

# Dr. Valentina Krenz



## EDUCATION

<b>University Hamburg</b> Dr. rer. nat.* (Ph.D.), Psychology (Supervisor: Lars Schwabe)	2018 – 2024
<b>Albert-Ludwigs-University Freiburg</b> M.Sc., Psychology (Clinical Psychology, Neuroscience and Rehabilitation Sciences)	2014 – 2016
<b>University Kassel</b> B.Sc., Psychology	2011 – 2014

## RESEARCH EXPERIENCE

<b>Postdoctoral researcher</b> Memory Modulation Lab, Department of Psychology and Neuroscience, Boston College PI: Maureen Ritchey	since 2024
<b>Predoctoral researcher</b> Department of Cognitive Psychology, Institute of Psychology, University Hamburg PI: Lars Schwabe	2018 – 2023
<b>Predoctoral researcher</b> Department of Clinical Neuropsychology, University Bielefeld / Epilepsy Center Bethel PIs: Kirsten Labudda, Christian Bien	2016 – 2018
<b>Graduate student research assistant</b> Department of Epileptology, Neurological Center of the University Medical Clinic Freiburg PI: Andreas Schulze-Bonhage	2015 – 2016
<b>Graduate student research assistant</b> Department of Clinical Psychology and Psychotherapy, Albert-Ludwigs-University Freiburg PI: Brunna Tuschen-Caffier	2015
<b>Undergraduate student research assistant</b> Center for Parkinson Symptoms and Movement Disorders, Paracelsus-Elena-Clinic Kassel PI: Brit Mollenhauer	2013 – 2014
<b>Undergraduate student research assistant</b> Department of Psychological Diagnostics, University Kassel PI: Kristin Mitte	2012 – 2014

## AWARDS AND SCHOLARSHIPS

<b>Biopsychology Research Award (1,500€)</b> German Psychological Society (DGPs), Section Biopsychology and Neuropsychology	2023
<b>Equal Opportunity Qualification Scholarship (4,210.50€)</b> Equal Opportunity Unit of the University Hamburg	2023
<b>Ph.D. Scholarship (17,616€)</b> Department of Cognitive Psychology, Institute of Psychology, University Hamburg	2022 – 2023

\* Doctor rerum naturalium (Latin for 'Doctor of Natural Sciences')

**PUBLICATIONS: PEER-REVIEWED**

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- Krenz, V.**, Alink, A., Sommer, T., Rozenendaal, B., & Schwabe, L. (2023). Time-dependent memory transformation in hippocampus and neocortex is semantic in nature. *Nature Communications*, 14, 6037. <https://doi.org/10.1038/s41467-023-41648-1>
- Benzait, A., **Krenz, V.**, Wegrzyn, M., Doll, A., Woermann, F., Labudda, K., Bien, C. G., & Kissler, J. (2022). Hemodynamic correlates of emotion regulation in frontal lobe epilepsy patients and healthy participants. *Human Brain Mapping*, 44, 1456-1475. <https://doi.org/10.1002/hbm.26133>
- Krenz, V.**, Sommer, T., Alink, A., Rozenendaal, B., & Schwabe, L. (2021). Noradrenergic arousal after encoding reverses the course of systems consolidation in humans. *Nature Communications*, 12, 6054. <https://doi.org/10.1038/s41467-021-26250-7>
- Charpentier, C. J., Faulkner, P., Pool, E. R., ... **Krenz, V.**, ... O'Doherty, J. P. (2021). How representative are neuroimaging samples? Large-scale evidence for trait anxiety differences between fMRI and behavior-only research participants. *Social Cognitive and Affective Neuroscience*, 16, 1057-1070. <https://doi.org/10.1093/scan/nsab057>
- Hintz, M., **Krenz, V.**, & Schulze-Bonhage, A. (2019). Age-dependent semiology of frontal lobe seizures. *Epilepsy research*, 149, 83-87. <https://doi.org/10.1016/j.eplepsyres.2018.10.007>

**PUBLICATIONS: UNDER PEER-REVIEW**

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- Krenz, V.**, Alink, A., Rozenendaal, B., Sommer, T., & Schwabe, L.: *Memory boost for recurring emotional events is driven by initial amygdala response promoting stable neocortical patterns across repetitions*. Manuscript under peer-review.

**CONFERENCES: INVITED TALK**

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- Krenz, V.**, Alink, A., Sommer, T., Rozenendaal, B., & Schwabe, L. (2022, June). *Unraveling the semantic nature of memory transformation over time*. Paper presented at Psychologie und Gehirn (engl.: Psychology and the Brain), Freiburg, Germany.

**CONFERENCES: POSTER**

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- Krenz, V.**, Sommer, T., Alink, A., Rozenendaal, B., & Schwabe, L. (2021, June). *Noradrenergic arousal after encoding reverses the course of systems consolidation in humans*. Poster presented at Psychologie und Gehirn (engl.: Psychology and the Brain), online.
- Krenz, V.**, Alink, A., Sommer, T., Rozenendaal, B., & Schwabe, L. (2023, April). *Unraveling the semantic nature of memory transformation over time*. Poster presented at the International Conference of Learning and Memory (LEARNMEM), Huntington Beach, CA, USA.

**RESEARCH TOOLS AND PROGRAMMING LANGUAGES**

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Collection and analysis of **fMRI**, **EEG**, and **behavioral** data

**R** (management, analysis, and visualization of multi-level behavioral and neuroimaging data using R Studio)

**Python** (management, analysis, and visualization of behavioral and imaging data using Jupyter Notebook)

**MATLAB** (preprocessing, univariate, multivariate, and connectivity analyses of fMRI data using SPM12 and custom scripts; preprocessing and multivariate analysis of EEG data using FieldTrip and the MVPA-Light toolbox)

**MENTORING**

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Primary supervisor of student research assistants and interns at the department of Cognitive Psychology, University Hamburg 2019 – 2021

Direct supervisor of 2 Bachelor thesis students 2019 – 2020

**TEACHING EXPERIENCE**

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**Course instructor** 2023

Workshop "Representational Similarity Analyses of fMRI data", Research Training Group "Emotional Learning and Memory" (RTG 2753), University Hamburg

**Course instructor**

Seminar "General Psychology II", B.Sc. Psychology program, University Hamburg

2022 – 2023

& 2019 – 2020