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Leibniz Research Centre for Working Environment and Human Factors
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EDUCATION

Ruhr Universität Bochum (Germany)	10/2016 – 08/2020
International Graduate School of Neuroscience (IGSN)	
<i>PhD in Neuroscience (summa cum laude)</i>	
Dissertation: "Attentional Orienting in Perceptual and Mnemonic Space: Investigating Electrophysiological Correlates of Selective Auditory Attention"	
Advisors: Prof. Dr. Wascher, Dr. Christian Klaes	
External referee: Dr. Clayton Hickey	
Albert-Ludwigs-Universität Freiburg (Germany)	10/2014 – 09/2016
M.Sc. Clinical Psychology, Rehabilitation and Neuroscience	
Grade: 1.1 on a grading scale from 1.0 ("excellent") to 5.0 ("failed")	
Thesis: "Does psychological flexibility mediate the effectiveness of an internet- based Acceptance and Commitment Therapy for chronic pain? An investigation of change processes."	
Advisors: Prof. Dr. Bengel, Dr. Jiaxi Lin	
Ruhr Universität Bochum (Germany)	10/2011 – 09/2014
B.Sc. Psychology, Major: Cognitive Neuroscience	
Grade: 1.2 on a grading scale from 1.0 ("excellent") to 5.0 ("failed")	
Thesis: "Cross-modal Plasticity: The Impact of a Visual Training on Tactile Orientation Discrimination"	
Advisors: PD Dr. Dinse, Prof. Dr. Suchan	
Lone Peak High School (Alpine, Utah, USA)	08/2008 – 06/2009
International High School Exchange Program	

EMPLOYMENT

Leibniz Research Centre for Working Environment and Human Factors	08/2020 - present
<i>Postdoctoral Fellow</i>	
Department of Ergonomics	
Head: Prof. Dr. Wascher, Advisors: PD Dr. Daniel Schneider, PD Dr. Stephan Getzmann	
Leibniz Research Centre for Working Environment and Human Factors	10/2016 – 07/2020
<i>Research Associate (PhD candidate)</i>	
Department of Ergonomics	
Head: Prof. Dr. Wascher, Advisors: PD Dr. Daniel Schneider, PD Dr. Stephan Getzmann	
Albert Ludwig University of Freiburg	06/2015 – 10/2016
<i>Research Assistant</i>	
Department of Rehabilitation Psychology and Psychotherapy	
Head: Prof. Dr. Dr. Bengel	

PUBLICATIONS

Total: 14, First-author: 6, Co-author: 8, h-index: 7

[Google Scholar](https://scholar.google.com/citations?user=3oBSpXMAAAAJ&hl=en): <https://scholar.google.com/citations?user=3oBSpXMAAAAJ&hl=en>

[ORCID](https://orcid.org/0000-0002-5682-5824): <https://orcid.org/0000-0002-5682-5824>

* denotes that authors contributed equally to the work

1. **Klatt L I**, Begau A, Schneider D, Wascher E, Getzmann S (under review). Cross-modal interactions in behavior, ERPs, and neural oscillations at the audiovisual cocktail-party. *Neuroimage*. Preprint DOI: [10.1101/2022.09.30.510236](https://doi.org/10.1101/2022.09.30.510236)
2. Begau A, Arnau S, **Klatt L I**, Wascher E, Getzmann S (2022). Using visual speech at the cocktail-party: CNV evidence for early speech extraction in younger and older adults. *Hearing Research*, 426, 108636. DOI: [10.1016/j.heares.2022.108636](https://doi.org/10.1016/j.heares.2022.108636)
3. **Klatt L I**, Getzmann S, Schneider D (2022). Attentional Modulations of Alpha Power Are Sensitive to the Task-relevance of Auditory Spatial Information. *Cortex*, 153, 1–20. DOI: [10.1016/j.cortex.2022.03.022](https://doi.org/10.1016/j.cortex.2022.03.022)
4. Begau A, **Klatt L I**, Schneider D, Wascher E., & Getzmann S (2022). The role of informational content of visual speech in an audiovisual cocktail party: Evidence from cortical oscillations in young and old participants. *The European Journal of Neuroscience*, 56, 8, 5215–5234. DOI: [10.1111/ejn.15811](https://doi.org/10.1111/ejn.15811)
5. Rösner M, Sabo M, **Klatt L I**, Wascher E, & Schneider D (2022). Preparing for the unknown: How working memory provides a link between perception and anticipated action. *NeuroImage*, 260, 119466. DOI: [10.1016/j.neuroimage.2022.119466](https://doi.org/10.1016/j.neuroimage.2022.119466)
6. Schneider D, Herbst S*, **Klatt L I***, Wöstmann M. (2021). Target Enhancement or Distractor Suppression? Functionally Distinct Alpha Oscillations form the Basis of Attention. *European Journal of Neuroscience*, 55, 11-12, 3256–3265. DOI: [10.1111/ejn.15309](https://doi.org/10.1111/ejn.15309)
7. Begau A, **Klatt L I**, Wascher E, Schneider D, Getzmann S (2021). Do congruent lip movements facilitate speech processing in a dynamic audiovisual multi-talker scenario? An ERP study with older and younger adults. *Behavioral Brain Research*, 412, 113436. DOI: [10.1016/j.bbr.2021.113436](https://doi.org/10.1016/j.bbr.2021.113436)
8. **Klatt L I**, Getzmann S, Begau A, & Schneider D (2020). A dual mechanism underlying retroactive shifts of auditory spatial attention: dissociating target-and distractor-related modulations of alpha lateralization. *Scientific Reports*, 10, 13860. DOI: [10.1016/j.bbr.2021.113436](https://doi.org/10.1016/j.bbr.2021.113436)
9. Getzmann S, **Klatt L I**, Schneider, D, Begau A, & Wascher E (2020). EEG correlates of spatial shifts of attention in a dynamic multi-talker speech perception scenario in younger and older adults. *Hearing Research*, 398, 108077. DOI: [10.1016/j.heares.2020.108077](https://doi.org/10.1016/j.heares.2020.108077)

10. **Klatt L I**, Schneider D, Schubert A, Hanenberg C, Lewald J, Wascher E, & Getzmann S. (2020). Unraveling the relation between EEG-correlates of attentional orienting and sound localization performance: a diffusion model approach. *Journal of Cognitive Neuroscience*, 32, 5, 945-962. DOI: [10.1162/jocn_a_01525](https://doi.org/10.1162/jocn_a_01525)

11. **Klatt L I**, Getzmann S, Wascher E, Schneider D (2018). The contribution of selective spatial attention to sound detection and sound localization: Evidence from event-related potentials and lateralized alpha oscillations. *Biological Psychology*, 138, 133-145. DOI: [10.1016/j.biopsycho.2018.08.019](https://doi.org/10.1016/j.biopsycho.2018.08.019)

12. **Klatt L I**, Getzmann S, Wascher E, Schneider D (2018). Searching for auditory targets in external space and in working memory: Electrophysiological mechanisms underlying perceptual and retroactive spatial attention. *Behavioral Brain Research*, 353, 98-107. DOI: [10.1016/j.bbr.2018.06.022](https://doi.org/10.1016/j.bbr.2018.06.022)

13. Göddertz, A, **Klatt L I**, Mertes C, Schneider D (2018). Retroactive Attentional Shifts Predict Performance in a Working Memory Task: Evidence by Lateralized EEG Patterns. *Frontiers in Human Neuroscience*, 12, 428. DOI: [10.3389/fnhum.2018.00428](https://doi.org/10.3389/fnhum.2018.00428)

14. Lin J, **Klatt L I**, McCracken L, Baumeister H (2018). Psychological flexibility mediates the effect of an online-based acceptance and commitment therapy for chronic pain: An investigation of change processes. *Pain*, 159, 663-672. DOI: [10.1097/j.pain.0000000000001134](https://doi.org/10.1097/j.pain.0000000000001134)

PRE-REGISTRATIONS AND PUBLIC DATASETS

OSF Profile: osf.io/r78m6

- Arslan, C, Schneider D, Getzmann S, Klatt, L I (2022). How is multisensory information encoded and maintained in working memory? Pre-registration: <https://osf.io/c5vjh/>

- Klatt L I, Begau A, Schneider D, Getzmann S (2021). Allocating spatial attention in multisensory environments: an ERP study. Pre-registration: <https://osf.io/vh38g/>; Data and Code: <https://osf.io/asx5v/>

- Klatt L I, Getzmann S, Schneider D (2022). Attentional Modulations of Alpha Power Are Sensitive to the Task-relevance of Auditory Spatial Information. Data, Stimuli, and Code: <https://osf.io/a8f6y/>

INVITED TALKS

1. Beyond vision and toward a multisensory perspective of working memory, ESCOP Symposium "Recent developments linked to the focus of attention in working memory", Lille, France, 08/2022 – *invited by Caro Hautekiet*

2. Attentional orienting in complex auditory scenes: the spatial specificity of alpha-band oscillations", University of Birmingham, Neuronal Oscillations Research Group, 03/2021, talk given online – *invited by Prof. Ole Jensen*
3. Attending to Auditory Working Memory Representations: Target Facilitation or Distractor Suppression? 59th Society for Psychophysiological Research (SPR) Annual Meeting, Washington DC., USA, 09/2019. – *selected from all poster submissions for the Faces of the Future Symposium*

CONFERENCE TALKS *only first-author presentations

1. **Klatt L I**, Getzmann S, Schneider D (2021). Attentional Modulations of Alpha Power Are Sensitive to the Task-relevance of Auditory Spatial Information. Tagung experimentell arbeitender Psychologen (TeaP) Virtual Conference, 14.03.-17.03.2021.
2. **Klatt L I**, Getzmann S, Begau A, Schneider D (2020). Distractor Inhibition or target prioritization? Unraveling the mechanisms underlying the orienting of attention within working memory. Virtual Working Memory Symposium (VWMS), Hosts: Edward Ester (Florida Atlantic University) & Jarrod Lewis-Peacock (University of Texas at Austin), 01.06. - 04.06.2020.
3. **Klatt L I**, Getzmann S, Begau A, Schneider D (2019). Attentional orienting within auditory working memory: Target enhancement or distractor inhibition? 45. Jahrestagung Psychologie und Gehirn (PuG), Dresden, Germany, 20.06.-22.06.2019.

POSTER PRESENTATIONS *only first-author presentations

1. **Klatt L I**, Begau A, Schneider D, Getzmann S (2022). Allocation spatial attention in an audio-visual cocktail-party environment: evidence from ERPs and neural oscillations. International Conference of Cognitive Neuroscience 2020 (ICON), Helsinki, Finland, 05.18. – 05.23.22.
2. **Klatt L I**, Begau A, Schneider D, Getzmann S (2022). EEG measures of spatial attentional orienting in multisensory environments. Tagung experimentell arbeitender Psycholog:innen (virtual conference), 03.20. –03.23.2022.
3. **Klatt L I**, Begau A, Schneider D, Getzmann, S (2021). Allocating spatial attention in multisensory environments: an ERP study. 46. Tagung Psychologie und Gehirn, Tübingen (virtual conference), 06.02. –06.04.2021.
4. **Klatt L I**, Getzmann S, Schneider D (2020). Attentional Modulations of Posterior Alpha Power in Sound Localization: The Role of Spatial Information. [UNSW Workshop on Expectation, Perception and Cognition 2020](#), UNSW Sydney, Australia (virtual conference), 10.01. - 10.02.2020.

5. **Klatt L I**, Getzmann S, Schneider D (2020). The Timing of Attentional Alpha Power Modulations Predicts Sound Localization Performance in Complex Auditory Scenes. Cognitive Neuroscience Society 2020 Virtual Meeting, 05.02. - 05.05.2020.
6. **Klatt L I**, Getzmann S, Wascher E, Schneider D (2018). Selective processing of auditory spatial information: EEG correlates of spatial attention in perception and working memory. EPOS/Helmholtz Winter School: Symposium on Inhibition, Amsterdam, Netherlands, 12.05. –12.07.2018.
7. **Klatt L I**, Getzmann S, Wascher E, Schneider D (2018). Neural correlates of perceptual and retroactive spatial attention in feature-based and spatially specific auditory search: insights from lateralized alpha band oscillations. 44. Tagung Psychologie und Gehirn, Gießen, Germany, 05.31. -06.02.2018.
8. **Klatt L I**, Getzmann S, Schneider D (2018). Shifting auditory attention in perceptual and mnemonic space: an investigation of event-related EEG parameters in a sound localization and sound detection paradigm. 25th Annual Meeting Cognitive Neuroscience Society (CNS), Boston, Massachusetts, 03.24. - 03.27.2018.
9. **Klatt, L I**, Getzmann S, Schneider D (2017). Sound localization versus detection within auditory working memory and perception: evidence from lateralized alpha oscillations. First Munich Symposium on Visual Working Memory, Munich, Germany, 07.27. – 07.29.2017.
10. **Klatt L I**, Getzmann S, Schneider D, Wascher E (2017). Electrophysiological correlates of attentional selection within auditory working memory and perception. 43. Tagung Psychologie und Gehirn, Trier, Germany, 06.15. - 06.17.2017.

TEACHING

Practical course neuropsychological methods: EEG and Seminar course neuropsychological methods: EEG (M.Sc. Cognitive Science, Ruhr Universität Bochum)	Summer semester 2019-present
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- Course consists of two weekend seminars, aimed at teaching students how to collect and pre-process EEG-data and conduct basic ERP-analyses.
- In 2020 (fully asynchronous) and 2021 (synchronous and asynchronous elements) the course took place online course (due to COVID-19 pandemic).

EEG Preprocessing Crash course at Neuroergonomics Conference (in cooperation with Dr. Julian Reiser)	09/2021
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MENTORING

¹co-supervision, ²primary advisor, ³internship instructor

Arslan Gabdulkhakov (Ruhr University Bochum, PhD thesis, 02/2023 – present)¹

Ceren Arslan (Ruhr University Bochum, PhD thesis, 04/2022 – present)²

Alexandra Begau (Ruhr University Bochum, PhD thesis, 01/2021 – 12/2022)¹

Arslan Gabdulkhakov (Ruhr University Bochum, Master thesis, 01/2021 – 03/2022)²

Kimberly Freytag (Ruhr University Bochum, internship + Bachelor thesis, 08/2018 – 08/2019)^{2,3}

REVIEWING – JOURNALS *in alphabetical order

Acta Psychologia	Memory & Cognition
Biological Psychology	NeuroImage
eNeuro	Neuropsychologia
Frontiers Human Neuroscience	Psychophysiology
International Journal of Psychophysiology	Scientific Reports
Journal of Cognitive Psychology	Quarterly Journal of Experimental Psychology

SERVICE

Organizer for the Colloquium Talk Series „ Neurocognition and Work “ (talks are given online or in hybrid format)	01/2021 - present
Appointment Committee for the Professorship „Neuroscience and Differential Psychology“ at University Dortmund	2022
Co-Organizer for the virtual talk series “ Applied Perspectives on the future of work ”	08/2021 – 10/2021
Reviewer for RUB Research School Peer-Review of funding applications by doctoral students	2017 – 2019

SCIENCE COMMUNICATION

Psychology course students from <i>Westfalen-Kolleg Dortmund</i> visit the Leibniz Research Centre for Working Environment and Human Factors - Introductory talk on EEG research and lab tour	03/2023
Letters to a Pre-Scientist - Snail mail exchange between STEM-scientists and tenth grade students in US low-income communities	2021 / 2022
Curator for Real Scientist DE on Twitter	12/13 – 21/19/2021
Book a Scientist, Leibniz Gemeinschaft - Speed dating event organized by the Leibniz Society - 15-minute one-on-one Zoom meetings with a scientist	08/2020
High school students from <i>Geschwister-Scholl-Gymnasium</i> visit the Leibniz Research Centre for Working Environment and Human Factors - Introductory talk on EEG research and lab tour	04/2019
High school students from <i>Gymnasium Herne</i> visit the Leibniz Research Centre for Working Environment and Human Factors - Introductory talk on EEG research and lab tour	06/2018

ATTENDED WORKSHOPS AND ADVANCED TRAINING

- [M³ Mentoringprogramm](#) zur Karriereentwicklung für Wissenschaftlerinnen aus allen Fächergruppen der Universitätsallianz Ruhr, 10/2021 – present
- Analyzing Neural Time Series Data, Dr. Mike X Cohen
Radboud Summer School, Nijmegen, 08.05. –08.09.2019
- Theory and Practice: Multivariate pattern analyses (MVPA) in EEG/MEG: Basics and Application using the ADAM toolbox, Johannes Fahrenfort, Ph.D.
Universiteit van Amsterdam, 10.15. –10.16.2018
- SPM 2018: 21. Introductory course in functional MR imaging
University clinic Hamburg Eppendorf, SPM Programming, Batchmode, VBM, and Resting State Analysis, DTI, 09.04. – 09.07.2018
- Experiment design with OpenSesame and EEG/MEG data analysis with Python, instructors: Dr. Jona Sassenhagen & dr. S. Sebastiaan Mathot, Universiteit van Amsterdam, 15.06.2018

PROFESSIONAL AFFILIATIONS

- German Psychological Society (Deutsche Gesellschaft für Psychologie, DGPs)
- DGPs Interest Group for Open and Reproducible Science (IGOR)
- German Society for Psychophysiology and its Application (Deutsche Gesellschaft für Psychophysiology und ihre Anwendung, DGPA)
- European Society for Cognitive Psychology (ESCOP)
- Scientific Network on Neurocognitive Psychometrics (DFG-funded scientific network, cooperation partners: University Heidelberg, University Mainz, University Zürich, University of Cambridge, University Eichstätt-Ingolstadt, UniDistance Suisse, Université de Genève)
- Scottisch-EU-Critical-Oscillations-Network ([SCONe](#))

SOCIAL COMMUNITY SERVICES

Voluntary work for [Experiment eV](#) 2009 - present

- Annual service on committees for a full scholarship for a US-high-school exchange program („Parlamentarisches Patenschafts-Programm“, funded by the German Bundestag and the US-Congress)
- Individual and group interviews with applicants
- Local coordinator for host families in the Ruhr Area, Germany

Voluntary work for the [outpatient hospice service Christopherus Dortmund](#) 2016 - present

- Psycho-social support for families with kids or teens who suffer from a life-threatening or life-limiting illness