CURRICULUM VITAE I Magdalena Boch, M.Sc

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Nationality: Austrian

CV last updated: December, 2021

EDUCATION

since 10/2017 **Ph.D. candidate I** *Psychology*

Faculty of Psychology, *Social Cognitive and Affective Neuroscience (SCAN) Unit*
Faculty of Life Sciences, *Department of Behavioural and Cognitive Biology*
University of Vienna, Vienna, Austria

Thesis: "*How dogs and humans perceive and understand each other: A comparative canine neuroimaging approach*"

Supervisor: Prof. Claus Lamm, Co-supervisors: Prof. Ludwig Huber & Dr. Isabella Wagner

09/2017 **M.Sc. I** *Psychology* (*with distinction / summa cum laude*)

Track: Social Neuroscience, Cognitive Psychology and Research Methods

University of Vienna, Vienna, Austria

Thesis: "*The triangular relationship between TV viewing, perception of capital punishment and chance. An endorsed and reviewed preregistered replication and meta-analysis.*"

Supervisor: DDDr. Martin Voracek

09/2015 **B.Sc. I** *Psychology*

University of Vienna, Vienna, Austria

Thesis 1: "*The impact of two opposed learning strategies on the outcome of multiple choice vs. open-ended question format*" Supervisor: Dr. Marco Jirasko

Thesis 2: "*Homophobic bullying and victimization from the perspective of lesbian, gay and bisexual (LGB) adolescents*" Supervisor: Dr. Elisabeth Stefanek

ACADEMIC POSITIONS & RESEARCH EXPERIENCE

2021-2022 **6-month research stay I University of Oxford**
Wellcome Centre for Integrative Neuroimaging

Cognitive Neuroecology Lab of Ass.-Prof. Rogier Mars
Project: Comparing brain areas for social behaviour in humans and dogs: A case on convergent evolution?
Methods: resting state fMRI data of dogs and humans, fingerprint connectivity analysis

since 10/2017 **Ph.D. candidate I University of Vienna, Vienna, Austria**
Department for Cognition, Emotion, and Methods in Psychology
Department of Behavioural and Cognitive Biology

Social Cognitive and Affective Neuroscience Unit of Prof. Claus Lamm
Comparative Canine Neuroimaging Unit of Prof. Claus Lamm and Prof. Ludwig Huber

2017 **Research internship I** *University of Vienna, Vienna, Austria*
Department for Cognition, Emotion, and Methods in Psychology, Faculty of Psychology (summer internship)

Social, Cognitive and Affective Neuroscience (SCAN) Unit of Prof. Claus Lamm

Project: „*The effects of violent video games on empathy and prosocial behaviour*"
Tasks: Assistance in functional MRI and behavioural study planning, data acquisition, recruitment and administrative issues

2016   **Research & applied neuropsychology internship I** *Vienna General Hospital, Vienna, Austria*
Department of Paediatrics and Adolescent Medicine (summer internship)

Subunit: *Paediatric Neuro-Oncology* lead by Dr. Thomas Pletschko

Tasks: Literature research on effects of neuropsychological trainings, conducting clinical and neuropsychological diagnostics with preschool children diagnosed with neurofibromatosis type 2 and paediatric neurological cancer survivors, preparation of opinion reports and administrative issues.

PUBLICATIONS (*equal author contributions)

ORCID: https://orcid.org/0000-0003-3627-5180
Google Scholar: https://scholar.google.com/citations?user=-3iMARMAAAAJ&hl=de&oi=ao
Github: https://github.com/magdalenaboch

2021   **Boch, M.**, Wagner, I.C., Karl. S., Huber, L.*, & Lamm, C.* Similarities and differences of face and body perception in the dog (*Canis familiaris*) and human brain. *biorxiv,* doi:10.1101/2021.08.17.456623.

Boch, M., Karl, S., Sladky, R., Huber, L., Lamm*, C. & Wagner*, I. C. (2021). Tailored haemodynamic response function increases detection power of fMRI in awake dogs (*Canis familiaris*). *Neuroimage*, doi:10.1016/j.neuroimage.2020.117414

Bukowski, H., Todorova, B., **Boch, M.,** Silani, G., & Lamm, C. (2021). Socio-cognitive training impacts emotional and perceptual self-salience but not self-other distinction. *Acta Psychologica.* doi:10.1016/j.actpsy.2021.103297

2020   Karl S, **Boch, M.,** Zamansky A, van der Linden D, Wagner IC, Völter CJ, Lamm* C, Huber* L (2020). Exploring the dog-human relationship by combining fMRI, eye-tracking and behavioural measures. *Scientific Reports,* doi:10.1038/s41598-020-79247-5

Bukowski, H., **Boch, M.,** Lamm, C., & Silani, G. (2020). Is Self-Other distinction malleable? Egocentric and altercentric biases in empathy are modulated by priming attachment style and similarity mindsets. *psyArXiv*. doi: 10.31234/osf.io/bpyvz

Karl, S., **Boch, M.**, Virány, Z., Lamm, C., & Huber L. (2020). Training pet dogs for eye-tracking and awake fMRI. *Behavior Research Methods*, 1-19. doi:10.3758/s13428-019-01281-7

2019   **Boch, M.,** Tran, U. S., & Voracek, M. (2019). Does really one in ten believe capital punishment exists in a contemporary European Community country? An endorsed, prereviewed, preregistered replication study and meta-analysis. *Frontiers in psychology,* 10, 1601. doi:10.3389/fpsyg.2019.01601

2017   **Boch, M.** & Lamm, C. (2017). The multiple facets of empathy. *Animal Sentience*, 14(14).

OSF I *Projects & Preregistrations*

2021   **Boch, M.,** Wagner, I., Karl, S., Huber, L., & Lamm, C. (2021, December 8). Similarities and differences of face and body perception in the dog (Canis familiaris) and human brain. Retrieved from osf.io/kzcs2

2020   Karl, S., **Boch, M**., Wagner, I., Lamm, C., & Huber, L. (2020, May 7). Exploring the dog-human relationship using a multimethod approach: Combining fMRI, eye tracking and behavioral measures. Retrieved from osf.io/kagy3

2017   **Boch, M.**, & Voracek, M. (2017, June 13). Endorsed Pre-Registered Replication: Till et al. (2016). Retrieved from osf.io/9qagr

INVITED TALKS

07/2021   **Boch, M.**, Wagner, I.C., Karl. S., Huber, L., & Lamm, C. *Face, body and object representation in dog and human brain. Canine Science Forum*, virtual conference.

04/2021	**Boch, M.**, Wagner, I.C., Karl. S., Huber, L., & Lamm, C. *Face, body and object representation in the human and canine occipito-temporal cortex.* 28th International Conference on Comparative Cognition, virtual conference.
01/2021	**Boch, M.**, *How dogs and humans perceive and understand each other: A comparative neuroimaging approach.* Institutional talk at the Cognitive Neuroecology Lab, University of Oxford, Oxford, United Kingdom (virtual)
04/2018	**Boch M.**, Tran, U.S. & Voracek, M. *A State-of the-Art Replication Study: Close, conceptually extended, endorsed, preregistered, pre-reviewed*. Austrian Association of Psychological Science (ÖGP) annual meeting 2018, University of Linz, Austria.
11/2018	Karl, S., **Boch, M.**, Lamm, C & Huber, L. *Don't move! Training pet dogs to use functional magnetic resonance imaging (fMRI)*. II International Conference on Animal Training, Warsaw, Poland.

CONFERENCE POSTERS (selection)

2021	**Boch, M.** Wagner, I.C., Karl. S., Huber*, L., & Lamm*, C. *Face, body and object representations in the dog and human rain*. 43rd Annual Meeting of the Cognitive Science Society, virtual conference.
	Boch, M. Wagner, I.C., Karl. S., Huber, L., & Lamm, C. *Face, body and object representation in canine temporal and occipital cortices*. ESCAN, virtual conference.
2021	**Boch, M.** Wagner, I.C., Karl. S., Huber*, L., & Lamm*, C. *Face, body and object representation in the human and canine occipito-temporal cortex*, SfN Global Connectome, virtual conference.
2020	Karl, S., **Boch, M.,** Lamm, C. & Huber. *Exploring the dog-human relationship: Combining fMRI and eye-tracking in attentive dogs*. 70 Years of Attachment Research: A Multidisciplinary Social Neuroscience Perspective, University of Essex, United Kingdom (*held online*)
2019	Karl, S., **Boch, M.,** Lamm, C. & Huber. *Who do you prefer? Investigating the human-dog attachment system in pet dogs*, 6th European Student Conference on Behaviour & Cognition, 2019, Padua, Italy.
	Boch, M., Karl, S., Wagner, I. C., Windischberger, C., Huber L. & Lamm, C. *A rewarding human smile? Neural correlates of canine emotion perception*, OHBM Annual Meeting 2019, Rome, Italy.
	Karl, S., **Boch, M.**, Lamm, C. & Huber. *Whom do you prefer?* Messerli Scientific Advisory Board Meeting, 2019, University of Veterinary Medicine, Vienna, Austria.
2018	Karl, S., **Boch, M**., Lamm, C. & Huber. *Whom do you prefer?* VetScience Day, 2018, University of Veterinary Medicine, Vienna, Austria. • **Awarded best poster**
	Boch, M., Karl, S., Wagner, I. C., Huber L. & Lamm, C. *A rewarding Human Smile: An fMRI study investigating canine emotion perception*. From Self-Knowledge to Knowing Others, 2018, Brussels, Belgium.
	Boch, M., Karl, S., Wagner, I. C., Huber L. & Lamm, C. *A rewarding Human Smile: An fMRI study investigating canine emotion perception*. Canine Science Forum, 2018, Budapest, Hungary.
	Karl, S., **Boch, M.,** Lamm, C. & Huber L. *Training pet dogs to use functional magnetic resonance imaging (fMRI)*. Canine Science Forum, 2018, Budapest, Hungary.
	Boch, M., Karl, S., Huber L. & Lamm, C. *How dogs and humans perceive and understand each other: A canine neuroimaging approach.* Annual Poster Session, Faculty of Psychology, University of Vienna, 2018, Austria. • **Awarded best poster**

ACADEMIC SCHOLARSHIPS & AWARDS

2021	Marietta Blau Scholarship, OeAD – Austria's Agency for Education and Internationalisation, Austria (9.480€)
2019	Travel grant, Jungwissenschaftler-Fond, University of Vienna, Austria (600€)
2018	Travel grant, Jungwissenschaftler-Fond, University of Vienna, Austria (600€)
	Best Poster Award: Young Scientists Poster Session, Faculty of Psychology, Vienna Austria
	Scholarship for excellent academic achievements, University of Vienna, Vienna, Austria (751€)

2017   Scholarship for excellent academic achievements, University of Vienna, Vienna, Austria (750€)

TEACHING & SUPERVISION

2019-20   Supervision of 1 master student, graduation in fall 2020, thesis title: "*Emotion processing and lateralization in the canine brain*" • with distinction

since 2017   Supervision of > 20 interns and coordination and extensive training and ongoing supervision of 3 research assistants to help acquire MRI data from awake and unrestrained dogs

2019, 2020   Teaching assistant, course name: "Theorie & Empirie wissenschaftlichen Arbeitens" (winter term)

                Topic: A course on theoretical background and practical steps necessary to perform and interpret functional magnetic resonance imaging (fMRI) data analysis. Main task: practical sessions, and conceptual sessions focusing on comparative (imaging) research in humans and non-human animals, and open science.

AD-HOC REVIEWER

Journal of Comparative Neurology, Neuroimage

DOCTORAL SCHOOLS & PROGRAMS

since 2017   Vienna Doctoral school CoBeNe (Cognition, Behaviour, Neuroscience), **Behavioral & Cognitive Biology** program. Speaker: Prof. Thomas Bugnyar, University of Vienna, Vienna, Austria

                Doctoral program (DK) "**Cognition and Communication 2**" (Chair: W. Tecumseh Fitch), University of Vienna and University of Veterinary Medicine, Vienna, Austria

WORKSHOPS & SUMMER/WINTER SCHOOLS

10/2021   Three-day **grant writing retreat and workshop**, online.
Organiser: Doctoral college Cognition & Communication 2, Writing Coach: Dr Iain Patten.

02/2021   Winter School: **MRInference: From data to knowledge**, University of Padua, Italy (virtual).
Organisers: Assoc. Prof. Livio Finos, Dr. Paolo Girardi

09/2020   **Pattern Recognition in Neuroimaging (PRNI) Virtual Summer School**, Vienna, Austria.
Organiser: Prof. Moritz Grosse-Wentrup

01/2020   Five-day **writing retreat and scientific writing workshop,** Baden Austria.
Organiser: Doctoral college Cognition & Communication 2, Writing Coach: Dr Iain Patten.

11/2018   Workshop **From Self-Knowledge to Knowing Others**. Brussels, Belgium.
Organisers: Dr. Samson & Dr. Bukowski.

09/2018   Summer School: **The Visceral Mind**. Bangor, United Kingdom.
Organisers: Drs Turnbull, Watson, Muhlert, Thiebaut de Schotten, Bracewell & Thierry.

09/2017   Four-day **SPM 12** and **Matlab course** (Fall 2017), Institute for Systems Neuroscience, UKE Hamburg, Germany.
Lectures and practical fMRI analysis training in univariate, multivariate and resting state analysis .

ORGANIZATION, INVOLVEMENT & SCIENTIFIC OUTREACH

2021   Co-organization of a **2-day workshop** surrounding the topic "***How to become a Post-doc***" targeted at PhD candidates in their final year – tasks ranged from project ideas and conceptualization to organization of speakers (principal investigators and post-docs) and attendees and moderation of the workshop.

since 2018   Administration of the **Comparative Canine Neuroimaging Unit (CCNU) Website** with updates on current projects, publications and facilities (ccnu.univie.ac.at)

2020-2021	**"Kinderuni"** (engl. children's university): half-day workshop for children aged 7-9 years old with a focus on social cognition (rubber hand illusion, playing games to train perspective taking and empathy) and the brain in general (making brain helmets, matching brains and animals quiz)
2018 & 2020*	**"Lange Nacht der Forschung"** (engl. Long night of research): Information booth on psychological research in the psychology department (e.g. "How do we measure affective touch? How do dogs stay motionless during MRI data acquisition and why do we study dogs?"), paired with quizzes (e.g. facts about the brain) and actual data collection (emotion discrimination task) *postponed to 2021 due to COVID-19*
2018	Photo Competition **"My Research in one Picture"**, University of Vienna, Austria. • **Top 10 finalist**
2017-2018	Co-Coordinator and **Host of the Journal club** at the Social Cognitive and Affective Neuroimaging Unit

SKILLS & CERTIFICATIONS

Data acquisition

- Extensive training and certification for Siemens Magnetom Skyra MR system

- Development of functional MRI data acquisition protocol for fully awake and unrestrained dogs (*Canis lupus familiaris)*

- Facial EMG (conduction & analysis of a small study within a research internship)

- Experimental control using Psychopy (Python) and Cogent (Matlab)

- Eye-tracking with Eyelink 1000 Plus, SR Research, Ontario, Canada

Data analysis I Coding

- Excellent Matlab skills including toolboxes such as SPM:
  univariate, psycho-physiological interaction, representational similarity analysis

- Neuroimaging analysis using FSL and bash scripting

- Development of preprocessing and analysis pipeline for dog MRI data

- Python including toolboxes such as nilearn (data visualization) and nipype (human MRI data analysis)

- R (multivariate statistics, data visualization)

- ITK-snap (manual segmentation and labelling)

- State-of-the-art open science methods such as pre-registration, safeguard power analysis, small telescopes approach and (better) *p*-curve

- Other software: SPSS (multivariate statistics), Psychometrics (Mokken scale analysis), Photoshop, TYPO3 (Content Management System)

Languages

- German (native)

- English (proficient)

- French (A-levels)