (n=32) with externalizing versus internalizing disorders are examined with the Child Behavior Checklist (CBCL; Achenbach 1991). Effects of calming and activating interactions are measured. As study design we use analysis of variables between groups (ANOVA). In groups with 4 to 8 patients the adolescents are told to pet a selected dog for a certain period of time (15 min). Later on they are told to take the dog for a walk and rollick (15 min). The heart rate is used as dependent variable and is measured repeatedly. The heart rate not only shows vegetative changes but also represents the best examined biological parameter for antisocial behavior. (Ortiz, J & Raine, A., 2003). Furthermore we examine differences in the currently experienced anxiety with the State-Trait-Anxiety-Test and anger with the State-Trait-Anger-Test (Spielberger).

The results of the study verify the hypotheses of the authors: In adolescents with externalizing disorders there was no significant change in heart rate and anger under the calming modus of interaction. Under the activating quality of interaction there was a therapeutically induced significant increase of the heart rate and indications for a decrease of anger parameters. On the other hand adolescents with internalizing disorders react, in the calming modus of interaction, with a therapeutically induced reduction of the heart rate and a significant reduction of anxiety. These patients report that the additional increase of heart rate under activating conditions is experienced as disturbing and unpleasant.

Conclusions of our study imply that for various psychiatric groups of disorders not only the suitable match of the animal cause a specific therapeutic effect. We can rather show that, based on the assessment of the disorder (internalizing versus externalizing), the modus of the interaction determines the positive therapeutic outcome. Animal assisted therapy in the psychotherapy of adolescents should take these specific effects into consideration. Furthermore the psychophysiological and psychometric measures in the study prove to be valid evaluation parameters for therapeutic processes in the human animal interaction.
Animal Assisted Therapy (AAT) with traumatised children living in a communal setting

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This AAT programme was started in October 2005 with the goal to implement, and further understand, the potential of AAT programmes for children not affected by organic pathologies, but with affective-relational and behavioural problems due to early traumatic experiences. The children in question suffer profound affective deficiency and attachment disorders that often are manifested by affective and cognitive inhibition and hyperactivity. Funding for the programme is in part by donation of a charity organisation and in part by the local provincial government.

The specific objectives of the programme are:
- to help the children to enter in contact with their own emotions, in function of their individual problems and therapeutic objectives, individualised by health and educational professionals of centre;
- to define a more specific intervention methodology for such work.

Seven children ranging from 4 to 6 years (four females and three males), all residents of a public residential centre that hosts abandoned minors as well as minors removed by juridical decree of the courts from multiproblematic families were involved in the programme. Initially the children were placed in one of three small groups, homogenous by age, individual particularities and characteristics of their disorders. Later we realised that individual sessions were preferable and changed to that format.

During the 40-minute weekly sessions, three professional figures are present - two female psychologists (one therapist, the other observer) and one Pet Partners® team (one 5-year old female dog/male handler and one 4-year old male dog/male handler). Each child interacts with one dog at a time according to the child’s behaviour and the objectives identified by the equipe.

The setting is a medium-sized room with a large floor mat, a large wall mirror, toys for the children and the dog, paper, coloured pencils, water, etc.

During the sessions, the child is free to interact with the dog, the handler helping the child to comprehend the animal’s behaviour and communication and offering concrete support in the dog-child interaction. The therapist interprets the actions and behaviour of the child, helping him to understand emotions that emerge. The observing psychologist collects salient elements of the interaction, subsequently elaborating them together with the therapist.

The methodology applied has proved effective and over time (the programme is still underway at the time of writing), it has been noted that the children have shown greater ability to:
- recognize and communicate their own needs, thoughts and emotions;
- differentiate between self and other;
- accept physical contact with another;
- approach the symbolic area (design, game);
- contain their aggressiveness;
- canalise their hyperactive tendencies in structured, intentional games;
- reduce behavioural isolation and affective withdrawal.

In generale, within a similar setting and utilising a methodology as described here, we believe that traumatised and affection deprived children might form an affective relationship with an animal which can become a privileged channel through which to express trauma and interiorise therapeutic messages.

We are pleased with these results and believe that the field is deserving of ulterior work and research.
Empathy is an important skill for a successful integration in society and a growing body of research proposes that animal assisted education can improve empathetic skills.

The goal of the study presented here was the investigation of the effects of animal assisted education on the socio-emotional development of severely disturbed children and juveniles in a residential treatment program in Germany. These juveniles show a variety of mental health problems, suffered from neglect or abuse, and some have a criminal history, lived on the street and took drugs. Thus, one of the main therapeutic and educational goals is to improve their empathy and social skills.

The investigated residential treatment program has used animal assisted education programs for several years. The study focused on the development of empathy during a one-year period. Data from 67 juveniles (47 male, 20 female, age between 10 and 18, M =15) were collected. Forty-one juveniles lived in animal assisted treatment/education groups and 26 in control groups with conventional therapy/education. One exploratory goal was the comparison of animal-assisted and non-animal-assisted groups in regard to empathy, as well as the investigation of relations of attitudes and attachment to animals and empathy.

For the assessment of empathy, the "IVE (Inventar zur Erfassung von Impulsivitaet, Risikoverhalten und Empathie, Inventory for the assessment of impulsivity, risky behaviour and empathy)" was used. The quality of the human relationship to animals was assessed with two German questionnaires ("Fragebogen zur Erfahrung mit Tieren, FERT" and "Fragebogen zur Einstellung mit Tieren, FEIT", including adaptations of the Animal Relations Questionnaire (ARQ) and the IPPA and RSQ Animal) investigating the attitude towards animals, experiences with animals, and the attachment to animals.

Significant positive correlations between empathy and the ability to use animals as social support were found. There were significant correlations between empathy and "to like to pet an animal" (r=.465, p=.000; ANOVA F=5.198, p=.001); between empathy and "to feel secure when an animal is around" (r=.385, p=.002; ANOVA F=3.119, p=.022); between empathy and "to turn to an animal when feeling sad, angry, or afraid" (r=.329, p=.009; ANOVA F=3.372, p=.015). Empathy also correlated with a positive communication with animals (IPPA: r=.402, p=.001), and a secure attachment to animals (IPPA Attachment Animal Overall Score: r=.325, p=.009; RSQ secure attachment: r=.315, p=.014) as well as with "to care for an animal" (r=.342, p=.006).

"Animal lovers" showed significantly higher results on the empathy scale. A better development of empathy in animal assisted groups could not be confirmed. Empathic skills were not related to pet-ownership or the presence of animals in the treatment groups in this study. However, empathy correlates with a positive attitude towards animals in general (r=.412, p=.001; ANOVA F=2.261, p=.020) and the wish to own an animal (r=.330, p=.009; ANOVA F=3.361, p=.015).

Overall, results showed that in animal assisted as well as in non-animal assisted treatment groups empathy improved over time. Furthermore, a link between empathy and animal attitudes and attachment was confirmed.
AAT three years long program involving a seriously handicapped fourteen years old boy

Renata Fossati, Antonella Taboni

Golden Heart Voluntary Association, Italy

This AAT project involves a seriously handicapped fourteen year old boy. He has language and communication problems, limited eyesight, suffers also spastic tetraparesis with very serious cognitive retardation and light epilepsy which is controlled by drugs. Tact and hearing are undamaged. He lives on a wheelchair, when standing, he needs a special device. We started this project in 2003 during elementary school, following him through secondary school. We have been with him for seventy one-hour meetings, once a week during the school year.

According to his limited abilities, we worked out the following purposes:

1-To improve his link with the surrounding world, we encouraged him to touch a dog with soft, long fur;

2-To improve his interaction with the dog, we requested him to touch and locate specific parts of the dog’s body such as ears, nose, tongue, tail and nails;

3-To improve environmental interaction, we asked him to open and close his hands while playing with the dog;

4-To go outside on the wheelchair, keeping the dog by the leash.

We realized during our first meetings that the boy was happy to have a dog near him, laying by his side or licking him. In fact he laughed and screamed disorderly. Touching the dog started as a spontaneous action. He let his head fall into the dog’s thick fur and staying still, he felt the heat and tried to hear the heart beat.

The boy was asked to indicate certain parts of the dog’s body, while touching the same part on his own body, for instance: the dog’s ears and his own. We insisted on touching and the repetition of the word “ears”. Following his reactions, things proceeded very slowly. During the six months of our second year spent together, we began our verbal requests such as: “open and close you hands”.

We invented a game where he had to open one hand in which we hid a tasty treat. The boy had to close his hands while the dog sniffed them, trying to open the one with the treat pushing with his nose and licking it. It was always fun, he laughed and moved his head.

Going out with the dog held on the leash by a boy on a wheelchair aroused people’s interest. Many asked us what we were doing. This was a good chance to explain them our AAT project for handicapped persons.

At the beginning it was rather difficult to teach the boy how to hold the leash, as he always let it fall. One day he felt the dog pulling his wheelchair by the leash and this amused him. Since that experience he learned to keep the leash.

This project was followed by a psychologist, a dog instructor, a supporting teacher, a personal assistant for the boy, a four year old long coated, medium size female dog.

Everything has been taped.
Improving Emotion Regulation Capabilities through Animal-Assisted Training (MTI)?

Brigit U. Stetina¹, Tamara Lederman Maman¹, Ursula Handlos², Karoline Turner¹, Andrea Beetz³, Ilse Kryspin-Exner¹

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Numerous studies have documented the positive effects of emotionally competent behaviour on personal relations, work life, health, and life-contentment. Animals, especially dogs, can help people deal with their feelings. They can assist individuals in approaching negative feelings more consciously as well as in coping with these emotions. Emotion regulation is one of the requirements to show emotionally competent behaviour and involves the use of diverse adequate and adaptive strategies.

The presented study investigated if an animal-assisted competence training (MTI) can influence the use of emotion regulation strategies.

In a pre-post design the intervention group of 19 first graders, aged five to seven years, was evaluated in comparison to a control group of 20 first graders. The intervention group participated in a dog-assisted competence training, which was conducted weekly from October 2005 to May 2006 (except school holidays) by a multiprofessional team and took place in school as integral part of the schedule. The control group received no training.

To measure emotion regulation the FEEL-KJ (Fragebogen zur Erhebung der Emotionsregulation bei Kindern und Jugendlichen, Grob & Smolenski, 2005), a psychological questionnaire suitable for cross-sectional and longitudinal study designs, was used at two test points before and after the end of the training (September and June) as part of individual interviews. The instrument assesses adequate and inadequate emotion regulation strategies and other strategies such as “activation of social support” and “emotion control”.

The hypotheses regarding the changes in emotion regulation were tested using t-tests. In addition the effect sizes using Cohen’s d were calculated to provide a measure of the outcome independent of sample size.

Several highly significant improvements were observed and documented in the intervention group in comparison to the control group. The intervention group demonstrated overall significantly larger improvements in adaptive strategies than the control group [d = 0.63], in particular regarding the use of problem orientated action [d = 0.94], distraction [d = 0.72] and reappraisal [d = 1.07]. In addition, the intervention group significantly improved in the use of the strategy “activation of social support” [d = 0.65]. Gender related analysis documented additional statistically significant changes, e.g. that boys reported less use of the maladaptive strategy “self-depreciation” and girls stated, amongst other changes, more use of the adaptive strategy “mood improvement”.

This study documents that dog-assisted training can have a positive influence on the development of healthy emotion regulation strategies without explicit teaching the use of these strategies. The generalisation process from human-animal-interaction to human-human-interactions seems to take place without additional intervention. Especially, the improvement regarding the strategy reappraisal is noteworthy. It has been shown that reappraisal has diverse positive affective, cognitive, and social consequences (Gross, 2002), which makes it particularly relevant as an emotion regulation strategy. It can be assumed that the strengthened positive emotion regulation strategies will lead to more emotionally competent behaviours - this was already observed by the trainers, teachers, and parents. Thus, even such a short-term training program can have a significant positive impact on the personal life and emotional skills of children.
The Blue Dog Project - The development of a dog bite prevention programme aimed at young children

Ray L. Butcher¹, Tiny De Keuster², Kerstin Meints³

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This exciting and unique project is aimed at reducing the incidence of dog bites in children aged 3 to 6 years of age. Dog bite injuries in people are not uncommon, and evidence indicates the incidence is increasing. A study in Belgium showed that 1 per cent of the population suffered dog bite injuries that required medical attention, and in the UK it is reported that 250,000 people seek medical attention annually. Children are twice at risk than adults, and severe injuries, particularly involving the neck and face, occur most frequently in young children, usually in their own home by a dog that is familiar to them. 55 per cent of children suffer posttraumatic stress disorder following substantial bites. It has been stated that half the children in the UK are reported bitten by dogs at some time, the incidence being higher in boys compared to girls. An unsupervised child initiates most of the dog/child interactions that lead to the bite. There is no evidence to show that any particular breed of dog is more dangerous (or indeed safer).

One solution to the problem is to educate young children (between 3yo and 6yo), and indeed their parents, to behave in a safer way with their own dog. The challenge was to find a tool that is most appropriate and effective. The early considerations have been discussed by De Keuster. The further challenges in the development phase included: The style of the CD, integration of play and learning material; Appearance of the blue dog reflecting optimum recognition of children of the target age group; Length of sequences reflecting attention span of children; Choice of risk situations presented; Nature and content of the parent guide.

The multi-discipline team (involving veterinarians, dog behaviourists, paediatricians, child psychologists, graphic artists and educationalists) considered these issues and the programme was successfully launched in 2006.

The Blue Dog is an interactive CDRom that the child finds fun to use, yet learns some important lessons during this play. Ideally a parent or teacher would be present to reinforce the lessons to be learnt, and a printed parent guide facilitates this. While playing with the CD, the child will be exposed to potential risk situations when a choice has to be made. If the child makes the correct choice, a favourable outcome is shown and the story continues. The incorrect choice, however, leads to an unfavourable outcome and the story returns to the original decision point, allowing the child to alter their selection. Experts have identified these situations as those most likely to trigger a bite incident.

The presentation will include videos of real life situations and the equivalent sections of the CD which are used to illustrate them.
Dog bite prevention: effect of a short educational intervention on preschool children

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The aim of the present experiment was to investigate if preschool children are able to learn how to interpret the behaviours of dogs, with the purpose of helping them avoid dog bites. This is of particular importance since children below 5 years old are more at risk of being bitten by dogs.

The participants were 70 nursery school children (mean age: 4.4 years). All the children were tested on their ability to interpret the behaviour of dogs before and after an educational intervention. Each child was shown 14 short video clips of dogs performing normal behaviours (e.g. greeting, fear) and asked how the dog was feeling (i.e. happy, sad, scared, angry) and to explain what led them to think that the dog was feeling that way (e.g. body actions, behaviours). The children assigned to the training group were given a short (10 min) interactive educational session on how to interpret the behaviour of dogs by using videos clips composed of 2 friendly dogs, 2 fearful dogs and 2 aggressive defensive dogs. Children in the control group were given an educational session on wild animals.

Children who were trained gave significantly more correct answers than children in the control group after the educational session (U=427.00; p<0.05). Moreover the trained children had learned to attend to the appropriate dog features in order to decide the state of the dog. They reported attending to significantly more appropriate features after the educational session (n=30, t=7.7, p<0.001). These results suggest that children as young as 4 years of age can be taught how to correctly interpret the behaviour of dogs. Prevention programmes should be directed to preschool children in order to educate them while they are most at risk of being bitten.
A Survey of Agricultural Literacy of Children, Their Guardians and Teachers in Japanese Kindergartens

Yuki Koba, Sayaka Deki, Hajime Tanida

Graduate School of Biosphere Science, Hiroshima University, Japan

In today's Japan, most of us have never harvested rice, weeded tomatoes, or milked a cow, and many have no idea where most of our food comes from even though we enjoy consuming a wide variety of food imported from all over the world. Teaching children about farming and how farm animals and plants are grown is important to improve agricultural knowledge of the public and welfare of animals, and kindergarten provides an opportunity to reach children at a very young age.

The aim of this study was to investigate agricultural knowledge of children, their guardians and teachers in Japanese kindergartens. Questionnaires were sent to all 49 kindergartens attached to national universities. The 6-page questionnaire for guardians consisted of 57 quantitative (close-ended) and 2 qualitative (open-ended) questions that covered the following information categories; 19 questions related to eating habits of guardians and children; 12 questions pertained to experience on animals including farm animals; 10 questions related to life style; 18 questions are agricultural literacy quiz including animal production. The 3-page questionnaire for teachers consisted of 27 quantitative (close-ended) and 1 qualitative (open-ended) questions that covered the following information categories; 3 questions related to education; 7 questions pertained to experience on animals including farm animals; 18 questions are agricultural literacy quiz including animal production. Complete responses were obtained from 21 kindergartens (response rate 43%: 90 teachers and 1401 guardians).

Animals were kept in all 21 kindergartens. The most popular animals were rabbits, chickens, fish and insects. Most kindergartens reported educational benefits from keeping animals. Those were providing opportunities to interact with animals and supporting emotional development of children.

Sixteen kindergartens coordinated farming experience programs (growing rice and vegetables in kindergartens and neighborhood farms) for children. These programs let children to experience agriculture through hands-on activities. Fifteen kindergartens coordinated annual field trip to a local zoo, an aquarium or a livestock farm.

Most teachers (88%) and guardians (85%) answered that they were interested in teaching children about the importance of healthy eating, but 75 % of teachers and 78 % of guardians had little knowledge of what agricultural education activities are. In food shopping, guardians pay attention to freshness (82%) and the best-before date (75%) of food products, but only 52 % and 35 % of them check food additives and pesticides in food respectively.

Children of the guardians who love animals had a tendency to love animals (r=0.413, P<0.01). Compared to boys, more girls answered that they love animals (P<0.05). Sixty two percent, 34 % and 36 % of children have never seen real beef cattle, dairy cows and pigs, respectively. Guardians and teachers gave wrong answers to 37% and 49 % of questions in a test of agricultural knowledge, respectively.

To increase public awareness about agriculture, food and welfare of animals, agricultural literacy program for children in kindergartens should be developed.
Oral-37

Child education (Oct. 7th 16:20-17:40)

Lucy's House

Renata Fossati\textsuperscript{1}, Antonella Taboni\textsuperscript{2}

\textsuperscript{1}Golden Heart Voluntary Association, Italy, \textsuperscript{2}L’Alberoverde

This AAA/T project took place in three small elementary schools up in the mountains and involved 104 children, six to eight years old. We had forty one-hour long meetings, once a week. The pets used were: a small size dog, a big size dog, a small size rabbit, a ferret, a cat, a hamster, two peruvian guinea pigs, two water tortoises, two gold fishes, a canary.

Methodology: a story is told about a girl that for her birthday would like to receive a pet. Her parents agree but only if she will learn what the pet needs and if she is willing to take part in the care of the pet itself. Each meeting tells the story of a day in the life of the above mentioned pets and of what they need: clean water, hygiene, health care, walking, cuddling, time and money for them. From the big dog to the gold fish, all different stories and all important because they involve living, sentient beings. After each meeting the children were given an instalment with some questions they had to answer (no marks given). All the instalments were kept in the classroom so that every children received a booklet at the end of the project. During the meetings the children sat on their chairs in a circle, with no desk. The pet was introduced by the expert and the children, if this was possible, one by one could touch it and hold it in their arms. If it was not possible to touch the pets, like with water tortoise or canary, two by two the children went to the teacher’s desk to watch it. If they had any questions, they had to raise their hand, without screaming.

The main aim of this project was: care and respect for the pets, included gold fishes, water tortoises and small birds. It has been noted that most of the times these small pets are bought at village fairs and they don’t have a long expectation of life. In this way children might think that these pets are like disposable objects, with no feelings.

Very often the fact that they can live longer is a surprise for the children making they willing to know more about what these pets need. For example, they are surprised to know that a circular aquarium may be bad for the fishes, while a rectangular one, furnished with trees and other things, can help them find their way around better.

It has been noticed that teaching the children to respect all living beings helps the development of a sense of compassion and empathy. Growing up the children will unconsciously elaborate this concepts and pass them on to their peers. The same for the thought that all pets need care, time, love and attention that have to last until they are part of our life.
Health Benefits of Companion Animals and Their Impact on the Public's Health: A Critical Review

Cindy C. Wilson, Jeffrey Goodie
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The selected benefits of pet keeping have been well documented. We have over 30 years of data indicating that keeping a pet may assist with achieving the goals of increased exercise and improved physical and psychological health as outlined in Healthy People 2010 (U.S. Department of Health and Human Services, 2005). The physical benefits of pet keeping are likely attributed to decreased sympathetic arousal and increased exercise. Current pet keepers, as well as clinicians, may have an underused "tool" in their armamentarium of health promotion activities. Incorporating more interactions with pets into the daily routine may improve mental and physical health through increased social support, improved self esteem, stress reduction, and increased exercise. The mental health benefits of pet keeping gained a national forum through the efforts of the Hurricane Katrina survivors who clearly articulated the value of their pets to themselves as well as to society. Where do we go from here? Are all of these data merely a firm grasp of the "obvious?" Do we recognize that keeping a pet is not for everyone? That one pet does not "fit" all persons? I challenge my fellow researchers to recognize that we are caught in the same type of argument that food manufacturers have found themselves in by trying to say that it is not the environment (i.e., advertising) that makes people fat. Rather, it is individual choices of what one eats. Does pet keeping really make us healthier? Or are the associated choices of activities of increased exercise and quiet resting the real things that provide the healthy benefit? Moreover, this may only be true for those individuals who have a positive attitude towards pets. This paper presents reviews the evidence regarding the potential of pets as health promoting interventions for their owners.
The human animal bond as a motivator for physical activity via dog walking

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BACKGROUND: The need to improve health in the economically disadvantaged is urgent because of increased rates of obesity, cardiovascular disease and diabetes. “Healthy People 2010” identified walking as the number one leading health indicator; inactivity is linked to progression of devastating, costly illnesses. Walking regularly helps minimize risk factors, prevents disability, maintains function, and reduces depression and anxiety. Those in subsidized housing rely on federal and state assistance for health care. Thus activity programs directed toward them, must be inexpensive, accessible and innovative. Studies show the benefits of human-animal interaction to elders. Pet attachment has been associated with lower systolic blood pressure, cholesterol, and triglyceride levels, greater likelihood of a healthy more social lifestyle including exercise, improved survival rate among those with heart disease, decreased depression and improved morale.

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

METHODS: After informed consent was obtained participants had their cholesterol, triglycerides, and blood sugar levels measured. Blood pressure, heart rate, body weight, lean body mass index, bone density index, and joint mobility were recorded. Walks began at 10 minutes 3 times per week progressing to 20-minutes 5 days per week in two programs, one lasting 50 weeks and one lasting 26 weeks. Blood pressure and body weight were recorded weekly. Participant’s comments about the program and the dog were recorded after each walk.

RESULTS: Thirteen participants walked 668 miles in 300 hours in the 50-week group (6 males, 7 females) age 40-80 (mean=51), with an adherence rate of 72%. They had a total weight loss of 128 pounds (mean=14.4 pounds; p=0.035 per Wilcoxon Signed Rank Test). Pretest mean weight was 228 pounds, (SD=56, Range=140-301). Post- test mean weight was 218 pounds (SD=59, Range=140-312). In the 26-week group, 13 participants walked 467 miles in 193 hours (6 males and 7 females), were age 53-82 (mean=59) with an adherence rate of 52%. They had a total weight loss of 41 pounds (mean=5, ns per Wilcoxon Signed Rank Test). Pretest mean weight was 224 pounds (SD=57, Range=112-365). Post-test mean weight was 228 pounds, (SD=68, Range=116-420). Participants reported “the dogs need us to walk them” as their motivation for adhering to the programs.

CONCLUSIONS: Participants believed the dogs loved them unconditionally, and made walking a pleasant part of their day rather than a chore. This protocol may benefit others in subsidized housing; it is relatively inexpensive to implement and minimally burdensome to participants.

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**People And Pets Exercising Together (PPET). Owners Reported Quality Of Life As Influenced by Their Pet**

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**Background:** There is a significant nutritional problem of obesity in both the human and pet population. It was hypothesized that pairing up overweight owners with their overweight pets in a combined weight loss program would be more effective than treating them individually. This component of the study investigated how owners perceived their own quality of life (QOL) and that of their pet as they went through the weight loss program and how that was affected by the pets weight loss success.

**Methods:** Overweight dogs and their owners were recruited for the study in the Chicago area of the USA. To participate, dogs had to be at least 20% over ideal body weight, but were otherwise healthy. Owners losing weight had to have a BMI > 25 and in good general health. One study group contained 35 dogs whose overweight owners also participated in a weight loss program (PPET group). The dog only group (DO) was comprised of 53 dogs whose owners did not participate in a weight loss program. The success of the pet in losing weight and the owner’s view of the pet’s QOL was compared to a self reported evaluation of the owner’s QOL. The QOL of the owner and pet were evaluated by the owner through a questionnaire where they were asked to rate their dogs and their own change in quality of life using a 7 point scale. The scale varied from positive 3 (dramatically improved) to negative 3 (dramatically worsened). Statistical analysis was performed with reported results being significant at P<0.05. The general linear model system of SAS was used for correlation analysis as well as the covariant analysis where the effect of losing weight with a pet on owner self-reported QOL scores was evaluated using weight loss success at six and twelve months as a co-variant.

**Results:** Pets and owners were successful at losing weight and keeping it off for 12 months. Among completers, owners lost an average of 5.5% and dogs 15.9% of initial body weight. Both the owners in the PPET and the DO group reported improvement in their QOL, although. The PPET group reported a greater improvement (P<0.05). The owners in both groups also reported a significant improvement in the pet’s QOL with no difference between groups. Successful weight loss in the pet was correlated with improved owner QOL. The owners self reported change in their own QOL was positively related to the change in the pet’s QOL, change in pet mobility and change in exercise time.

**Conclusions:** The combined dog/owner weight loss program was found to be an effective approach for both participants. The reported improvements in QOL of the dog and owner were significantly correlated with each other. This study shows the positive relationship the owners developed with their pets as well as the benefit of the pet in being a partner during weight loss.
An Animal Assisted Programme for adults with psycho-physical and/or psychiatric disabilities in the chronic phase

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The programme described here involves 13 adults (6 female, 7 males) ranging in age from 30 to 50 years, all affected by organic deficiency such as cognitive development disorder (medium to severe), alcoholic dementia, cerebral stroke or psychiatric disorders, psychosis and anomalous behavioural problems. The two female professional special needs educators that work in the programme also work daily with the clients who are residents in mental health institute.

The programme, funded by the institute itself, began in January 2006 and continues at the time of writing with 1 hour weekly sessions in which a Pet Partners® team (one male handler/one 8-year female dog) is active in the group. The overall goals are to move the concentration of the residents from their own personal needs and discomfort, potentialise individual resources, channel frail and unstable emotions and uncontrolled impulsiveness so that they may assume and carry out finalised work.

In the presence of the dog, the residents show a natural sense of nurturing, leading to their activation in various tasks related to the dog’s care, tasks that they initiate and constantly and continually perform. Certain subjects, normally very passive to external stimulation and inhibited in their relational and communicational capacities, have reached very positive results. It seems that touching, petting and taking care of the dog has awoken in them strong emotions tied to past personal experiences which leads them to seek out interaction with others, often the educators or the handler, in order to share the pleasure of recounting their experiences.

Particularly meaningful is the case of T., 35 year-old female affected cognitive developmental disorder, psychosis with persecutory ideation and aggressive impulses. The presence of an animal in the ward gratifies her affectively, concretely offering her a dimension in which she can share with the other residents. This led the educators to intervene with more specific objectives in order to help her modify aspects of her behaviour that are not functional in this context, enabling her to extend this in other moments of daily life in the institute. Other positive influences noted:

- willingness to help others carry out tasks regarding the dog’s care;
- respect for the needs and timing of the others;
- modification in communication with clear and precise expression;
- increased capacity to control her emotivity,
- increased ability to enjoy the moment, suffering less of the psychotic fixations leading to increased well-being and decrease in aggression.

The strong points of the programme are the definition of a starting point in which the affective-relational needs of the residents find a place and the temporal continuity during which behavioural developments and changes are noted. There is no pre-defined point of arrival, only the relationship with the dog and the reaction of the residents. Mutual understanding and agreement between the handler and the educators, investment of objectives and intentions in a projectual synergy towards assuring the well being of both the dog and the residents has been fundamental to the outcome.
Social benefits of dog ownership

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Previous studies have shown that being in regular contact with a pet reduces anxiety, depression and stress. Dog owners commonly report that having a dog facilitates social interaction with others. The aim of this study was to determine whether dog ownership is associated with beneficial personal effects in the social domain. To this purpose, two groups of participants were studied: a group of dog owners composed of 19 participants (13 women and 6 men) with a mean age of 25 ± 4.0 years (mean ± SD), and 15.2 ± 2.59 years of education; the control group included 14 participants (7 women and 7 men) with a mean age of 24 ± 4.3 and 16.5 ± 3.98 years of education, who were not pet owners and who did not have any exposure to pets in their homes. The two groups did not differ on age or education (both p > .22).

Tests of social anxiety (Mattick & Clark, 1989), social phobia (Mattick & Clark, 1989), interpersonal sensitivity (Boyce & Parker, 1989), interpersonal dependence (Hirschfeld et al., 1976), social attitudes (Paul & Serpell, 1993), social support (Sarason et al., 1983), life satisfaction (Diener et al., 1985) and coping strategies (Levenson & Miller, 1976), were used to assess personal social characteristics. The Charity Donations test (Paul & Serpell, 1993), was administered to determine whether dog owners are more sensitive to animal welfare than non owners. All scales were administered in counterbalanced order. Results were analyzed using one-way ANOVAs with one between-group factor (dog owner vs. non owner) and one within-group factor (the score on each test).

Dog owners had less social anxiety (p = .02) and less social timidity (a subscale of the Interpersonal Sensitivity Scale, p = .004) than non owners. Dog owners also tended to report a lower social support network than non owners (p = .06), but dog owners and non owners did not differ in the satisfaction provided by their respective networks (p = .19). Dog owners and non owners did not differ on other measures of interpersonal sensitivity (all F < 1), interpersonal dependence (all p > .27), life satisfaction (p = .13), social phobia symptoms (F < 1), coping strategies (all F < 1), or social attitudes (p > .23). Dog owners distributed significantly more money than non owners for animal welfare (p < .05), but significantly less money than non owners for the environment (p < .05). The two groups did not differ in the amount of money they distributed for human welfare (both F < 1).

In conclusion, this study demonstrates that there are significant personal benefits in the social domain obtained by dog owners relative to non owners. Dog owners have less social anxiety and less social timidity than non owners. Although dog ownership may be associated with a restricted social support network relative to non owners, the satisfaction obtained from this support is equivalent in both groups. Finally, dog owners may be more sensitive to questions of animal welfare than non owners.
A Review of Benefits of Companion Animals on Children

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Despite some studies have been conducted in the benefits (or cost) of companion animals on children, what we have known in this field is still surprisingly little, especially from the perspective of education. In addition, what seems to be lacking in research is the overall conjunction between existing empirical studies, theoretical basis, and what human-animal bond can apply. Therefore, the present study aims at giving a complete overview of current research, theories, and applications in human-animal bond, particularly from perspectives of child development and education. This research will (1) identify the companion animals’ roles as represented by past research, (2) delineate the effects of companion animals on children’s physiological, psychosocial, and emotional development, (3) review theoretical grounding, conceptual structure, methodology, and future directions existing in human-animal bond research, (4) describe current applications of human-animal bond on children with special needs, and (5) expand the benefits of human-animal bond and consider the possible function of human-animal bond in typical educational settings.
**Presence of pets in Medicine and Veterinary undergraduate students**

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Pets have been shown to be related to human quality of life for long time: better physical and psychological health of individuals, sources of pleasure, social enrichment, security, physical exercise, presence of a confidant, a reducer of loneliness, etc.

The aim of this work was to identify the presence of pets in Medicine and Veterinary undergraduate students because it was hypothesized that the stress induced by university requirements (i.e. sessions of examination, rhythm and amount of work, competition), often coupled with separation from the family might be better managed if pets are present.

A questionnaire to be answered according to the place the students were living (family home -HOM- or student flat -STU-) was distributed. Twenty questions covered 3 topics : 1) identification of the owned pets (number, species) and the owner (living location, studies orientation, sex); 2) only for pet owners: animal transports, its behaviours, animal status, problems of pet possession, environment enrichment (surface, garden, walks); 3) only for non-pet owners: reasons of no possession. Results were analysed with Chi-square test at 0.05 level to identify the potentially pertinent interactions.

We collected 380 validated questionnaires from 145 veterinary students (n VET first year=52, n VET second year=57, n VET third year=36) and 235 Medicine students (n MED1=106, n MED2=66, nMED3=63). They were 75% pet owners ; 70.5% to live in STU whom 25.7% (=69/268) with pets (including in decreasing order, small pets (n=46/69), cats (n=17), dogs (n=4), horses (n=2)); 73.4% to own a pet living at HOM (including in decreasing order, dogs (n=144/279), cats (n=87), small pets (n=31), horses (n=17)). Eighty-four students (22.1%) did not own any pet.

There were more VET than MED owners (Chi-sq=65.7). Within STU students, there were more VET owners than MED owners (Chi-sq=45.48) and more girls owning pets than boys (Chi-sq=4.31). There was no effect of the year of study on ownership.

There were more small pets at STU than at HOM (Chi-sq=129) among which rats were more owned by VET students (Chi-sq=11.98). Dogs lived significantly more at HOM than STU (Chi-sq=52.69). The small number of dogs did not allow to identify behavioural problems from STU adaptation. Sixty percent of STU pets were transported more than twice a month, by train or car, less than 200km and 2 hours per travel.

Students declared more problems related to STU ownership than HOM ownership: smell, destruction of furniture, hygiene and cleaning managements. The first reason of non-ownership at STU is lack of place for VET students (35% of the responses) and no pet desire for MED students (27%).

In conclusion, pet ownership is quite low within MED and VET undergraduate students living at STU. VET students, attracted to animals due to their studies orientation, are conscious of beneficial effects of pets presence but they are also aware of material inconveniences connected to ownership. Small pets seem to be a good compromise.
Brain Mapping of Effects of Human Animal Bond using Positron Emission Tomography and FDG

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The history of interaction or partnership of animal and human is long. In these fifty years, declining of number of children has drawn more attention on the field of Human-Animal Bond (HAB). Many of us admit that HAB brings us a kind of happiness and ameliorates our stress. Although there have been many trials such as AAA/AAT/AAE to objectively prove the beneficial effects of HAB, there is little scientific evidence yet, because mechanism of HAB is complicated. For example, researches on autonomic functions like blood pressure changes by interacting with animals have produced contradictory results each other. With acceptable hypothesis that HAB affects our mind, we applied a human brain mapping technique to detect and localize regional changes in brain activity induced by being together with a dog. Positron emission tomography (PET) with use of a glucose tracer, [18F] labeled fluoro-deoxy glucose (FDG) was used for this study.

Eight healthy subjects aged from 32 to 56 years who are members of Japanese Animal Hospital Association collaborated the study. They were injected with FDG twice in a day at an interval of two ours. During trapping phase of radiotracers (30 minutes), they stayed either with their dog (task condition) or without (control condition). The order of these conditions was counter-balanced. Tohoku University positron tomograph, SET2400W, Shimadzu inc., Kyoto, Japan, was used for brain imaging at high sensitivity 3D mode (3.9 mm resolution at the center of field of view). Brain images were anatomically normalized to match to a standard brain (PET template made by FIL, London, UK). Regional brain activation or deactivation by HAB condition was statistically identified by pixel-wise t-statistics using SPM5 developed by FIL, London. The results were compared with a self-reporting stress test (SRS18) and serum cortisol level as stress markers.

This study is a part of the project "improving elder people health" by Ministry of Health, Labour and Welfare, Japan
Dog owners’ perceptions of visiting their dog in an intensive care unit

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BACKGROUND: While the human animal bond is an established phenomenon in dog ownership, less is known about situations challenging the bond. The stress associated with having one’s dog hospitalized in an intensive care unit (ICU) such a challenge. Opinions in veterinary medicine vary as to whether or not owner visits to hospitalized dogs are beneficial. Little is known about why owners do or do not visit their dogs and the characteristics of visits from the dog owners’ perspective.

OBJECTIVE: The study aimed to discern:
What is the dog owner’s perspective of visiting their dog while it is hospitalized in the ICU of a veterinary medical teaching hospital in the Midwestern US with respect to frequency, length and content of visit(s), and perceived benefits of the visit(s)? For what reasons do some dog owners elect not to visit their hospitalized dog?

METHODS: Dog owners over 18 years of age, whose dogs had been hospitalized for 48 hours or longer in the Intensive Care Unit of the Veterinary Medical Teaching Hospital completed the 24-item, anonymous “Pet Owner Questionnaire” when they came to take their dog home. The Questionnaire allowed multiple response selection and collected demographic data about the owners, their opinions about visiting hospitalized dogs, whether or not they visited their dog, and if they visited their dog, the purpose, nature, and perceived benefits of the visit(s).

RESULTS: Fifty participants (32 females, 18 males, Mean age=46) completed the Questionnaire. Their dogs were hospitalized in ICU for an average of 3 days; 24 visited their dog (Mean=two visits lasting 12 minutes) and 26 did not. Of those who did not visit, 14 lived too far away from the hospital, 8 did not know it was possible, and 8 believed it would distress their dog. Of those who did visit, 7 asked their dog’s Dr. and 8 asked their dog’s student if they could visit. Seven were encouraged to visit by their dog’s Dr. and 6 were encouraged by their dog’s student. The visits were spent talking to (n=23), petting (n=23), comforting & reassuring (n=21), praying for (n=15) or feeding (n=10) the dog. Additionally, during visits the owners talked with ICU staff (n=12), their dog’s Dr. (n=19) and their dog’s student (n=21). Owners believe that their visit(s) affected their dog by letting it know that they cared about it (n=21), let their dog know it would be alright (n=22), and that their dog perked up when they visited (n=22). Twenty-three owners who visited believed that both they and their dog benefited from the visit(s).

CONCLUSIONS: Dog owners in the study believed that their visits were beneficial. They engaged in supportive activities while visiting and used the time to talk with their dog’s care providers. It may be that the visits were both an expression and reinforcement of the human animal bond. Future study is warranted of health care providers’ perceptions of owner visits, and dog health outcomes with or without visits. The research has implications for hospital visitation policy development.
An investigation of Australian shelter cat admissions

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The Australian owned cat population is decreasing, but there appears to be no corresponding reduction in the number of cats admitted to welfare shelters. Activists in Australia are calling for mandatory desexing of owned cats to address this issue, but it is not known whether this strategy will be effective. Available data suggest that up to 95% of owned cats are already desexed. Importantly, however, up to 22% of Australians feed and otherwise support cats they do not own. The extent to which the fully-owned cat population and this semi-owned population are represented at shelters is unknown, but accurately identifying where shelter cats come from is critical to developing effective strategies to reduce admission levels. In this study we collaborated with the Victorian Bureau of Animal Welfare and several Victorian shelters to track cat admissions over a 13 month period. This resulted in 25,810 cat admissions being tracked. Data about the admission type were collected, as well as information indicative of the source of the cat, including body condition, sociability and the number of cats presented per admission. Strays formed the vast majority (78.5%) of admissions and only 7.6% of all admissions were desexed. The majority (72.8%) were in optimal body condition, although colony cats were typically thinner and in poorer health. The admission rate of cats was fairly constant except during ‘kitten season’, when a double peak in kitten (up to six months) admissions suggests that many queens may be producing two litters in quick succession. Kittens formed over half of all shelter admissions and ‘kitten only’ admissions were almost all presented by members of the public, often as strays. This is of particular concern, as it suggests that people relinquishing kittens may be maintaining support for unowned fertile queens. Many Queens (47.8%) admitted with kittens were juvenile, perhaps indicating that members of the public are poorly informed about the age of puberty in female cats. Our data suggest that mandatory desexing, in isolation, is unlikely to reduce shelter admission rates, since the vast majority of cats admitted to shelters were described as unowned. A multi-faceted strategy, targeting specific sub-populations of cats, may be more effective. The fact that many ‘stray’ cats and kittens are sociable to humans, along with the high rate of kitten admissions by members of the public, suggests that these unowned cats may in fact be ‘semi-owned’, in which case increasing desexing rates in semi-owned Queens may be critical to success. An important first step in this process may involve encouraging cat semi-owners to assume more responsibility for the cats they support, including assuming responsibility for desexing. Research has shown that people who semi-own cats do so out of concern for the cat’s welfare, so enlisting these persons in a campaign to reduce cat numbers through voluntary desexing may produce more long-term gains in reducing shelter admissions than will enforcing mandatory desexing on people who already responsibly own cats.
A survey of stray dog population control practices in Europe

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Stray dogs may experience poor welfare, related to lack of resources and provision of care resulting in malnutrition, injury and disease. Furthermore, stray dogs pose a significant threat to human health through their role in disease transmission. It is important, to adopt effective control measures of stray populations to safeguard human and animal welfare.

To investigate the methods used to control stray dogs in Europe a questionnaire was administered to WSPA Member Societies and RSPCA International affiliates. The questionnaire asked for information on; legislation, registration, current stray control methods, animal shelters, subsidized neutering and owner education.

Groups working in 29 countries responded to the questionnaire. There was considerable variation amongst European countries in the effectiveness of stray dog control practices. 31\% (n = 9) of countries did not have stray dogs, 7\% (n = 2) reported a decrease in stray numbers, whilst the majority (62\%, n = 18) indicated that stray dogs were not being dealt with successfully, as their numbers had remained constant (41\%, n = 12) or increased (21\%, n = 6) during the past five years.

Countries (21\%, n = 6) with increasing stray dog numbers had no effective animal protection or dog control legislation and the absence of holding facilities (pounds or shelters) meant that stray dogs were culled, often inhumanely.

In 41\% of countries (n = 12) where stray dogs were prominent and their numbers were not decreasing, legislation applicable to stray control was in place, but not enforced. Moreover, in the majority of those countries (75\%, n = 9) dog registration with identification was mandatory but owners were not compliant. Legislation restricting the commercial breeding and sale of pet dogs was absent in 7 countries (58\%) and not enforced in the remainder (42\%, n = 5). Educating owners in responsible pet ownership was predominantly undertaken and funded by animal welfare organisations with little involvement from governments or municipalities.

In all countries (31\%, n = 9) reporting no stray dogs, laws relating to animal protection, abandonment, dog control and restricted breeding and selling practices were in place, reducing the occurrence of roaming dogs and uncontrolled reproduction. Dog registration was mandatory in 7 out of the 9 countries (78\%), whilst voluntary schemes were active in the remainder (22\%, n = 2). Microchipping was the most popular form of dog identification cited by respondents and a legal requirement in 3 countries. Owners were compliant with dog regulations, in part because of diligent law enforcement and they were reported to be socially responsible. A comprehensive network of animal shelters housing unwanted pets meant that owners were unlikely to abandon their dogs on the streets. Most notably, respondents reported a history of good cooperation between relevant stakeholders in implementing a stray control strategy.

The findings suggest that those countries successful at controlling stray dogs have coordinated, multifaceted, control strategies, underpinned by effective and enforced legislation with the involvement of government, municipalities, veterinary agencies and animal welfare groups.
Academic Approach for Service Dogs in Japan. Medical, Welfare and Public Health Perspectives

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Service Dog Access Law was established in 2002 in Japan. There have been numbers of improvement through public education in Japanese society regarding service dogs and people with disabilities after this law appeared. This was the first law in our country stated about protecting the civil rights for the people with disabilities. There are 300,000 people with visual disability (954 guide dogs), 350,000 with hearing disability (12 hearing dogs), and 1,750,000 with mobility disability (36 mobility service dogs) in Japan. We have social welfare ID system to provide devices or assistive technology, such as wheelchair, cane, hearing aid, seating systems and so on regarding their own requirements to all of the people with disabilities. Every ID is provided by the government based on certain criteria, and the grades that were standardized by the Ministry of Health and Welfare. Service dogs were categorized one of the assistive technology after this new access law established and some of the training fee became to be paid by the local government.

Service Dogs has started from Guide dogs that were covered by the Road Traffic Law since 1960. However, it was not access law for the people with disabilities and after mobility service dogs and hearing dogs started to be trained, some of the users educated the society how those dogs helped them to be independent and facilitate social participation. Therefore, Japanese government had started to be interested in doing survey of those effects and making criteria, safety standards for Service Dogs from 1998 and those results made significant changes and improvements for the field of service dogs. We have done not only those research and survey but also to promote the new access law and general public education with Japanese government. The important goals were to educate people about the safety of the service dogs for the public health and the effectiveness for being independent and facilitating social participation. Our academic approach had been critical for service dog users to have their access. Effects of service dogs are not enough to clarify for the necessity of them. Public health issue is critical especially because of the environment of these days in the world. Japan had been rabies free country for many years and rabies vaccination is required by the law, and quarantine has been strict especially after other countries of Asia had rabies. Service Dogs Access Law describes about the certification system for every service dogs and the safety health standards for the service dog that made by the conclusion of our academic approach. I would like to present the review what we have surveyed with the team of professionals of rehabilitation medicine, veterinary medicine, public health and human animal interaction since 1998 and what made government to move or interested in service dogs.
A Master of Science (MSc) Course on Animal Assisted Activity and Therapy (AAA/ AAT): an answer for the future?

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In our country there is an increasing number of AAA/AAT programmes implemented by private and public institutions. However, notwithstanding their high level of personal motivations, AAA/AAT professionals (therapists, planners, educators, etc.) often lack specific and focused professional expertise, and also well designed and scientific methods for assessing the efficacy of their programmes. In the attempts to fill this gap, Animal Assisted Programmes have been included as a collateral discipline in few University Masters and different private training courses are being held within the national territory. However, such a wide spectrum of offers is leading to difficulty in the recognition of corresponding professional knowledge and level of competence acquired.

As of October 2006, a dual-faculty one-year Master of Science Course in “Animal Assisted Activities and Therapies (AAA/AAT)” has been established by the Faculty of Veterinary Medicine and the Faculty of Medicine and Surgery at this university. In our country, it is the first public institutional course realised in the field. This MSc course is a collaborative project between the university professors, Pet Partners® team instructors and team evaluators of the Delta Society ® representative in our country and the Coordinator of Equine Rehabilitation Programs of the Cooperative.

The MSc Course has been addressed to a maximum of 25 participants represented by postgraduate students and professionals of different disciplines (public health, rehabilitation, education, psychology and psychiatry, human and veterinary medicine) whose expertise is usually strictly integrated in team working on AAA/AAT programmes. Since the animal handler is a fundamental unit in such teams, a few non-graduate partecipants, who want to become animal handlers, have been allowed as auditors.

The MSc Course has been developed on a 1500 hours programme, as follows: teaching and practical training (400), training stage (240), final dissertation (260) and individual study (600), all aimed to increase specific professional areas of knowledge. It has adopted an innovative approach in involving the student’s dogs as real participants, providing opportunity to form and evaluate them and their human handler by the standards and guidlines of the Pet-Partners® Programme utilised in this country.

Upon finishing the MSc Course, the students should be able to plan, implement and assess AAA/ AAT projects and to acquire the abilities to coordinate them and work in a team with scientific and professional methods. The MSc Course establishes a new standardized programme of professional training which:

- Is well recognized by public institutions, such as our provincial government which funded this first year;
- Will promote higher qualified AAA/AAT programmes, leading to greater improvement in social and public health programmes;
- Offer a higher level of functioning, safety and well-being in AAA/AAT programmes, for all involved: institutes, professional operators or therapists, clients, handlers and, last but not least, the animals.
Development of an introductory course at a Canadian university to examine the changing role of companion animals in society

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Companion animals have had a long history in playing a number of dynamic roles within human society. In order to meet the evolving interests of students, address the needs of a rapidly expanding companion animal industry in Canada, and complement emerging research programs of the Alberta Veterinary Research Institute, the Department of Agricultural, Food and Nutritional Science at the University of Alberta has developed a new series of companion animal courses. The first of these courses, entitled “Animals and Society”, was offered for the first time in the fall semester of 2006. This is an introductory 100 level, three credit course that provides students from diverse backgrounds, and programs of study with the opportunity to examine the physiology, cognition, behavior, health, nutrition, breeding, and societal roles of companion animals, both in a historical perspective as well as within modern society. The course also examines the continuously evolving roles of a diverse range of companion animal species including pocket pets, rabbits, reptiles, amphibians, birds, dogs, cats and horses. The nature of the animal interactions and relationships with humans, and their roles in promoting human health and wellness is explored through traditional lectures, and class discussions. These are reinforced by laboratory sessions that expose the students to the variety of roles that companion animals have played in society. Some of the demonstrations include hunting dogs, search and rescue, animal assisted therapy, obedience training, and service animals. The course instructor and presenter will also be discussing the challenges of offering a course that is aimed at reaching a very diverse audience with interests in everything from psychology, to behavior, nutrition, physiology and biology. As the nature of human society continues to evolve and the lives of many people become increasingly urban, the way people interact with animals continues to change and this has become an important societal factor. As educators, universities need to play an active role in building awareness regarding the benefit of positive relationships between companion animals and people. Courses of this nature are a first step to addressing the changing societal educational needs in the community and in the fields of animal and veterinary science. The course also attempts to close the historical divide between these two fields.
Miniature Pigs’ Abilities to Recognize People from Photographs

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This study examined whether miniature pigs could recognize people from photographs. In the training phase, five miniature pigs were conditioned to receive a reward from an experimenter in a Y-maze. In experiment 1, the pigs were first trained to discriminate between two people in the Y maze by giving a reward only when they approached the correct person. Three pairs of a rewarder and a non-rewarder were assigned to arms of the maze according to a Gellermann series. Each session consisted of 20 trials. The success criterion was that the pigs chose the rewarder in at least 15 of 20 trials (P<0.05 by Chi square test) in two consecutive sessions. All pigs successfully discriminated between the pairs of the persons within 12 sessions. The pigs were then tested with two-dimensional color photographs of those same people in the same experimental conditions. Photographs were taken with a digital camera, enlarged to life-size and printed on super fine paper. No pigs correctly discriminated between the photographs during the first sessions but four pigs did learn to discriminate between the photographs within 5 sessions. In Experiment 2, three of the five pigs were re-used. Using the same experimental procedures, the pigs were first trained to discriminate between photographs of a rewarder and non-rewarder, using new unfamiliar people. Two pigs successfully discriminated between the photographs within 22 sessions. The two pigs were then tested to determine whether, within five sessions, they could discriminate the rewarders from the non-rewarders when the people themselves were present. Neither pig was able to discriminate in the first session. In Experiment 3, four of the five pigs were used to test whether the pigs that had learned to discriminate between photographs of a rewarder and a non-rewarder learned more quickly to discriminate between the people than pigs that had learned to discriminate between two-dimensional abstract figures (circle or cross). The number of sessions required by the pigs to discriminate between the people was not affected by the treatment. Results show that pigs can rapidly learn to discriminate between people and between photographs of people. However, they appear not to recognize the person from the photograph. The pigs may not transfer knowledge of the three-dimensional world to two-dimensional photographic images or vice versa.
Oral Sessions (October 8th)
Qualitative and quantitative analyses to confirm the benefits of AAA in paediatric units and specialized institutions

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It is in the framework of the University Paediatric Oncology Unit of Belgian Hospital Centre, a questionnaire of incidence, was given to doctors, care givers and parents. It is an examination that has brought forward the effects of Animal Assisted Activities as a facilitator of intra-professional communication, a mediator of technical medical action and as a social catalyser. Consequences: the enhancement of the perception of the child’s care-giving personnel.

To validate and improve the effectiveness of AAA, it is important to reduce the unidimensional and subjective aspect through improved knowledge of behaviour and context, to favour the control of various factors.

Indeed, 3 exploratory studies describe and quantify interactions and support the general hypothesis of the beneficial influence of the presence of dogs in the quality of life of hospitalised children.

Our experimental sample is made up of 23 children, from 4 to 12, suffering from serious pathologies and visited 5 times during a 2.5 month interval. The full participation of 13 subjects were filmed, converted by Observer then analysed by Statistica (6.1)

A personality scale of entries/exits (Cloninger 1995) were completed by parents. Results show that sentiment is significantly positive as to the dog (Wilcoxon N=13, p=0.04) and to the hospital upon leaving it (Wilcoxon N=13, p= 0.005).

First hypothesis : The quantity or the quality of interactions between the dog and children permits an improvement of quality of life.

The first study, analyses various correlations or regressions between the results of tests as to quality of life, to scales of depression, to behavioural scales of anxiety/phobia with respect to behavioural data are generally significant. For example, the analysis of averages of tests as to quality of life shows a significant difference between the pre-test and the post-test(t=-2.32 ; p=0.03) that is, the quality of life is better afterwards than before.

Second hypothesis : Contact with the animal is experienced in a pleasant way.

The second study, behavioural data enables us to find indications of pleasure, analysed with latency time, the length of interaction times and socio-demographic variables. For example, the smile considered as a mark of pleasure, appears on the average at 20.9 sec and its latency time decreases significantly with the number of sessions.(Friedman, N=12, dl=4, p=0.12)

The third study, tactile interactions time (30 %) and relations at a distance (85%) are factors allowing us to discern the profile of actors (child/dog).

The frustration effect of : why not us?, led us to suppress the witness group and has given rise to measures of stress level in accordance with an identical protocol given by the School of Medicine of Richmond.( S.Barker)

We established an ethogram of typical expressions representative or not of an improved state of mind, based on a refinement of behavioural data and a standardised support, this verified by a cortisol dosage (Radioimmunoassay of corticosterone). We have broadened this practical application to other pathologies so that AAA becomes a pre, post or consultant working tool, even therapeutics follow-up.
Randomised controlled trial of a visiting companion animal intervention in the assessment of wellbeing and quality of life

Lauren S. Prosser

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The aim of this study was to determine whether a companion animal intervention has any effect on wellbeing and quality of life in patients who are admitted to hospital after suffering a stroke compared to patients receiving visitation without a companion animal. The study design was a single blind, randomised, controlled trial. The setting was a stroke ward within a general hospital in Melbourne. The trial recruited and randomised 97 subjects. The experimental group intervention involved three visitations from a companion animal, dog handler and the researcher. The control group was conducted followed the same process with the researcher present, without a companion animal or dog handler.

The main outcome measures were the comparison of pre-and-post measurement of wellbeing using the Australian Unity Wellbeing Index (2002) and quality of life outcomes using the Assessment of Quality of Life (AQol, 2001) The measures were chosen due to their validated psychometric properties.

The results indicated increased wellbeing after patients received the companion animal intervention. Females in each group had increased quality of life and wellbeing, with their wellbeing demonstrating a more significant difference in the experimental group. Those patients who were pet owners had better outcomes in the experimental group. Further results to be explored within the presentation will be the observed outcomes of the trial and results compared with pet attitude of patients.

The study concludes that visitation from a companion animal whilst in hospital has positive wellbeing outcomes for patients, particularly if they were already a pet owner and female. The study provided information on how additional visitation whether from a companion animal or another human being produced better quality of life and wellbeing for stroke patients in an acute care setting.
Visitation effects I (Oct. 8th 9:00-10:20)

Resident and/or visiting companion animals in institutions for the elderly: is there a difference in beneficial effects?

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Several empirical studies indicate beneficial effects of companion animals for the wellbeing of various research populations, such as elderly and patients in nursing homes (Batson, McCabe, Baun & Wilson, 1998, Garritty & Stallones, 1998, Enders-Slegers, 2000, Odendaal, 2002).

Three studies (quasi-experimental with pre- and posttest, with matched control groups) were carried out to study the effects of companion animals on the wellbeing of elderly in institutional settings. The first study N = 55, age M = 83) was in a psycho geriatric nursing home where cats were introduced. The second study (N = 26, age M = 69) was carried out in a residential setting where mentally handicapped elderly live. The third study (N=31 age M=85) was completed in daycare institutions for elderly, suffering from Alzheimer’s disease. In study two and three visiting dogs were introduced.

In the psycho geriatric nursing home the participants in the experimental condition showed at T2, greater alertness, an increase in smiling (T-test p <.04) and stabilization of dependent behavior. At T2 the participants in the control condition showed a decrease in positive affects and an increase in dependent behavior (T-test, p <.02.). Many pleasant and happy moments with the cats were registered for residents, staff members and visitors. The staff observed that the cats stimulated reminiscences and brought physical and emotional comfort, especially for restless participants.

In the second study we researched the effects of visiting dogs on the wellbeing of mentally handicapped elderly. We had 3 groups: one visited by dog and handler; one visited by a volunteer, one not visited. Both visited groups showed an increase in positive emotions, verbalizations and alertness during the visits (Mann-Whitney tests, α= .05). The participants in the visiting dog and handler group showed significantly more physical activity during the visits and had a more ‘natural’ warm and relaxed’ relationship with the volunteer than the participants who were visited by a volunteer only. Group 3 (unvisited) showed increased restless behaviors at the posttest.

The third study was carried out with Alzheimer patients, who were visiting day care institutions. The experimental group received weekly visits (45 minutes) of a visiting dog and handler; the control group received weekly visits of a volunteer. The participants in the ‘dog condition’ showed significantly more physical activity during the visits than during the pretest (Wilcoxon Signed Ranks test, Z = 3.517, p < .05); the control group did not exhibit such improvements. The ‘dog condition’ group showed significantly more verbalizations (Mann-Whitney U test; Z = -.4475, p<.05) and more positive emotions (Mann-Whitney U test; Z = - 3.425, p < .05) than the other participants during the visits.

Conclusion: there is a difference in benefit: residential animals have enduring beneficial effects on residents, staff and visitors. Visiting animals have positive effects on participants of the program but no evidence was found for longer-lasting effects.
Do dogs and Reminiscence improve the efficacy of volunteer visitation programs for institutionalized persons with aged dementia?

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Psychology, Monash University, Australia

The increasing proportion of aging citizens in many countries is associated with greater numbers of people suffering from Aged Dementia (AD), many of whom are admitted to residential care settings. The treatment of agitation and affective disorders in these individuals using medication is costly and results in loss of human dignity. Therefore, there is an increasing need to identify non-medication dependent interventions, particularly those able to be administered by volunteers in a cost-effective manner. Two interventions showing some promise are Animal Assisted Interventions (AAIs) and Reminiscence Therapy (RT). In this study we investigated whether training accredited Delta PetPartner (PP) volunteers to administer elements of RT might increase the benefits associated with a pet visitation program. Forty-five participants with mild to moderate dementia (scores 12-22 on the Mini Mental Status Exam) were recruited from nursing homes and randomly assigned to one of five groups. Residents in four of the groups were visited by a PP biweekly for three weeks, with each one-to-one visit lasting up to 20 minutes. For two groups, the PP used daily newspapers to promote discussion about current events. For the remaining two groups, a set of 100 photographs, depicting many facets of Australian life through the past 70-80 years, was used to promote discussion of past events. The two groups in each condition differed only in whether the PP was accompanied or unaccompanied by their dog. The fifth group was a control group, with residents receiving no PP visits. Participants were measured pre and post-intervention on a battery of measures including the Dementia Quality of Life Scale, the Depression and Cognitive Impairment subtests from the Psychogeriatric Assessment Scale and the Digit Span sub-tests from the WMS III. Behavioural checklists were also completed by staff at three points during the study. Whereas the control group displayed a significant deterioration in affect over the course of the study, most experimental groups maintained their existing level of functioning on all measures. The exception to this was the group in which the PP was accompanied by their dog and engaged in aspects of RT with the residents. This group showed a statistically significant increase in self esteem and affective status, with a corresponding reduction in depression that was not statistically significant. Subtle (non-significant) effects were also seen in staff reports of behavioural changes. These indicated that both groups administered aspects of RT displayed a reduction in negative behaviours and that both AAI groups displayed an increase in positive behaviours. These results suggest that previously reported benefits of pet visitation programs for elderly persons with AD may be strengthened by providing volunteer visitors with training in therapeutic techniques such as reminiscence therapy. This may provide a cost effective means of reducing agitation and improving affect without requiring increased use of medications.
Is Animal Assisted Activity beneficial for residents in nursing homes in terms of sleep time and quality of sleep?

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Introduction: For this study, in order to investigate the effect of Animal Assisted Activity (AAA) on sleep, a nursing home with approximately 150 residents where AAA has already been implemented by the Companion Animal Partnership Program (CAPP) and supported by the Japanese Animal Hospital Association (JAHA) was chosen. The effects of AAA have been reported in terms of psychological and physiological assessments; however, the effect of AAA on sleep time (ST) and quality of sleep (QOS) of residents in nursing homes has not yet been fully investigated.

Methods: 18 residents (4 males and 14 females) ranging from 71 to 95 years of age in a nursing home, organized by Goyokai located in Saitama, Japan participated in this research. They have different levels of Dementia and Activities of Daily Living (ADL). The AAA was carried out in the nursing home from 2-2:40 p.m. every Thursday, once a week. The residents’ physical activity was monitored continuously for the total 9 weeks, i.e., three weeks of AAA (the first session), three weeks without AAA, and three weeks of AAA (the second session), using Actiwatch (model AW-L; Mini Mitter), an omnidirectional accelerometer. Each resident was asked to wear the monitor on the wrist of his/her non-preferred arm, regardless of the week. Residents’ ST and QOS were subsequently calculated by the sleep analysis program, Actiware-Sleep, based on the data collected by the monitor.

Results: Since some of the residents were moved to hospitals or removed the monitors from their wrists by themselves, the actual number of residents for data analysis was 10 residents, including 2 who were not able to participate in AAA at all. Within the limitations of this research, the following results can be stated:

(1) The average ST and QOS for 8 residents during the first and second session of AAA showed a significantly longer ($p < 0.01$) and better ($p < 0.05$) sleep period as compared to the weeks without AAA.

(2) The average ST and QOS for the 2 residents who did not participate in AAA were found not to be significant throughout the 9 weeks period.

(3) Comparing the average ST and QOS during the first session of AAA with those during the second session, the second was found to be longer and better than the first.

Conclusions: It was found that AAA during the daytime was beneficial for the residents in terms of their ST and QOS even though the period of AAA was as short as 40 minutes. In other words, when they had AAA on a regular basis, their awakening-sleep rhythm improved. However, in terms of ST and QOS, the second session of AAA was better than the first. This suggests that instead of having continuous AAA, weeks without AAA are very important to avoid monotony. Therefore, it is necessary to consider ideal break periods between the periods of AAA, frequency of AAA, and different activities in AAA in order to have enjoyable and efficient AAA.
Crossing the generation gap; mentally challenged students who bring animals to a group of elderly folks in nursing home

Robin I. Zelcer, Hannah Cohen

Beit Rachel Strauss, Israel

Beit Rachel Strauss is a special needs school for mentally challenged students in Jerusalem, Israel. Among other things, the school strives to provide the students with skills necessary to function in the community. The students are challenged and motivated to learn, discover and achieve goals through a variety of therapeutic and alternative methods including the school's animal corner (AC). The AC provides a unique atmosphere, experience and space where the students and animals can interact; the AC functions as a therapy room and a place of unconditional acceptance.

Many of us see people who are severely mentally challenged as frightening and repulsive- the drooling, unpredictable movements, unclear speech etc prevent us from seeing their inner beauty. Only those who have the opportunity to spend time with them learn to recognize their special talents, abilities and their individual uniqueness. The image of the mentally challenged in the community is not positive and few learn to discover their unique, special and surprisingly rich world. If provided the opportunity, our students are able to charm and form bonds with the various people in the community, a crucial skill later on after they finish their studies at the school. They are able to give and contribute to society. Working with the elderly in the old folk's home provides an excellent opportunity for social interaction outside of the school. The elderly remind us of our own grandparents- positive, loving, warm and accepting figures. In order to help ease the meeting between the students and the elderly we chose to use animals to bridge the "gap". The human animal bond is an ancient bond. Their connection is natural and one that allows... allows unconditional acceptance, allows giving, confidence, responsibility etc; an animal helps to form a bridge between different people and eases the meeting between strangers.

We will present a program where 6 students from the Beit Rachel Strauss School took animals to an old folk's home in the Jerusalem area. The visits were weekly, on the same day and at the same time and place with a group of elderly tenants of the "Mishan" nursing home. The program involved a variety of activities including learning about the animals, crafts involving the animals, fables and stories about animals, petting, feeding, and holding the animal, as well as a trip to the Jerusalem zoo and a final party at the AC in the school. Initially, both groups found it difficult to meet and interact with each other; they pitied one another. In time, they formed lasting bonds and friendships. Through the animals, they interacted and learned to get to know one another and see past outward appearances. Not only did the animals help break the ice, but they also benefited both the elderly and the students providing both pleasure, motivation, curiosity and "life". They became a topic for discussion, a reason to get up in the morning, a reason to meet and a source of happiness.
Innovating Anthropozoological Approach and Methodology in AAA AAT in Rest Home

Maria Chiara Catalani

SISCA Italian Society of Behavioural Applied Science, SISCA - Italy, Italy

The SISCA approach to AAA and AAT relies on two basic principles: 1) use of referential contents rather than pet’s performance only; 2) planning of the pet-relationship activities by the selection of the relationship dimensions to activate.

The innovative feature of the project consists in the running, within the same time interval, an AAA and an AAT with a different involvement of the patient, which pursues a different objective in the same activity. The project has been carried out with Masterfoods, Pedegree and Whiskas.

Methodological approach

Researchers: clinic psychologist, veterinary (medical and behaviourist), 2 monitoring operators, 3 pet-therapy operators qualified for partnering up their dogs, 1 referential activities operator.

Animal working team (3 dogs): 1) neutered female Labrador retriever 5 years old; 2) neutered female mix Labrador retriever 3 years old; 3) cross large breed neutered female 6 years old.

PRA- Pet Relationship Activities.

Three types of activities were realized: A) Referential PRA without animals in session, but working by memory plays, role plays, searching for good approach for dogs, etc. B) Observing PRA, realizing by photos, stories, videos, painting; C) Interaction PRA with collaboration by dogs.

All the patients were clustered in 4 groups according to two criteria: AAT or AAA and their pathological state. The patients were 23, 18 female and 5 male.

AAA was developed for 2 groups (A1 and B1) with 8 patients for each group, aging from 70 to 90, domiciled in the old people’s home at least from one year.

AAT was developed for 2 groups (A2 and B2) composed by:

A2 group: 1 male with Alzheimer’s disease, 1 female with mono-lateral blindness and mobility deficit and 1 female with visual deficit and depression.

B2 group: 1 male with relationship deficit and on wheelchair, 1 female with heart disease and post infarction depression.

The aim for groups A1 and B1 experiments was: interpersonal relationship, collaboration and mood tone improvement.

The aim for groups A2 and B2 was targeted to a single patient, thus selecting a specific PRA between all activities that should improve the individual ability.

Empirical findings and conclusions.

Observation reports and videotapes show the results and the efficacy of the approach proposed by SISCA.

All 23 patients present improvements on: participation at collective activities, length of attention, dialog with the operators and with each other, physical contact with the operators and with dogs, collaboration with the operators and with each other. Patients affected by Alzheimer’s disease have recovered some verbal abilities.

These activities are founded not only on the performance of pets, but more specifically on the interaction in different dimensions of relationship with them, as well as in activities that do not require the presence of pets at all.

Most recent PR activities aim at activating basilar processes for the improvement of human welfare, like self-assurance, self-esteem, self-care, good relationship through activities which stimulate different processes in the patient, like curiosity, knowledge of the otherness, motivation to improve understanding and comparison with other subjects, learning by a different magister.
Men in prison who abused animals and who abused their wives and girlfriends: Voices of perpetrators

Frank R. Ascione

Psychology, Utah State University, USA

Animal abuse is associated, in some cases, with Conduct Disorder, various forms of child maltreatment (physical, sexual, and psychological), sex offending, and violence against women. This presentation will review existing research on this association and then focus on recent studies examining animal abuse reported by women who are battered. All studies to date have gathered data primarily from samples of women at domestic violence shelters. Data from these studies will be compared with data gathered from a sample of incarcerated men who admitted to committing domestic violence offenses against their adult partners. These men completed the Conflict Tactics Scale (CTS2), reporting on their own behavior and that of their partners, and an extensive inventory of questions asking about their history of perpetrating and/or exposure to animal abuse. I then describe the relation between perpetrating animal abuse and receiving a diagnosis of Antisocial Personality Disorder.

Forty-two men in Utah prisons agreed to participate. All admitted to committing violence against women who were their intimate partners (e.g., wives, girlfriends). The men ranged in age from 21 years to 55 years (mean equal to 37.4 years) and, on average, had completed high school. The majority were Caucasian (76.2%) and 9.5% were Black/African-American, 9.5% were Hispanic/Latino, and 4.8% self-identified as other. 90.5% reported that there were companion animals in the homes of their current or past intimate partners.

Of the 38 men reporting companion animals in the home, 55.3% admitted to actually hurting or killing animals. Men who had been diagnosed with Antisocial Personality disorder were more likely to have abused pets (60.9%) than men without this diagnosis (35%). Animal abuse was related to severe physical and sexual violence on the CTS2 and self-reported behavior problems in childhood and adolescence.

Men’s reports are compared with the results of previous studies of women who have been abused. Given the severe level of violence experienced by women and reported by men, I argue for research with samples of domestic violence victims and perpetrators who experience more moderate levels of violence in their relationships.
Prison Dog Training Program in South Korea

Ju-yeon Lee, Yoon-ju Choi

HAB Association of Korea, South Korea

A South Korean young offender’s institution is working with Samsung to run a dog training programme for its juvenile inmates. The Cheonan Male Juvenile Correction Center located in Cheonan, 90km south of Seoul, will now offer five young offenders the chance to interact with dogs over a year-long period to develop positive social interaction skills. The canine program is the first of its kind in Korea. Samsung sponsors the program and the kennel.

Modeled after the POOCH (Positive Opportunities Obvious Change with Hounds) project the Oregon, US based dog training program in corrections, CheonanMale Juvenile Correction Center is home to around 400 men ranging from 18-24, with offenses ranging from homicide, rape to assault. The Cheonan Center also offers residents more mainstream college-style course in social work as well as occupational courses such as car mechanics and metal work. The primary canine skill candidates will learn is the Kennel Club’s Good Citizen Dog Scheme Bronze Award. The Scheme brings together simple exercises such as basic dog training, grooming, exercise, diet, cleaning up after the dog and general healthcare.

All of the dogs in the program come from local dog shelters. Once the dogs are given all vaccinations and have been spayed/neutered and obedience trained, they are adopted by families and facilities looking for trained companion and social (facility) dogs.

Cheonan launched the initiative with Samsung because of the company’s unique experience with dogs and its extensive education programs in Korea to highlight the benefits of dogs, but in particular to special needs groups. Samsung has been promoting its efforts in guide dogs, rehabilitation through horseback riding; as well as in other areas such search and rescue dogs, hearing dogs for the deaf, therapy dogs and AAT (Animal-Assisted Therapy) programs.
Animal victims in families experiencing violence against women: An agenda for research progress

Frank R. Ascione
Psychology, Utah State University, USA

Anecdotal reports of animal abuse perpetrated by men who are violent toward and who batter women appeared in the early literature on domestic violence in the 1970s and 1980s. Since then, numerous empirical studies have documented high rates of animal abuse reported by women victims of domestic violence who have companion animals. The results of these studies, including ones from the U.S., Canada, Australia, and Ireland, have, in part, prompted collaborations between animal welfare professionals and experts in addressing domestic violence and woman abuse. These collaborations include the development of programs to shelter the pets of domestic violence victims (victims who have had to leave their homes to escape abuse) and legislative changes (e.g., an increased number of states in the U.S. with felony-level animal abuse statutes and the inclusion of animals in orders of protection).

Following an overview of this research, current assessment strategies, and the application of research findings to programmatic developments, I outline needed areas of critical inquiry, including:

- broadening of samples of research participants to include domestic violence victims who have not sought safety at domestic violence shelters but who still reside in community locations
- routine inclusion of comparison groups of women who have not experienced violence and women who have experienced serious marital discord but not violence
- formally measuring the impact of familial animal abuse on minor children residing in homes where woman abuse occurs
- better understanding of the types of companion animals subjected to abuse and, if the animals survive, the physiological/emotional/behavioral correlates of such abuse in animals
- the role(s) of the veterinarian in addressing animal abuse and family violence
- understanding the developmental course of animal abuse when it is embedded in the context of violence against women
- exploring ways to enlist the interest and support of child welfare professionals in addressing animal abuse
- evaluating the success of programs that shelter companion animals for women who are victims of abuse
- tracking the impact of legislative changes that address animal abuse in the context of violence in the family.
Birth and Death: A Comparison of Violence against People and against Animals

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Constitutional laws of modern societies contain policies of child birth (abortion) and authorized (military) and criminalized killing. These policies and laws are protecting rights, to guard people from violence. Animal protection laws regulate rituals of killing in regard to domesticated animals.

In contact with animals people, especially pet owners and professionals in relationship to animals are confronted with different moral systems. Concerning the interpretation of their own agency two different moral systems lead to discrepancies and obscuration. People insist on their right for a “natural death” whereas the death of domesticed animals is controlled by people. Animals which are close to men get put down, others like cattle are slaughtered.

On the basis of a sociological research project on women and men and their relationships to animals in their daily lives, sixty persons (people with/ without pets and professionals with/ without pets) were interviewed for several hours.

In the interviews there was a focus on sexuality, abortion, birth control of animals. Questions of violence, putting down animals, slaughtering and butchering were also of great concern. The same aspects were asked in regard to humans.

The evaluation showed the following:

- Concerning violence towards animals gender differences are more important than age and social status.

- In contrast to men, women tend to refuse castration and sterilisation. Birth control of humans are almost equally accepted. Men tend to recognise the claim to sexuality of animals more than women do. Concerning the sexuality of humans, the sexuality of men and women is equally accepted.

- The anthropocentrism of both sexes impeds to expound the problems of killing animals. This form of violence tends to get veiled. People avoid comparing the killing of animals to active euthanasia. Active euthanasia of humans is not accepted.

- The harmony of human-animal relationships by both sexes is based widely on veiling violence against animals. This phenomenon can be led back to gender roles like those of mothers and soldiers.

- Both sexes have similar moral attitudes towards the constitutional law.

The results are integrated in a systematic reflection of moral policies toward life and death in German society. The results can be generalised to other modern western societies.

The research project is evaluated but not published.
Vertebrate sociality is based on a limited set of homologous structures and mechanisms (relational bonding, emotions, mammalian prefrontal cortex, bird nidopallium, dual stress axes, socialization, etc.). These explain a striking socio-cognitive convergence even of distant taxa and are probably the basis for social relationships between humans and their companion animals. With reference to this conceptual framework, we propose that, as in human dyads, the relationships between particular humans and animals are characterized by different interaction styles that are influenced by the personalities of both partners. We also predict matches between personalities of partners due to mutual socialization. We are investigating these ideas in human-dog dyads. Medium and large-sized, intact male dogs 2-6 years of age and their female/male owners participate in three sessions, one at home and two in our lab. Interactions in owner-dog dyads are observed at home, during a walk, and in a few standardized test situations. Owners complete the NEO-FFI personality test and an attitude-towards-dog-scale. Dog personality is rated by the observers and tested behaviourally. Also, saliva samples for analysis of cortisol levels are taken from dogs and owners after different situations. Results of at least 20 owner-dog dyads will be presented at the Tokyo meeting. The following data are based on a pilot sample of 8 dyads. We found that the higher the owner scored in neuroticism (FFI domain 1), the more socially interested the dog (Spearman's: rs=-0.73, p=0.043); the more extraverted (FFI domain 2) the owner, the calmer (p=0.044) and more confident the dog (p=0.046), the more likely is the owner to hug the dog (p=0.049), the more the dog is considered an emotional supporter (p=0.066), and the more time they spend together (p=0.061); the more open (FFI domain 3) the owner, the less she/he invests in care (i.e. fresh water; p=0.041), the less she/he enjoys the daily routines (p=0.048), the less she/he considers the dog as a source of consolation (p=0.053), as a reason to laugh (p=0.041), the less primary the dog has over other important tasks (p=0.008) and the less important the dog is for the owner (p=0.014); the more conscientious the owner (FFI domain 5), the more she/he enjoys caring for the dog (p=0.04) the dog, and the less important the dog as an emotional supporter (p=0.034); the more conscientious the owner (FFI domain 5), the more she/he enjoys caring for the dog (p=0.039), the more she/he feels responsible (p=0.039) and attached (p=0.039), and the more the dog is considered a companion (p=0.002). These findings suggest that human-dog dyadic relations resemble those found between human partners in complexity. Owner personality affects not only her/his attitude toward the dog, but also the behaviour and personality of the dog. We will discuss these results in the frame of an integrated evolutionary model of human-animal relations. Funding by IEMT Austria.
Why is Japanese owner’s pet attachment negatively correlated with psychological health?: Differentiating the effects of two kinds of “attachment”

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In sharp contrast with the previous findings in the West, Kaneko (2006, Study 1), based on a survey of probability sample among Japanese adults, found that pet attachment was negatively correlated with the owner’s psychological health. The purpose of present study is to answer why this is the case, focusing on the meaning and quality of “attachment.” Based on the results from a qualitative interview study (Kaneko, 2006, Study 2), it is hypothesized that there will be dependent-type attachment, which is distinct from the ordinary, healthy attachment. The dependent attachment refers to the owner’s psychological dependence on pets, characterized by extreme affection, care, and preoccupation, such that one often considers pets as close friends or family members. This type of attachment can damage psychological health of owners, because it enhances overindulgence (less discipline) toward pets, which often causes conflict in the community. This will be especially serious in Japanese society where interpersonal relationships are vital for people’s well-being (Markus & Kitayama, 1991). Also, dependent attachment can produce frustration about the society in which pets are not fully accepted, because, first, others tend to see those with high dependent attachment as odd, and, second, they tend to believe that pets should be treated equally as humans, which is not the case in reality.

Method. To test this hypothesis, I conducted two mail surveys of probability samples of Japanese adults in Tokyo area in 2003 and 2005 (Study 1: N = 1500, aged 40 years and older, response rate = 54.1 %; Study 2: N = 1500, aged between 35 to 75 years, response rate = 38.7%). Among all the respondents, 19.2% (Study 1) and 23.6 % (Study 2) were dog and/or cat owners. They were asked various aspects of pet attachment, psychological health, indulgence/discipline of pets, and the feeling of pets not unaccepted by the society.

Results. The results from Study 1 and 2 were consistent with the hypotheses. First, factor analyses of pet attachment items consistently yielded two distinct types of pet attachment: basic attachment and dependent attachment. Second, dependent attachment was found to be correlated negatively with psychological health ($\beta = -.26$, $p < .05$), whereas the basic attachment was correlated positively with psychological health ($\beta = .18$, $p < .10$). Third, the owners with stronger dependent attachment were more indulgent toward the pets than were those with weaker dependent attachment ($\beta = -.29$, $p < .01$), whereas there was no relationship between basic attachment and indulgence ($\beta = -.09$, $p < .01$). Finally, the negative relationship between dependent attachment and psychological health was mediated by the feeling of pets being socially unaccepted ($\beta = -.16$, $p < .01$). The findings will be discussed from the viewpoint of cultural psychology, and in terms of culturally different perspectives on animals.
Human Attachment and Animal Attachment among At-Risk-Juveniles

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Attachment relationships are supposed to be a main influential factor for mental health and social skills. The relevance of secure attachment relationships for juveniles and adults has long been underestimated. Recent research suggests that a secure attachment can help to buffer early negative experiences and throughout the whole life-span secure attachment relationships are a protective factor in regard to mental health problems. Attachment to animals may have a similar effect.

The goal of this study was to investigate the effects of animal assisted education on the socio-emotional development of severely disturbed children and juveniles in a residential treatment program in Germany. In particular, animal-attachment was explored as a protective factor for the socio-emotional development.

The investigated residential treatment program has employed animal assisted education for several years. Data from 67 juveniles (47 male, 20 female, age between 10 and 18, M =15) were collected. Forty-one juveniles lived in animal assisted treatment groups and 26 in control groups with conventional therapy.

For the assessment of the human relationship quality the "Inventory of Parent and Peer Attachment (IPPA; German version)" was used. Sympathy was assessed with the German questionnaire "Mitgefühlfragebogen". The quality of the human relationship to animals was assessed with two German questionnaires ("Fragebogen zur Erfahrung mit Tieren, FERT" and "Fragebogen zur Einstellung mit Tieren, FEIT", including adaptations of the Animal Relations Questionnaire (ARQ) and the IPPA and RSQ Animal) investigating the attitude towards animals, experiences with animals, and the attachment to animals.

Results showed that the juveniles were able to establish secure and long-lasting relationships with animals. This was even possible when the human attachment status was "unresolved" - this means that an unresolved attachment trauma exists what usually has a negative influence on the development. This shows that animals can be reliable partners for at-risk juveniles with difficult human attachment histories. A secure animal attachment was only developed in the animal assisted-groups, it was not found in the control group in conventional therapy.

Attachment to animals correlates with sympathy (IPPA communication with animals- sympathy: \(r=.357, p=.004\); IPPA attachment animal overall score- sympathy: \(r=.321, p=.010\)).

Significant correlations between human attachment and the relationship to animals were found. Feeling threatened by an animal correlated significantly negative with trust to peers (\(r=-.381, p=.003\)) and the overall attachment to peers (\(r=-.316, p=.016\)). A positive attitude towards animals correlated moderately positive with attachment to animals (\(r=.276, p=.033\), trust to the family (\(r=.258, p=.040\)) and communication with the family (\(r=.251, p=.047\)).

Overall, the results show that attachment to animals is connected to sympathy and that there exists a connection between attachment to humans and the relationship to animals.
Factors that contribute towards obesity in dogs

Jill White, Anne McBride, Edward Redhead, Felicity Bishop

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A correlation study to investigate the strength of association between weight profile in domestic pet dogs and owner demographics, dog characteristics, owner attitude and owner-dog interactions. The variables assessed were weight definition, dog and owner characteristics, food and exercise levels, owner attachment, owner attitude towards their dogs, and owner behaviour (owner-dog interactions). Respondents (n = 836) completed an on-line survey containing open and closed questions to determine demographic profiles and household management practices. Four Likert scale scores measured owner the dogs’ weight profiles from very underweight to obese, owner/dog attachment, owner anthropomorphism, and owner-dog interactions. Twenty-five percent of the dogs were reported as being overweight. A higher weight profile was positively correlated with the dogs’ age, the dog being either of a gundog or terrier breed, the owner having a “high attachment-high anthropomorphic” attitude towards their dog, the frequency of owner-dog interactions and the feeding of treats and table scraps. A significant negative correlation was found between dog weight and owner income. Multiple regression analyses found that the dog's age and breed, and owner behaviour in feeding treats were responsible for a significant proportion (11%) of variance in a dogs' weight. Exercise levels were not found to correlate with weight profiles of dogs in this study.
Workshop-1
(Oct. 6th 15:10-17:10)

Restoring Possibilities and Creating Futures - Four Seasons at Green Chimneys School

Group/Leader name: Duncan Lester MA, Michael E. Kaufmann BA, Steven Klee PsyD

Speakers: Michael Kaufmann BA
          Steven Klee PsyD
          Duncan Lester MA

Abstract

Summary: A programmatic overview of how Green Chimneys School – a facility that provides a variety of treatment services to special needs residential and day program students - maintains a therapeutic milieu that incorporates animals, plants and nature. The presentation will introduce a brief history and theoretical foundation of the program and will examine detailed aspects of how animal assisted therapy, animal assisted activities, horticultural therapy and nature based therapy are conceived, applied and evaluated by a variety of professionals including special education teachers, psychotherapists, social workers, speech therapists and occupational therapists in order to support and enhance the educational, social, emotional and medical treatment of 180 children ages 5-15 who have been identified as having psychological, social emotional or behavioral special needs.

Key Aspects:

• Overview of a year at Green Chimneys school and farm

• From admission to discharge – how a team-approach facilitates a supportive therapeutic environment for students

• How a therapeutic relationship with over 200 specially-screened farm animals, pets and wildlife enriches and shapes campus life. The key topics of animal selection and the ongoing process of animal partner evaluation will be highlighted.

• Specific program areas that incorporate animals and animal subjects into the school day throughout the year will be highlighted

• How clinicians and educators screen, schedule, motivate the students, and how AAA/AAT is crucial to behavior management, skill-building, fulfillments of educational mandates, enhancement of relationship-building and support of a treatment vision that “restores possibilities and creates futures”.

• What specific activities do we offer to create our milieu and why (Examples: The integration of the 4-H program, horse show, Bird of Prey Day. Animals are central in our campus/school milieu throughout the year - from the grace we say at meals, to the Thanksgiving pageant, etc.)
Abstract

Feral and Stray Cats: Problems and Solutions Understanding the Context

Penny L. Bernstein

Department of Biological Sciences, Kent State University Stark, North Canton, OH 44720

In order to understand the issues involved in feral and stray cat population problems, it is important to understand the context in which they arise. That is, domestic cats, by their very name, are considered to have co-evolved with humans, their behaviors shaped by these interactions. In this sense, the normal domestic cat is one with a relationship with humans, either living in the home and depending on them directly for shelter, food and care, or living in close proximity and only somewhat dependent on them, such as barn and temple cats. Stray cats and truly feral cats should be an exception, and mark a movement away from domestication. For an understanding of the problems and to seek solutions, we might best view cats in the home as the norm and feral cats as the exception, rather than the other way round.

This talk will provide context for the other talks in this workshop. I will focus on normal domestic cat/human relationships and how things may go awry, the mid-ground of life in shelters, and the final step away into stray and feral cat life. The other presentations in this workshop will focus more directly on stray and feral cats, outlining specific problems in various global locations and a number of solutions. The final section of the workshop will focus on discussion by all participants and attendees, seeking workable solutions that are beneficial to both cat and human.

Stray/Feral Cats- The Problems, the Issues, and Some Solutions in the South Pacific Encompassing Australia and New Zealand

Robert (Bob) James Kerridge, MNZM, KStJ, JP, BAppAnTexh, AFNZIM, Chief Executive, SPCA Auckland; National Councillor, SPCA New Zealand

a) The existence of stray cats in both urban and rural societies is a common global reality, and their welfare is a subject of considerable concern to animal welfarists, the public, and authorities alike. This paper addresses the issues involved and provides some solutions.

b) What is a stray / feral cat? Establishing the real definition of these categories of cats will ensure an understanding of their needs, and the manner in which they may be managed.
c) How and why do cats become either stray or feral? Examining this will establish preventative measures that may be implemented to address the problem, and will provide an inside into their management needs.

d) What are the real needs of stray / feral cats? This question encompasses health, desexing, identification, environmental, the community and welfare issues associated with these categories of cats.

e) What is the environmental impact of stray or feral cats? This is an issue that affects the public perception of these cats and requires factual research that will defray common misconceptions.

f) What are the advantages and disadvantages of ‘Trap, Neuter and Return’ (TNR) to cat colonies? Should this programme be encouraged, what are the management requirements and are they in the best interests of the cats involved?

g) What is the effect of desexing on the stray / feral population? Statistical projections on how effective desexing may potentially influence the management of stray and feral populations.

h) What regulatory controls exist to assist in their management, what is the effect of those controls, and what additional measures may improve the situation?

i) What should we expect from Regulatory Authorities to assist in the management and care of stray / feral cats? This will highlight realistic assumptions that may be expected either from these authorities or charitable shelters that exist for their care.

j) What don’t we understand and what problems remain unsolved? In this area we need to consider what ideal legislative measures could be taken to control needs, what improvements in rescue and shelter activities would improve the situation, what environmental issues may be addressed, and what effect consumer education may assist in addressing the issues.

k) Finally, what can we do to improve and promote the human / animal bond that exists between people and cats? We believe they should share their lives with us, but what can we do as their guardians to ensure their protection and enjoyment of life with us, be they companion or stray.

**The Development of Methods of Humane Control of Feral Cats in the United Kingdom**

Jenny Remfry, SNIP International, UK.

19 Moxon Street, Barnet, Herts., EN5 5TS, UK www.snip-international.org

In the UK, neutering as a method of controlling feral cat populations began to be organised in 1980. It was made possible by the development of new trapping and handling equipment and by the introduction of new veterinary anaesthetics and suture materials. “Trap, Neuter and Return” has become accepted as a valid alternative to extermination by many authorities, and the idea has spread from the West to the emerging democracies of East Europe and to the Far East. Many animal welfare societies are involved and their role will be discussed.

**The Welfare of Stray Cats in North America: Who is Responsible and What are We Doing?**

Margaret R. Slater

*Department of Veterinary Integrative Biosciences, College of Veterinary Medicine, Texas A&M University, College Station TX 7843-4458, USA*

Government officials, animal shelter personnel, veterinarians and the general public are all involved with stray cats in North America. I will discuss who is taking a leadership role, present the conflicting mandates regarding these cats and outline who pays the costs. The various organizations also have differing missions and overall goals which may be in conflict with the welfare of stray cats. In addition, there is still controversy over how best to assess welfare and what is truly “best” for each cat. Trap, neuter and return of cats to managed colonies is one
method to control the numbers of stray cats. This method can improve cat (and human) well-being. I will present existing data on the health, reproduction and control of cat population size. Dealing with the existing cats is often a primary focus for many organizations, but it is crucial to understand the sources of stray cats. We must also begin to target interventions toward preventing cats from becoming strays; these interventions must include the human-cat relationship.
Teaching Modalities for Animal-Assisted Interaction

**Group/Leader name:** Ann R. Howie, LICSW, ACSW

**Speakers:**
- Ann R. Howie: LICSW, ACSW, Human-Animal Solutions (USA)
- Keiko Yamazaki: Companion Animal Study Group Go (Japan)
- Debra Buttram: Associazione Italiana Uso Cani di Assistenza (AIUCA) (Italy)

**Abstract**

The field of animal-assisted interactions (AAI) is growing fast, and many people aspire to call themselves AAI practitioners. Current practitioners fall on a continuum between credentialed professionals in a recognized field to lay people with no credential and limited preparation, but with an affinity for animals and a desire to “help.” We believe that AAI practitioners are more beneficial for clients when practitioners are qualified and/or when a qualified professional is present. Without a preparatory curriculum that meets standard criteria, the consumer may meet with a practitioner who is insufficiently prepared and who might provide an interaction that is counter-therapeutic if not harmful to clients or animals. This special session describes teaching modalities from three countries: U.S., Italy, and Japan.

In the United States, a wide variety of education programs is available:

- Certificates through colleges – Certificates are generally awarded after a series of face-to-face or on-line classes. AAI certificates are usually offered to credentialed professionals in a healthcare, education, or human service field to teach them how to incorporate AAI into their practice. Certificates rarely include coursework on animal needs, husbandry, training, etc.

- Semester-long classes offered as part of college degree programs – These classes focus on applying AAI to a field of practice. Classes are usually offered at a Bachelor’s Degree level within a non-AAI degree, and they rarely include coursework on animal needs, husbandry, training, etc.

- Short-duration classes (one or two days in length) provided by individual practitioners or provider groups – These classes may include information about animals, but they frequently place more emphasis on handler interaction with clients.

In Japan, The World Pet Business College, Niigata, provides a three-year full-time curriculum to train coordinators for animal-assisted interactions programs. The college is a vocational school which provides two-year technical training mainly for veterinary technicians, dog groomers, and dog trainers. The Animal Therapy Coordinator program is different from the College’s other vocational programs in greater length and inclusion of human-related courses, including human welfare. Some of the core classes utilize the Delta Society Pet Partners and Animal Evaluator training. The purpose of the ACT program is to train people to bring together community resources in order to present viable AAI programs.

In Italy, AIUCA has offered training since 1998 and currently offers the following:

- Introductory courses and evaluations of handlers and animals (based on Delta Society’s Pet Partners training program), available to everyone.

- Specialization courses for human health/educational professionals with theoretical training and practical experience; available to participants of the introductory course who are qualified in human health/education.

- Specialisation courses for animal handlers with theoretical training and practical experience, available for participants of the introductory course with suitable animals.

- Consultation and docentship for university level courses and Masters.

- Consultation and training courses for institutes and their staff.
Animals in the Law—a Global Perspective—Update 2007

Group/Leader name: Foundation for the Animal in the Law (Switzerland)

Speakers: Antoine F. Goetschel: Foundation for the Animal in the Law, Wildbachstrasse 46, PO Box 1033, CH - 8034 Zürich, Switzerland (info@tierimrecht.org)
Gieri Bolliger: Foundation for the Animal in the Law, Wildbachstrasse 46, PO Box 1033, CH - 8034 Zürich, Switzerland (info@tierimrecht.org)

Abstract

In October 2004 the Foundation for the Animal in the Law presented in a Special Session its project “Animals in the Law – a Global Perspective” in the context of the 11th IAHAIO congress in Glasgow. It showed that national and international legislation worldwide do not yet fully adopt the fact, that animals can take an important role for human health and quality of human life. Based on 18 different criteria the legal standing of the human-animal-relationship in Germany, Austria, France, Italy, Spain, Great Britain, the USA and Switzerland were compared. The overall outcome of the presentation showed, that all researched states possessed some animal friendly norms in certain parts of their legislation (especially in civil law), but from an animal welfare perspective on the human-animal-relationship there are huge shortcomings in other areas of the law.

In October 2007 the authors will present an important update of their studies. An expanded scheme with other states will be showed with a compilation of their national regulations, in which state and field animals are taken care of legally in an adequate way. The following 18 point-pattern has been used:

1. T The national constitution: Does it include animal welfare?
2. H Has the country a uniform animal welfare act?
3. E Existence of sanctions for cruelty to animals on a national level? And if yes, what are the highest penalties?
4. A Are animals treated as an own category by civil law? (Legal standing)
5. N Norm for compensation: Does the country pay out adequate reparation in case of injury or death of an animal?
6. I In case of death of an animal: Are reasonable costs for the veterinary care paid?
7. M May I, as a tenant, at any rate keep an animal, or if no, under which conditions?
8. A Are judges legally entitled to assign the ownership from one person to another, if the other person is a better pet keeper, even if he/she is not the owner? (e.g. in divorce cases)
9. L Lost and found pets: is there a special delay for the finder of an animal to become the owner of it?
10. S Search for lost pets: is there a central office to co-ordinate the owner and the finder to get in touch?
11. I Is the intrinsic value or the dignity of the animal protected by the law?
12. N No bill paid: Are pets or other animals protected of being seized if the owner is in debt?
13. T The Animal Rights Debate: Do rights or legally protected interests exist?
14. H Hospitals and job – are there legal acts, which allow bringing animals to these places?
15. E Education of pet owners, pet breeders and lawyers in animal welfare aspects; are they compulsory by law?
16. L Lawyers for animals: Are the animal's interests in punishing the perpetrator protected during an investigation and at court by special lawyers?

17. A Animals as heirs? Is there an animal's right for heritage?

18. W What should the future bring for a better legal perspective in human-animal-interaction?

The main goals of this legal comparison are to cultivate the mutual understanding for the peculiarities of national provisions for the animal in the law and to help the states to support each other with the creation and implementation of stricter norms. In this manner the position of the animal in the law shall be gradually improved in the individual national legislations.
The Meaning of the Bond: Owner Support in Animal Health Professions

Group/Leader name: Japan Animal Health Technicians' Association

Speakers:
Ms. Ann Howie: LICSW, ACSW, Human-Animal Solutions
Ms. Keiko Yamazaki: President, Companion Animal Study Group "Go"
Dr. Kaoru Yamazaki: President, Japan Animal Health Technicians' Association

Abstract

Animal nursing is one of the professions in which human animal bond issues play an extremely important role.

Many studies have indicated that the mental and physical well-being of a person is very much related to the existence of animals. If living with a companion animal has important consequences on the life of a human being, then it would seem logical that the health and well-being of the companion animal would also have a large effect on the human being. Furthermore, since the companion animal is often considered to be an extension of the human ego, how that particular animal is handled can also affect the emotions of the person associated with the said animal.

These ideas lead us to the conclusion that the handling of an animal during medical procedures, i.e. in the clinical setting must have a large effect on the mental and physical well-being of the animal’s owner.

Unfortunately veterinary medical education is bogged down with enormous curriculum demands and very little time can be allocated to non-medical matters such as ethics, bedside manners, grief support etc.

Thus the veterinarian does not receive as much education in matters pertaining to understanding and considering the human animal connection. In the case of human medicine, there are, fortunately “other professionals” who are responsible for dealing with the non-medical matters such as social workers and counselors. But in veterinary medicine the veterinary technician, or animal nurse, must play the role of "peripheral professional". This means, of course, that these people must be prepared for these roles through appropriate education. The workshop is an attempt to clarify the roles that may be played by veterinary technicians in supporting the owner companion animal bond as well as the means by which appropriate education may be identified and delivered to these professionals.
Abstract

Society and Animals: Better Management through Public and Private Cooperation

Recently it is said that we have to change our attitude towards animals in society who are in pain and distress caused by people taking their convenience first all over the world. We already can see the cooperative endeavors between the public and private sectors in the area of animal welfare and management, and ways of deal with human animal interaction issues in western countries.

In this workshop we discuss about better management through public and private cooperation in these areas in Asia.

The report from Singapore is the case of cooperation on educating general public about proper care of animals including the necessity of sterilization of dogs and cats and registration and actual spay and neuter program.

The report from Taiwan is about the training of animal welfare officers belong to the local government and communication between public and private sectors.

From Japan, Ministry of environment introduces the system of animal welfare promoters by law and Hyogo Prefecture talk about the adoption system combined with promoting responsible dog ownership in the community.
Workshop-7

(Oct. 7th 12:40-14:40)

A Universal, Natural and Basic Human Right To Have Contact With Animals?

Group/Leader name: IAHAIO (Moderator: Prof. Dennis C. Turner, president of IAHAIO)

Speakers: Dennis C. Turner: President of IAHAIO, Moderator
Kurt Kotrschal: Director of the Konrad Lorenz Research Station and Professor of Zoology, University of Vienna, Austria
James A. Serpell: Marie A. Moore Professor of Humane Ethics & Animal Welfare, School of Veterinary Medicine, University of Pennsylvania, USA
Antoine F. Goetschel: Dr. iur., IAHAIO Legal Commission and Director of the Foundation for the Animal in Law, Switzerland

Abstract

On October 5, 2007, at its General Assembly meeting in Tokyo, IAHAIO passed the IAHAIO TOKYO DECLARATION stating among other things: It is a universal, natural and basic human right to benefit from the presence of animals. Acknowledgement of this right has consequences requiring action in various spheres of legislation and regulation, which IAHAIO has spelled out.

What rationale and arguments support IAHAIO’s claim that this is a universal, a natural and a basic human right? Three distinguished speakers will present their views during this two-hour session covering the biological, historical/cultural, and legal arguments leading to this conclusion.

Prof. Kurt Kotrschal will present some of the mechanistic evidence from recent years of behavioral physiology which indicate that it is no great wonder at all, that (especially domesticated) animals can engaged in full-fledged social relations with humans, because of a surprisingly complete common “toolbox” (not analogies - but evolutionary, conservatively preserved, basic structures and functions):

1. The common Lorenzian principles of how behavior is organized throughout the vertebrates, if not all animals (action patterns, the relationship between “instincts” and learning and how this applies to the communication of emotions). This includes that the motor patterns for the expression of emotions are relatively hard-wired in ontogeny (“innate”) but the perception/interpretation of these species-specific behaviors are not. In all social vertebrates, learning to interpret the expressions of emotions of others is part of the socialization process within a certain time window (sensitive phase), the length of which is usually contingent with the length of time young of a species are dependent on their parents.

2. The highly conservative way of vertebrate (social) stress management (2 axes, virtually unchanged from fish to man), with the sympathico-adrenergic axis and the HPA axis and their various connections with social behavior and the brain-internal oxytocin bonding/socialization system linked with the opoid reward systems.

3. The incredibly conservative vertebrate brain, featuring systems, which at least the “higher vertebrates” have in common (homologies and preserved functions):

   - emotional systems
   - socio-sexual systems in the vertebrate brain
   - brain bonding and reward systems for being social
and even the brain control system for adequate socio-sexual behaviour.

4. A combination of these elements in ontogeny results in a parallel distribution of individual behavioral phenotypes (personalities) in virtually all vertebrates investigated up to now. This is important in our context, because this makes the choice of partners with specific/matching personalities possible and the stability of IBP makes partners dependable. Therefore, humans and dogs (and other companion animals) match naturally and the same rules seem to apply for between-species social mate choice as for within-species choice.

5. All this seems to result in a surprising between-species convergence in social organization.

6. The social convergence between humans and most of their classical domestic animals, particularly with dogs, was further refined by domestication.

Therefore, the long and tight evolutionary connections of humans with animals (which is probably the main background for the evolution of the “physics of our psyche”), the human disposition/need of contact with animals and the common grounds of social mechanisms make a clear case, why it is incorrect to prevent humans from contact with animals.

Prof. James A. Serpell:
Despite claims to the contrary, the practice of adopting and keeping nonhuman animals as social companions, crosses all cultural boundaries, and can be found in all historical periods. In light of this fact, it is not credible to argue, as some critics have, that pet keeping is merely a by-product of western or bourgeois material affluence, or a symptom of misplaced parental instincts. Based on the steadily growing body of research findings attesting to the therapeutic benefits of human-animal interactions, it is more parsimonious to conclude that relationships with companion animals have been, and continue to be, universally popular because they are able to support and augment our social and affiliative needs in unique and powerful ways. Therefore, all other things being equal, it is unethical to deny people the right to engage in such relationships or to benefit from them.

Dr. iur. Antoine F. Goetschel notes that in Switzerland, the Foundation for the Animal in the Law is fighting for the “fundamental right to keep a pet”, not only of having the right “to benefit from the presence” of animals, unless it seriously impinges on the rights of others or the animal’s well being. Based on philosophical and ethical, religious and social aspects, individual freedom must include such a right. As a consequence – besides the propositions in the IAHAIO Tokyo Declaration – high courts and legislators are invited to recognize animal keeping as a basic human right explicitly, to accept animal welfare as an important duty of the state on a constitutional level in order to avoid conflicts between humans’ and animals’ interests. International, national and local legislations should no longer treat companion animals as “goods” (objects) in civil laws, and specific regulations should be established governing various aspects, which will be mentioned.
Pet dog training in Japanese Society: Promotion of training from animal hospital

Group/Leader name: Japanese Animal Hospital Association

Speakers: Wataru Mizutani, D.V.M., Ph.D: President, Japanese Animal Hospital Association
Mina Mizukoshi, D.V.M., Ph.D.: JAHA Certified Pet Dog Instructor, Nippon Veterinary & Life Science University
Ayako Kakinuma, D.V.M. : JAHA Certified Pet Dog Instructor, Kakinuma Pet Hospital
Terry Ryan, C.P.D.T.: President, Legacy Canine Behavior and Training, Inc. Curriculum Development and Instructor, JAHA’s Certified Pet Dog Instructor’s Training Course

Abstract

Toward the end of the last century, the dog owners of Japan had few options for training their pets. Professional boarding/trainer kennels keep a pet dog full time including overnight. The time they keep the dog at kennel for training is 4 months (16 weeks). Then the owner takes the dog back home already trained by the professional. Trained or not, a large number of families kept their dogs outdoors full time. In either case, this separation was unsatisfactory for many pet owners. The Japanese Animal Hospital Association (JAHA), a long-time pioneer in the human animal bond, realized the need for a different type of pet dog training in Japan. They felt that if dogs and their owners are together during the training process, a deeper relationship based on mutual understanding and trust can occur.

JAHA began the ground work to reach this goal in 1989 at attending the International Conference on Human-Animal Interaction in Monaco. In 1990, Terry Ryan was invited to give seminars and workshops throughout Japan. A core group of enthusiastic people became regular attendees at these seminars. With help from this group, a long-term continuing education program for instructors was designed and implemented.

The underlying principle of this endeavor is the human-animal bond. The instruction for pets and their owners is based on the positive aspects classical and operant conditioning rather than compulsion, fear and punishment. Instructor students are made aware of the impact, both good and bad, dogs can make on their family, community, and the environment in general.

The JAHA curriculum welcomes all to their courses, not just individuals that plan to coach others to train their dogs. The student body is comprised of pet owners, veterinarians, veterinary assistants, humane and shelter workers, groomers, handlers of competitive dog sports, City and prefecture government officials also attend the courses.

The course consists of 12 steps. Levels 1 through 5 contain basic information appropriate for all people interested in dogs. Some of the levels involve a 5-day live-in course with dogs. Levels 6 through 12 include teaching information for future instructors. Each student must pass a dog training test with their own dog trained in reward-based methods. The Japan Canine Good Citizen Test (CGC), comprised of 15 exercises, is used for this purpose.

The courses include handouts, a textbook, power point, videos, lecture, games, audience participation and live dog demonstrations. Courses are held throughout the country several times a year. In the beginning, Terry Ryan, through an interpreter, taught all the levels aided by the original core group of JAHA enthusiasts. Recently, some of the program has begun to be taught
by JAHA members themselves.

This program is now in the 13th and has certified 63 pet dog class instructors.

1. Introduction of JAHA
2. Future Prospects of our Course: An Interdisciplinary Perspective
3. Impact on Veterinary Field Since the Onset of our Course
4. Course Content
A Proposal from the Psychiatric Service Dog Society
Introducing Psychiatric Service Dogs to Japan

Group/Leader name: Joan Esnayra, PhD

Speakers: Joan Esnayra, Ph.D.: President, Psychiatric Service Dog Society
Lynette Hart, Ph.D.: Professor, University of California at Davis
Craig Love, Ph.D.: Senior Study Director, Westat

Abstract

Psychiatric Service Dog partnership when used in conjunction with psychotropic medication and talk therapy facilitates the cultivation of insight by the handler into her unique manifestations of mental illness. By virtue of 24/7 partnership, the dog becomes an astute observer of its handler's baseline behaviors, attitudes, and dispositions. When these shift as a result of physiologic changes in the handler, the dog responds naturally to them. Response behaviors are unique to each dog and handlers learn to recognize her dog's response behaviors over the course of time. In other words, the handler learns to 'read her dog'.

Such recognition on the part of the handler leads to greater somatic awareness such as, "Whenever my dog leans into my legs, it means that I am beginning to hyper-ventilate, and I am on my way to having a panic attack" or, "My dog looks at me in a very specific way when I am driving aggressively in an irritable hypo-manic state. That's when I know that I should get off the road as soon as possible." Such an 'early warning system' provides a handler with timely information so that she may more effectively modulate her behavior, engage cognitive behavioral skills, take 'prn' medication, or phone her doctor for guidance. Many Psychiatric Service Dog handlers casually refer to their dogs as 'Suicide Prevention Dogs'.

In the United States, Psychiatric Service Dogs are afforded the same legal rights to access as are Guide Dogs, Hearing Dogs, and Service Dogs for persons with mobility impairments. As such, Psychiatric Service Dogs are trained to function appropriately in public spaces where animals are normally not allowed to go. Since there are very few schools in the U.S. that train Psychiatric Service Dogs, our laws allow mentally ill individuals to train their own. The process of training one's own Service Dog conditions the handler to a behavioral mindset and sensitizes her to 'cause and effect' relationships in her environment, interpersonal interactions, and with her dog. Such a behaviorist mind-set combined with human-canine partnership facilitates insight, diminishes symptoms, restores functioning, and increases independence among handlers.

The Psychiatric Service Dog Society has pioneered the use of Psychiatric Service Dogs in the United States for the past ten years. Research conducted by the Society shows that handlers report fewer refractory symptoms and decreased medication usage subsequent to Psychiatric Service Dog partnership. This innovative rehabilitative tool appears to work especially well with those suffering from Anxiety Disorders and Mood Disorders, in particular. In light of the fact that the founders of the Psychiatric Service Dog Society will be in Japan next October presenting their research at the conference of the International Association of Human-Animal Interaction Organizations (IAHAIO), this proposal is timely and cost-effective.
Comparison between the Perceptions about animals in Japanese to the Western

Group/Leader name: HARs
Speakers: Kenji Wako: Osaka Art University
          Osamu Ishida: Teikyo University of Science and Technology
          One Undecided

Abstract
Recently in Japan thought to the pet changed rapidly. When asked about consider pet as a family, 83 percent answered “Yes”, and this percentage has increased in 10 years ago. This is relation to come to keeping their pet indoor, and promote bond with human. While, Japanese traditional “perception toward animals”, that “little distance between human and animals” and “vague awe about animals” are reviewed now.

Japanese not like to make a clear distinction between A and B. Also they are not good at theoretical and ethically distinction in such a way by that human and animal whether same or different.

The first, purpose of this work shop is to find it out by discussion to compare a way of thinking for about animal, how such way of thinking is relate with Perception towards animals.

Secondly, in the lot of case that Japanese uses an animal, it is tied to life. According to circumstances, the animal might be killed. At that time, neither wild animals nor the domestic animal distinguish comparatively. However, some kind of guilty conscience remains taking the life of the animal. This guilty conscience is broken off by an act of the ceremony and progress of time. Such a system has been completed in Japan.

And, they show the feeling of thanks to having been useful, rather than feel absolute evil for taking life. The difference in Perception towards animals will appear also in various scenes as a difference of the method to treat an animal? It is glad if it can be useful for a new relations formation of the human and animal in the future with clarifying the Perception towards animals in such a difference and common east and west.
Workshop-11
(Oct. 8th 10:30-11:30)

Violence Toward Humans, Violence Toward Animals: The “Connection”

**Group/Leader name:** The Japanese Coalition for Animal Welfare

**Speakers:**
- Phil Arkow: Interim Director, Human-Animal Bond/American Humane Association, Chair/Animal Abuse and Family Violence Prevention Project, The Latham Foundation
- Sakiko Yamazaki: M.A. (Social Welfare), Japan College of Social Work Graduate School

**Abstract**

The connection between violence towards animals and violence towards human beings has continuously been a topic of interest to those researchers in various fields such as human welfare and health services, child abuse, domestic violence, psychology, and child development, as well as animal welfare.

A renaissance of scholarly and programmatic interest in what is called The Link between animal abuse and other forms of family violence has resulted in a worldwide proliferation of research, public policy and program initiatives. The presentation by Phil Arkow will describe the most current developments in this emerging field, including: inter-agency cross-reporting and cross-training protocols; the inclusion of pets in domestic violence protection orders; mandated reporting by veterinarians of family violence; the development of veterinary forensics to assist animal cruelty investigators; and recognition of pets as a component of social capital and a protective factor against community violence. This presentation will identify future trends in The Link, and describe a number of community coalitions in the U.S., Canada and the U.K. that are cross-training community humane and human services agencies.

Sakiko Yamazaki, M.A. (Social Welfare), Japan College of Social Work Graduate School, one of the few researchers conducting studies comparing child abuse and animal abuse in Japan will talk on the results of her surveys on behalf of the Japanese coalition for animal welfare.
Workshop-13

(Oct. 8th 9:00-10:00)

The Scientific Assessment of Service Dog Programs in Japan

Group/Leader name: Japanese Society of Service Dog Research

Speakers: Eiji Takemae: Professor Emeritus, Tokyo Keizai University
Mina Mizukoshi, DVM: Nippon Veterinary and Life Science University, Faculty of Veterinary Science, Department of Veterinary Nursing and Technology
Go Shirota: Hokkaido University School of Medicine

Abstract

The training and placement of service dogs have up till now been based mainly on past experience. The Japanese Society of Service Dog Research was founded in 2005 in order to stimulate much needed multidisciplinary efforts in this area. The work of supplying quality service dogs must necessarily depend on input from multi-various areas of expertise. The dog work in itself can be divided into numerous fields, training, behavior, veterinary medicine, breeding, and genetics, just to name a few. But fields of human studies must also be included such as rehabilitation, medicine, social welfare, and human engineering, again just examples of representative fields.

Have harnesses been designed to suit the anatomical and physiological characteristics of both dog and user? As for any other disability support systems what are the indications and contra-indications for service dogs from a human medical point of view? There are indeed many questions that must be asked in order to establish a true scientific basis for service dog programs.

Eiji Takemae, Professor Emeritus, Tokyo Keizai University, the Chairman of the Japanese Society of Service Dog Research looks into the reasons that have necessitated the organization of the society, as well as the prospects such a scientific body presents to the field of service dog training.

Mina Mizukoshi, DVM, Nippon Veterinary and Life Science University, Faculty of Veterinary Science, Department of Veterinary Nursing and Technology focuses on specific field of guide dogs where more research data must be generated in order to enhance the quality of the system.

Go Shirota, Hokkaido University School of Medicine, has completed a detailed financial analysis pertaining to the supplying of service dogs to the end users. This is probably one of the very first reports in the world concerning the details of the actual costs involved in delivering a dog.

The workshop will deliver information concerning from 3 completely different fields of research, legal, veterinary, and financial as a sample of what has been done till date, as well as of what needs to be done in the future as groundwork for the betterment of the field.
Hearing Dogs as Risk Communicators

Group/Leader name: Moto Arima MSc, Japan Hearing Dogs for Deaf People

Speakers:
- Moto Arima: President of Japan Hearing Dogs for Deaf People, Health, Labor and Welfare Ministry-Designated Corporation; Board Member (2002-2005) of the Assistance Dogs International (ADI) Association; and ADI accredited Instructor of Hearing Dog and Service Dog

Abstract

Japan Hearing Dog for Deaf People (JHDDP) has been conducting ongoing research since 1998 on the relationship between hearing dogs and deaf people to make up for this perception gap between trainers and users. The first study of "The Need of 239 Hearing-impaired People for Hearing Dogs" was carried out from 1998 to the year 2000. A questionnaire was administered to people with hearing disabilities who had seldom known about "hearing dogs." They were asked about their need for a hearing dog after having watched the demonstration of hearing dogs. As a result, we learned that hearing dogs were most wanted to notify the hearing-disabled about the alerts of "fire alarm" that is, risk management-related sounds.

At the JHDDP demonstration for people with hearing disabilities in Kobe, where was hit by the Great Hanshin Earthquake, the need for the communication ability of hearing dogs between the disabled people and non-disabled one was particularly mentioned. Apparently, the role of dogs as communicators between hearing people and deaf people is unimportant one, as some people with hearing disabilities lacked sufficient information to guide them to the evacuation sites or to inform them of the correct times and places to receive supplies in the aftermath of the earthquake.

It is said that good communication among all citizens is needed in the early stages of risk management before disasters actually take place. Called “risk communication” in the U.S., the necessity of interpersonal communication among people before the actual occurrence of natural disasters or accidents is widely advocated. The role of risk communication is increasingly considered important in Japan as well. Little research has been done on how hearing dogs can stimulate discussion of emergency measures for people with hearing disabilities by reminding others of the existence of people whose disability may not be visible. Also, hearing dogs have the inherent ability to remind people without disabilities of the necessity to help hearing-impaired people even in normal times.

Lynette A. Hart, Jane Eddy, and Ronald P. Bolts conducted a similar study on the role of Service Dogs as effective inter mediators between the physically disabled and non-disabled as part of their advantages. They recorded that the behaviors of passersby to the the person in a wheelchair, with or without a service dog. They found that the service dogs substantially reduced the tendency of able-bodied people to ignore or avoid the disabled person.

However hearing disabilities are not visible. Unlike service dogs’ advantage, hearing dogs notifies to the publics and neighborhoods about the existence of deafness. In case of disaster or accident, we cannot utilize alarms to help hearing-impaired people. Thus, their disability causes great risk that they will fail to evacuate in a timely and safe manner. Due to this fact, establishing risk management procedures for such people is very difficult. Therefore, in this report we discuss the results obtained from observations conducted in Tokyo and Osaka. The hearing dogs play an important role in getting people to notice the "disability" and act as risk communicators to meet the needs of disabled persons quickly according to a given situation.
Poster Sessions
Interactive Vaulting, Centered Riding® and Yoga - an Innovative Approach to Therapeutic Riding

Gisela Rhodes
FRDI, NARHA, EFMHA, USA

Horse back riders, with or without disabilities, dream about becoming one with the horse. Riding without visible effort, overcoming mental and physical limitations, learning about horses and enjoying their company are the goals.

Unfortunately the reality does not always make it easy to fulfill our dreams. Many of us have limitations due to congenital conditions, accidents or traumatic experiences in our life which turn out to be serious road blocks on our way to becoming a skillful rider and/or a compassionate partner with the horse.

Riding and handling horses are as much about mental attitude as it is about physical ability. We need to learn to trust our bodies, overcome primal instincts and use our resources (for example breath and attitude) to our advantage.

This requires body awareness. How can we expect a horse to trust and follow us if we don’t know and/or trust our own body and ability? How come a 6 year old child with confidence can get a horse effortless to follow her while the same horse will stop and refuse to go with an adult who is apprehensive and not sure about herself?

The author has been combining Interactive Vaulting with Centered Riding® and Yoga techniques while teaching children, teenagers at risk, adolescents and adults with and without disabilities. She concentrates on creating awareness regarding the rider’s own body together with reading the body language of the horse. She helps riders/vaulters concentrate through teaching movement, creative positions (adapted yoga poses and vaulting elements), and relaxation exercises. This unique approach allows issues of balance, confidence, body awareness, trust and fear to be addressed in a caring and supportive environment.

By learning to read the horse’s reaction correctly, the vaulters will learn something about themselves. They experience the horse as a partner, as somebody they can trust, play with, ride, hug and last but not least somebody they can talk to, whenever they need a listener.

This presentation will guide you through the teaching process and the underlying theory. The use of excellent photos, shot during the lessons at the author’s farm, will make the concept easy to understand for an audience, whose native language is not English.
Emotional Commitment as Predictor of Interaction Problems with Animals

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It is now widely acknowledged that the quality of emotional commitment (EC) influences interactions between owners and their pets. Therefore, we assumed that specific interaction problems with pets may be linked to specific emotional qualities of this human-animal-relationship that are frequently referred to as “attachment”. The Animal Relations Questionnaire (ARQ; Beetz & Ascione 2004) assesses on the one hand the strength of the attachment or emotional commitment (EC), on the other hand it also identifies different attachment styles or qualities (AS). For the identification of interaction styles/problems within human-animal dyads the "Inventory of Assessing Problem Interactions with Animals" was used (IPI Animals; Stupperich & Beetz 2006).

Hypothesis 1) was that positive emotional commitment (EC) and secure/positive attachment styles (AS) predict ways of interaction with animals that are characterized by warmth and positive appreciation. Hypothesis 2) assumes that negative EC and a rather negative AS with fearful or dismissing qualities predicts dominant ways of interacting with animals.

Ninety-two boy’s from a local school (age 12 to 18; mean 13 years; 67 living with pets) and a convenience sample of 100 participants (58 males; 42 women; age 15 to 62, mean 23,9 years) answered the questionnaires.

Regression analysis shows that EC and AS are strong predictors for interaction styles with animals. Boys as well as adult men who are secure, caring, and even preoccupied with regard to their pet-relationship and report a trustful and communicative relationship to their pets describe themselves as warm interaction-partners with animals. Dominant interaction-partners report a rather fearful or dismissive attachment to animals.
Effect of changes of a trainer’s visual information relating to the delivery of the command on obedience in dogs

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Dog training consists of the dog’s response and correct action to verbal commands given by trainers. This requires the dog to understand what behaviour must be associated with a verbal command. In some situations, distance between a trainer and a dog seems to influence both speech sound and response, but surprisingly, this has not been the subject of the previous scientific investigation. This study investigated the non-verbal features and the positional effects on the response of dogs during the training of two verbal commands.

Eight pet-dogs (age 17 to 96 months old; six female, two male; three pure-breeds) were trained individually by the same female trainer in six trials × three stages to two commands (“sit” and “come”), controlling for trainer posture and position. The trainer gradually distanced herself from the dog’s standing position. Initial distance between trainer and dog was 70 cm, and finally it was increased to 420 cm. The trainer changed her position in the straight line facing the dog. The percent of correct responses to each command in a given session of a given training trial was recorded together with the number of sessions required to reach the success criterion (85% correct response in the consecutive 2 sessions) before progression to the next trial. One session was conducted in 40 exercises; two commands were presented randomly 20 times each. Data collected in response to both commands were analysed on a percent correct basis, i.e. the percent correct in a given session at a give in training trial.

Two-way ANOVA was used to examine the effect of dog and training stage on the number of training sessions to reach the criterion in each training stage. The mean number of training sessions needed over three stages was significantly differ for the “sit” (ANOVA: F[2,125]=11.02, p<0.001), but not for the “come” (F[2,125]=1.86, p=0.16). For the “sit”, the first training stage A, in which the trainer used both eye contact and body language with the dog, needed significantly more sessions than the second training stage B, in which the trainer wore black glasses in immovable standing posture, and the third training stage C, which is the same as the first training stage A (Tukey, both p<0.05). A Wilcoxon signed-ranks test was used to compare the difference in performance between the end of one trial and the start of another. There was a significant increase in the number of errors for the “sit” but not for “come” between the trial in which the trainer stood facing a dog at a distance of 70 cm and the trial, in which the trainer stood facing a dog at a distance of 140 cm (n=7, W=27, p<0.05). The results suggest that the first training situation is important to generalise the command in dogs, rather than changing the distance and the non-verbal features of a trainer.
Attachment to Dogs, Emotional Intelligence, and Emotion Regulation during a Stressful Task

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Previous research has shown that attachment influences the ability to correctly perceive, understand, and adequately regulate emotions in oneself and others. These abilities are subsumed under the term emotional intelligence (EI). EI has a strong influence on the ability to adapt to certain life events and psychological health. However, relating to animals and forming an internal working model of animals as partners one can trust and rely on may also influence the development of emotion-regulation abilities. The aim of this study was to investigate the link between the quality of attachment to humans and to animals, specifically the current dog (human-animal relationship HAR), EI, and how a person is feeling during a stressful task.

The sample consisted of 28 women who owned a dog for at least one year and brought their dog with them to the experiment at the university, and 19 women who did not own a dog at that time. Their ages ranged from 18 to 72 years (M=37) - however, the investigated links are not supposed to be influenced by age, and with regard to EI scores were adapted according to the norms. For the assessment of the quality of the human relationships, the Relationship Scales Questionnaire (RSQ) was used. Attachment status with regard to humans was assessed with the Adult Attachment Projective (AAP), and quality of HAR was measured with the Animal Relations Questionnaire (ARQ). Emotional intelligence was measured with the MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test). The stressful task participants had to work on was a management task (MORO) in the form of a computer simulation; participants had only limited time to decide on interventions necessary to manage a tribe in the Third World. Before, at three times in between, and after the simulation, participants reported on a short scale how they felt at that time. Interactions with the dog, especially during a two-minute-break when the investigator left the room, were classified from videotape-recordings.

With regard to human attachment and EI, secure (AAP-classification), women were significantly better in perceiving emotions in faces correctly than dismissing women (T=2,187; p=.035). Also, women with a higher EI felt less stressed during the management task at all five assessment times (r between .347 - .435). Idealization of animals was negatively related to emotion management/regulation (r=.259, p=.043), while fearful-dismissing attachment to animals was negatively associated with emotion management (r=.329, p=.014). Those who reported a high attachment to their dog interacted more positively with it during the break (r=.547, p=.009). There were no significant differences in how persons felt during the task between those who had their dog with them and those who didn’t have a dog. However, those who interacted in a more positive way with their dog (not commanding, scolding etc) (not only during the break) felt significantly better than those who did not (ANOVA: F=3,156; p=.027).

Overall, the results support the assumption that dogs can be used for emotion regulation under stress by attached owners. However, just the presence of the dog is not enough to reduce perceived stress.
Attachment to Animals and Emotion Regulation in Adolescence

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The ability to adequately regulate emotions has a strong influence on the ability to adapt to certain life events, psychological health, and a positive development of a person. Deficits in emotion regulation (ER) are associated with a higher vulnerability for the development of psychological problems. The basis for adaptive emotion regulation is laid in early childhood via the interaction with caregivers and the quality of the relationship to parents, and later on peers. However, probably also relating to animals and forming an internal working model of animals as partners one can trust and rely on may influence emotion regulation abilities.

The aim of this study was to investigate the link between the quality of the relationship to mother, father, and peers, the quality of the relationships to animals (human-animal relationship HAR) as described in terms of attachment theory and ER strategies.

Data from 101 Austrian juveniles (56% female, 44% male; age between 13 and 15) were collected. For the assessment of the human relationship quality the Inventory of Parent and Peer Attachment (IPPA; German version) was used. Quality of HAR was assessed with the Animal Relations Questionnaire (ARQ). Emotion regulation was assessed with the Fragebogen zur Erhebung der Emotionsregulationsstrategien bei Kindern und Jugendlichen (FEEL-KJ, Questionnaire on Emotion Regulation Strategies).

As expected, a significant positive relation between attachment to the mother \((r=.261; F=7,22)\) and peers \((r=.383, F=16,82)\) but not father and adaptive ER was found. Regression analysis showed also a positive association between alienation from peers \((r=.288; F=8,85)\) and from mother \((r=.244; F=6,26)\) and maladaptive ER. There were moderate significant correlations between peer attachment and trust in relationships to animals \((r=.250, p=.007)\), a secure internal working model of HAR \((r=.239, p=.009)\), and overall animal attachment \((r=.236, p=.010)\). For the boys, a dismissing attitude towards HAR was associated with alienation from peers \((r=.359, p=010)\). Further, juveniles with rather negative representations of HAR, like a fearful style \((r=.237, p=.009; ANOVA F=2.164, p=.014)\) or dismissing style \((r=.308, p=.001)\) showed more “over-control” of emotions, while positive HAR like a secure style \((r=-.235, p=.009)\) or caregiving style \((r=-.221; p=.014)\) correlated negatively. For girls, a secure style in regard to HAR correlated negatively with the over-control of emotions \((r=-.331, p=.006)\), while, as expected, a dismissing style correlated positively \((r=.226; p=.045)\). A high score in caregiving to animals related to a high score in adaptive emotion regulation \((r=.319, p=.008; F=2,209, p=.034)\). For the boys, a fearful style in HAR was related to over-control of emotions \((r=.401, p=.004)\) and maladaptive strategies in handling anger \((r=.332; p=.015; \text{regression analysis: } F=5,092, p=.029)\).

Overall, the results show that there indeed are connections between attachment not only to father, mother, and peers, but also attachment to animals and emotion regulation, especially with regard to the expression and communication of feelings and not holding them back when feeling sad, angry, or afraid.
Animal Welfare Situation in Nepal

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Nepal is a landlocked and least developed country with 147,181 sq. Km. area inhabited by over 23 million people with livestock rearing as a major profession. Man can derive different outputs from animals as milk, meat and its byproducts; draught power; leather, wool and its byproducts, manure; help in human disease diagnosis; recreation and entertainment. First time in the history of the welfare of the animals was established in 1824 in U. K. The 1876 Cruelty to Animals Act is still in practice in England. In the USA Animal Welfare Act was passed by the Congress in 1966.

Following five freedoms for animal welfare simply put mean that animal enjoys;

1. Freedom from hunger and thirst.
2. Freedom from thermal and physical discomfort.
3. Freedom from injury and disease and pain.
4. Freedom to express most normal patterns of behavior.
5. Freedom from fear and distress.

NZFHRC has become first time in 2001 a WSPA society member till to date. NZFHRC organized a workshop in October 1-2, 2001 with support of Humane Society International (HSI) on "Humane Slaughtering Management Workshop" for animal slaughtering and meat marketing purpose and develop guidelines both in English and Nepali languages. NZFHRC organized a training programme in October 3-5, 2001 for Nepalese butchers and meat sellers on "Humane Slaughtering of Animals, Production of Meat and Marketing of Hygienic Meat in the Market". NZFHRC has translated a book on "Guidelines for humane handling, transport and slaughter of livestock" from English to Nepali language.

Four studies were carried out by NZFHRC during the year 2000-2003
(a) Study on use of laboratory animals in experimental research in 2000.
(c) Farm Animals Status and Welfare in Nepal in 2001.
(d) Development of Ethical Principles and Guideline for the use of animals in Nepal in 2003.

On top of these activities NZFHRC also has organized a national seminar on "Wildlife in Captive and Status of Wildlife Conservation in Nepal" 2003.

A study was carried out focusing on provision of five principal freedoms. With regard to suitable environment in Zoo is relatively small and density of animals housed exceeds the norms of space required.

Ethical committee was formed which was coordinated by NZFHRC. There is a need to develop guidelines for the following animals: Wild life animal welfare in captive; Domestic farm animal welfare; Laboratory animals in experimental research;

The objectives of this ethical committee were to promote and coordinate the development of Animal Welfare Societies in Nepal; To promote quality definition and monitoring of laboratory animals, draught animals, domestic farm animals, wild life in captive and pet animals; To collect and disseminate information on animal welfare and cruelty against animals; To promote the humane use of animals in the farms, research and captive through recognition of ethical principles and scientific responsibilities; To prepare ethics and guidelines of farm animals, wild life in captive and laboratory animal sciences. The animal protection laws are not existing in Nepal.
AAA/ AAT program including evaluation for suffering developmental disorders and families

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The Association for Human and Animal Welfare (AHAW), a non-profit organization, sponsored AAA/AAT which was conducted at a local community center in Ibaraki prefecture from 2000 to 2003. The participating dogs included a shetland sheepdog, a groenendael, a shih tzu, and a papillon among others. The children who participated suffered from autism, learning disorders or cerebral palsy. In one case, the child was the sibling of a participating autistic child. The staff included researchers investigating animal behavior and human and animal bonding, a clinical psychologist, nurses, students and members of AHAW. Staff members performed three roles: as handlers for the dogs, as helpers for the children, or as VTR operators. This was a long-term program conducted both indoors and outdoors over one year. Each session was held for one hour and included a minimum of four different types of tasks including non-contact activities (watching and waiting), contact activities (touching, stroking and holding), brushing and walking. After each session, the staff evaluated the dog’s behavior and the children’s behavior both related to and unrelated to the dogs, the parents evaluated their children by means of a questionnaire, and the nurse reported on the children’s physical condition.

This paper presents the assessment results in 2003 by total number of 48 staffs and four children’s parents. Two children score related to the dog showed an increasing tendency. As for their behavior unrelated to the dogs, three children’s scores showed a tendency to increase. The average score for the behavior of two dogs showed an increasing tendency. The staff’s evaluations demonstrated the beneficial effects of our AAA/AAT. However, the evaluation scores by the parents of children who had participated in AAA/AAT for more than three years showed a tendency to reduce. On the other hand, the evaluations by the parents whose children participated beginning in 2003 agreed with the staff’s evaluations and confirmed the beneficial effect of our AAA/AAT. In future sessions, evaluation reliability should be improved by increasing the number of items on the questionnaire to the parents. Additionally, it would clearly add to the benefit of the AAA/AAT if, in the future, a medical doctor or occupational therapist could participate in our sessions.
Animal Assisted Therapy as an Integral Part of SST in Psychiatric Daycare

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SST, social skills training, is important in integrating psychiatric patients back into society through the enhancement of social skills to build interpersonal relations essential in maintaining a viable livelihood. Activities associated with interpersonal relations cover a wide arrange of behaviors and are difficult to define. However the essential skill is the ability to express one’s thoughts clearly in a non-aggressive manner, and in accordance with any given situation. The AAA team in psychiatric daycare has attempted to formulate an AAT (SST) program by teaching the daycare patients to accompany the volunteer handlers and their dogs to the AAA program in the geriatric ward of the same institution, to participate therein as a full member of the AAA team with specific roles assigned.

Daycare patents participating in the AAA team (hereafter referred to as Daycare Members) are chosen by the psychiatric staff. The conditions for selection are as follows:

a) History of participating as clients in the psychiatric AAA program

b) Highest probability of foreseeable effective outcome

The AAA teams visiting the geriatric ward are made up of the volunteer handlers, the assisting Daycare Members, and the regular hospital staff. During a pre-meeting the Daycare Members are all given specific jobs, such as time-keeper, MC, greeter etc. in addition to their respective assignments as an assistant to a specific handler-dog pair. The psychiatric staff spends time with these Daycare Members before the visit to have each one practice his/her role. During the actual execution of the program, the Daycare Members are expected to converse with the geriatric patients they are visiting, as well as to participate in introducing and managing the dogs. Since the dogs are motivationally trained, moving them requires spontaneous vocal praise. All of this encourages the Daycare Member to interact “naturally” with everyone in their environment. This is in stark contrast to the normal "role-playing" activity done during a standard SST session, and perhaps in many ways more real.

The program concludes with a team meeting where the psychiatric staff interviews the Daycare Members about the experience. The AAA experience for the psychiatric daycare patients is an effective way of enhancing their communication skills, both receiving and sending, as well as their information processing skills appropriate to the environment; in short, this can be considered as SST technique viable in programs where animals are being utilized.
Conflicting View of Companion Animals: Society VS. Law

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In the course of the last few years the man-animal relationship has deeply changed and has assumed distinctions which reflect the rapid evolution of the associated cultural changes and there has been an enormous rise in the canine population.

The relationship between a human and companion animals (CAs) is similar to a parent and child.

The CA guardians consider their animals as members of the family or children or best friend, rather than as personal property, and describe the animal’s role in the family as “very important”.

According to EURISPES study made in 2002, in Italy there are 44,000,000 CAs resident in eight and half million families, which generate business worth almost 5 million euros. In United States, there are approximately 68 million animal guardians with dogs in their household; 40 million, or four in ten households, have at least one dog.

Therefore, CAs can play hugely important roles in the lives of people as family members. In contrast, established Italian legal doctrine classifies CAs as property. As a result, the law fails to reflect society’s recognition of CAs as members of family.

After have discussed how the law classifies animal and whether the current legal framework is in accord with scientific understanding, public attitudes, and fundamental principles of justice, the Author analyses these important legislative changes in Europe and starts by tackling the issue from an ideological, ethical and juridical prospective. In particular, she rejects the notion of property and claims that CAs belong in a completely unique category of property that neither statutory law nor case law has yet recognized. Really, the law should reflect society’s recognition that animal are sentient and emotive beings that are capable of providing companionship to the human with whom they live. In doing so, the legislator should not hesitate to acknowledge that a great number of people in Italy and in several countries today treat their pets as family members. Indeed, for many people, pets are the only family members they have.
Companionship, emotional support, assistance for disabled family members, and general health benefits are just a few examples of why people choose to keep pets in their homes. Many pet owners consider their animals to be like a child or family members.

Given the benefits of interacting with companion animals to such a significant portion of the Italian population, it is also important for the legal system to facilitate responsible pet ownership.

This paper will address the major legal issues that arise when the people desire the keep companion animals in their homes.

In particular, the Author will focus attention on “State-Regions Agreement on Companion Animal Welfare and Pet Therapy”, recognised by the Council of Ministers in DCPM, February 28, 2003.

The Italian Agreement defines some basic principles whose aims are to create a greater and increasingly correct interaction between man and companion animals, to guarantee the latter’s welfare in all circumstances, to avoid their being inappropriately employed and to encourage a culture of respect for their dignity, also in the sphere of innovative therapeutic activities such as Pet-therapy.

Among the various aspects examined, this agreement especially underlines the responsibilities and duties of a companion animal handler and specifies that any person who lives with a companion animal or agree to take care of one is responsible for its health and welfare and must house it and give it adequate care and attention.
Three Intervention-Theoretical Models to Support the Empowerment of Disability Assistance Dog Owners

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PURPOSE

To investigate our hypothesis - classified here under: ‘enabling’, ‘restorative’ and ‘compensatory’ - that disability assistance dog ownership results in their owners’ empowerment, despite the hardship involved in the training and caretaking of the dog.

A disability assistance dog is defined under Japanese law as “A dog which assists severely disabled people in daily living tasks such as: picking up and carrying objects, assisting with dressing and undressing, acting as a physical support, opening and closing doors, switching lights on and off, calling an ambulance.”

Although such dogs assist their owners in a manner similar to a self-help device, they require looking after, disciplining and constant training.

We view empowerment as the ability by a disabled person to perform a task independently and competently with the assistance of a dog.

METHOD

8 users (4 males with spinal cord injury, 2 males with progressive muscular dystrophy, 1 female with multiple sclerosis, 1 female with rheumatoid arthritis) were interviewed. All of them were able to control the behavior of their disability assistance dogs well. The Canadian Occupational Performance Measure, a kind of semi-structured questionnaire, was used to assess their empowerment by means of their disability assistance dog. Their performances were classified into 3 kinds of hypothetical models from a therapeutic intervention point of view, namely, an enabling, restorative, and compensatory model.

RESULTS

1. The enabling model: development of performance process skills to do with volition, for example, commanding the dog to eat, play, walk or do the toilet.

2. The restorative model: owners have regained lost capacities and skills by, for example, using a clear voice for commands, which increases the function of the respiratory system. When the dog moves the owner’s limbs, are prevented from decubitus and deformity, inhibiting pain and so on.

3. Compensatory model: owners have adapted strategies to manage the equipment, such as special harness or leads, alternative or compensatory techniques, as in praising the dog learned and modified tasks or physical and social environment.

CONCLUSION

Therapeutic intervention is useful in enhancing the interactions between the owner and disability assistance dog, which can be explained by means of an enabling, restorative and compensatory theoretical model.
Preference for Complex Social Stimuli in Children with Autism

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Objective:
Social avoidance, preference for inanimate stimuli, difficulties in understanding non-verbal communication and in establishing social interactions are regarded as core deficits in Autism Spectrum Disorders (ASD). This concept is contrary to case reports on autistic people who established close relationships to social, nonverbally communicating animals like dogs.

Methods:
The interactions of 14 children with ASD with human (person), animate (dog) and inanimate stimuli presented simultaneously were recorded (60 min/subject) and analysed with Interact®. Cohens’ κ amounted to 0.75 to 0.91. ASD was diagnosed using the Autism Diagnostic Interview (ADI-R) and the Autism Diagnostic Observation Schedule (ADOS-G).

Results:
The children interacted more frequently (Friedman ANOVA; χ² = 17.9; p< 0.001) and longer ( χ² = 8.7; p = 0.013) with the dog than with the person and were least interested in inanimate stimuli. They initiated more interactions with the dog than with the person (Wilcoxon, Z = -2.5; p = 0.013).

Conclusions:
Children with ASD were highly interested in complex social stimuli and significantly less in inanimate ones. We found evidence for a special affinity of people with ASD towards dogs. We assume that dogs communicate their intentions in a way that persons with ASD find easy to understand and suggest that ASD affects highly specifically interhuman communication.
What medical examinations are necessary for dogs involved in animal assisted activity?

Yoshiko Uchida

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The Hokkaido Volunteer Dog Association, a local volunteer group in Hokkaido, Japan, has been promoting animal assisted activity for 10 years. In 2006, we periodically visited 3 hospitals and 38 nursing homes a total of 358 times with a total of 1,706 dogs. An original aptitude test and medical examination (conducted annually) were required of all dogs involved in our activity. For the medical examinations, we screened for zoonosis, including brucellosis, leptospirosis, salmonellosis, campylobacteriosis, yersiniosis, internal parasite infection, pasteurellosis and Staphylococci using samples of serum, stool, inter-digit swabs and gingival swabs. In actuality, the tests were very tedious and expensive. The purpose of this study was to review the medical examination records for a total of 925 dogs for 10 years, and then specify the minimum requirements for an examination checklist.

Antibody value for Brucella canis was judged as positive if over 160. Every year there were dogs that tested positive and the total of this population was 17. These dogs were excluded from the visiting program. Up to 2004, the antibody value for leptospirosis was tested and 10-50% of the dogs were determined to be positive during each round of testing. Beginning in 2005, we required every dog to be vaccinated against leptospirosis and discontinued further testing. Actually, though Hokkaido is not an infected area, there are some dogs traveling to Hokkaido from other parts of the country. Salmonella Thompson, S. enteritidis, S. infantis were isolated from stool in 15 dogs. Because the pathogenicity of these bacteria was not risky, their owners were simply required to keep the dogs clean especially around the anus. Campylobacter jejuni was isolated from 2 dogs and these cases required treatment. Yersinia enterocolitica was isolated in 3 dogs, but as pathogenicity was not a risk, again, their owners were only required to keep their dogs clean. For internal parasites, eggs of Toxocara canis and Strongyloides stercoralis were detected in 11 and 2 dogs respectively. They required treatment. No dogs were infected with Echinococcus multilocularis, though Hokkaido is an infected area. Pasteurella multocida was isolated from the swab of 65 dogs’ gingival. Dogs testing positive were very few compared to previous reports and we required all owners to prevent dogs from licking < kissing patients < residents. Staphylococcus aureus was isolated from 82 dogs’ inter-digit swabs. Additionally, from 2003, Methicillin-resistant staphylococcus aureus (MRSA) was isolated in 15 dogs. Owners were required to shampoo their dog carefully before visiting.

These results suggest that brucellosis, campylobacteriosis and internal parasites should be included in the medical examination check list. If each owner keeps their dogs effectively vaccinated and carefully cleaned, other zoonosis can be prevented.
Vertical case study of dog owner’s personal network created by “Dog Walking” in the community

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Background: The personal networks of elderly people tend to decline as they become older, however, if they are dog owners, social relationships are stimulated through activities with their dogs, such as dog walking. Past studies, though not well documented, indicate that “dog walking” is an important builder of community relationships.

Purpose: To clarify whether dog owner’s personal networks sustain growth quickly and easily, we monitored and compared the network structures, which were created by “dog walking” and “other” activities such as neighbors chatting and community circles.

Method: The subject locations were adjacently situated residential areas in Tokyo, at a radius of about 2km. The participant was a healthy dog owner, 68 years old, who resided in the area and who, for her walks, often used the greenbelt area along the bank of N river centrally located in the area. The surveys were performed at 6 month intervals; with the first survey submitted 3 months after the participant started her dog walking activities. Four surveys were done between March 2004 and March 2006. A P.D.M. (: Psychological Distance Map) was used to create her networks, following these procedures: 1) draw a little circle to track acquaintances on the map, location of the circle depends on the psychological distance, 2) the circles are then color coded to depict the strength of relationships. 3) draw lines (ties) between members who know each other (not to include lines between ego and members).

We analyzed three main areas : 1) network size, 2) network density (the ratio of predicted maximum ties to drawn ties), 3) strength of the relationship (the members were charted using three levels which indicated the closeness to the ego).

Result: 1) Over time, the “dog walking” network expanded four fold from the first survey. The other networks (community circles and neighbors chatting) didn’t illustrate significant changes over the same period and were always smaller than the “dog walking” network. 2) Over the two years of surveys, both of the network’s densities maintained the same ratios regardless of fluctuating size. The “dog walking” network density ratio was ten times lower than the “other” networks. Even if the number of the “dog walking” network ties and members increased, the density ratio remained constant. 3) The strength of the “dog walking” relationships varied. Almost half of the members had “weak ties”. The number of the members having stronger ties did increase. Over half of the original members, who had weak ties in the beginning, built strong relationships over the period of this study.

Conclusion: The results of this study indicate that, “dog walking” stimulates growth of new members, and strengthens interpersonal relationships in the community. We confirmed that “dog walking” networks expand quickly compared with other personal networks. The relationships between new members are usually very weak at first, but the relationships become stronger quickly. In this case study, we found that the function of “dog walking” promotes healthy aging and is a positive stimulus for the growth of personal networks in the community.
Empirical study on pet keeping of households in Japan: Socio-Economic Factors

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The motivation for Japanese households to keep pets has changed around 1990. The so called, “Pet Boom” is a result of this change in motivation. The purpose of this research was to investigate this trend from a socio-economic perspective. The declining birth rate is one of the greatest socio-economic changes in Japan.

Therefore, this study focused on family-related factors, particularly how children and pets are regarded, and found that children and pets are regarded as similar “goods”.

According to studies conducted by the cabinet office, the “Pet Boom” can be observed not only quantitatively in the increase in the number of pets, but also qualitatively. That is to say, such answers as “Our lives take comfort from pets” and “The pet is expected to become a bond of affections in family” often appeared. It can be understood that the meaning of “pet” is no longer that of a mere watchdog. Such a tendency is result of changes in population composition and family structure.

I examined pet related expenditure of households in Japan by using data of the National Survey of Family Income and Expenditure (every five years since 1969, Ministry of Internal Affairs and Communications) and the Family Income and Expenditure Survey (every year since 1990, Ministry of Internal Affairs and Communications).

I found that the shift in consumption function of pets was unrelated to income factors whereas pet demands are highly income elastic. Family factors were also an important influence on pet demands.

Micro data on pet keeping for each household can be obtained in Japanese General Social Surveys(JGSS). Families without children tend to keep indoor pets more often than families with children. Indoor pets are regarded as members of the family. The declining birth rate in recent years has increased indoor pet keeping and has led to the tendency where the pet was kept an alternative to children. Therefore, the author believes that the “Pet Boom” should not be regarded as isolated phenomena but as a structural change caused by changes in population composition.
Changes in patient mood in a palliative care unit brought about by contacts with animals

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[Purpose]
In Japanese care and welfare facilities for the aged, animal assisted activity is actively performed to improve the quality of life (QOL) for elderly residents and users. However, hospital-acquired infections and allergies are important issues at hospitals, and while more and more patients want to see their companion animal or stay with them at the hospital, hospital policies vary greatly, and requests are thus not granted in many cases. To objectively assess the nursing effects of animal assisted activity on patient QOL, the impact of animal assisted activity was ascertained at a hospital allowing animal assisted activity.

[Methods]
In the palliative care unit of a general hospital in Shizuoka Prefecture, a local veterinarian society brings animals to the hospital once a month so that patients can interact with animals. Subjects were 9 patients who were hospitalized at the unit from July to September 2006, wanted to interact with animals, and consented to participate in the study. The activity used trained animals (dogs, cats, and rabbits) that had been tested for health and suitability. Patients were allowed to interact with animals for about 30 min, and mood changes were assessed using Lorish's face scale.

[Results]
In all 9 subjects, face scale scores decreased after activity (beneficial effects). Mean score for the 9 patients was 7.42 ± 3.15 before activity and 3.00 ± 1.86 after activity, revealing a significant decrease (p<0.0001).

[Conclusions]
The present results suggest that animal assisted activity improves mood for patients in palliative care. Since animal assisted activity can improve the will to fight the disease and recuperate, investigation of hospital environments to allow patients to see their companion animal or stay with them at the hospital is warranted.
The effect of children's height, age, and experience of keeping animals on their contact behavior towards sheep

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In recent years, there has been an increasing use of pets and farm animals in therapy and education for the emotionally ill, the mentally retarded, children, and others who suffer from isolation and loneliness. Such programs are called "Animal Assisted Therapy (AAT)", "Animal Assisted Activity (AAA)" and "Animal Assisted Education (AAE)" etc. Many benefits of the use of pets have been reported, and pet ownership itself is thought to bring benefits. We hypothesized that children's experience of keeping animals is related to their way of contact with animals and that experience of keeping pets depends on their age. Most animal-assisted activities are visitation programs that bring companion animals into educational settings. There are hardly any reports about farm animals applied to AAA in which children can touch sheep freely. The aim of this study is to investigate whether the children's height, age, and experience of keeping animals is related to their contact (touching) behavior with sheep in an unstructured encounter setting.

We investigated test subjects who were 2.5-13.9 years old (mean age of 7.99±3.58 years) and included 23 males and 35 females (all healthy children). They could come into the paddock which held the sheep and touch or feed the animals freely. We recorded children's behavior by digital video camera.

A significant difference was found in touching time by the experience of keeping animals (P < 0.05), whereas not by sex or the experience of touching animals (Mann-Whitney U-test). The total touching time and frequency correlated with the subjects' height and age positively (Pearson's correlation coefficient, P < 0.01).

In conclusion, the experience of keeping animals effects to contact behavior such animals appreciably. It is suggested that the pet ownership will be a factor when introducing children to AAT, AAA and AAE.
Vulnerable children and ‘caring’ dogs: visiting dogs and the wellbeing of children with physical/mental disabilities and/or psychiatric problems

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Several studies have shown that Animal Assisted Activities have positive effects on the wellbeing of children with behavioral and emotional problems (Nebbe, 1991, Kogan, Granger, Helmer & Young, 1999, Kruger, Trachtenberg, Serpell, 2004). Also, it has been reported that children can have a strong relationship with animals (Archer, 1997) and that animals do not consider handicapped children as ‘different’ (Rathsam, 2002, Bueche, 2003). We carried out two studies: in study 1 we describe five cases involving severely mentally and physically disabled children. In study 2 we describe the effects of visiting dogs on children with psychiatric problems (N = 13).

For furthering ‘wellbeing’ severely disabled children need first to have adaptive capacities, and they also benefit from frequent stimulating experiences, the possibility of making choices, and loving relationships (Whitaker, 1989).

In our first study we examined the effects of animal assisted activities on the wellbeing of 5 children: 4 diagnosed with encephalopathy, epilepsy, tetraplegy, 3 out of 5 are nearly blind, 2 out of 5 are psychomotor retarded, 1 has microcephaly. All children live at home and are in day care (age range: 9 to 19, 4 boys, 1 girl).

We expected that the stimulating, relaxing experience of having a visiting dog would elicit emotion and motivate (new) behavior, that it would enhance the feeling of control and provide the children with a measure of choice. After informed consent of the parents and after measuring the ‘normal’ behaviors of all children, the children were weekly visited by a dog and a handler. All visits were videotaped and scored by the personal caretaker, the child psychologist and the researcher. The results showed an important increase in positive affects (laughing, smiling) during the visits and an important increase in positive behaviors, such as playing with the dog, stroking the animal, reaching for the dog, approaching the dog with a part of the body. Staff noted the relaxation of the children that lasted after the visit.

The second study included 9 boys and 4 girls, aged 7 to 15, M = 10, 4, living in an institution. The children were suffering from autistic disorders, pervasive developmental disorders, mental retardation, attachment disorders, Gilles de la Tourette, epilepsy. All children were measured twice on the Connors Scale (1997), the Child Behavior Checklist (1996) and the SRZ (1994). All visits were videotaped and the personal caretakers were interviewed.

The results of the posttests showed changes: positive behaviors increased for 8 children.

The videotapes showed a lot of attention to the dog, an increased attention span, new behavior, new associations and a lot of fun. The care givers reported a generally better mood of the children during and after the visits. They noticed a longer attention span and more pleasure in an activity. The children were looking forward to the next visit.

Both studies proved beneficial effects of visiting dogs on vulnerable children.
A life-long companionship: the benefits of companion animals in the lives of the elderly

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The growing population group in the age bracket of 70 to 80 years is faced with many changes in different areas of life: changes in activities, living and financial circumstances, health, as well as with respect to the occurrence of disease and the death of friends and relatives. Social networks are likely to decrease on account of such factors. Social support is very important to minimize the detrimental effects of the above age-related changes on the quality of life of the elderly.

As was qualitatively measured (Enders-Slegers, 2000), companion animals fulfill some social provisions within a human-animal relationship: emotional closeness, reassurance of worth and the opportunity for nurturance (analogous to the social provisions that Weiss (1974) identified in human relationships). But, does this mean that companion animals can fill in network gaps and thus influence quality of life?

In a panel study (2 x 2 factorial design, elderly with/without partner; with/without companion animal), the overall wellbeing of elderly people as well as network variables and life-events were measured. The participants (N = 91, age 70 to 80) were recruited by a snowball method: 60 pet owners, 31 non- pet owners. Fifty-eight elderly were living without partner. All were living independently.

At both measurements subjective as well as objective health variables (Symptom checklist-90, Derogatis, 1977; Daily Living Activities, de Haes, 1988; Visual Analogue Scale subjective health) were measured. Depression (Geriatric Depression Scale, Brink et.al 1982) and loneliness (Loneliness Scale, de Jong-Gierveld & van Tilburg, 1990) were measured. Furthermore, structural and functional support (Komproe & Rijken, 1995) and the availability of support (Cutrona et al. 1984) as well as coping styles were measured (Utrechtse Copinglijst, Schreurs et al. 1993). Finally, life events were measured using an interview (second measurement).

At the first measurement no significant differences between the groups were found as to marital status, gender distribution, age, living circumstances, education, profession, or religion.

Significant differences were found in the network variables. Elderly persons without partners received significantly less functional and structural support from their network (emotional support Anova (F (3) =3.723 p<.01; practical support Anova (F (3) 6.360 p<.001); attachment Anova (F (3) = 4.409, p< .01). Using the Social Provisions Scale, it was found that the elderly without a partner experienced significantly less availability of support as measured on the ‘attachment’ scale (One-way Anova (F (3)= 4.409, p< .01) and on the ‘opportunity for nurturance’ scale F (3)=2.699 p=<.05).

It was expected that, following social support theories, elderly persons without partners would experience a significantly lower quality of life than the elderly with partners, caused by the lack of social provisions, delivered by the (human) network.

However: at measurement 1 as at measurement 2, no differences were found in the subjective and objective health variables, or in the levels of psychological health.

We concluded that apparently, companion animal do fill in network gaps, and thus influence quality of life of the elderly.
Animal Assisted Therapy as a relational support in pluri-disabled children rehabilitation

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A naturalistic study about the relationship between pluri-disabled child and dog

The target of the AAT program is to use in a natural way the contact and the basic intersubjective relationship with animals, specifically with dogs, to have a correct and complete global stimulation, creating forms and opportunity of physical contact and communication.

Subjects involved

School age and young children had been involved in the program. The children involved have deep mental retardation, Degenerative sensorial, motorial, and cognitive conditions, deep retardation also in communication, Interpersonal and socialization troubles.

Functions and procedures of Animal Assisted interactions

The most significant sights are about two different ways of using AAT:

- with the first group of children with deep motorial deficits, a functional improvement sight about the motorial point of view come up to the relational target. The children are able to realize motorial patterns schemi motori in relationship with the dog: embracing it, stroking it, combing it, etc. These motions are hardly repeatable during a physiotherapy treatment, but expressed in a easily way if stimulated by the intrinsic motivation, during the AAT pattern.

- An other group of children, wich have behavioural and social troubles, are introduced to an accompanying with the dog, and to learn to care about the dog and to operate the cleanliness of the dog. The target is to improve self-control forms mediated by the relationship with the dog.

Data collection and monitoring.

Direct and indiret check moments and periods of “reflecting team” are fixed, in collaboration with all the equipe, relative to all the collected video clips and to the observative data. The most significant indicators are the “Happiness Indicators”, that are examinations, done at regular intervals, about facial and motorial replies of the children during the AAT pattern.

Informations and prelusive results.

Searching for rehabilitative solutions wich give a sense to an educational program aimed to create a teaching opportunity and to a psycho-physycal end emotional good-healt, the physical contact sessions and the relation with the dog, rappresented a very positive motivation.

Positive behaviours during the contact and the relationship with the dog are, the reduction of the unadaptive behaviours, in particular of the riduzione stereotypies are underlined during the patterns with the dog. From the emotional point of view, the count of the “Happiness indicators” show a very considerable behaviours and very positive facial expressions.
Students of a University coordinate animal assisted activity for disabled children

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Many of Japanese now has understood the importance of interacting with animals because Japan is composed largely of elderly people. Japanese Animal Hospital Association (JAHA) has established an animal assisted activity (AAA) group called Companion Animal Partnership Program (CAPP) since 1986. Since then, AAA activities have spread out in a wide area of Japan but most of these are limited to around big cities or insufficient risk management activities due to lack of adequate coordinators of AAA.

Students of “Beedama” Volunteer Club (Beedama means marbles) at the University of Miyazaki annually visit a disabled children care center and assist in many activities, such as helping with homework, hiking, horse riding, and Christmas party. Although we wanted to start an AAA program for the children, there were many obstacles to start it. Based on the CAPP, we originally started an AAA program in which University of Miyazaki students acted as coordinators for AAA. The activities of the student AAA also include the invitation of new volunteers who have dogs and reside in Miyazaki Prefecture. Their dogs are required to take a suitability test for AAA by a dog trainer authorized by JAHA as an animal evaluator. Simultaneously, students in the Veterinary Public Health Laboratory of the Department of Veterinary Medicine in our University examine the dogs for the presence of zoonotic pathogens (Salmonella, Campylobacter, Helicobacter, and pathogenic Escherichia coli) in the feces of dogs after health screening tests which include vaccination by veterinarians. Only the dogs that passed all the tests are permitted to participate in the AAA. The dogs are required to take these tests every year for their renewal. Furthermore, our University provides financial support for the activities of the association. With these supports, we have been able to establish a network among students, dog owners, veterinarians, the University, and a disabled children care center visited. This AAA has been ongoing for the past 10 years without any accidents. It provides students with good opportunities for education and contribution to the local community through the AAA. It is very unique that students are able to play an important role through the AAA.
Rice Field Damage by Wild Boars in Hilly and Mountains Region of Hiroshima

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In Japan, wild animals caused an 18.7 billion yen of damage to farmland in 2005 of which wild boars were responsible for a quarter of the damage, especially to crop farmers in hilly and mountains region. Our objectives were 1) to examine rice field damage by wild boars and 2) to examine attitudes of farmers toward wild boars in Oasa, a hilly and mountains region in the northern part of Hiroshima. Eighty two percent of Oasa is covered by forest. The population is 3437 and 48% of them is engaged in farming. Eighty four percent of the farmland is rice field. The crop damage by wild boars has been obvious for the last 10 to 15 years in spite of vigorous hunting and trapping.

A field survey including an interview with farmers was conducted. The survey measured the types of the crops produced in each area, the level of damage by wild boars and countermeasures such as fencing. A questionnaire survey was conducted on 124 farmers of 7 villages around Oasa. The 4-page questionnaire consisted of 18 quantitative (closed-ended) and 7 qualitative (open-ended) questions; 16 questions related to farming status; 9 questions pertained to crop damage and its control.

Proportion of deserted rice fields and rate of invasion of the fields by wild boars were significantly higher in the valley near forest than in the fields near villages (P<0.01). Deserted fields in remote areas attracted wild boars for hiding, wallowing and resting. Wild boars used the creek covered by bush as a passage significantly more often than the creek cleaned regularly by farmers (P<0.01). Sixty six percent of farmers in this region were over 60 years old (11% were over 80). The villages suffered from a lack of manpower due to a pronounced aging, which aggravated the damage by wild boars. The farmers producing rice under the cooperative management reported significantly less damage to the crop by wild boars and less abandonment of the rice field than in the village without cooperative farming (P<0.01). The cooperative management of agriculture could be one solution to sustain rice production in hilly and mountain regions.
The Effect of Owner Weight Status on the Relationship between Owner and Dog

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As in humans, obesity is a common and dominant nutritional disease in the veterinary field (Markwell 1994, Buffington 1994). Previous work by Kienzle (1998) demonstrated that owners of obese dogs were more likely to anthropomorphise their animals by allowing them to sleep in their bed and talking to them more often. That study also revealed that owners of overweight dogs were often overweight themselves but this variable was not entered into the analysis. In humans, data show that if both parents are obese children have an 80% chance of being obese and if one parent is obese children have a 30% chance of developing obesity (Epstein 1996). These data however are confused by genetic susceptibility. The aim of this study therefore was to determine the effect of owner overweight on the human-animal relationship in lean and overweight dogs.

One hundred and twenty two dogs and owners were recruited. Owners and dogs were categorised into 4 groups (A: overweight owner with overweight dog, B: lean owner with overweight dog, C: overweight owner with lean dog, D: lean owner with lean dog) according to owner BMI and canine body condition score (BCS). Overweight was defined as a BMI of > 27 kg/m² and lean as a BMI of < 25 kg/m². In dogs, overweight was defined as a body condition score (BCS) of > 7 and lean as a BCS of < 5 using a well validated scale (Laflamme 1997). Each owner completed two previously validated questionnaires assessing psychological aspects of the owner-dog relationship (Bergler 1988) and approaches to health and nutrition (Kienzle 1998).

As with the previous study, our data showed that owners of overweight dogs (groups A & B) were more likely to humanise their dog, by rating talking to their dog, and having the dog in bed with them as more advantageous. Furthermore, the effect was stronger when the owners of the overweight dog were overweight themselves (group A). Lean owners with lean dogs (group D) were less likely to offer food rewards and more likely to feed their dog only once per day than overweight owners with overweight dogs (group A). Overweight owners (groups A & B) expressed less of an interest in nutrition and were more likely to choose a food type based on price and availability.

The results of this study are in agreement with that of Kienzle et al (1998) in that owners of overweight dogs have a tendency to anthropomorphise their pets and show affection through feeding. For a number of questions the weight status of the owner exaggerated the effect with the greatest differences between overweight owners of overweight dogs and lean owners of lean dogs. This may be due to overweight owners having a greater tendency to have overweight pets. In this study 69% of dogs recruited matched their owners weight status suggesting that the interactions between obese parents and children (Epstein 1996) that lead to increased risk of obesity may also be reflected in the owner pet relationship.
The Blue Dog Project - Scientific validation, worldwide response and need for further research

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This exciting and unique project is aimed at reducing the incidence of dog bites in children aged 3 to 6 years of age. The project is unique because the value of the CD as a learning tool in children of the target age group has been scientifically assessed.

The hypotheses to be tested were:
1. The presentation of selected extracts of the Blue Dog CD in standardised settings to children of 3 to 6 years of age would induce a learning effect.
2. The lessons learned by the children would be transferred to new situations.

In addition, it was intended to investigate the effect of verbal feedback on the learning process, as well as the influence of parental support.

Children of 3, 4, 5 and 6 years of age (approx 24 children in each group) were tested within schools in Lincolnshire, UK, as well as using the Intermodal Preferential Looking (IPL) method at the purpose built Infant Lab at the University of Lincoln. A specific interactive learn and test CD module consisting of 8 different 10-second clips was adapted from the original Blue Dog CD.

Children were exposed to the appropriate scenes (exposure phase), then trained how to distinguish safe from unsafe situations (training phase). Finally they were tested, immediately and again after a delay of 2 weeks (testing phases 1 and 2).

The study showed:
1. All age groups showed learning effects (ie significant improved performance) between the exposure and test phase.
2. The learning performance improved with increasing age
3. Parental input enhanced the learning
4. Children retained knowledge until test phase 2 (ie after 2 weeks)
5. Verbal feedback at the time of testing did not have a significant effect

Since the launch of the English language version, partnerships have been forged with many national companion animal veterinary associations to ensure the translation and distribution. Versions in French, Spanish, German, Italian, Dutch, Norwegian, Danish, Czech and Serbian are being produced. Discussions are also on going to adapt the English version for the USA, Ireland, Canada and Australia. It is intended to stimulate the formation of multi-discipline groups within each country to promote the programme and to set up a communication network between them.

The project is managed by THE BLUE DOG TRUST, which is registered as a non-profit making organisation. All surpluses made from royalties received from the sale of the product will be used to fund further research and development. This research can be broadly classified into:

1. Further investigations into the efficacy of the existing CDROM and Parent guide
2. Investigations into aspects of child behaviour that might trigger bites

The study of the trigger factors that initiate bite incidents in other cultures and the development of appropriate educational tools for these situations.
Many concerns have been raised about humans having sexual relations with animals. Recently, it has been discussed in several countries to make this practice illegal. Indeed, certain activities of this kind may cause animal suffering. However, some sexual activities are unlikely to cause harm and based on current knowledge about animal sexuality it may be reasonably assumed that some even involve a positive experience for the animals involved. Presently no research seems to contradict this assumption. The focus of this presentation is to explore the challenges which negative reactions to zoophilia, even when expressed in non-harmful sexual relations, present in relation to understandings of animal welfare, respect for animals and human-animal relations.

Viewed in the light of general developments to improve animal welfare the complete rejection of sexual relations with animals seems paradoxical. A key idea in improving conditions for animals in human care is to allow them to express normal behaviours, one of which could be sexual behaviour. That a behaviour is performed with a human rather than a member of the same species seems to be irrelevant in the context of many other human-animal activities. And even if the activity requires some training of the animal, this too seems acceptable in other situations as long as the training method itself is not causing a welfare problem. Furthermore, the fact that some forms of a practice hold a risk for animal welfare or may even be considered a form of abuse seems in other circumstances an insufficient ground for a total rejection of all related activities. Why then, is it not acceptable e.g. for the owner of a male dog to allow the dog to mount him or her?

Answering this question challenges common understandings concerning animals in several ways. This may have implications for the perception of what behaviours animals should be allowed to perform, what it means to treat animals with respect, and what roles animals should play in the lives of humans. Many commonly accepted beliefs and practices might require some explanation and justification if the same rigour of arguments is being called for in discussions about the general keeping and use of animals as in critical discussions about zoophilia.

Thus, reflecting on arguments relating to zoophilia may at the end of the day pose a challenge to the general acceptability of keeping and use of animals. Usually hidden conflicts regarding different views of animals themselves and acceptable practices concerning animals are made transparent. Such conflicts may be acknowledged and accepted as an inherent part of the diversity of human-animal relationships. Or they may warrant further reflection to obtain a consistency of thought. In the latter case, one may on pain of inconsistency have to face the dilemma of either questioning some common practises of animal keeping or accepting certain human sexual activities involving animals.
The Dog Bite Problem: Application of Breed Specific Laws in Italy

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Dog bites represent a significant public health issue. Over the years, newspapers and news broadcast across the Italy have reported on injuries inflicted by dogs on humans or other animals. The attacks have occurred in a variety of situations: organized dog fighting, responses of dogs to mistreatment, dogs acting as attack or guard animals, and etc.

In an attempt to curtail these types of attacks, government officials have adopted a number of measures, including licensing laws, statutes that outlaw organized dogfights, and leash laws.

In recent years, however, local governments have taken on a new tactic for eliminating dog aggression, directed toward one or more specific breeds of dogs. In particular, the law governing is focused on breeds traditionally known as “dangerous”, or those that have demonstrated particular propensities for aggression and violent behaviour.

A number of breeds have been restricted or banned, including Rottweilers, Pit Bulls, American Bulldogs, etc., and the list is growing.

The promulgation and implementation of laws and/or ordinances that ban specific breeds have become hotly debated topics.

Judging and outlawing particular breeds as dangerous will not result in a responsible approach to protecting community’s citizens. In fact, it is important to underline the importance to inform governments that statistics on fatalities and injuries caused by dogs cannot be responsibly used to document the “dangerousness of a particular breed”, relative to other breeds’ in the interests of the public health and breed.

The development of educational dog bite prevention programs would benefit to be coordinated, funded, and conducted with the participation of all those involved in the well-being and education of both the citizens and the animal. In that way, the collaboration between human and animal health care practitioners might represent an important contribution in reducing the frequency of dog-bite attacks against people.

The Authors will describe the law, the legal questions which have arisen surrounding this type of legislation, and proposals for addressing the problem of canine aggression without infringing on the rights of dog owners and community members.
PAPD - Pet Assisted Personal Development for Leaders

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PAPD is a powerful practical program for developing personal soft-skills through the interactive work with horses. Clients are usually in leading positions in different areas, such as business, social services, or education.

In PAPD, the horse serves as a mirror for life-goals or business situations. Horses are able to read people instantly and instinctually. They react directly and objectively to people's emotions and actions. The horses' reactions help the participants to better understand their inner self and reflect on their nonverbal communication. The participant practically experiences which actions lead to success and which once are unsuccessful. Due to the possibility to repeat a task in the training, he can develop his own individual solution for the given situation.

This new group-administered training proved very promising in practice, producing strong and long-lasting effects with regard to behavior changes by combining different levels of feedback from the horses with the interpretation of the horse sense by the trainer and additional feedback from the other participants. The main focus of this program is on understanding the own personality, behavior, motives, strategies, self-perception and impression on others, teamwork, and work-life-balance. An advantage of this program is that prior experience with horses is not necessary. Most activities are based on leading the horse on the ground instead of riding the horse. Thus, the program can be attended by persons without horse experience or even a special relationship to horses or animals in general. Another advantage of working with horses in comparison to other animals lies in their impressive size and power - other than in human-human interactions, especially in a tough business environment, intimidation or similar techniques are not an option.

Example Program Module "Leadership":

Horses naturally embody the essential qualities trust, authenticity, confidence, intention, and intuition. Horses rely on their highly tuned instincts to survive. They are intelligent herd animals that flee when in danger, following a leading horse. Thus, they are masters of identifying and following horses as well as persons with leadership qualities. They instinctively challenge weak leaders and are not impressed by status symbols or achieved positions, giving more objective and honest feedback than many "human-only"-trainings. Horses teach persons to be clear in communicating what they want at any given moment in a congruent manner.

PAPD has been used as a training method for managers in Germany since several years and has been developed by professionals in horse handling, education, and management training. Horses used are mainly very large breeds such as Shire Horses, Friesen, and Andalusians. The program can be booked as weekend or full-week seminar and is held in four locations in Germany and one in Spain. Since the start of the training in 2005, persons of various diciplines have participated in this program.
A number of studies have investigated benefits of interacting with people and companion animals in fostering socialization. This study was conducted to understand the mechanisms underlying the effects of animal assisted therapy for adult with mental retardation in vocational education class to foster socialization.

Twelve adults in vocational education class (10 men, 2 woman) diagnosed with mental retardation participated to the study (mean age = 19.2 ; range from 18 to 24). Each subject participated in 12 AAT sessions, held every week with the same volunteers and dog. A total of 6 teams, comprised of 6 volunteers, an AAT coordinator and 6 dogs (a Pug, two Shih Tzus, a Maltese, a Dachshund and an American Cocker Spaniels) conducted the sessions. The following human nonverbal categories were coded : reaction with dogs, relationship with dogs, participation, interest, communication, interpersonal relation, cognitive ability, perception of movement, and upskilling on repetition.

This study used a behavioral observation approach to compare rates of occurrence and identity of initiator for two aspects of social interaction, conversation and touch that were found to occur naturally during animal therapy activities at mental retardation facility. The study was designed to be as natural as possible, rather than creating an artificial experimental situation.

The outcome was observed by volunteers and AAT coordinators before and after the visits. The first results demonstrated an improvement in various categories with the patients examined in the presence of a dog as opposed to the base-line results. A particular improvement in communication and interpersonal relation were noticed.

The adults receiving AAT were found to socialize with others and were seen to be smiling and clearly demonstrating pleasure in their activities. These findings support previous works in mental retardation facility. These positive behaviors are traditionally viewed as improving the effectiveness of therapy.
New Approach to a Healthy Lifestyle: The Impact of Dog Ownership on Physical Activities and Risk Factors for Cardiovascular Disease

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Previous studies have shown evidence of a relationship between pet ownership and owner’s health status. Some previous studies involving the effect of dog ownership suggested that dog walking was a good strategy for healthy lifestyle for both humans and dogs. However, little is known about effect of dog walking on amount of physical activities and her risk factors for getting cardiovascular diseases. The purpose of this cross sectional study was to examine whether dog ownership increases amount of physical activities and reduces cardiovascular risk. Risk factors for cardiovascular diseases and amount of physical activities were obtained in 719 participants (aging 22-88, 85% response rate), who agreed to be the subjects at the time of health check-up at Ogano Central Hospital in Ogano Saitama, Japan. We extracted subjects who aged 40-69, some were owners and the main carers of their dogs (dog owners) and others were not pet owners (non-owners). Sociodemographic data, including pet ownership, and measures of physical and behavioral health status (including body mass index [BMI], alcohol and cigarette consumption, and amount of physical activities) were collected from both dog owners (n=91; male=52, female=39) and non-owners (n = 321; male=171, female=150). We also obtained their risk factors for cardiovascular diseases (blood pressure, plasma cholesterol, triglyceride, and blood glucose). We used group descriptive statistics and analysis of covariance procedures conducted on SPSS statistical software to describe the differences between dog owners and non-owners in each sex. Among men, dog ownership significantly increased energy cost of exercise. Among women, dog ownership significantly increased not only energy cost of exercise but also energy cost of leisure time physical activities. However, no significant difference was observed in total energy expenditure between the two groups in either sex. The prevalence rate of risk factors for cardiovascular diseases did not show significant difference between dog owners and non-owners in either sex. We concluded that dog ownership benefited for increasing the amount of exercise and/or leisure time physical activities. However, no evidence was found that dog ownership per se was associated with cardiovascular health status in our subjects, possibly because of no significant difference in total energy expenditure between dog owners and non-owners.
The Role of Medical Institutions for Users of Guide Dogs

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Purpose: A survey was conducted to assess the awareness of doctors in medical institutions, especially dialysis and ophthalmology clinics, regarding guide dogs. Medical doctors and coworkers were found to have a lack of interest in guide dogs.

Method: A questionnaire was sent to 122 dialysis clinics and 15 ophthalmology clinics about guide dogs. The contents of questionnaire were as follows.

1. Do you know what a guide dog is?
2. Have you ever had a patient with a guide dog? What was the patient’s disease?
3. Have you ever advised visually impaired patients to use a white cane?
4. Have you ever advised visually impaired patients to use a guide dog?
5. Do you know about ophthalmologic rehabilitation workers?
6. Do you know facilities that conduct training in walking with a white cane?
7. Do you know facilities that conduct training in walking with a guide dog?
8. Please describe your ideas on how to support visually impaired patients for independent living.

Results: Sixty-nine responses were received from doctors at the 122 dialysis clinics (56.5\%) and 6 ophthalmologists at the 15 ophthalmology clinics.

1. All medical doctors knew about guide dogs.
2. Two patients had visited hospital with guide dogs. One was in a dialysis hospital and one was in an eye clinic.
3. Four doctors in dialysis hospitals and 5 of the 6 ophthalmologists advised visually impaired patients to use a white cane.
4. Only one doctor advised visually impaired patients to use a guide dog.
5. Sixteen among 69 respondents knew of the job category Ophthalmologic Rehabilitation Workers.
6. Seven among 69 respondents knew a walking training facility for people with acquired visual impairments. Four of them were ophthalmologists.
7. Eleven of 69 doctors knew a facility that taught walking with a guide dog.
8. One doctor at a dialysis clinic responded that he had 2 patients who were totally blind, but they were old and well taken care of by their families and so he did not recommend the use of a guide dog. Among ophthalmologists, one said that ophthalmologists in general needed to be educated about daily living training for low vision patients, and need more information on such training facilities.

Discussion: Until 2003 guide dogs were only permitted on roads or public transportation. With the Service Dog Law of 2003 guide dogs were permitted in many public places and should have become more widely accepted by society, but even so public awareness remains weak. The fact that only two of the respondents in the present survey had patients who visited the clinic with a guide dog, even though guide dogs are permitted by law at hospitals, indicates the lack of general awareness. Doctors need to have a better understanding of guide dogs, and be made aware that they are clean and safe and do not pose a threat to public health. Doctors should then play a greater role in letting patients know that it is acceptable to bring guide dogs to the hospital with them.
A report about the effects of animal assisted therapy with apallic syndrome patients

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This project deals with the possibility to visit patients with apallic syndrome with a dog to implement animal assisted therapy. The trustworthy nature of an animal, in this case a dog, its unpartiality and its empathy made it possible to establish less complicated and faster contacts, which is especially important for patients with this syndrome to find a way back to themselves and to their environment.

5 Patients with apallic syndrome were visited once a week for 8 months. Three Patients showed solely statistically significant positive results.

Patient 1 showed five parameters that changed in a positive way: Increased eye contact, more general verbal expression, more frequent positive mimic and aimed body movement and more laughter. Patient 3 achieved more aimed movement with arms and hands and showed more frequent laughter. Patient 5 had four positive parameters that changed statistically significant during the visits: Articulation, general verbal expression, more frequent positive mimic and more relaxation.

Two negative significant changes were measured in the behaviour of Patient 2: less verbal expression and more aggression. These effects were observed at the beginning of the visits when he articulated refusal against the new therapy. Later he began to answer with “Yes” and “No” more clearly, became quite skilled at feeding and stroking the dog and aimed body movement and relaxation of Patient 2 increased statistically significant.

No changes of parameters were measured in the behaviour of Patient 4, she showed almost no clear reactions.

Since patients with apallic syndrome make very slow progress due to the severity of their disability, the duration of 8 month for this project was relatively short. Nevertheless do the successes of the individual patients show that animal assisted therapy can be a meaningful addition to other therapies for persons with apallic syndrome.
Risk management associated with animal assisted therapy and animal assisted activities

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This paper offers an overview of currently applied measures of risk management as well as suggestions for planning and application of adequate procedures. Due to the complexity of animal assisted therapy and activities no uniform procedures are yet established.

The development of a basic standard in risk management modelled after methods that are already used in other areas, as well as methods to create project-specific risk management plans should offer a simplification for all persons who work in this occupational area.

Risk management should be understood as continuous process in which through joint actions that are taken by all involved institutions and persons, synergy effects are created in terms of client security.

Which variation on dealing with risks is chosen, depends on the particular scale of the project and can range from a simple evaluation to the creation of a complex risk management plan.

The increasing numbers of persons that are involved with animal assisted therapy offer a good potential to assess and rate possible risks and to take necessary precautions.

Especially projects with geriatrics, sick persons or persons with special needs require a high sense of responsibility.

Transparency, openness, honesty and speaking about possible problems provide security, demonstrate responsibility and are the base for the positive recognition of animal assisted therapy and activities in the public.

Currently various measures are already in place in different areas to achieve high security standards, but the establishment of recognized standards in this occupational area could consolidate the picture of this professional group in the public. This potential should not be unused.
Responding to the rapid demand increase for livestock products in Japan, the livestock sector expanded domestic production by realizing technological progress characterized by highly intensive and land-saving with imported concentrates. Particularly factory type (so called “all-in-all-out” type) cage raising system is common in the poultry sector in Japan. Intensification by factory-type feeding with high nutritious concentrates in the narrow space cage caused the problems such as the deterioration of the hygienic condition and animal health, animal wastes etc. Recently, consumers have recognized the consciousness to “Animal Welfare”(AW). Consumers tend to prefer safe and healthy grown eggs. Thus, in this context, consumers begin to concern about the AW in Japan which is already one of the common preference standards in EU community. Japanese livestock sector is thus confronting to adapt AW-raising technology as a technology Standard.

The purpose of this study is to obtain information about consumers’ preference to AW raising eggs (AWRE). In other words, our question is whether if consumers show the intention to purchase AWRE, additionally priced eggs, because AW-raising decreases productivity. Without consumers’ preference to AWRE, hennery can not afford to introduce AW-raising technology.

Because the table egg is one of the most common animal products served almost every day in various ways and, thus, consumers may be sensitive to AW. The results would provide useful information for designing the “Japanese type animal welfare standard”. The special attention was placed on consumer’s knowledge of AW. It is our hypothesis, that consumer’s consciousness about AW is quite dependent to the knowledge accumulated specially at an introductory stage of AW. Information content obtained may be another important factor. Positive views beyond fact-knowledge information are postulated to be an effective factor to consumers’ preference forming.

The conjoint analysis is applied to estimate consumers’ willingness to purchase. Two types of questionnaires are provided: (a) the case simple explanation about the concept of AW and AWRE and (b) additionally given information about positive effect of AWRE.

The results are as follows. The commodity value as a marginal willingness to pay per pack for AWRE is 105 to 155 yen higher than the traditional cage raised eggs at the case of (a) and 145 to 155 yen higher at the case of (b). Consumers usually buying relatively expensive eggs, aged consumers, consumers having children, and consumers recognizing AW tend to value AWRE higher.

According to our results, (a) AWRE showed higher commodity value potential in Japan, (b) well explanatory information with positive view about AW and AWRE is effective way to expand AWRE. Designing and feasibility evaluation of AW-raising technology is a next step of our study.
Dyadic temporal interaction structure between owners and cats depends on age, sex, and personalities of both owners and cats

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Analysis of the temporal structure of behaviour and interactions has recently become possible via THEME-Software (Noldus). This is particularly exciting given the likelihood that time-patterning of mutual interactions is one of the main characteristics of any social dyad. In parallel, comparative ethology has revealed a striking socio-cognitive convergence in mammals. Accordingly, humans and their companion animals apparently form interspecific social relationships characterized by a variety of interaction styles, as is the case in human dyads. We predicted detection of patterns of temporal complexity within dyads that would be specifically related to the personalities of the human and cat partners. Furthermore, we expected that owner-cat dyadic interactions would increasingly “ritualize”, i.e., show an increase in temporal complexity, over time. Forty cat-owner dyads (one cat per household; 25 males/15 females: 10 men/30 women) were each visited four times at around feeding time. Cat-owner interactions were videotaped and all observable behaviour and owner-cat interactions (total 218 variables) were coded into OBSERVER (Noldus Video Pro). The resulting strings of behaviours were submitted to THEME analysis, which yielded rich information on the temporal patterning of dyadic behaviour. In addition, owners completed the NEO-FFI personality test. Cat personality profiles were obtained from analysis of behaviour during test situations (reaction to a novel object and being picked up by owner and an observer) and from observer rating. We found significant relationships of THEME parameters (i.e., time structure) to owner and cat personality, to cat sex, and particularly to the length of time the owner and cat had been together as a dyad. For example, the higher the owner scored in neuroticism (FFI domain 1), the less temporal patterning was found within the dyads and the less structured were these patterns; the more agreeable (FFI domain 4) the owner, the more interactions initiated by the cat. Also, contrary to expectation, temporal patterning of owner-cat interactions was most complex at the beginning of a dyadic association and decreased significantly after two years. It would appear that “luxurious and unnecessary” interactions between partners decrease with increasing mutual familiarity. This finding is consistent with studies of communication in long-term human pairs and may apply in general to long-term dyadic partnerships in vertebrates. Human-animal interactions could therefore provide new research opportunities into the social organization of vertebrates, humans included.
Animal-assisted Interventions In Inpatient Child Psychiatric Services: A Nationwide Survey in Germany

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Up to 20 % of all children and adolescents worldwide suffer from psychological disorders (WHO). The high prevalence of mental disorders in this age group requires sufficient psychotherapies well adapted to their specific needs. From a holistic perspective it seems sensible to embed animal-assisted therapies (AAT) in the multimodal treatment of children with psychological disorders. This study investigated for the first time the current distribution of pets and animals in inpatient child psychiatric services in Germany and explored possible barriers.

All 168 clinics and departments of child and adolescent psychiatry in Germany were asked to participate. We developed a multiple choice questionnaire and addressed it explicitly to the chief physicians and hospital managers as they play an important role in the integration of AAT in a clinical setting. The multiple choice questionnaire contained 14 items pertaining to existing application of animals in any therapeutic context and 3 concerning possible objections and barriers to the implementation of animals in child psychiatric facilities.

62,5 % (105) of the institutions responded. In 67 hospitals (at least 39,9 % of all child psychiatric hospitals in Germany) animals are a part of the psychotherapeutic treatment of children. 59 hospitals offer animal-assisted therapy*, 25 offer animal-assisted activities* (AAA) and in 25 hospitals pet keeping is allowed (multiple responses possible). Clinicians favoured horses in therapeutic settings (89,6 % of all AAT offering facilities), followed by fish (25,4 %), dogs (20,9 %), rodents (13,4 %), cats (9 %), birds (7,5 %) reptiles (3 %) and livestock (cattle, goats, sheep and donkeys) or wild animals (deers, 11,9 %).

35,2 % of the participating hospitals responded that they don’t integrate animals or pets currently. The objections to AAT were divided in those institutions which were principally interested in AAT and those which rejected the use of animals in their psychotherapeutic treatment. The latter group is influenced by individual attitudes towards AAT.

For those clinicians and managers principally interested in AAT the most relevant obstacles were 1st financing, 2nd lack of appropriate animals and handlers and 3rd hygienic requirements. Chief physicians who were principally against AAT or AAA were worried about hygienic (1st rank) and healthy risks (2nd rank), didn’t know or feel well enough informed about this specific therapy (3rd rank).

Horses and dogs are predominantly used in animal-assisted interventions, more than 2/3 of them following a specific training. More than the half of AAT offering institutions comply with the recommendations for AAT and AAA of the Delta Society. These programs are usually offered once a week to nearly 20 % of all children and adolescents in inpatient treatment regardless of their diagnosis. Finally we also asked the raters to assess the efficiency of animal-assisted programs in their clinic. 63 % of the chief physicians evaluated the interventions as medium effective and 22 % as highly effective. Only 6 % evaluated the programs as low effective and no one as “without any effect”.

*According to the definition of the Delta Society 2004
The role of a service dog trainer course in a vocational college

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Since the enactment of the Law Concerning Service Dogs for Persons with Disabilities in 2002 in Japan, an increase of activities in this area can be expected. There has been an increase in young people aiming to become service dog trainers. However, there is currently no official certification program for service dog trainers in the country, nor is there a standard curriculum for educating such professionals. At the present time, those wishing to become service dog trainers study in various institutions including organizations, corporations, private bodies, and vocational colleges that offer courses in dog training and service dog expertise.

This paper focuses on a program being offered in a vocational college, and attempts to clarify the role that a service dog trainer course may play in the general scheme as well as to analyse how the curriculum for such a course should be set up.

In order to do this, questionnaires were given to 15 graduating students of the 2 year curriculum of the said school. The numbers are necessarily small as systematic education in this area is still a new concept in Japan and still in its experimental stages.

The results of the questionnaires indicated that over 50 percent of the students felt that the current curriculum was an effective and efficient way to obtain knowledge and skills pertaining to service dogs as well as to animals in general. More than half the students also stated that the image they had earlier of a service dog trainer had changed dramatically, mentioning especially the need to be well versed on matters concerning human welfare and disabilities. The overall results of the questionnaire indicate that the current curriculum and the 2 year training course is an effective preliminary tool for preparing solid, high quality candidates for a professional service dog trainer education. This is confirmed by the fact that more than half of the graduating students expressed a wish to participate in supportive activities for service dogs but not necessarily limited to training. In other words, the 2 years served as a screening period during which aptitude and skills could be identified.

This study is merely a preliminary study focused on a single educational program, but a continuation of this endeavor will help to identify how a screening, training, and educational system should be set up for maximum efficiency in output of high quality service dog trainers.
A comparison of attitudes towards dogs: A study of articles and advertisements in Japan and UK dog magazines

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Introduction
The UK has a long history of keeping dogs (Thomas, 1983). In contrast, in Japan dog ownership has become popular only in the last decade. The reasons for ownership and the roles dogs play in these two cultures may be different. Being fashionable is considered more important in maintaining individual status in Japanese society than in the UK. In Japan pet ownership has its own fashion trends which are avidly followed. This can be detrimental to the welfare of individual animals. It is hypothesized that in Japan dogs play a predominately projective role (Veevers, 1985). In contrast, in the UK dogs are considered to play a surrogacy role (Veevers, 1985). The current study aimed to investigate these potential differences through content analysis of articles and advertisements from Japanese and British dog magazines.

Methodology
Three Japanese and three British popular magazines for dog owners were used for analysis. Each quarterly issue (12 UK and 12 Japanese) was analysed, covering the four seasons from summer 2003 to spring 2004.

Results

UK magazines had more articles and advertisements concerned with dog welfare; dog orientated activities, owner responsibility and owner personal stories, care information and rescue/rehome concerns. Japanese publications had more content relating to human orientated social aspects of ownership such as fashion accessories for dog/owner, venues where owners could socialize and take their dog. The findings suggest that dogs act as social lubricants, facilitating interaction between owners, in both the UK and Japan. They also support the hypothesis that dogs play a predominately projective role for Japanese owners and one of surrogacy for UK owners who consider them companions and friends, and are concerned with their welfare.

Conclusion
For the UK owner dogs are treated as close companions. This has had many social outcomes; the setting up of rescue centres, developments in dog breeding and training and legislation protecting the welfare of both dogs and the public. The rapid economic changes and westernization of Japanese society has not nurtured the same degree of development of a mutually beneficial relationship between dog and owner, nor served to engender respect for the dog as a species. Rather, magazines portray dogs as useful, accessories in projecting a successful and appropriate image. This has important implications for animal welfare in Japan and highlights a need for education programmes regarding the responsibilities, and emotional benefits of dog ownership. The study also suggests avenues for further research into the role of pets in societies that are culturally different from the West and that are undergoing rapid change.

References

How We Can Provide Today's Mental Care According To Our Research

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Our hypotheses are the following;

1) Respect for animals is lessening.

2) Distances between human beings grow while relationships with pet grow closer.

3) The concept and experience of animals healing human beings exist: however, “animal-assisted therapy” and “pet loss” are unknown.

About the research;

Focus Group: 264 Japanese respondents

Time Span: November to December 2006

Methodology: Distribute and collect questionnaire

Results and our views:

1) According an old Japanese tale, animals are gods; therefore, animals can come to be more than or equal to human beings. For hypothesis 1, the majority disagrees. 53% No and 47% Yes is mostly even, thus Japanese think animals equal to human beings. However, most people would be reborn as human beings.

2) With regard to the population survey, the number of pet dogs goes up in single households. Regarding animals, 56% described their relationship with a pet as “Family” / “Partner”, and such definitions are not restricted to human beings. Human relations weaken while human beings expect healing from animals.

3) 89% keep animals and 82% feel healed by animals. They have beliefs and experiences of animal healing human beings. 62% knew of “animal-assisted therapy” but “pet loss” was only familiar to 39%.

Overview;

As human relationships weaken, the animal relationship becomes stronger. However, problems can be seen, such as a lack of understanding of animals and excessive reliance on the animal. Moreover, if the person has strong expectation of healing, they might be at risk of pet loss. To reiterate, we human beings should learn about the value of animal’s life from them.
Social competence parallels interest in animals in preschool children

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Although humans are generally biophilic, interest in animals varies substantially among individuals. Interest in animals may compensate for deficits in individual social competence (compensation hypothesis). Alternatively, socially competent individuals interested in contact with other humans may also be interested in animals (social competence hypothesis). Because children may still be relatively spontaneous in their interest in animals, we investigated relationships between age, sex, family background, play relationships and personality components of children with frequency and quality of their contacts with rabbits and tadpoles. Governmental and parental consents were obtained. Data were taken in a kindergarten where 50 children (22/28, 3-6 years of age) had free access to six rabbits well-habituated to humans and to an aquarium with tadpoles for a few hours each day. Children could only watch the tadpoles, but could handle and feed the rabbits as well as observe them. The children were supervised and instructed in treating the animals adequately. All animal contact was videotaped over 9 days distributed over 2 months. Behaviours were coded from these tapes by use of OBSERVER (Noldus). Play Interactions between children during the morning free play period were coded on a check sheet using a modified ad-libitum sampling technique. Ratings of personality features of the children were obtained from teachers who knew them. Parents also contributed information via questionnaires and were kept informed about the project. We found that young girls (3-4 years of age) spent more time with < close to the rabbits than boys of the same age. The less often girls played alone, the more contact with rabbits they had. The more boys were rated as gregarious by teachers, the longer they were occupied with rabbits; the more group-oriented the girls were rated, the more intensely they were interested in tadpoles. In particular, the “opinion leaders” among the boys frequently stroked the rabbits. Also, boys were often involved in providing greens to the girls, who then fed these to the rabbits. Much of the boys’ activities in connection with the rabbits were “technically” oriented, e.g., assisting in cleaning enclosures. Children with no pet animals of their own tended to seek more animal contact than did children who had pets at home. By and large, our results support the “social competence” hypothesis in that the group-oriented children were also especially interested in and engaged with interacting with the animals. This finding is additionally supported by the fact that the few children who rarely played with peers also seldom sought animal contact. Our study indicates that contact with animals and social interactions involving animals may be regarded as a basic need, particularly of young children.

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**Human animal sexual interactions: a predictive model to differentiate between zoophilia, zoosexuality and bestiality**

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The human animal bond has been portrayed as loving, both in a figurative sense and in a physical and sexual context. Historically, human animal sex was described as sodomy or bestiality and viewed as either a sin against God or, later, as a mental illness. Today neither description is considered accurate. ‘Zoophilia’ is the recognised term describing human animal sex (DSM 4th ed. APA 2000), and the practice is considered a paraphilia. This definition carries no moral judgement. However, the term Zoophilia has been used to describe horrific cases of human animal sexual abuse and, consequently, the forging of a link with child abuse (Munro and Thrusfield 2005).

**Methodology**
In 2006 UK animal welfare, legal, veterinary and psychological organisations were surveyed for their attitudes and policies regarding bestiality and zoophilia.

**Results**
Some organisations declined to respond, or indicated they had no policy. Where policies did exist, they did not differentiate between bestiality and zoophilia.

**Development**
Elements of empathy and attachment are often described by zoophiles as components of their interspecific relationships. This has led to a distinction being made in the literature between zoophilia and zoosexuality (Beetz, 2005; Miletski 2005). The current study led to the development of a predictive model, differentiating further between zoophilia, zoosexuality and bestiality. It is suggested that these differences are predicated on underlying individual levels of empathy, attachment and sexual attraction. It is considered that zoophilia is an attachment based relationship, zoosexuality is a sexual orientation and that bestiality occurs in people whose sexual orientation may be predominately directed to other humans.

Psychometric scales can be used to plot individual scores rated high/medium/low for:
1: Empathy to humans  2: Empathy to animals
3: Attachment to humans  4: Attachment to animals
5: Sexual attraction to humans  6: Sexual attraction to animals

It is hypothesised that an individual’s 6 dimensional score could indicate a preference/likelihood for human-animal sex, and differentiate between type. The model is descriptive, does not indicate causation and is not judgemental.

**Conclusion**
It is suggested that this hypothetical predictive 6-dimensional model may assist in providing deeper psychological understanding of human-animal sexual interactions. This in turn would lead to clearer legal interpretation, judgements and outcomes for those individuals involved, thereby engendering positive influences for both human and animal welfare.

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"Minimizing or diminishing the child's feelings over the loss or impending loss of a pet can cause the loss to go unresolved for many years. Avoidance, outright lies, and trivializing the significance of the loss can all have devastating effects on children." (Barton-Ross & Baron-Sorensen, 1998:79).

This poster presentation provides a unique insight into the experiencing of a six year old child as he struggles to understand the sudden death of his dog, Star. Using the child's own words to describe feelings and cognitions associated with his experience of loss, a theoretical and practical overview is also integrated to reveal how this first hand child's account is now being used to develop an innovative grief education programme in schools in the UK. In an effort to protect children from experiences of emotional pain adults often keep them from witnessing the terminal illness or death of a companion animal. Children can also be left out of after-death body care and burial/cremation of a much loved animal, which can leave them with a lasting sense of incompleteness which may inhibit processing of this loss. A child may feel confused, abandoned and frightened as a direct consequence of not being involved in the end stages of a companion animal’s life, the death event, after death body-care and rituals for remembrance and respect. This avoidance by adults of talking about or exposing children to death also results in the loss of many “teachable moments,” times when the foundation for developing coping strategies in relation to grief and loss could have been put into place. Companion animal death presents such an opportunity, particularly as companion animals can be related to and viewed as important family members.

Beautifully illustrated, this poster enables entry into a child’s private grief-world, mapping this individual journey of loss, identifying coping strategies put into place by the child’s parents. This journey begins with the significance and role of remembering Star, involving the child drawing some of the good times spent together as a memorial to his personal experience of the human-companion animal bond. The importance of remembering Star’s favourite things and activities and the continuance of a child’s love for his dog is illuminated through these drawings. The journey continues from the first visible onset of disease to the visits to the veterinary surgery where Star eventually dies. Difficult issues such as body care options are explored developing a basis for explaining concepts such as cremation of a companion animal's dead body, to children. Family rituals of remembrance which for this child involve playing a game of football of New Year's Day, illustrate the crucial role of the parent/carer in modelling coping strategies for companion animal bereavement. This poster presentation provides a deeper basis for understanding the reactions of children and young people to companion animal death and comprehending children's possible psychological representations of animals. It also introduces the concept of integrating children’s own narratives of experiences of companion animal death into grief education programmes in schools from an early age.
Green Care Farming in The Netherlands

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Introduction

The phenomenon of Green Care farms is growing rapidly in many European countries and especially in The Netherlands. Until the 1990s most farms that combined agricultural activities and care were organic farms. In recent years the percentage of traditional agricultural farms participating is increasing rapidly (from 75 in 1998 to 700 in 2006). At the moment, the number of Green Care farms in The Netherlands is estimated approximately 700, where 10,000 clients over the whole country are cared for. The yearly turnover is estimated to be 40 million Euro.

Development of Green Care farming in The Netherlands

Different target groups work and/ or live on Green Care farms. In the 1990s the main target groups were mentally challenged people and psychiatric patients. During the last years a shift to other target groups can be noticed; those are elderly people (with or without dementia), people with an addiction history, people with burn-out, long-term unemployed, children, (ex)prisoners, or homeless people.

On most Green Care farms clients are offered a worthwhile daytime occupation, work training and/ or a sheltered place to work. There are also farms that offer participants a place to live.

The clients may participate in a variety of agricultural activities, depending on their possibilities and on the farm type. Poultry, cattle and small livestock are the most common animals on Green Care farms and many farms have horticultural activities and a farm shop.

What began mainly as an idealistically motivated trend among some anthroposophic farmers is now developing into a professional sector with regional and national support centers and a quality system.

Research

Practical experience and an increasing number of empirical scientific studies show continuously positive results on different levels.

(1) For the target groups: Working and/ or living on Green Care farms can improve as well the physical, psychological, and social health and well-being of the target groups. A farm provides structure, space and working possibilities differing in type and demands. Working with animals and plants has a special quality because they are living creatures and working outside increases the contact with the seasons and with nature. Clients also mention that they appreciate Green Care farms because the atmosphere differs from a health institution’s. The farmer acts as their role model to show them a positive and useful way of living. Clients express that they are his co-workers and part of a social working community instead of a client with limitations.

(2) For the farmers: New sources of income and employment are found for farmers and the whole rural area. Agricultural activities are reintegrated into (urban) society and the positive image of agriculture and farmers is enforced.

(3) For the society: Modern ways of health-care and rehabilitation are realized.
Introduction
There is growing experience in utilization of farms, farm animals, plants and gardens for promoting human health and well-being across Europe. The International European projects "COST Action 866 Green Care in Agriculture", "Social Services in Multifunctional Farms", and "Farming for Health" are three international European networks where scientific and practical results are exchanged and new knowledge is generated. Via COST Action 866, international conferences are organized every year in alternating European cities. In 2006, a book was published integrating the status quo of Green Care farming the Europe and in the USA (see References).

Typological Differences across Europe
Green care farming comprises a wide spectrum of different kinds of using farms, animals and plants. Three main categories can be distinguished.
(1) Traditional Green Care Farms represent an agricultural working environment where a diversity of target groups is included into the farms' daily agricultural activities with animals and/ or plants, depending on the type of farms and the clients' abilities (mainly in Belgium, Italy, Netherlands, Norway, Slovenia, Switzerland).
(2) Horticultural therapy, therapeutic horticulture, healing gardens and healing landscapes. Plants, horticulture, gardens and landscapes are used in a therapeutic/ recreational setting to improve the clients' well-being (mainly in Sweden and the U.K.).
(3) Animal-assisted health care services: Animals are used in therapeutic/ recreational/ educational settings (mainly in Finland). The use of farm animals for therapeutic purposes is yet not widely accepted and implemented. Riding therapy or equine-assisted therapy is the best known form.

Differences of Green Care farming across Europe
(1) Starting point: In all countries except Germany initiatives for Green Care farming have mainly been taken by originally commercially orientated farmers and not by health institutions.
(2) Target groups: In Norway children and psychiatric clients are dominant, in Switzerland and Sweden vulnerable children. The experiences in Belgium, The Netherlands and Italy show that Green Care farming can be good provision for a diversity of target groups including people with mental problems, with an addiction history, elderly people (with dementia), long-term unemployed, people with burn-out and (ex)prisoners.
(3) Aims: Aims differ from offering a useful daytime occupation, work training, social inclusion, rehabilitation, education, a place to live and specific therapeutic goals.
(4) Funding: In some countries like Norway and Switzerland municipalities take responsibility for the primary services of the health and welfare sector. In other countries like The Netherlands and Italy independent Green Care farms receive funding in various ways, e.g. by collaborating with a health care institution or by a personal budget of the client.
(5) Networking: Until today, only in The Netherlands, Belgium and Norway national networks of Green Care farmers have been set up (planned in Italy and Poland).

References
Empirical dimensions of human-animal relationships and interactions

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Although many aspects of human-animal interactions have been described, still little is known about the empirical dimensionality of these relationships and interactions. The study presented here tries to contribute by an investigation, applying a newly developed questionnaire including the following issues: Importance of animals with regard to human socialisation and family life, attitudes with respect to the general relationship between humans and animals, functional aspects of pet holding for children and adults, especially for ill people, handicapped and the elderly (rating scales from 1 = does not at all apply to 5 = applies completely). Results will be reported from the first 100 participants in the study (63% female, mean age 39 years, 45% owners of a dog, 25% owners of a cat, 30% without a pet). 68% reported that pets had been important in their own childhood and adolescence. The role of pets was mainly seen as that of a "partner and friend" (86%), 70% confirmed substantial impacts of pets on their quality of life. The main value of keeping pets with respect to children was seen in its potentially educational effects, i.e. learning to take on responsibility for others, as well as receiving friendship and comfort by a pet. For ill people and the elderly facilitative aspects of keeping pets were of greatest importance (92%), but to some extent also a function in the sense of "a little bit of psychotherapy" (57%).

The factor analysis of the 45 items gave some evidence for a 3-factor solution (according to the Scree-test), exhausting 64% of the variance. The factors could be interpreted as follows:

Factor 1: "Positive relationship experience with pets across the life span"
(Subdimensions: 'pets as pleasant companions', 'memorable socialisation together with pets in the family' and 'relaxation and comfort by pets').

Factor 2: "Demand for more effective protection for animals" (marker items: restriction of animal transports, preoccupation with sad fates of animals, and the intention 'to eat meat only from animals who had a good life').

Factor 3: "Relationship and surrogate function" with the marker items 'Animals are a surrogate for partner/children' and 'Pets facilitate the communication with other people'.

Finally, methodological characteristics of the scales will be presented (e.g. distribution and consistency of the scales, item-total correlations of the marker items) and relationships with sociodemographic data and life satisfaction will be demonstrated. Possible (and potentially recomendable) applications of the scales in further research will be discussed.
The aim of this study was to determine whether horse riding is associated with beneficial health and cognitive effects. To this purpose, two groups of 20 persons were studied: a regular horse-riding group composed of 18 women and 2 men with a mean age of $32 \pm 11$ years (mean $\pm$ SD), and $14 \pm 2$ years of education; the control group was not practising any sport and did not have any regular contact with horses. It included 18 women and 2 men with a mean age of $32 \pm 11$ and $14 \pm 2$ years of education. The two groups did not differ on age or education (both $p > .20$).

The Beck Depression Inventory (Beck et al., 1988), State and Trait Anxiety Inventory (Spielberger, 1983), and the Perceived Stress Inventory (Cohen et al., 1983) were administered to assess depression, anxiety, and stress symptoms, The Self-Esteem Inventory (Coopersmith, 1981) was used to assess self-esteem, and the Eysenck Questionnaire was used to assess Introversion/Extraversion and neuroticism (Eysenck, 1956). Cognitive tests administered were the Stroop (Golden, 1978), Trail-Making (Reitan, 1958), and WAIS-III Digit Symbol to assess attentional abilities, as well as the WAIS-III Digit-span to assess short-term and working memory (Wechsler, 1997). Tests were administered twice at a 4 week interval in both groups in order to determine the positive health and cognitive effects related to being in regular contact with a horse.

Significant differences between groups were found concerning anxiety and perceived stress. Participants who were riding a horse had a significant decrease in state anxiety scores at T2 relative to T1 (group X time interaction: $p = .0001$), and showed a marginally significant decrease in trait anxiety at T2 relative to T1 (group X time interaction: $p = .068$). Horse-riders also reported less perceived stress at T2 relative to T1 than the control group ($p = .0001$). For tests of anxiety, perceived stress and depression, all participants obtained lower scores at T2 relative to T1 (all $p < .003$). Similarly, all participants obtained higher self-esteem scores at T2 relative to T1 for the total ($p = .002$), general ($p = .001$) and professional ($p = .03$) subscales of the Coopersmith Self-Esteem Inventory. They also had higher extraversion scores on the Eysenck Test at T2 relative to T1 ($p = .03$). All other results were not significant.

Regarding cognitive tests, a significant main group effect was found for the Trail Making Test, part B ($p = .005$) and for the WAIS-III Digit Symbol ($p = .05$). However, the Group X Time interaction was not significant for any of the cognitive tests. Moreover, for all participants, cognitive and questionnaire scores generally improved from T1 to T2, suggesting a practice effect.

In conclusion, this study demonstrates specific health effects of horse riding on measures of stress and anxiety. The results of this study are being extended to determine whether horse riding is more useful than bycicle riding, or other types of sports practiced in a team, to decrease anxiety and stress levels.
The Impact of the Human-Animal Relationship on Welfare and Productivity of Donkeys

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The health and welfare of farm animals are undoubtedly dependent upon the action of the stockpersons who handle, observe and monitor the animals in their charge daily. Afterwards in all aspects of work with animals, the role of the human as an interactor is crucial.

Human-animal relationship plays a central role in the development of animal-friendly housing systems and an increased understanding of this relationship is an essential component of any strategy intended to improve the welfare of farmed animals and their stockpersons.

Several studies in the pigs, large and small ruminants and poultry, where the major inputs to the farms were similar, have demonstrated the importance of the stockperson’s interaction with animals on the behaviour, physiology and productive performance of these animals. For example, studies on dairy cattle suggest that negative handling may depress the milk yield of cows through stress.

The Authors focus on donkey (Asinus domesticus). The reasons for including this species were the following: i) although donkeys are primarily used for work, breeding, for recreation or therapy, in some Italian regions (i.e. Sicily) their milk is used for feeding of infants affected by dairy cow’s milk protein intolerance during the first months of life, which often are refractory patients to others treatments; ii) literature on the human-animal relationship in this species is scarce.

The aim of this paper is to examine the relationships between human factors, level of fear of humans by donkeys and/or of fear of donkeys by humans, and productivity of donkeys. In particular, some variables such as the attitudes and behaviour of stockpeople toward their donkeys and the behavioural response to humans were evaluated; and productivity of animals was studied for the entire lactation.

The Authors found correlations between the stockperson and donkeys’ variables, that indicate the possibility of targeting these human characteristics to reduce fear responses in donkeys.

In conclusion, the Authors underline, according to European and Italian legislation, that animals shall be cared for by a sufficient number of staff who possess the appropriate ability, knowledge and professional competence.
Animal Assisted Activities: an Italian research-intervention on adolescents

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Many studies have been conducted in order to test the efficacy of A.A.T. (Animal Assisted Therapy) as a co-therapy on samples of patients with various pathologies and on adolescent with disturbances of different nature, and the majority have been developed in foreign countries. Few studies have been implemented to observe the possible benefits of the Animal Assisted Activities (A.A.A.).

Almost all studies have qualitative data, some researchers have tried to implement experimental designed studies but the difficulties due to the complexity of the phenomenon, have created many limits.

The goal of the present study is to test the efficacy of an A.A.A. intervention program on adolescent’s self-esteem. For this purpose, a research-intervention has been conducted with 52 teen-agers of a school in Pescara, with an age ranging from 10 to 12 years.

In the first phase of the research, all subjects were administered the MSCS-Multidimensional self-concept Scale (Bracken, 2003); subjects were then assigned randomly to an experimental or to a control group. The experimental group took part to an experience of a dog-assisted- activity for about 1 and half hours a week for 7 months; while the control group performed the usual didactic activities. The hypothesis was that the activities with the dogs would enhance the self-concept of the subjects and particularly the dimension of the relationships with the peers. In the second phase of the research, when the intervention was completed, the MSCS was administered again to both groups.

The results show a statistically significant increase of the relationships self-concept in the pupils of the experimental group (t = -4,00; p < 0,05), but not in those of the control group. The efficacy of the intervention was also confirmed by the questionnaires filled in by the participants and by their parents: the intervention seems to have facilitated the interpersonal knowledge in the group class, favouring an increase of a more serene and extended climate; moreover, it seems to have promoted a greater involvement of the teen-agers in the scholastic life.

The present study represents an unique and important contribution in the Italian and international context because of its experimental design and because it tests on a sample of adolescents the efficacy of a specific type of intervention (the Animal Assisted Activities) which received up to now little investigation.
Personality Traits, Religiosity, Healthy Life Style and the Ownership of Pets

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Religiosity and personality traits are well known variables determining a healthy life style as well as the ownership of pets. This study examines the differences concerning personality traits, religiosity, and healthy life style (i.e. no or low substance use) between owners and non-owners of pets. Additionally it was analyzed whether the kind of pet owned had an additional relevant contribution to the questions raised before.

Design of the study: During the 10th "World Youth Festival" celebrated by the Catholic Church in Germany a random sample of 394 persons between 15-25 years of age has been investigated by questionnaires. 198 subjects had a pet animal (33.8% a dog, 39.4% a cat, 11.6% a bird, 10.6% an aquarium, 35.9% a rodent, 3.5% a horse, 12.6% other animals). Interview tool: standardized questionnaire containing the "Trier Personality Questionnaire (TPF)"¹, the "Religiosity-Structure-Test" (Huber), screening items concerning substance use. Evaluation: t-tests for parametric data, chi-square-tests for non-parametric data.

Results:
1) Comparing owners of pets vs. non-owners:
   a.) By examining the TPF there becomes evident a significant self-esteem problem among the owners of pets: Thoughts to have committed severe mistakes in one’s life (p < .02), physical complaints (p < .01), fear of criticism by others (p < .03), and recognizing one’s own self-esteem problems (p < .01) etc. are significantly increased among pet owners compared to non-owners.
   b.) Owners of pets show lower values for religious ideas, i.e. a weaker belief in god (p < .05) or a higher power (p < .01).
   c.) Both groups showed the same pattern of healthy life style: No differences concerning the attitudes towards substances (tobacco, alcohol, cannabis), and the frequency of using them as well.

2) Comparing the owners of different pets (in the sample there have been 44 owners of dogs, 44 owners of cats, and 49 owners of rodents; additionally, 63 had more kinds of these pets):
   a.) Examining the TPF there were no differences to be found between these groups of pet owners.
   b.) No differences were to be found concerning the religious denominations. Concerning the importance of religion, however, there were significant differences ("very important" for the owners of rodents = 34.8%; all other groups less than 29.0%; p < .03).
   c.) The owners of cats and of different kinds of pets smoked cigarettes significantly more often daily (27.9% and 15.9% resp.) than the owners of dogs or of rodents (9.1% and 2.1% resp.; p < .01), but none of these groups fulfilled the Fagerstroem criteria of nicotine dependence. Owners of different kinds of pets and owners of cats used cannabis more often (24.2% and 21.4% resp.) than the owners of dogs and rodents (15.9% and 6.2% resp; p < .04). There were no differences to be found concerning alcohol use.

The ownership of pets among young adults is correlated with a lower degree of self-confidence and self-esteem. There also is less belief in god. Possibly, the ownership of pets could be a compensatory coping strategy with these negative feelings. A healthy life style during this period of life is to be found more often among the owners of dogs and rodents.
Animal Art Adventure Camp: Humane and Environmental Education at the Intersection of Art and Science

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The Animal Art Adventure Camp is a 10-day, animal-centric, urban summer camp for children ages 6-10, and is a one-of-a-kind collaboration between a school of veterinary medicine and a community arts center. The camp immerses participants in a different humane and/or environmental topic each day, and teaches them about the habitats, special needs, and extraordinary capabilities of animals of many different species, particularly those that are likely to be encountered or kept as pets. While most humane education programs that aim to teach children about responsible pet care and environmental stewardship involve a short classroom presentation, the 10-day format of the camp provides opportunities for repeated reinforcement of humane and environmental lessons and messages across interactions with a wide variety of species, and through a range of educational methods and experiences, including the thoughtful use of art projects to enhance understanding.

Children who grow up in urban areas, particularly those from low-income backgrounds, often do not have the same opportunities to explore the natural world that children from suburban and rural backgrounds receive as part of their day-to-day lives (Damore, 2002). Not only is there less nature to explore, but parents in urban settings may limit their children's time spent outdoors due to concerns about neighborhood safety (Damore, 2002). Some programs seek to address this by transporting students to pristine settings, with the hope that this exposure will develop within participants a concern for the natural world (Haluzá-Delay, 2001). Research suggests, however, that participants may actually interpret these experiences in a way that makes them less likely to show concern for their local environments, since nature is seen as something that is "out there" or that does not exist in urban settings (Haluzá-Delay, 2001). There is also evidence to suggest that performing structured environmentally responsible behaviors within community open spaces encourages the continuation of these types of behaviors in everyday life (Vaske & Kobrin, 2001). With these factors in mind, the camp includes daily outdoor activities that are designed to cultivate an appreciation and concern for the animals and green spaces that exist within the local urban environment.

In addition to humane and environmental themes, the camp also addresses the issue of dog bite prevention. As early as 1974, dog bites in the United States had been described in the medical literature as an "epidemic" (Harris, Imperato, & Oken, 1974), with one study finding that, by age 18, nearly 50% of children have been bitten by a dog (Beck & Jones, 1985). In light of the need for public education on this topic, and because the camp enrolls children who are ages 6-10, the camp provides an ideal venue for delivering these lessons to the population most likely to benefit.

A basic program evaluation was conducted at the close of the pilot offering of the camp (June 2006), with participants being asked to rate the various presentations and activities. Content-based pre- and post-tests will be implemented for this year's camp (June 2007), and the results will be presented during this session.
Australian retirees traveling with pets: Implications for health and tourism professionals

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The known health benefits companion animals can bring to humans have direct, and often overlooked, implications on tourism. During the Australian winter, approximately 500,000 retired Australians (i.e. “Grey Nomads”) relocate from southern Australia to destinations in the tropical north. These ageing wanderers (50 years and over), travel mainly in caravans, motor homes, and campervans for the entire winter. Many Grey Nomads bring their pets (primarily dogs, cats, and birds) with them when they travel. In order to meet the medical and accommodation needs of Grey Nomads, research is needed to identify their health status, reasons for bringing their pets with them, and the need for pet-friendly accommodations.

This project aimed to (1) describe Grey Nomads who travel with pets, (2) explore the relationship between Grey Nomads’ health and owning and traveling with pets, and (3) to ascertain whether the tourism industry meets the needs of Grey Nomads and their pets. Grey Nomads residing in Caravan Parks or Free Camping areas across northern Western Australia and Northern Territory were surveyed (N=347). The self-administered questionnaire acquired information about demographics, pets, and attitude towards travel. All respondents also participated in a ten-minute semi-structured interview, gaining information on the dynamics of traveling with and without pets. Results indicated that 14% (N=47) of Grey Nomads traveled with their pets. Another 18% (N=64) own pets, but were not traveling with them.

Results from the questionnaire indicate that the mean age for Grey Nomads who travel with pets (63 years) is in between those who own but do not travel with pets (62 years) and those who do not own pets (65 years), suggesting that age is not a factor for those who travel with pets. Grey Nomads traveling with pets reported having fewer chronic health conditions (e.g. heart disease, high cholesterol, high blood pressure, migraines, diabetes, respiratory disorders, sleep disorders, and cancers) than those not traveling with pets. This suggests that Grey Nomads are less likely to over-burden medical facilities and are in better condition to partake in tourism activities, which contributes to local economies.

Interview results illustrated that for Grey Nomads traveling with pets, their pets are an integral part of their family, like a surrogate child. The thought of leaving them behind was not an option. Grey Nomads, who travel with pets, all agree it is an enriching experience. Their interaction keeps both pet and owner active, further strengthening the bond and keeping them both healthy.

Respondents also revealed that in many northern Australia locations, the demand for pet-friendly caravan and mobile home accommodations is increasingly exceeding availability. Caravan parks and some reserves do not permit pets, restricting travelers with pets to fringe areas. This can hinder economic development in regional areas and pose a health risk for these ageing travelers. Servicing this niche group can offer business opportunities at these destinations. It is hoped that this study will spark further research into the benefits of long-term travels with pets, and will ultimately lead to improved facilities for Grey Nomads and their pets.
**Veterinary Social Work: Incorporating Human-Animal Relationships into Social Work Practice**

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Social work has recognized the importance of the human-animal bond in peoples’ social environments for over 20 years. Specifically, social work literature has addressed issues of pet loss (Turner, 2003) animal-assisted therapy (Reichert, 1998), companion animals and well-being (Sable, 1995), the importance of pets for the elderly (Netting & Wilson, 1987), the link between interpersonal violence and animal abuse (Faver & Strand, 2003a, 2003b, in press), social work implications of animal hoarding (Arluke, Frost, Luke, & Messner, 2002), and even social work in veterinary clinic settings (Netting, Wilson & New, 1987). The social work literature has even engaged in debate about social workers’ responsibility under the NASW Code of Ethics to attend to the welfare of animals themselves (e.g. Wolfe, 2000).

VSW seeks to expand understanding regarding services needed at the intersection of veterinary medicine and social work practice. From a strengths perspective and using evidence-based practice, VSW provides education and training to University of Tennessee veterinary students, faculty, staff, and clients as well as other public health professionals. Guided by social work’s history, tradition and the core value of empowerment, VSW is also intended to educate students, clients, faculty, staff, as well as the professional and general public about human animal relationships and the human needs that exist at the intersection of these relationships such as effective communication skills, conflict resolution, grassroots organizing and legislative advocacy. In addition, the service provides clinical consultation, support, and referral to students, clients, staff, and faculty of the veterinary teaching hospital, using empirically supported interventions as well as conducting on-going program and clinical practice evaluation.

VSW provides the skills and expertise to provide client psychosocial assessment, crisis intervention, violence prevention, grief and compassion fatigue support, suicide prevention, substance abuse intervention, and gerontological practice, within the context of human animal relationships. VSW educates and about the link between interpersonal violence and animal abuse, and responsible pet ownership, as well as animal-assisted activities and animal-assisted therapy. VSW provides instruction in Mindfulness-Based-Stress-Reduction (MBSR), an empirically supported stress reduction program used to alleviate accumulated daily stress, anxiety, depression, high blood pressure, chronic pain, & cardiac conditions.

Although social work has indeed acknowledged human-animal issues, it has not formally incorporated these issues into social work education in a systematic way. Veterinary Social Work (VSW) is a program designed to bridge the gap between the social work literature on human-animal issues and the pragmatic implementation of these topics in social work clinical and community practice. It is housed at the University of Tennessee College of Veterinary Medicine (UTCVM) and College of Social Work in Knoxville, Tennessee.
Animal-Assisted Therapy: A Meta-Analysis

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Background: Animal Assisted Therapy (AAT) has been practiced for many years and there is now increasing interest in demonstrating its efficacy through research. To date, no known quantitative review of AAT studies has been published; our study sought to fill this gap.

Method: Empirical studies were identified by searching 11 electronic databases using 19 key words. Hand searches of three journals and all retrieved articles were also conducted. To be included, studies needed to have five adults participants and provide sufficient data to calculate an effect size. We conducted a comprehensive search of articles reporting on AAT in which we reviewed 250 studies, 49 of which met our inclusion criteria and were submitted to meta-analytic procedures. These studies were independently coded by two researchers. Dependent variables were grouped into four classes: autism-spectrum symptoms, medical difficulties, behavioral problems, and emotional well-being. Predictor variables were organized around treatment and participant characteristics.

Results: The overall effectiveness of AAT as an intervention was assessed first by looking at d's for each outcome class (see Table 3). Effect sizes for changes in autistic spectrum behaviors were in the high-range, d = 0.72 (k = 4; 95% CI 0.23 - 1.22), while they were in the low to moderate range for well-being indicators, d = 0.39 (k = 27; 95% CI 0.29 - 0.50), and solidly in the moderate range for behavioral and medical indicators, d = 0.51 (k = 23; 95% CI 0.38 - 0.65) and 0.59 (k = 8; 95% CI 0.26 - 0.77), respectively. We also explored the relationship between the number of AAT sessions and effect-size strength. The correlation between number of sessions and medical outcomes was r = -.57 (k = 6), for well-being outcomes was r = -.13 (k = 14), and for behavioral outcomes r = .22 (k = 19). Though none of the correlations reached statistical significance, the correlation for medical outcomes suggests that more AAT is associated with fewer desirable outcomes.

Conclusion: As the population grows older, alternative health services are needed to improve the quality of life. The results of our study suggest AAT is a viable intervention to help adults and elderly struggling with medical, behavior, and emotional wellbeing. Also, young children consistently benefited across all outcome variables including symptoms associated with Autism. There was considerable variation in the AAT interventions studied. As AAT is routinely used as an adjunct to other interventions, its deployment varies greatly. Such variance means that a universal understanding of what AAT is and how it is used does not exist. While some of this variance was accounted for through the moderator analyses we conducted, considerable variance still existed. Future studies will need to be designed to account or control for the "confound" of using AAT with other interventions. However, due to the low number of empirical studies these results need to be interpreted with caution and more scientific support for AAT is needed.
A study of the buying process of dogs for the resolution of abandonment

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This study addresses some solutions to the problem of abandonment from the viewpoint of the buying decision process in marketing management. It is thought that abandonment results from the expansion of gap between idealism and reality (i.e., differences between expectations before and after possession of a dog) as the decision process advances. I attempt to explain the gap by considering the buying process of dogs in Japan. Moreover, I consider the problems associated with the dog-buying process and the buying decision process overseas. I then suggest measures for bridging this gap. The buying process starts with "problem recognition"; this process is triggered by internal factors, e.g., "the feeling of love for an animal" and external factors, e.g., "being charmed by an adorable looking animal." The second step in the buying process is "information search." During this step, the characteristics of different breeds of dogs and places of purchase are compared by consulting various sources, and the choices are narrowed. In Europe and America, the characteristics of candidate breeds are extensively considered during this step. However, in Japan, the breed of dog desired is usually determined irrespective of the amount of information available on the characteristics at the "problem recognition" step. Therefore, the gap results from dissimilarities between the dog breed and the would-be owner and little understanding of dogs. In the third step, "evaluation of alternatives," factors such as the impact of the dog on lifestyle and the level of care required are examined. However, this step is often overlooked because the breed of dog to purchase had been determined during the previous steps in the process. Therefore, the gap results because of problems related to lifestyle. In the fourth step, "purchasing decision," the final process is "postpurchase behavior." Although time is required to obtain adequate information about dogs, such as their characteristics, many problems actually result from the passage of time. The gap expands as time passes, and abandonment is often the consequence. I propose three concrete measures for "filling the gap": (1) the dissemination of information via commercial sources, the source by which most consumers obtain information; (2) the application of marketing management methods by animal shelters to increase the likelihood that adoption becomes a viable option; and (3) the introduction of a new system to take the place of the system currently used in Japan. These measures will not only "fill the gap" and decrease the likelihood of abandonment, but will foster the adoption of stray dogs and result in a win-win relationship between dogs and humans.
Understanding of Service dogs and the Access Law for People with Service dogs on the part of occupational therapists

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The Access Law for people with Service dogs, enforced from October 1st 2003, aims at promoting independence and participation of people with service dogs in the community. The Law provides that service dog suppliers must build up a closer connection with health care providers and veterinarians if necessary because training appropriate service dogs for people with physical disabilities. In case of mobility dogs, health care providers mean doctor, physical therapist, occupational therapist, social worker and other medical specialists. But there is some doubt whether health care providers know that they should cooperate in raising mobility dogs because mobility dogs and the law are new matters in Japan. Dog trainers and volunteers raised mobility dogs before enacting the law.

There were two purposes in this research. One was investigation of understanding of service dog and the law on the part of occupational therapists belonging to Osaka association of occupational therapists. Another was finding change of understanding of these understandings after a lecture about service dogs and the law. The 140 occupational therapists answered a semi-structured questionnaire pre and post the lecture, which was a lecture during the Osaka occupational therapy annual conference, held 21st November 2004. There were three questions, with space for optional comments in the questionnaire, namely: 1) understanding of service dogs, 2) understanding of the law and 3) anxiety for integrating people with service dogs with community. Before the lecture the rate of therapists who answered that they knew or understood service dogs was 99% (knew only name 36%, understood a part of service dogs 57% and almost understood them 6%). They answered that they knew or understood the law in a ratio of 46%( knew only name 36%, understood a part of the law 12% and almost understood the law 1%). Half of 140 occupational therapists didn’t know the law at all. After the lecture the rate of therapists who answered that they understood service dogs increased by 35% (understood a part of service dogs 43% and almost understood them 55%). They answered that they knew or understood the law in a ratio of 99% (knew only name 4%, understood a part of the law 63% and almost understood it 32%). Their anxiety for integrating people with service dogs into the community decreased (decreased a little 41%, decreased very much 5%). One of reasons of decreasing anxiety related to understanding safety of service dogs in hygiene control and behavior control.

If occupational therapists and other health care providers understand service dogs and the law, they will be more likely to play a role to play in the provision of service dogs. This is important to match mobility dogs that have complex functions with users without the cooperation of health care providers. Occupational therapists and other health care providers should have more opportunities to study service dogs and the law.
Effectiveness of Therapeutic Riding in Improving Communication

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Therapeutic riding has proved effective in entertaining, healing, and helping children with disabilities increasing and maintaining their health. It has also been reported by parents that attending therapeutic riding, their children with pervasive developmental disabilities (PDD) showed remarkable improvements such as minimizing their temper tantrum, waiting for their turn, using expressive facial signals, keeping their concentration, and improving their communication skills.

We developed the scale for evaluating the effect of human-equip-interaction on mental activity (HEIM scale) to objectively measure effectiveness of the therapeutic riding. The HEIM scale consists of 10 items: 1. Relating to people, 2. Imitation, 3. Emotional response, 4. Unexpected movement, 5. Persistence, 6. Adaptation to change, 7. Gazing, 8. Fear or Nervousness, 9. Communication, and 10. Nonverbal communication. The items are scored on a 5-point Likert scale. We also demonstrated the reliability of the HEIM scale. Using the HEIM scale, we examined effectiveness of the therapeutic riding for 15 children with PDD. Although the children made high scores in such areas as relating to people, imitation, emotional response, adaptation to change, and gazing, they scored poorly in the communication areas.

In response, we developed a new therapeutic riding program focusing on communication interventions for children with developmental disabilities. The program includes the following procedures: 1. In the form of a game, a child learns to pick up his/her mother’s picture followed by calls directed to his/her mother; 2. If a child is aware of his/her mother, s/he practices to call his/her mother’s name in certain places; 3. Teachers work with the child in developmentally appropriate manners, enhancing emotional intensity; 4. All individuals around the child call out his/her mother’s name in unison; 5. The child approaches his/her mother, riding a horse as fast as s/he likes, and his/her mother praises the child.

A total of 7 individuals participated in the program: four boys with PDD (9-, 11-, 15-, and 16 years of age), a 13-year-old boy with hydrocephalus, a 15-year-old boy with cytomegalovirus encephalopathy, and a 20-year-old individual with cerebral palsy. We found our therapeutic riding program has been effective in improving communication skills not only for children with PDD but for those with other developmental disabilities. The following are examples of the changes the participants exhibited: a boy now stares happily into his mother although he had poor facial expressions two years ago; one who had no speech has learned to babble, and the other who had only babbles now can call out his mother’s name purposefully and speak with a full understanding of several words. Detailed description of the changes in the participants will be provided in our presentation.
Assessing the temperament of companion animals is essential for understanding human-animal interactions (Serpell, 1996; Svartberg, 2005). The main purpose of this study is to develop a temperament scale, which can assess both dogs and cats. We constructed a scale based on the temperament dimensions in human infants as proposed by Thomas et al. (Thomas, Chess, & Birch, 1968). In addition to their nine temperament dimensions (activity level, rhythmicity, approach-withdrawal, adaptability, intensity of reaction, mood, persistence, distractibility, and sensory threshold), we included four other dimensions (intelligence, aggressiveness, dominance, and attachment), which have often been used to describe dogs’ temperaments. Each of the 13 dimensions consists of eight items. Thus, the total number of items was 104. Owners of dogs and cats were asked to rate their animals on a six-point scale. The sample consisted of 226 animals (140 dogs and 86 cats). Reliabilities (Cronbach’s α coefficients) for nine of 13 sub-scales were above .60: .72 for activity level, .77 for approach/withdrawal, .81 for adaptability, .61 for intensity of reaction, .61 for mood, .73 for aggressiveness, .64 for dominance, .78 for intelligence, and .78 for attachment. Of these nine reliable sub-scales, we investigated the relationships between the age of the animal and temperament. For both dogs and cats, there were significant negative correlations between animal age in months and the score of the activity level (dogs: r= -.402, p<.01 cats: r= -.303, p<.01), suggesting that younger animals are more active than older ones. However, only dogs had a significant negative correlation between animal age and the score of adaptability (r= -.358, p <.01), suggesting that younger dogs are more adaptable than older ones. The comparison of the two species using the mean scores of the nine sub-scales indicated some significant differences between the two species. Dogs were found to be more active (t=4.26, p<.01), approaching (t=6.30, p<.01), adaptable (t=4.92, p<.01), in a positive mood (t=4.38, p<.01), intelligent (t=3.44, p<.01), and attached to (t=3.65, p<.01) than cats. These differences between dogs and cats correspond with the results of a behavioral assessment by owners in Serpell (1996). Using the criteria by Carey et al. (1977), we then defined three temperament types: (1) EASY animals (approaching, adaptable, not intense reaction, and positive mood), (2) DIFFICULT animals (withdrawal, low adaptability, intense reaction, and negative mood), and (3) SLOW-TO-WARM-UP animals (low activity level, withdrawal, low adaptability, negative mood, and mild intensity). EASY temperament comprised 37.4% of the dogs and 33.7% of the cats, respectively. DIFFICULT temperament comprised 11.4% of the dogs and 8.1% of the cats. SLOW-TO-WARM-UP temperament comprised 10.0% of the dogs and 10.5% of the cats. These proportions are similar to those reported for human infants by Thomas et al. (1968). Thomas et al. have emphasized that these temperament types play an important role in human parent-child relationships. Similarly, the temperament type found in companion animals might influence owner-animal relationships.
Development of a temperament scale for dogs and cats: (2) A factor analysis and a cross-species comparison

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The main purpose of this study is to develop a temperament scale, which can assess both dogs and cats. We constructed a temperament scale, which included the nine dimensions proposed by Thomas et al. for human infants (1968) along with four additional dimensions (intelligence, aggressiveness, dominance, and attachment). Each of the 13 dimensions consisted of eight items for a total of 104 items. Owners of dogs and cats were asked to rate their animals on a six-point scale. The sample consisted of 226 animals (140 dogs and 86 cats). To test the constructive validity of the scale, we conducted a factor analysis. The factor analysis (Maximum likelihood estimation, Varimax rotation) yielded eight interpretable factors based on the 73 items with factor loadings above 0.40. Eight factors explained 43.4% of the total variance. These factors were “attachment to owners” (8.98%, proportion of explained variance), “approach/withdrawal” (8.78%), “activity level” (5.55%), “intelligence” (5.12%), “reactivity to foods” (4.48%), “sensitivity” (3.97%), “negative mood & aggressiveness” (3.28%), and “dominance” (3.18%). Except for the “reactivity to foods” factor, seven of eight factors correspond to the sub-scales of the original temperament scale. Of these eight factors, we investigated the relationships between attributes of the animals and factor scores. For both dogs and cats, there were significant negative correlations between animal age in months and the score of the activity level (dogs: r=-.458, p<.01; cats: r=-.278, p<.05) and the sensitivity score (dogs: r=-.19, p<.05 cats: r=-.353, p<.01), suggesting that younger animals are more active and sensitive than older ones. Only dogs had a significant negative correlation between animal age and the score of approach/withdrawal (r=-.358, p<.01), suggesting that younger dogs are more approaching. There were some significant differences between the two species. Dogs were found to be more attached to (t=2.94, p<.01), approaching (t=2.99, p<.01), active (t=3.33, p<.01), intelligent (t=3.44, p<.01), reactive to foods (t=4.60, p<.01), and submissive (t =-4.48, p<.01) than cats. In addition, some significant sex differences were noted. In dogs, males were found to be more active (t=2.12, p<.05) and in a negative mood & aggressive (t=1.99, p<.05) than females. In cats, males were more dominant (t=2.69, p<.05). We calculated the internal consistencies (Cronbach’s α coefficients) for the top five items of each factor to investigate the reliability as scales. The α values were sufficient: .83 for scale “attachment to owners”, .89 for scale “approach/withdrawal”, .77 for scale “activity level”, .79 for scale “intelligence”.74 for scale “reactivity to foods”, .76 for scale “sensitivity”, .72 for scale “negative mood & aggressiveness”, and .63 for scale “dominance”. A short temperament scale, which includes the eight sub-scales with five items for each sub-scale (for a total of 40 items), is also useful for assessing the temperament of dogs and cats.
Effects of companion animals and pet support services for people with AIDS

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We have investigated the possible medical and psychosocial benefits of companion animal pets for people with AIDS (autoimmune deficiency syndrome) disabilities and if such benefits might be enhanced by having ancillary support for pet care provided by volunteers from Pets Are Wonderful Support in San Francisco (PAWS). The study was designed to include three groups: 1) subjects with AIDS but without pets; 2) subjects with AIDS and with pets but not receiving pet support; 3) subjects with AIDS and with pets receiving pet support. Systematic interviews with subjects, most of whom lived alone, were conducted over the telephone by trained interviewers (women) between August 2006-July 2007. Our presentation will include the complete data set and statistical analyses. The preliminary analysis presented here is based on 20 subjects without pets, 11 subjects with pets, but no pet support, and 20 subjects with pets and support. The major preliminary results are that the subjects with pets reported more satisfaction with their social lives (question: “Do you feel your social life is satisfying?”) and feeling less social isolation (question: “How much social isolation do you feel as a result of your illness?”) than those without pets. Subjects with pets and support reported more satisfaction with their social lives and less social isolation than those with pets, but no support, as well as those without pets. These data suggest that for those with AIDS disabilities, having a pet enhances social contact and that support for the pet can be associated with even greater pet-derived social benefits. In the presentation, we will examine the possible linkage between social satisfaction and other indicators of mental health among the subjects.
Difference in social communication among elderly people: animal present situation vs. animal non-present situation

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Since 1986, Japanese Animal Hospital Association has been actively introducing the idea of “Human Animal Bond” and Animal Assisted Activity. Companion Animal Partnership Program (CAPP activity) is a volunteer activity where the volunteers visit nursing homes with their pets such as dogs and cats. Many previous researches have made clear that there are three effects that animals have on people. They are social effect, psychological effect, and effect on health/body function. From previous researches, it is anticipated that CAPP program has social effect on elderly people. An object of this research is to examine the animals in CAPP activity facilitate social communication in elderly people. Particularly, whether the presence of animal facilitates facial expressions and communication among elderly people who live in nursing homes was examined.

Total of 16 CAPP activities in 7 facilities were video taped for observation. Facial expressions (smile, eye contact, and nodding) and communications (touching things, touching people, long conversation, and short conversation) of elderly people were counted and recorded for animal present situation and animal non-present situation. Concerning smile, eye contact, nodding, long conversation, and short conversation, they were observed more in animal present situation comparing to animal non-present situation. As for touching things and touching people, they were excluded because they were not observed at all. A significant difference in smile (p=0.001), eye contact (p=0.000), and short conversation (p=0.049) occurred with animal present situation (p<0.05).

Accompanying the above-described research, a questionnaire survey was carried out to staffs that work at the facilities where CAPP program visits to examine how the staffs are acknowledging the effects of CAPP activity and how they think about CAPP activity in general. Five questionnaire sheets were sent to 138 facilities and 229 sheets returned. The survey shows that the staffs acknowledge the social effect of CAPP program and many reported that they observe more smiles and conversations among elderly people at the activity site. But they do not acknowledge that effect continuing in their daily lives of the elderly people. They also do not acknowledge psychological effect and rehabilitation effect of CAPP activity on the elderly people and CAPP influencing the health condition of the elderly people continuing in their daily lives. However, the survey shows that staffs acknowledge and feel that the elderly people enjoy each CAPP activity and many of them eagerly waits for the next activity. Further, from the survey we were able to know that CAPP activity has positive influence on the staffs. Many staffs reported that they themselves are enjoying CAPP activity and the CAPP activity and the animals there give them a clue to start a conversation with the elderly people, and as a result, conversations between staffs and elderly people have increased in their daily lives. And near 90% of the staffs reported that they prefer to live in a nursing home where CAPP activity visits.
Case Study of Animal Assisted Education Program for Communication Skill

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Good communication skills are indispensable for veterinary technicians and dog trainers in their practice discussing nonhuman clients with people, usually their owners. However, based on the observations and surveys on the students in my animal behavior classes, it was found that some of the students whose goal is to become veterinary technicians or dog trainers have poor skills in human interaction despite their rich affection toward animals. This study examined whether sessions of animal-assisted education reduced the obstacles for successful human interaction.

An Animal Assisted Education (AAE, hereafter) program has been developed within the framework of Animal Assisted Activities (AAA, hereafter) to enhance the skill for human interaction. This AAE Program consists of two sub-programs: a fundamental educational program to learn about the roles of AAA program coordinators and volunteers, and a program to learn how to communicate with elderly people in nursing homes, whose physical conditions and living environment are quite different from those of the students.

Our AAE program was offered to people being trained to become veterinary technicians and/or dog trainers. The program was a 9 month-course with 20 students. Students were taught how to design AAA recreational programs to be used at a nursing home, and students were instructed to visit a nursing home with their partner dogs.

The evaluation of the AAE program was made based on the degree of the achievement of the objectives of the program, analyzing the video-taped AAA at the nursing home, focusing on students’ communication skills, and self-evaluations of the achievement by students. There were a total of 10 AAA sessions. It took more than 5 visits for AAA participants of the nursing home to learn the names of the student, although they learned the names of the dogs much sooner, and the same result was obtained for the students in learning the names and background of the participants. The dogs’ presence was crucial, serving as an easy common topic for a conversation to be initiated or maintained. From 6th visit, the communication was made smoothly and effectively, both participants and students calling one another by their names without partner dogs as the main topic of their conversation.

This study strongly suggests that AAE can be successfully applied for the improvement of communication skills in which animals play as a facilitator, initiator and icebreaker.
The benefits of visiting zoo for the health of middle aged

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An effect of the human animal interaction on human health has been explored, suggesting that animals have a lot of benefits for the human mental and physical health. In this study we investigated the benefit of visiting zoos for the health of middle aged.

The 81 participants (31 males and 50 females, average age of 50.1 years old) were examined at the Tama Zoological Park, Hino City, Tokyo. The examination took place at 10:00 am to 15:00 pm. The participants were free to choose where to go in the zoo. They were measured in their blood pressure and pulse rate, using Boso-medilife (bosch+sohn, Germany) just before and after visiting the zoo. Two tests of Profile Of Mood State questionnaire (POMS) and Subjective Well-Being Inventory (SUBI) were carried out as well. Saliva samples were also collected using the Salivette® (Sarstedt Co. Ltd., Numbrecht, Germany) system. Briefly, a cotton wad is placed in the mouth for 2 minute, and saliva is later exacted from the wad by centrifugation (4°C, 3500 rpm, and 15min). To minimize the effects of food and drink on the levels of salivary stress markers, the participants were asked to have only mineral water 2 hr before saliva sampling. The samples were stored at -80°C until the assay. Evaluation of endocrinological stress markers, such as cortisol or chromogranin A, is a very useful method for assessing stress reactions. Furthermore, the collection of saliva is noninvasive method of sampling and enables the investigation of people in free-living conditions under various circumstances. The concentrations of salivary cortisol and chromogranin A were analyzed, using radio-immunoassay and enzyme-immunoassay, respectively.

The results are summarized as follows: 1) As for the physiological assessment, visiting the zoo decreased in blood pressures significantly (p < 0.01). The salivary concentration of chromogranin A in their daily lives did not differ from that just before visiting the zoo, but it increased significantly after visiting the zoo (p < 0.01). The concentration of salivary cortisol decreased significantly after the zoo visit, comparing that before the visiting (p < 0.01).

2) As for the psychological assessment, the negative feeling in the score of POMS decreased significantly (p < 0.01) and the positive feeling tended to increase after the zoo visit. However, a significant change was not seen in the score of SUBI. The mental health and tiredness showed a tendency to rise before and after the zoo visit.

Our study suggests that the visiting zoos has the benefit for the middle aged, especially someone who may have stress or needs exercises. Interestingly, zoos may play a vital role for human’s mental and physical health.
The behavioral interaction between the schizophrenia and dogs in the animal-assisted therapy

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In the West the animal-assisted therapy (AAT) is widely practiced on people with mental problems and there are many reports concerning the effectiveness of the AAT. Especially, it is notable that the AAT improves symptoms of schizophrenia, such as flattening of emotion and lack of social smoothness and motivation. In Japan, however, the AAT is seldom introduced in the clinical practice and there are few experimental investigations about the effect of the AAT. In fact, there is hardly any observation of behavioral interaction between animals and participants, which is one of the most important issues during the AAT sessions. Therefore, the purpose of this study is to clarify the relationship between behavioral interaction with dogs and the effects of participants’ sociality and mental conditions during the AAT with dogs.

The ten participants in this study were hospitalized with schizophrenic disorder for middle and long periods (male=4, female=6). They were screened by the clinical psychotherapists and occupational therapists (OTs), according to the level of symptoms. Sessions were performed for 40 minutes once a week. Well-trained 5 dogs were introduced to all sessions and the programs were initiated how to touch dogs first, and then proceeded to the obedience and the agility training. The participants were instructed to give the cue to dogs one by one and reward dogs if they obey the cue. Before and after each session, the participants would be able to interact with dogs. The AAT was based on the principles developed by the Delta Society. Each dog’s behavior was recorded by the video cameras during all sessions, and we checked the frequency and time of the interaction between dogs and participants; touching, petting, calling, approaching, and looking by either dogs or participants. The condition of participants was evaluated by psychotherapists and OTs.

The results of the observation showed that (1) dogs tended to more approach and touch OTs and the participants with mild symptoms voluntarily than participants with severe symptoms; (2) most participants improved the score of attachment to dogs, comparing with those before the AAT; (3) the participants whom dogs approached frequently improved notably the score of attachment to dogs, although they had severe symptoms; (4) some participants showed the improvement of Profile of Mood States (POMS) (4 participants) and Life Assessment Scale for the Mentally Ill (LASMI) (2 participants).

The results indicate that dogs may distinguish the differences in behavior and/or attitude of participants. The participants for dogs to approach tended to improve the score of psychological tests and get better at handling dogs. In addition, some participants who did not join in the regular events, but took a part in the AAT improved their score of attachment to dogs. The increase of attachment to dogs and motivation for the AAT might lead the change of emotional conditions in participants. For the schizophrenic patients hospitalized for long periods, therefore, the behavioral interaction with dogs will be effective for the mental conditions, such as the improvement of sociality and flattening affect.
The influence of the experiences of dog-ownership in the past on the present mental health of the elderly men

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In Japan, where the rapid aging of the population is getting into a social problem, the interest in the animal-assisted activities (AAA) for the elderly has been growing. On the other hand, we feel some difficulties in the introduction of AAA in facilities, such as nursing homes or hospitals, because the facilities tend to request the tangible effects of the AAA that outweigh the risks in safety and public-health, and because the background of the relationship with dogs in Japan may differ from that in the West. Therefore, it is necessary to establish the AAA based on the Japanese situations and the participant’s characteristics. It may be desirable for all the concerned to develop a screening method for participating in the AAA that is easily adaptable to any type of the elderly.

This study is intended to prepare for developing a screening method for participating in the AAA, investigating of the relevance of mental and physical health of the elderly men and their relationship with dogs by the questionnaires and psychological tests. The questionnaires concern their current health, the interaction with other people, and the interaction with dogs. The same examination was conducted to the young men for the comparison.

The results show that the style of dog-ownership as well as the perceptions regarding the benefit and the role of dogs is related to the score of the attachment to dogs and some psychological tests, such as the sense of motivation in life and the social support, indicating that their scores depend on when people owned their dogs. The higher scores were observed in people who owned dogs in the past, especially at their age under 10 years old, but not at present. In this study, an important point to emphasize is that the present positive feelings of the elderly men toward the interactions with others people and their own lives may be related to the experiences of dog-ownership in the past. Therefore, to predict the effect of the relationship between the elderly and dogs on their mental health, it may be useful to question their experiences with dogs, e.g., the experience of dog-ownership in childhood, the length of dog-ownership, whether they were involved in caring of dogs, and so on.

In order to introduce and establish the AAA as the standard treatments in Japan, it is most important to demonstrate the effects of the AAA that can convince the facilities. The demonstration can be achieved by conducting the AAA at frequent intervals for the participants who interacted with dogs in the past in accordance with the above results.
Usefulness to play or communicate with dogs for the aged with dementia

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Recent research shows that people with dementia have been increasing quickly in Japan. Approximately 7% of people over the age of 65 have been diagnosed as suffering from dementia. However medication does not effect a permanent cure and treatment for their high quality of life (QOL) is limited. We face an urgent need to care for people with dementia.

It is believed that playing with animals could affect our mental states. But we have few evidence for that effect. We try to examine the usefulness how dog gives therapeutic environment for especially people with dementia. We collected data with persons with dementia recruited from special nursing home and day service unit. They were living with a dog to play and communicate. Subjects were tested before and 4 months after playing with a dog. We measured neuropsychological tests, QOL, ADL and deteriorating stages of dementia.

We used mini-mental state examination (MMSE), Hasegawa’s dementia rating scale-revised (HDS-R), NM scale for neuropsychological tests, dementia happy check (DHC) for QOL, N-ADL for ADL and Functional assessment staging (FAST) for deteriorating stages of dementia.

We will show the results of the usefulness to play or communicate with dogs for the aged with dementia.
The relationship between dog’s behavior and sympathetic nerve activities in their training

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Many dog-owners notice the importance of dog training in Japan, although the ways to train dogs are variable. The dog team at the Laboratory of Human Animal Interaction, Azabu University School of Veterinary Medicine, has concerned a dog training since 2001, and has an idea that it is important to attract a dog’s attention and concentration for an owner under various environments in order that the dog may react appropriately to its owner’s instructions. However, some dogs react to surrounding events and sounds hyper-sensitively. These dogs often lack the attention and concentration for their owner’s signals, and thus it is difficult to get better results in the dogs training and the good relationship between the owners and the dogs.

The environmental information seems to be transferred the peripheral nervous system through the hypothalamus of brain as stimuli, and elicits the appropriate behavior of dogs. However, there are few attempts to examine the relationship between dogs behavior and the peripheral nervous system, i.e., sympathetic and parasympathetic nervous system.

The aim of this study is to examine the association between behavior related to dogs’ attention and concentration and sympathetic nerves activities (SNA) in their training. We used two different indexes for measuring sympathetic nervous activities; one is by urinary catecholamines, the concentrations of norepinephrine and epinephrine, and the other is by the heart rate variability. Heart is controlled by sympathetic and parasympathetic nerve systems. A spectral index of sympathetic nerve function is sought by means of the low-frequency (LF) power spectra of cardiovascular variables. Moreover, the heart rate variability has been adopted as real-time and successive measure.

We performed both experiments on two different breed of dogs (Labrador retriever and German shepherd dog). As the results, they were divided into two groups in their behavioral assessment: dogs that concentrated on humans (Dog A) or not (Dog B). There was also the difference in the SNA among Dog A which concentrated on humans. They are divided into two groups of Dog A1 and Dog A2. The dogs that did not concentrate on human are divided into two groups of B1 and B2. Dog A1: The SNA increased during the training (Labrador retriever). Dog A2: The SNA remains unchanged through the experiment (German shepherd dog), showing the highest ability to be trained. Dog B1: The sympathetic nervous system is activated excessively during the experiment (Labrador retriever). Dog B2: The sympathetic nervous system is activated excessively during the training (German shepherd dog).

In conclusions, Labrador retriever is found to be different from German shepherd dog in the training ability and the relationship between their behavior and sympathetic nervous activity. A dog that sympathetic nervous system is activated excessively may be difficult to train.
A significant increase in number of whistle contours of bottlenose dolphins, *Tursiops truncatus*, during their interaction with human

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The vocalizations of bottlenose dolphins, *Tursiops truncatus*, were investigated in their interaction with human. There are many lines of evidence that vocalizations of dolphin are classified into clicks and whistles, and that the latter is thought to use verbal communications. All dolphins have the individual whistle, called the signature whistle, to confirm the individuals. The animal-assisted therapy (AAT) has been very popular, using not only dogs and cats, but also dolphins, which is called dolphin-assisted therapy (DAT). The DAT was started in 1978 by Betsy A. Smith and many clinical effects have been reported. However, the differences in the effect between the AAT with dogs and cats and the DAT remain unclear. Consequently, Smith, the pioneer of the DAT, has quitted using dolphins, and now uses dogs for the AAT. There is also an idea that whistles are one of the effective factors on the DAT. The purpose of this study is to investigate how dolphins communicate with people in the DAT program, in order to clarify the factors.

Animals: Two bottlenose dolphins were used: KAI (male, 6 years old) and MISAKI (female, 6 years old). They were held in sea pen (20m×40m, 8m in depth) separated from the open sea by nets, located in Kochi, Japan.

Method: Whistles were recorded before (n = 344), in (n = 534) and after the DAT (n = 127). The DAT for autistic children were held 12 sessions. Recorded whistles for analysis had the following properties: (a) a good signal to noise ratio, (b) clear in the overall contour shape, especially in their beginning and ending points. When successive whistles were encountered, the following criteria were used to consider them individual whistles: (a) a gap between them larger than 200 ms, (b) a frequency difference between the ending-beginning frequency greater than 3 kHz. These selected whistles are representative of the bottlenose dolphin whistle repertoire and the frequency of occurrence of each whistle type. From whistle contours, 7 types and 7 parameters were extracted. All whistle parameters and ratio of types were compared before, in, and after. In the DAT, the relationship between whistle contours and behavior of dolphins was investigated.

Result and Discussion: Ratio of whistle types contours showed significantly difference between before and in the DAT. Almost all the whistle parameters were also significantly different as well. However, there was little difference between in and after the DAT. There was no difference whether dolphin swam toward people or not. However, when dolphin swam near and was taught with people, the contours tended to be more complex than the other behaviors. These results indicate that the whistle contours were increased and complex when the human-dolphin interaction became closer, suggesting that the whistles are one of the most important factors in the human-dolphin interaction, especially in the DAT. The meanings of whistles should be explained in further studies.
Companion animals and nature play an important role in human health and quality of life. And appropriate stewardship of animals and nature depends upon human understanding of the needs of other species. In 1984 the author, a veterinarian, undertook to determine the effects of sharing information on the human/companion animal bond (HCAB) with veterinary clients, the general public and with members of the other health and social care professions in her community.

The results of this social experiment have had a positive influence for people, animals, the natural environment and for the veterinary practice. Knowledge of the HCAB was found to be of particular relevance to health and social care professionals, educators and those working in the field of law. A variety of HCAB programmes were introduced to institutions and the veterinary surgery provided resources on the bond for people from different disciplines. Interdisciplinary working was found to be both energising and synergistic.

Within the veterinary clinic the approach to supporting and strengthening the bond includes pet selection advice; proactive behaviour management; provision of behaviour counselling; team working; recognition of weak and at-risk bonds; provision of crisis support for clients; intervention on clients’ behalf with other agencies, such as housing providers; and pet bereavement support.

Some objectives have proved unexpectedly difficult to implement, for example to achieve positive pets in housing policies. Other objectives where difficulties were anticipated were easily accomplished, for example the introduction of animal welfare education to schools.

Unexpected benefits included the creation of a strong multidisciplinary support network for the veterinary team, providing advice and support, for example when dealing with difficult or sensitive cases. This enables client referral to other agencies as required. The existence of the support network has greatly reduced stress on the veterinary team whilst providing clients opportunities for appropriate intervention, for example advice and support in cases of domestic abuse. Another unexpected benefit has been the ability of members of this interdisciplinary network to work as a team to address situations of environmental concern, for example pollution or loss of wildlife habitat.

Using this approach the bond-centred practice enables knowledge of the HCAB to be applied to the benefit of the whole community encompassing people, companion animals and the natural environment. The creation of a multidisciplinary professional network has far reaching benefits and is an important community resource.
Extemporary Interaction of People to Disabled People With and Without Dogs

Luisa L. Di Biagio\(^1\), Rebecca Sarah Di Biagio\(^1\), Pierluigi Odoardi\(^2\), Elena Guanciali Franchi\(^3\)

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Our university research concerning the “extemporary people’s interaction between people and disabled people with or without animals presence” is called “AAA-AAT: use of pets in therapy and for the facility of social relations”. The study has been presented as degree discussion of psychology class. The study confirmed that the extemporary people’s interaction between people and disabled people with or without animals presence is exorbitant height with the presence of the animal. One of the most first goal for the people who works with disabled people is to make sure they will easily interact with every kind of social relations. Especially for people involved with mental disease and cognitive and relational pathologies is hard to join the everyday social activities. Generally when a person is involved with this kind of interaction this relation end with the relation itself, that’s because this is programmed as part of a project and not real. Usually people disabled has the handicap not to be choosed as a normal speaker with every kind of communicational attitude. Their condition usually tagged them as “hill” who generally means discriminated so for that reason people tend not to interact because they feel as inapproprieted and they have fear to embarace them. We observed and scientifcally studied that the presence of a pet add in a very huge way the penetration of every day activities of the person self. The pet seems like he/she has the power to put the person in a new category; not more as “hill” but as pet care-giver. As a care-giver parameters are different; less unknown and more familiar, helping to add more informations that make an easier interaction and a conversation’s argument that make person envolved in to it but only in a indirect way. To be choosed as an extemporary speaker is very useful. The advantages of the self confidence are huge. Do not understand does not means not to feel it. Disabled people feel like a huge weight to be considered as a social “ghost”. Some disabled people say they won’t have a social life if they had not a pet. At the end of this document you will find attached all the statistic datas of this research.

Interaction with animal M 2,18 N 11 dev Standard 1,168 M err. Standard 0,352
Interaction without animal M 0,09 N 11 dev standard 0,302 M err. Standard 0,091
Time of interaction with animal M 157,00 N 11 dev standard 90,510 M err standard 27,290
Time of interaction without animal M 8,18 N 11 dev Standard 27,136 M err dev standard 8,182

Disabled people had the opportunity, with animal, to manage social relationship. Answering to the questions they smiles and look evidently proud and satisfied. Despite of all this the conversation start thanks to the animal, and, at the beginning is around the animal, often it goes on around personal subjects, and, sometimes this give the opportunity of a new friendship. The people who interact with disabled people was heterogeneous (age, sex, ethnical, etc.).
PAWSabilities; A Unique Animal Assisted Activity Program Developed by the Pet Therapy Society of Northern Alberta

Gaylene M. Fasenko¹, Darlene McDonnell², Marilyn Melnychuk²

¹Department of Agricultural, Food and Nutritional Science, University of Alberta, Canada, ²Pet Therapy Society of Northern Alberta, Edmonton, Alberta, Canada

Since 1995, the Pet Therapy Society of Northern Alberta (an affiliate member of the IAHAIO located in Edmonton, Alberta, Canada) has delivered animal-assisted therapy (AAT) and animal-assisted activity (AAA) programs to hospitals, continuing care centres, and the community. The Society’s “PAWS for a Visit” program provides safe and effective AAT programs by ensuring companion animals are health screened and behaviour assessed, and by orienting volunteers to AAA/AAT. “PAWS in the Classroom” is aimed at bringing experiential learning to students including adolescents identified as being ‘at risk’. In 2003 the Pet Therapy Society introduced PAWS for a Story®. This is an animal-assisted reading mentor program designed to enhance literacy and to encourage the joys of reading by allowing children to practice reading to therapy animals who act as non-judgemental listeners.

Individuals with disabilities often spend significantly less time outside the home, socializing and going out, than individuals without special needs. They tend to feel more isolated and participate in fewer community activities. In 2006 PAWSabilities was developed to bring safe and effective animal-assisted activities to clients who live in assisted living and residential centers in the community. PAWSabilities is a unique animal-assisted activity program for clients of all ages with special needs. PAWSabilities offers a variety of animal-assisted activities adapted for each client’s interests and abilities; arts & crafts, games, music, expressive arts and more. The activities are conducted at the Pet Therapy Society Centre and thus provide an excursion for the clients outside of their home. The primary goal of PAWSabilities is to enhance the physical, cognitive, emotional, social, and leisure development of participants. Clients enjoy variety, challenge and interaction with companion animals. Initial response to the program has indicated that PAWSabilities is stimulating and fun.

The presentation will provide information, in an anecdotal format, about PAWSabilities, including how companion animals are incorporated into various activities, the assessment of clients, risk management issues, and program evaluation.
Content Analysis of New Yorker Cartoons, Examining Companion Animals' Roles Within Society

Amanda L. Taylor

Human Development, Oregon State University, USA

As pets become an increasingly visible part of American households, peoples' relationships with them seems to be becoming more and more complex. The rate of pet ownership in the United States has skyrocketed, with over 50% of households including at least one companion animal (AVMA, 1993). It is currently estimated that there are more people who have pets than there are that have children (Lagoni, Butler, & Hetts, 1994). Along with increases in companion animal ownership have come changes in the roles they play in human lives. Previous research has suggested that people are seeking relationships with animals for companionship and love. Although most pet owners consider their animal to be a member of the family, some researchers believe that companion animals are becoming surrogate children to pet owners (Turner, 2001). To investigate society's representation of people and their pets, a content analysis was performed on 300 New Yorker cartoons of cats and dogs from the years spanning 1975-2006. Analysis of the images and text of cartoons can yield important understanding of public discourse surrounding the role of companion animals in society. Content analysis revealed categories consistent with previous research including obligation, family members and nuisance (Carmack, 1997). New categories also emerged including those of surrogate child and spouse. These categories are discussed and illustrated with particular cartoons and given a theoretical framework.
Demonstrations
Demonstrations

Japan Guide Dog Association

Do you know?
(Oct. 6th 11:30-12:00)

JGDA is one of the nine organizations raising guide dogs in Japan. The number of guide dogs now working in Japan is only 965 (as of March 31, 2007), while it is estimated that approximately 7,800 guide dogs will be needed in the future. JGDA is making every effort to produce as many excellent guide dogs as possible for the visually impaired people who would like dogs to be their walking partners.

Safe and steady walking is carried out through cooperation between a guide dog and a person with visual impairment. The dog gives clues in walking by stopping at a corner, at a curb or in of an obstacle. It is the person that makes a judgment from the clues given by the dog, decides what to do next and tells it to the dog. They walk together communicating with each other in this way.

What is most important in training guide dogs, JGDA believes, is to help dogs think by themselves and understand what they are expected to do. They are highly praised every they do their task well enough, so that they will come to enjoy playing their roles. It is not corporal punishment but enjoyable repetition and a lot of affection that dogs need in order to be good guide dogs.

Azabu University

The Study Dog School® at Azabu University to develop a good relationship between dogs and human
(Oct. 7th 11:30-12:00)

One of four households lives with the dog as a member of the family in Japan. The more people live with dogs, the more problems between dogs and people such as biting, barking, and excretions become seriously. We believe it is important that not only the families who own dogs but also the communities have an appropriate knowledge about dogs, to solve the problems and to build good relationships.

Therefore, we've been providing an opportunity for families including children, who live with their dogs, to learn about dogs, conducting the animal-assisted activities, working with dogs at elementary schools, and nursing homes. Through these activities we've been investigating how to make good communities that dogs and human live together.

At the present demonstration, we'll show you following performances: 1) good relationships among dogs, owners, and children as the result of our studies and activities, 2) our course of dog training “Study Dog School™”, 3) children dancing with dogs.

Japan Service Dog Association

Service dogs in Japan
(Oct. 8th 11:30-12:00)

The history of the service dog has just started in Japan. But our legal environment has been improved amazingly by the “Service Dog Access Law”. The definition of Disabilities in Japan is very different from, for example, the United States. We need to refer to the system of social welfare services for disabilities. The presentation will consist of both information and demonstration of the service dog in Japan. Our Goal is to create a society that is good for people and dogs. Come to experience how the service dog works. We hope to see you all.
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IAHAIO 2007 Tokyo Declaration

Given the scientific and medical evidence proving the beneficial effects to human health and well being arising from interactions with companion animals,

given the biological and psychological evidence for the innate affinity of humans to nature, including other living beings and natural settings,

the members of the International Association of Human-Animal Interaction Organizations unanimously approved the following resolution and guidelines for action at the IAHAIO General Assembly held on October 5, 2007 in Tokyo, Japan.

**It is a universal, natural and basic human right to benefit from the presence of animals.**

Acknowledgement of this right has consequences requiring action in various spheres of legislation and regulation. IAHAIO urges all international bodies and national and local governments:

1. To enact housing regulations which allow the keeping of companion animals if they can be housed properly and cared for adequately, while respecting the interests of people not desiring direct contact with such animals;

2. To promote access of specially selected and trained, healthy, and clean animals to medical care facilities to participate in animal-assisted therapy and/or animal-assisted activities;

3. To recognize persons and animals adequately trained in and prepared for, animal-assisted therapy, animal-assisted activity and animal-assisted education;

4. To allow the presence of companion animals in care/residential centers for people of any age, who would benefit from that presence;

5. To promote the inclusion of companion animals in the school curricula according the “IAHAIO Rio Declaration on Pets in Schools”.