

Curriculum Vitae Christoph Bamberg



Profile

I recently joined the Eating Behavior Lab Salzburg as a PhD student. I am continuing work that I started at the University of Auckland and Maastricht University. In the coming months, I will do a thorough investigation of how Intermittent Fasting affects us individually. I recently participated in a many-analysts EEG project, am currently producing a preregistered meta-analysis, and run an online study. I am intensely studying Bayesian statistics, Machine Learning tools and am excited about open science practices. I enjoy analysing data as much as coming up with creative research questions.

Education

PHD | EATING BEHAVIOR LAB, PARIS LODRON UNIVERSITY, SALZBURG, AT | SINCE 10.2022

- First supervisor: Prof. Jens Blechert
- Developing a controlled, longitudinal, high sampling experiment on the effects of Intermittent Fasting on cognitive performance, interoception, mood and body
- Continuing my work on a Meta-Analysis and online study

PHD | BRAIN DYNAMICS LAB, THE UNIVERSITY OF AUCKLAND, NZ | 06.2021 - 04.2022

- First supervisor: Prof. David Moreau, second supervisor: Dr. Christopher Erb
- Conducting a systematic review and meta-analysis
- Participated in a many-analysts project for EEG analysis
- Visiting the Eat-Lab in Maastricht, conducting an online study (ongoing)
- Note: I started this PhD remotely but could not continue due to the ongoing Covid-19 pandemic and resulting administrative changes at the university.

M.SC. COGNITIVE SCIENCE | RUHR UNIVERSITY BOCHUM, GER | 10.2017 - 10.2019

- Final grade: 1.2 (first class honours degree)
- Courses included cognitive science, psychology, neuropsychology, psychiatry, research methods (EEG, fMRI), philosophy of mind, philosophy of science

SUMMER SCHOOL ANALYSING NEURAL TIME SERIES DATA | RADBOUD UNIVERSITY, NL | 08.2019

- Instructor: Prof. Mike X. Cohen
- Studied mathematical foundations of time frequency analysis, Fourier transformation, simulating data
- Focused on programming exercises in Matlab



- ▶ Final grade: 2.0 (upper second class honours degree)
- ▶ Bachelor thesis on explanations of behaviour in the Wason Selection Task. Supervisor: Prof. Olivier Roy
- ▶ Courses included logic, statistics, theory of science, decision theory, economics
- ▶ Spent one semester in Estonia, studying at the Tallinn University of Technology

Publications

IN PEER-REVIEWED JOURNALS

- ▶ Bamberg C, Flasbeck V, Juckel G, Brüne M. *Central serotonergic activity is affected by fasting and selective uptake of nutrition*. Clinical EEG and Neuroscience, 2021. doi: 10.1177/15500594211000925
- ▶ Bamberg C*, Flasbeck V*, Diop S, Brüne M. *Ecology of cooperation: the influence of fasting and satiety on interpersonal trust*. Soc Neurosci., 2021. doi:10.1080/17470919.2021.1876758
- ▶ Flasbeck V, Bamberg C, Brüne M. *Short-term fasting and ingestion of caloric drinks affect heartbeat-evoked potentials and autonomic nervous system activity in males*. Front. Neurosci., 2021, doi: 10.3389/fnins.2021.622428

*these authors contributed equally

PREREGISTRATIONS

- ▶ Bamberg C, Roefs A. (2022). *The Relationship between Eating and Concentration*. <https://osf.io/v48ht>
- ▶ Bamberg C, Moreau D. (2021). *A Meta-Analysis of the Effects of Temporary Calorie Restriction on Cognitive Performance*. <https://osf.io/95ykw/>
- ▶ Bamberg C, Hagelweide K, Üngör M, Weigelt S. (2020). *Flexibility and extinction in teenagers*. <https://osf.io/ep5ua>

Presentations

- ▶ Poster. *Cognitive Performance Is Not Worse When Fasted, a Preregistered Meta-Analysis*. SAMBA Salzburg Mind Brain Annual Meeting, Salzburg. 07.2022
- ▶ Poster. *A Meta-Analysis of the Effects of Temporary Calorie Restriction on Cognitive Performance*. Mind Brain Body Symposium 2022. Online. 03.2022
- ▶ Talk. *Developmental trajectories of flexible feedback processing and probabilistic reversal learning from late childhood to adulthood*. TeaP 2021. Online. 03. 2021
- ▶ Poster. *Fasting and nutrition affect the Loudness Dependence of Acoustic Evoked Potentials*. Live MEEG 2020. Online. 10. 2020
- ▶ Poster. *Developmental changes in extinction learning from infancy to adulthood*. IGSN-BIOME-CRC1280 conference on extinction learning, Bochum, 02. 2020
- ▶ Talk. *Trust is disrupted by physical needs and is payed when it seems worth it*. 16th annual conference of the Italian Association for Cognitive Science AISC, Rome, 12. 2019

Funding and Prizes

- ▶ Scholarship for the promotion of scientific theses. Paris Lodron University Salzburg. Funding amount: 2,000€.
- ▶ Poster Prize, 3rd place. SAMBA Salzburg Mind Brain Annual Meeting. 07.2022. <https://samba.ccns.sbg.ac.at/samba-2022/>

- ▶ Special Poster Prize. Mind Brain Body Symposium. 03. 2022. <https://www.cbs.mpg.de/en/mbb-symposium/details>

Research

GUEST RESEARCHER | EAT-LAB, MAASTRICHT UNIVERSITY, NL | 02.2022 - PRESENT

- ▶ PI Anne Roefs, Eat-Lab, Department of Clinical Psychological Sciences, Faculty of Psychology and Neuroscience
- ▶ Conducting an online study on the effects of hunger and subjective expectations on concentration

RESEARCH ASSISTANT | TECHNICAL UNIVERSITY DORTMUND, GER | 11.2019 - 05.2021

- ▶ PI Prof. Sarah Weigelt, subproject of the Collaborative Research Centre CRC1280
- ▶ Conducted an fMRI study on extinction learning in adolescence
- ▶ Designed a novel reversal learning paradigm for a preregistered online study on cognitive flexibility across different ages
- ▶ Collected, analysed and presented the results of the online study
- ▶ Supervised and guided two student assistants, an intern, a bachelor and master thesis

MASTER THESIS PROJECT | LWL PSYCHIATRIC CLINIC, BOCHUM | 08.2018 - 10.2019

- ▶ Supervisor Prof. Martin Brüne, Dr. Vera Flasbeck
- ▶ Conducted a study on the effects of fasting and eating on cortical serotonergic activity (measured indirectly through acoustic evoked EEG-potentials) and social behaviour
- ▶ Using a repeated measures, cross-over, double blind design
- ▶ Analysed behavioural, electrophysiological and electrocardiographic data, wrote manuscripts for publication
- ▶ Helped standardising the analysis pipeline in the clinic.

STUDENT ASSISTANT | BERGMANN SHEIL CLINIC, BOCHUM | 03.2018 - 01.2019

- ▶ PIs Prof. Albert Newen, Prof. Martin Tegenthoff, Prof. Martin Brüne
- ▶ Assisted in a study on the effects of hypnotic suggestions on tactile acuity and associated neural representations
- ▶ Performed and analysed EEG measurements of resting state and somatosensory evoked potentials

Teaching

LECTURER | PARIS LODRON UNIVERSITY | 04.2023 - 08.2023

- Graduate level seminar for practical research skills
- Supervising students in their projects, teaching programming skills

SUBSTITUTE LECTURER | PARIS LODRON UNIVERSITY | 05.2023, 02.2023

- Lecture on health psychology for BA students

GUEST LECTURER | UNIVERSITY OF BAYREUTH | 04.2019

- Guest lecturer for an undergraduate level block seminar with 18 students
- Seminar introduced students to research in cognitive science, philosophy of mind and neuroscience
- Graded students' presentations and essays

TUTOR | RUHR UNIVERSITY BOCHUM | 09.2018 - 03.2019

- Tutor for logic and theory of science accompanying a graduate level lecture
- Drafted exercises, supervised the students in class and graded their final exam

TEACHER AT SUMMERSCHOOL | LEUPHANA SUMMER ACADEMY | 08.2017 - 09.2017

- Summer school for students from less privileged backgrounds, preparing them for their graduation
- Tutored students in mathematics and presentation skills, helped them find an apprenticeship

Science Communication

LEARNING BAYESIAN STATISTICS PODCAST | 04.2022 - PRESENT

- Promoting the podcast on social media, cutting interesting sound snippets and creating abstracts
- Writing and publishing newsletter for listeners
- Hosting webinars
- <https://learnbayesstats.com/>

PINT OF SCIENCE FESTIVAL | 05.2022

- Organising and hosting a science festival to promote local science
- <https://pintofscience.at/team/Salzburg>

Skills

EXPERIMENTATION

- EEG recordings with different systems, EOG, ECG
- Acoustic evoked potentials, somatosensory evoked potentials
- Functional (fMRI) and structural neuroimaging (MRI) (Philips scanner) with simultaneous heartbeat and respiration recordings
- Physiological measurements, i.e. two-point discrimination threshold, blood glucose
- Developing behavioural paradigms with Psychopy (Python)
- Systematic literature search and review

DATA ANALYSIS

- Statistical analysis with R and Python
- EEG data preprocessing and analysis with MNE Python
- Behavioural data preprocessing with Python
- Meta-analysis

Voluntary work

LANGUAGE CAFÉ FOR UKRAINIAN COMMUNITY | SALZBURG | 05.2023 - PRESENT

- Helping Ukrainian refugees improve their German skills

START WITH A FRIEND | DORTMUND | 09.2020 - 01.2021

- Established friendships in 1:1 tandem partnership with a person with immigration background

STUDY BUDDY MENTORSHIP | RUHR UNIVERSITY BOCHUM | 04.2018 - 04.2020

- Helped international students arriving in Bochum to integrate and manage bureaucratic affairs

DEVELOPMENT AID VOLUNTEERING | LIUKU, YUNNAN, CHINA | 09.2012 - 10.2013

- Taught English at a rural middle school
- Cared for children in need and people affected by civil war
- Organised and held hygiene training courses and used cloth collections
- Established a godparent program that enabled children to visit primary school