

CURRICULUM VITAE

DR. TITUS VON DER MALSBURG

Visiting Professor for Psycho- and Neurolinguistics

Department of Linguistics

University of Potsdam

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Employment

2016– Visiting Professor for Computational Psycholinguistics

[University of Potsdam](#), Dept. Linguistics

2017– Research Affiliate

[Massachusetts Institute of Technology](#), Dept. Brain and Cognition

Education

2012

Dr. phil., Cognitive Science, University of Potsdam. Thesis: *Reading: An investigation of scanpath effects in syntactic and semantic processing* (summa cum laude).

Advisors: Prof. Dr. Shravan Vasishth, Prof. Dr. Reinhold W. W. W. W.

2005

B.A., International Studies in Computational Linguistics, University of

Informal studies of mathematics and computer science at University of Heidelberg and systems neuroscience at the Bernstein Center in Berlin.

Technical skills

- ▶ Deep understanding of **eye-tracking** methodology. Wrote multiple software packages for processing eye-tracking data.
- ▶ **Event-related brain potentials / EEG**. Set up two EEG labs from scratch. Wrote software for ERP data processing and statistical testing.
- ▶ Highly proficient in programming languages including but not limited to **Python, R, C, and Java**.
- ▶ Experienced with data science **workflows for large data sets** (e.g., via Tidyverse system for R).
- ▶ Deep understanding of **Unix operating systems** such as GNU Linux and OS X.
- ▶ Experience with **large-scale cluster computers** (e.g., Slurm job scheduler for Unix clusters).
- ▶ Bayesian statistical modeling, e.g., using the **Stan system for Bayesian inference**, Hamiltonian Monte Carlo.
- ▶ **Literate programming** using \LaTeX and Knitr among others.

Monographs




von der Malsburg, T. (2012). *Scanpath phenomena in reading: An investigation of scanpath effects in syntactic ambiguity resolution and in general reading.* (Doctoral dissertation, University of Potsdam).

Articles in preparation



von der Malsburg, T., Poppels, T., & Levy, R. (2018). *Gender bias in linguistic preferences during the 2016 U.S. presidential campaign.*

Journal articles

-  Schotter, E., von der Malsburg, T., & Leininger, M. (2018). Forced fixations, trans-saccadic integration, and word recognition: Evidence for a hybrid mechanism of saccade triggering in reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.
-  Schotter, E., Leininger, M., & von der Malsburg, T. (2017b). When your mind ignores what your eyes see: How forced fixations lead to comprehension illusions in reading. *Psychonomic Bulletin & Review*.
-  von der Malsburg, T. & Angele, B. (2016). False positives and other statistical errors in standard analyses of eye movements in reading. *Journal of Memory and Language*, 94, 119–133.
-  Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2016). The importance of reading naturally: Evidence from combined recordings of eye movements and electric brain potentials. *Cognitive Science*, 41(S6), 1232–1263.

Proceedings, long papers



Marusch, T., von der Malsburg, T., Bastiaanse, R., & Burchert, F. (2013). Tempusmorphologie bei deutschen Agrammatikern: Die Sprachproduktion von regulären, irregulären und gemischten Verben. In *Spektrum patholinguistik* (Vol. 6, pp. 219–223). Potsdam, Germany: Universitätsverlag Potsdam.



von der Malsburg, T., Vasishth, S., & Kliegl, R. (2012). Scanpaths in reading are informative about sentence processing. In P. B. Michael Carl & K. K. Choudhary (Eds.), *Proceedings of the First Workshop on Eye-tracking and Natural Language Processing* (pp. 37–53). Mumbai, India: The COLING 2012 organizing committee.



von der Malsburg, T., Baumann, T., & Schlangen, D. (2009). TELIDA: A package for manipulation and visualization of timed linguistic data. In *Proceedings of the SIGDIAL 2009 Conference: The 10th Annual Meeting of the Special Interest Group on Discourse and Dialogue* (pp. 302–305). Association for

Proceedings, talks



Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2018a). This is the structure that we wonder why anyone produces it: Resumptive pronouns in English hinder comprehension. In M. Pickering, M. Crocker, R. Hartsuiker, V. Ferreira, H. Branagan, & R. Mishra (Eds.), *Proceedings of the 1th architectures and mechanisms for language processing conference - asia*. Hyderabad, Telangana, India: University of Hyderabad.



von der Malsburg, T., Poppels, T., & Levy, R. (2017a). The president gave her inauguration speech. No, they didn't! The interaction of explicit world knowledge, implicit gender stereotypes, and discourse expectations. In G. van Bergen & J. Spénader (Eds.), *Proceedings of Discourse Expectations: Theoretical, Experimental and Computational perspectives (DETEC 2017)*. Max Planck Institute for Psycholinguistics. Nijmegen, Netherlands: Max Planck Institute for Psycholinguistics.

Proceedings, posters



Boyce, V., von der Malsburg, T., Poppels, T., & Levy, R. (2018). Implicit gender biases in the production and comprehension of pronominal references. In F. Ferreira, J. Henderson, T. Swaab, & M. Traxler (Eds.), *Proceedings of the 31th annual cuny conference on human sentence processing*. Davis, CA, USA: UC Davis.



Laurinavichyute, A. & von der Malsburg, T. (2018a). Agreement attraction in grammatical sentences. In F. Ferreira, J. Henderson, T. Swaab, & M. Traxler (Eds.), *Proceedings of the 31th annual cuny conference on human sentence processing*. Davis, CA, USA: UC Davis.



Laurinavichyute, A. & von der Malsburg, T. (2018b). Semantic attraction in sentence processing. In F. Ferreira, J. Henderson, T. Swaab, & M. Traxler (Eds.), *Proceedings of the 31th annual cuny conference on human sentence processing*. Davis, CA, USA: UC Davis.

Scientific data



Rayner, K., Abbott, M. J., Schotter, E. R., Belanger, N. N., Higgins, E. C., Leinenger, M., . . . Plummer, P. (2015). Keith Rayner eye movements in reading data collection. [UC San Diego Library Digital Collections](#).

Scientific software



von der Malsburg, T. (2015a). Saccades: An R package for detecting fixations in raw eye tracking data. [Published on Zenodo.](#)






von der Malsburg, T. (2015b). Py-Span-Task: A software for testing working memory span. [Published on Zenodo.](#)



von der Malsburg, T. (2015c). Scanpath: An R package for analyzing scanpaths. [Published on Zenodo.](#)

Outreach and creative works

-  Schurer, B. & von der Malsburg, T. (2017). Automatic reading (obfuscation). In L. Ribas & R. Taveira (Eds.), *Proceedings of the fifth conference on Computation, Communication, Aesthetics and X*. Eye-tracking and sound installation. Lisbon, Portugal: The xCoAx 2017 organizing committee.
-  Illing, C. & von der Malsburg, T. (2015). Brain decomposition. Einraumhaus C/O, Mannheim, Germany. 17–26 Apr. 2015. Sound installation.
-  Illing, C. & von der Malsburg, T. (2014). Brain decompositions. Sound Dome of the Centre for Art and Media (ZKM), Karlsruhe, Germany. 13 Dec. 2014. Performance.
-  von der Malsburg, T. & Illing, C. (2014). Dem Gehirn zuhören. Wissenschaftsetage im Bildungsforum. Sound installation part of an exhibition about science in the state of Brandenburg.
-  von der Malsburg, T. & Illing, C. (2013). Decomposing electric brain potentials for audification on a matrix of speakers. In

Invited talks

- ▶ University of Tübingen, Dept. Linguistics, 2018
- ▶ University of Saarbrücken, Dept. Linguistics, 2018
- ▶ Free University, Berlin, Dept. Psychology, 2018
- ▶ Max Planck Institute for Human Development, Berlin, 2017
- ▶ University of Osnabrück, Dept. Cognitive Science, 2016
- ▶ University of Oxford, Dept. Experimental Psychology, 2015
- ▶ University of Reading, Dept. Psychology, 2015
- ▶ UC San Diego, Dept. Cognitive Science, 2014
- ▶ Bournemouth University, Dept. Psychology, 2014
- ▶ University of Southampton, Dept. Psychology, 2014
- ▶ Radboud University, Dept. Psychology, 2014
- ▶ International Symposium Developmental Eyetracking Research in Reading, 2013
- ▶ Center for Interdisciplinary Research, Bielefeld, 2013
- ▶ University of Massachusetts, Amherst, Dept. Psychology, 2012

Reviewing

Funding agencies:

- ▶ US National Science Foundation (NSF)
- ▶ French National Research Agency (ANR)

Scientific journals:

- ▶ Cortex
- ▶ Discourse Processes
- ▶ International Journal of Human-Computer Studies
- ▶ Journal of Experimental Psychology: General
- ▶ Journal of Experimental Psychology: Human Perception and Performance
- ▶ Journal of Experimental Psychology: Learning, Memory, and Cognition
- ▶ Journal of Memory and Language
- ▶ Memory and Cognition
- ▶ Nature: Scientific Reports
- ▶ NeuroImage

Collaborators

- ▶ Bernhard Angele, Bournemouth University
- ▶ Evelina Fedorenko, Harvard, MIT
- ▶ Reinhold Kliegl, University Potsdam
- ▶ Mallory Leininger, Denison University
- ▶ Roger Levy, MIT
- ▶ Kate Nation, University of Oxford
- ▶ Milena Rabovsky, Humboldt University, Berlin
- ▶ Liz Schotter, University of South Florida
- ▶ Eva Wittenberg, UC San Diego

Competitive grants and awards

2017	Travel grant, German Academic Exchange Service (DAAD)
2014–2016	Two-year Research Fellowship, Alexander von Humboldt
2008–2011	PhD scholarship, University of Potsdam

Graduate advising

2017	Diana Michl, doctoral thesis
2017	Kate Stone, doctoral thesis
2017	Kirk Gallardo, M.Sc. thesis
2017	Robin Schäfer, M.Sc. thesis
2017	Alexandra Lorson, M.Sc. thesis
2012–2015	Dr. Paul Metzner, doctoral thesis
2013	Dario Paape, M.Sc.
2013	Nora Kovacs, M.Sc.

Memberships

- ▶ Association for Psychological Science
- ▶ Society of the Fellows of the Alexander von Humboldt Foundation
- ▶ German Linguistic Society
- ▶ Linguistic Society of America
- ▶ Psychonomic Society

References

- ▶ Reinhold Kliegl, University of Potsdam,
kliegl@uni-potsdam.de
- ▶ Roger Levy, Massachusetts Institute of Technology,
rplevy@mit.edu
- ▶ Kate Nation, University of Oxford, kate.nation@psy.ox.ac.uk
- ▶ Shravan Vasishth, University of Potsdam,
vasishth@uni-potsdam.de

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