Anjuli Lilly Alice Barber, PhD

Phone:+49 1575 4163983Email:anjulibarber@yahoo.deBirth:August, 5th 1983 in Gütersloh, Germany

Social Media: emometer.blogs.lincoln.ac.uk Twitter @dogemotion

Training and Education

2012 – 2017 Doctorate at the Messerli Research Institute, University of Veterinary Medicine, Vienna

PhD with distinction "Processing and Discrimination of Human Emotions by Pet Dogs"

2008 – 2010 International Master's program 'System Biology of Brain and Behavior', Bielefeld University

Master thesis "The Influence of the Photoperiod on the Breeding Behavior of Zebra Finches (*Taeniopygia gutatta*)" at the Department of Animal Behavior, Bielefeld University

2005 – 2008 Studies in Biology at Bielefeld University

Bachelor thesis "Interaction between Small Mammals – The Influence of Competition and Predation on the Burrowing Behavior of the Common Vole (*Microtus arvalis*)" at the Department of Animal Behavior, Bielefeld University

2003 – 2005 Technical training program as a biological technical assistant at the Carl-Severing-Berufskolleg, Bielefeld

Degree as a government-certified biological technical assistant

2003 General qualification for University entrance

Experience

Feb 2018 – present	Postdoctoral Research Fellow at the Departments of Animal Behavior, Cognition and Welfare (School of Life Sciences) and Perception, Action and Cognition (School of Social Sciences) at the University of Lincoln, UK	
Jan 2021 – present		Guest researcher "The link between laterality and emotional affect in dogs"
Jan 2020 – Jan 202	1	Principal investigator "Consider my Nose!" – Does Nose length affect social cognition in dogs?
Oct 2018 – Nov 202	0	Principal investigator "EMOMETER: Developing an Integrated Toolbox for the Assessment of Emotional Functioning in Dogs"

Feb 2018 – Sep 2018 Scientific Employee "A Comparison between Canines and Humans in the Area of Hearing and Vision"

- April 2012 Jan 2018 Scientific employee at the Department of Comparative Cognition (Messerli Research Institute) at the University of Veterinary Medicine, Vienna
 - April 2016 Feb 2018 Guest researcher "Processing of human faces by pet dogs"
 - April 2012 March 2016 Scientific employee "Proximate and ultimate mechanisms of the link between imitation, emotion and empathy in the domestic dog"
 - July 2014 Feb 2018 Examiner in the commission for the exam as "Tierschutzqualifizierter Hundetrainer/-in" (Animal welfare qualified dog trainer) at the University of Veterinary Medicine, Vienna
 - June 2013 Feb 2018 Supervision of final theses of the postgraduate courses "Angewandte Kynologie" (Applied Cynology) at the University of Veterinary Medicine, Vienna
- Dec 2007 March 2012 Scientific assistance in various departments and areas of responsibilities

Oct 2011 – March 2012 Project participation "Effects of the energetic state on individual differences in sampling behavior and behavioral plasticity in Great Tits" at the Department of Behavioral Ecology, Max Planck Institute for Ornithology, Seewiesen

- July 2011 Sept 2011 Project participation "The influence of early social experience on 'behavioral phenotypes' in Zebra Finches" at the Department of Animal behavior, Bielefeld University
- April 2011– July 2011 Project participation "The relationship between heat shock proteins, heterozygosity and stress resistance in Great Tits" at the Department of Evolutionary Ecology, Bern University
- Nov 2010 Dec 2010 Project participation "The influence of early social experience on 'behavioral phenotypes' in Zebra Finches" at the Department of Animal behavior, Bielefeld University
- April 2010 Nov 2010 Development of a test-battery to investigate 'behavioral profiles' in the Zebra Finch at the Department of Animal Behavior, Bielefeld University
- Jan 2010 Mar 2010 Development and maintenance of a database at the Department of the Biological Collection, Bielefeld University
- May 2009 Preparation of feces of the common vole for glucocorticoid analysis at the Department of Animal Behavior, Bielefeld University
- Dec. 2007 June 2008 Field work with voles and handyman for the perpetuation of several experiments at the Department of Animal Behavior, Bielefeld University

Further Education

Seminars

 Project management (Information Security Awareness (Staff Developmental Program, University of Lincoln, 2020)

- Coaching skills (Staff Developmental Program, University of Lincoln, 2020)
- Conflict Resolution (Staff Developmental Program, University of Lincoln, 2020)
- Digital Accessibility (Staff Developmental Program, University of Lincoln, 2020)
- Giving and receiving feedback (Staff Developmental Program, University of Lincoln, 2020)
- Information Security Awareness (Staff Developmental Program, University of Lincoln, 2019)
- Stress Awareness (Staff Developmental Program, University of Lincoln, 2018)
- Data Protection (Staff Developmental Program, University of Lincoln, 2018)
- Working with International Students (Staff Developmental Program, University of Lincoln, 2018)
- Preventing and Tackling Sexual Misconduct (Staff Developmental Program, University of Lincoln, 2018)
- Equality in the workplace (Staff Developmental Program, University of Lincoln, 2018)
- Safeguarding Children and Vulnerable Adults (Staff Developmental Program, University of Lincoln, 2018)
- Anti-Bullying and Harassment in the Workplace (Staff Developmental Program, University of Lincoln, 2018)
- Electrodermal Activity (CogSci Seminar, Dr. Benedek, Vienna 2014)
- Hundeerziehung Ja, aber richtig! (Dr. Bartels and Prof. Lüschner Vienna 2014)
- Anxiety and Aggression in Dogs (Dr. Schöning, Vienna 2014)
- Dog Physiology (Prof. Erben, Vienna, 2013)

Workshops

- Measuring Animal Behaviour Methods for coding facial and body expressions (Universität Bern, 2019)
- Eye Tracking An Introduction to Eyelink (Goldsmith University, London, 2019)
- Photoshop An Introduction into Design (Staff Developmental Program, University of Lincoln, 2018)
- Search Strategies for Systematic Reviews (The Doctoral School, University of Lincoln, 2018)
- CogSci Summer School: Eye Tracking (CogSci Workshop, Prof. Holmqvist, Vienna 2014)
- Media Training (amwort e.U., Vienna, 2014)
- Behaviour, Cognition and Training in Dogs (Dr. Yin, 2013)
- Canon Foto Academy (Vienna, 2013)
- Interview guide for applications at the VetMedUni Vienna (3S Unternehmensberatung, Vienna, 2013)

Conferences

- 2021 28te Jahrestagung der CCS (Comparative Cognition Society), Virtuell
- 2020 7te Annual Meeting UFAW (University Federation for Animal Welfare Science), Virtuell
- 2019 4^{te} Annual Meeting AWRN (Animal Welfare Research Network), Bristol, UK
- 2018 6^{te} Canine Science Forum, Budapest, H
- 2017 110^{te} Annual Meeting of the DZG (Deutsche Zoologische Gesellschaft), Bielefeld, D
- 2016 6^{te} Vienna Neuroscience Network Meeting, Wien, A
- 2016 5te Canine Science Forum, Padua, I
- 2015 1^{te} CogCom (Cognition and Communication) Student Workshop, Vienna, A
- 2015 23rd International Conference on Comparative Cognition, Florida, USA
- 2015 2^{te} European Student Conference on Behavior and Cognition, Zurich, CH
- 2014 7th European Conference on Behavioral Biology, Prague, CZ
- 2014 23^{te} Annual Meeting of the International Society for Anthrozoology (ISAZ), Vienna, A
- 2014 4^{te} Canine Science Forum, Lincoln, UK
- 2013 55^{te} Conference of Experimental Psychologists (TeaP), Vienna, A
- 2013 3rd Meeting of the "CompCog" (Comparative Cognition), Vienna, A
- 2011 16^{tes} DZG's graduate meeting of evolutionary biologists, Bielefeld, D
- 2008 101^{te} Annual Meeting of the DZG (Deutschen Zoologischen Gesellschaft), Jena, D

Sep 2013 Juni 2013 Nov 2012	Organizer and exhibitor for the Clever Dog Lab at the "Wiener Forschungsfest", Vienna Organizer and exhibitor for the Clever Dog Lab at the "Pet Expo", Vienna Organizer of the mini-workshop "Measuring heart-rate-variability in animals - methods,
	prospective and shady sides" at the University of Veterinary Medicine, Vienna
April 2011 – Nov. 2011	Internship at animetho (Practice for Behaviour Therapy, Dr. Joe Voß, Bielefeld) – Attendance and assistance of behavioural therapies in pet dogs
June 2004	Internship at Biotec GmbH, Gütersloh - Study of the microbiology of almond paste and the advancement of bactericidal surfaces
July 2004	Internship at the Department of Animal Behavior, Bielefeld University - Study of partner selection and parental investment of the Zebra Finch, HPLC-Analysis of carotinoids in the egg-yolk

Funding and Awards

- 2019 Nestlè Purina 2020 Sponsorship for Human-Animal Bond Studies (funding volume 30000GBP)
- 2018 Horizon 2020 Marie Sklodowska-Curie Individual Fellowship (H2020-MSCA-IF-2017, Grant ID 793559, funding volume 250000GBP)
- 2017 Award of Excellence for the best annual dissertations of the Federal Ministry of Science, Research and Economy (BMWFW)
- 2016 Travel grant of the Bureau for International Relations, Vetmeduni Vienna
- 2012 Travel grant of the FFG (Austrian Research Facilitation Society) No. 836613
- 2012 Relocation grant of the FFG No. 838614

Skills and Qualifications

- Languages
 - o German (native)
 - English (fluent)
 - French (basic)

Information technology

- Operating Systems: MS Windows, Unix/Linux (basics)
- o Office: MS Office, Open Office, MS Access, Qualtrics
- Statistics: SPSS, R
- Creatives: Adobe Creative Cloud, GNU Image Manipulation Program, Inkscape (basics)
- o Social Media: WordPress, Twitter, Facebook (basics)
- Programming: Matlab (basics), Python (basics)

Teaching experience

- Delivery of lectures within the scope of the Master's Program "Animal Behaviour and Welfare" in 2019 and 2020
- Supervision and assistances of lectures, laboratory courses and tutorials within the scope of Bachelor's and Master's programs in 2007 (4 month), 2011 (2months) and 2015 (4 months)
- o Supervision of 4 internships to the extent of 2-3 month in 2013, 2014 and 2020

- Supervision of 3 Bachelor's theses to the extent of 6 months in 2010 and 2020
- Supervision of 13 Diplom and Master's theses to the extent of 6-12 months in 2013, 2014, 2015, 2016, 2019 and 2020
- Supervision of 4 homework assignments to the extent of 6 months in 2013 and 2104

Experimental techniques

- Standard observation techniques (scan, interval, focal animals, continuous recording) under standardized, semi-natural conditions and natural conditions in various species (birds, mammals, insects)
- Standard behavioral tests (novel object, novel environment, open field, social interactions, etc.)
- Handling techniques in various species like birds, mammals and insects (weighing, inspection, sampling (saliva, feces, blood), measuring)
- Computer-assisted techniques (transponder/antenna recording, radio telemetry, eye tracking, touchscreen, heart rate monitor, EEG, ECG, Infra-red camera (body surface temperature))
- Biochemistry, Genetics, Microbiology, Cellbiology (PCR, transformation, cell culture, photometry, chromatography including HPLC, spectroscopy, electrophoresis including western blots, microscopy)
- **Miscellaneous** European driving license (B, M and L)

Memberships

- Deutsche Zoologische Gesellschaft (DZG)
- Animal Welfare Research Network (AWRN)
- Comparative Cognition Society (CCS)
- Universities Federation for Animal Welfare (UFAW)

Ad-hoc Reviewer

- PLOS One
- Animal Cognition
- Learning & Behaviour
- Journal of Eye Movement Research

Media (selected)

- Cats v Dogs: Which is Best? Davina Bristow. BBC Two, 2016. Documentation.
- *Wie Tiere fühlen*. Gabi Schlag. ARTE, 2016. Documentation.
- Mensch und Hund: eine irre Beziehung. Peter Krachten. Quarks & Co, WDR, 2016. Documentation.
- The Wonder of Dogs. Jamie Lochead. BBC Two, 2015. Documentation.
- Jagdkumpanen Wie der Hund auf den Mensch kam. Ute Gebhardt. Universum, 2013. Documentation.

Scientific Publications

Peer-Reviewed Research Publications

Barber, A.L.A., Mills, D.S., Montealegre-Z, F., Ratcliffe, V.F., Guo, K. & Wilkinson, A., (2020). Functional Performance of the Visual System in Dogs and Humans: A Comparative Perspective. Comp Cog Beh Rev. (in press).

Barber, A.L.A., Guo, K., Ratcliffe, V.F., Wilkinson, A., Montealegre-Z, F. & Mills, D.S., (2020). A Comparison of Hearing and Auditory Functioning between Dogs and Humans. Comp Cog Beh Rev. (in press).

Barber, A.L.A., Müller, E.M., Müller, C.A., & Huber, L. (2017). Heart rate in pet and lab dogs during exposure to human facial expressions. ARC Journal of Animal and Veterinary Sciences 3(2): 46-55.

Huber, A., **Barber, A.L.A.**, Müller, C. & Huber, L. (2017). Empathic-like responding in dogs to emotional sounds of humans and conspecifics. *Animal Cognition*. doi:10.1007/s10071-017-1092-8

Barber, A.L.A., Randi, D., Müller, C.A., & Huber, L. (2016). The processing of human emotional faces by pet and lab dogs: evidence for lateralization and experience effects. *PLoS One* 11(4): e0152393.

Müller, C.A., Schmitt, K., **Barber, A.L.A**., & Huber, L. (2015). Dogs can discriminate emotional expressions of human faces. *Current Biology* 25 (5): 601-605.

Conference Proceedings

Active contributions

Barber, A.L.A., Randi, D., Einheimler, P., Karl, S., Müller, C., Huber, L. (2016). Dog's Perception and Understanding of Human Faces and Emotions. Poster presentations at the 6th Vienna Neuroscience Network Meeting, Vienna, Austria.

Barber, A.L.A., Randi, D., Müller, C.A., Huber, L. (2016). *What Eye-Tracking Reveals about Dog's Perception and Understanding of Humans.* Poster presentation at the 5th Canine Science Forum, Padua, Italy.

Barber, A.L.A., Huber, A., Windsteig, V., Berczik, J., Fürdös, I., Müller, C.A., Huber, L. (2015). *Do Dogs Prefer Imitating over Non-Imitating Humans?*. Talk at the CogCom (Cognition and Communication) Student Workshop, Vienna, Austria.

Barber, A.L.A., Randi, D., Müller, C.A., Huber, L. (2015). *Perception of Human Emotional Faces by Pet and Lab Dogs*. Talk at the Second European Student Conference on Behavior and Cognition, Zurich, Switzerland.

Barber, A.L.A., Müller, E., Randi, D., Huber, L. (2014). *Like Me - Behavioral and Physiological Correlates of Empathy and Emotions in Dogs*. Talk at the 23rd annual meeting of the International Society for Anthrozoology (ISAZ), Vienna, Austria.

Barber, A.L.A., Müller, E.M., Randi, D., Huber, L. (2014). *Emotion Contagion in Pet- and Lab Dogs: An Investigation of Behavioral and Physiological Correlates*. Poster presentation at the 4th Canine Science Forum, Lincoln, UK.

Barber, A., Huber, L. (2013). *Physiological and Behavioral Correlates of Emotions and Empathy in Dogs*. Talk at the 55th Conference of Experimental Psychologists (TeaP), Vienna, Austria.

Barber, A., Müller, E., Randi, D., Huber, L. (2013). *Like Me - Behavioral and Physiological Correlates of Empathy and Emotions in Dogs*. Poster Presentation at the 3rd Meeting of the "CompCog" (Comparative Cognition), Vienna, Austria.

Barber, A., von Engelhardt, N. (2011). *The Influence of the Photoperiod on the Breeding Behavior of the Zebra Finch (Taeniopygia guttata)*. Poster presentation at the 16th graduate meeting of evolutionary biologists Posterpräsentation of the Deutschen Zoologischen Gesellschaft (DZG), Bielefeld, Germany.

Barber, A., Ellmer, M., Eccard, J. (2008). *Encounters Underground – Effects of shrew presence on the burrowing behavior of common voles*. Poster presentation at the 101st annual meeting of the Deutschen Zoologischen Gesellschaft (DZG), Jena, Germany.

Passive Contributions

Huber, A., Müller, C.A., **Barber, A.L.A**., Faragó, T., Huber, L. (2016). *Emotional contagion in dogs (Canis familiaris)* to sounds of humans and conspecifics. Poster presentation at the 5thCanine Science Forum, Padua, Italy

Huber, L., Schmitt, K., **Barber, A**., Müller, C.A. (2015). *Domestic dogs can discriminate personal identities and emotional expressions of human faces.* Talk at the 23rd International Conference on Comparative Cognition, Melbourne, Florida, USA.

Huber, L., **Barber, A**., Müller, C. (2015). *Dog-human interaction: what we understand about dogs and dogs understand about us*. Workshop: "Social relationships and cognitive competences in the domestic dog: bridging science and education", Erice, Italy.

Randi, D., **Barber, A.**, Müller, C.A., Huber, L. (2014). *Emotion Recognition in Laboratory Beagles: An Eye-tracking Study*. Poster presentation at the 7th European Conference on Behavioral Biology, Prague, Czech Republic.

Müller, C.A., Schmitt, K., **Barber, A**., Huber,L. (2014). *Dogs Discriminate Emotional Expressions of Human Faces in Pictures*. Talk at the 7th European Conference on Behavioral Biology, Prague, Czech Republic.

Müller, E.M., **Barber, A.L.A**., Müller, C.A., Huber, L. (2014). *Cardiac Responses of Dogs to Emotional Expressions of Humans*. Poster presentation at the 4th Canine Science Forum, Lincoln, UK.

Huber, L., **Barber, A.L.A.** (2014). *Eye-tracking as a window into the cognitive and emotional minds of dogs.* IMPROVE-Meeting, Lund, Schweden.