

# Sarolta Bakos

Postdoc Researcher

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*Life/Data Scientist and Neuro-Cognitive Psychologist with experience in ERP and neurophysiological research. Expertise in data analytics, research design and methodology with a background in the field of developmental and psychiatric disorders. Proficient in EEG laboratory equipment use and techniques. Skilled Researcher, enthusiastic about supporting advancements in the research field interoception and its interaction with psychological wellbeing and health.*

## Skills

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MATLAB, R, *intermediate*

MS Office, Windows, Unix/Linux, Shell, *advanced*

Python, *intermediate*

Statistics (IBM SPSS), *expert*

BrainVision Analyzer, *expert*

EGL's Net Station, *expert*

Analytical skills, *strong*

Neuropsychology/Neuroscience/Biological Psychology, *expert*

Research/Study planning and execution, *expert*

Writing about and presenting scientific methods and results, *expert*

## Work History

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**2023/01 –**

### **Postdoc Researcher / Lecturer**

*Charlotte Fresenius Hochschule, Munich*

*(University of Psychology – Department of Biological Psychology &*

*Experimental Psychopathology – Prof. Beate M. Herbert)*

- Setup and Establishment of the neurophysiological (EEG) and peripheral physiological (EGG, ECG) laboratory and research facilities.
- Lecture and supervision of student projects in neuropsychology and biological psychology.

- Development and conduction of research on the interplay of interoception and psychological health and wellbeing utilizing behavioral and neurophysiological methods.

**2021/10 – 2022/12**

**Application Specialist (Brain Science)**

*Biomax Informatics AG, Planegg*

- Performed troubleshooting, maintenance and optimization of NICARA (NeuroImaging Based Connectome Assessment in Research and Application) applications.
- Created system designs and developed presentation materials for NICARA 2.0 for novel application fields.

**2019/10 – 2021/09**

**Healthcare Data / Database Manager**

*Kassenaerztliche Vereinigung Bayerns, Munich*

- Managed and maintained Medical Patient Data.
- Maintained and improved the Data Base Management System and the Data Processing Pipeline.
- Developed information extraction and monitoring practices.

**2018/03 – 2018/08**

**Research Trainee**

*Psychiatry Neuroimaging Laboratory, Harvard Medical School, Boston*

- Research training in DTI (diffusion tensor imaging) basics and methodology.
- Analyzed and interpreted results of a large-scale longitudinal DTI study.

**2015/04 – 2020/09**

**Doctoral Student / Postdoc Researcher**

*University Hospital of the Ludwig-Maximilians- University, Munich*

*(Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy – Prof. Gerd Schulte-Koerne)*

- Raised funding for research projects and managed research projects / scientific studies.
- Developed study design and methodological approaches in the research field.
- Conducted ERP/behavioral research and analysis, maintained and monitored the use and proper functioning of the ERP lab.
- Wrote research papers, reports, reviews, and summaries on the topic of developmental and psychiatric disorders and disabilities.
- Disseminated scientific results on national and international conferences and seminars.

**2011/12 – 2015/03**

**Research Assistant**

*University Hospital of the Ludwig-Maximilians- University, Munich*

*(Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy – Prof. Gerd Schulte-Koerne)*

- Conducted ERP/behavioral research and analysis
- Acquired and analyzed neurophysiological and behavioral data, wrote research reports and summaries

## Education

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- 2018/10 – 2023/01**      **Master of Science: Data Science**  
*Albstadt-Sigmaringen University - Albstadt*
- 2015/04 – 2019/02**      **Doctorate: Human Biology (Dr. rer. biol. hum.)**  
*Ludwig-Maximilians-University - Munich*
- 2012/10 – 2014/09**      **Master of Science: Neuro-Cognitive Psychology**  
*Ludwig-Maximilians-University - Munich*
- 2009/10 – 2012/07**      **Bachelor of Science: Psychology**  
*Ludwig-Maximilians-University - Munich*

## Selected Talks and Appearances

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- 2019**      **21st Conference of the European Society for Cognitive Psychology, Tenerife, Spain**
- *Chair: "Experimental Approaches to Reading Acquisition"*
  - *Talk: "Neurophysiological underpinnings of orthographic processing depth: a comparison between word recognition and written word production"*
- 2017**      **Twenty-Fourth Annual Meeting: Society for the Scientific Study of Reading, Halifax, Canada**
- Talk: "Neurophysiological differences between children with different literacy profiles in a delayed naming ERP- task"*

## Selected Publications

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**Bakos, S.**, Bartling, J., Schulte-Körne, G., & Moll, K. (in prep.). Orthographic processing depth depends on task setting: a neurophysiological comparison between word recognition and written word production.

Mehlhase, H., **Bakos, S.**, Bartling, J., Schulte-Körne, G., & Moll, K. (2020). Word processing deficits in children with isolated and combined reading and spelling deficits: and ERP-study. *Brain Research*, 1738, doi: 10.1016/j.brainres.2020.146811

**Bakos, S.**, Mehlhase, H., Landerl, K., Bartling, J., Schulte-Körne, G., & Moll, K. (2020). Naming processes in reading and spelling disorders: An electrophysiological investigation. *Clinical Neurophysiology*, 131(2), 351-360. doi: 10.1016/j.clinph.2019.11.017

**Bakos, S.**, Landerl, K., Bartling, J., Schulte-Körne, G., & Moll, K. (2018). Neurophysiological correlates of word processing deficits in isolated reading and isolated spelling disorders. *Clinical Neurophysiology*, 129(3), 526-540. doi: 10.1016/j.clinph.2017.12.010

**Bakos, S.**, Landerl, K., Bartling, J., Schulte-Körne, G., & Moll, K. (2017). Deficits in Letter-Speech Sound Associations but Intact Visual Conflict Processing in Dyslexia: Results from a Novel ERP-Paradigm. *Frontiers in Human Neuroscience*, 11(116). doi: 10.3389/fnhum.2017.00116

**Bakos, S.**, Tollner, T., Trinkl, M., Landes, I., Bartling, J., Grossheinrich, N., Schulte-Körne, G., and Greimel, E. (2016). Neurophysiological Mechanisms of Auditory Information Processing in Adolescence: A Study on Sex Differences. *Developmental Neuropsychology* 41, 201-214.

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## Grants and Scholarships

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- 2019**
- Grant (Foerderprogramm für Forschung und Lehre of the University Hospital of the Ludwig-Maximilians-University)**
- Research study on the neurophysiological underpinnings of reading and spelling development in children - "Neurophysiologische Marker der Lese- und Rechtschreibentwicklung im Grundschulalter"
  - Duration: 1 year
  - 14791 €
- Grant (Friedrich-Baur-Stiftung)**
- Concept development for studying phase coupling during speech processing in typically and atypically developing children - "Neuronale Phasenkopplung während der Sprachverarbeitung bei typischer and atypischer Schriftsprachentwicklung"
  - Duration: 1 year
  - 6000 €
- 2014**
- Scholarship (Graduation Scholarship of the German Academic Exchange Service (DAAD) and Foreign Office)**
- Duration: 6 Months
  - 3300 €
- 2013**
- Scholarship (Stipend of the State Bavaria for Promoting International Studies)**
- Duration: 10 Months
  - 5500 €