# TITUS VON DER MALSBURG

Curriculum Vitae, November 16, 2020

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# Academic employment

2018 – **University of Potsdam**, Researcher and Lecturer

Department of Linguistics

2017 – **Massachusetts Institute of Technology**, Research Affiliate

Department Brain and Cognitive Sciences

April – August 2019 Parental leave

2016 – 2018 University of Potsdam, Visiting Professor for Psycho- and

Neurolinguistics, substituting for Shravan Vasishth

Department of Linguistics

2014 – 2016 UC San Diego, Research Fellow

Department of Psychology, Department of Linguistics Funded through two-year grant awarded to my by the

Alexander von Human Foundation Supervisors: Keith Rayner, Roger Levy

2014 University of Oxford, Research Associate

St John's College, Department of Experimental Psychology

Supervisor: Kate Nation

2012 – 2013 University of Potsdam, Postdoctoral Researcher

DFG Research Group 868: Mind and Brain Dynamics

Supervisors: Frank Rösler, Shravan Vasishth

#### Education

2008 – 2012 **Dr. phil. in Cognitive Science**, grade: summa cum laude

University of Potsdam

Advisors: Shravan Vasishth, Reinhold Kliegl

2009 Summer School on Embodied Language Games and

Construction Grammar, Cortona, Italy

2008 15th International Summer School in Cognitive Science, New

Bulgarian University in Sofia, Bulgaria

2005, 2006	Interdisciplinary college, spring school on neurobiology,
	neuroinformatics, cognitive science, artificial intelligence,
	robotics, and philosophy, Günne, Germany
2005 - 2008	Diploma program Computational Linguistics
	University of Potsdam
2003 - 2005	B.A. in Computational Linguistics, grade: very good
	University of Tübingen
2001 - 2003	Computational Linguistics, Mathematics, Computer Science
	University of Heidelberg

# Media coverage

- New York Times (25.1.2020): She's the Next President. Wait, Did You Read That Right?
- In Her Words, New York Times newsletter on women, gender and society (4.2.2020): *Surprise! Language is sexist.*
- WNYC Studios, The Takeaway: America's weekday conversation (podcast, 29.1.2020): Could "She" Be President? A Look at Pronoun Bias in Politics
- MIT News (8.1.2020): "She" goes missing from presidential language. Also reported by ScienceDaily, AAAS EurekaAlert!, and Phys.org.
- Kunstjahr 2013 Die Zeitschrift, die Bilanz zieht, Lindinger + Schmid. Article about my science/art cross-over project with sound artist Christoph Illing.

## Invited talks

- University of Stuttgart, Dept. Linguistics, 2020
- Summer School on Statistical Methods for Linguistics, Potsdam, 2019
- University of Stuttgart, Dept. Linguistics, 2018
- University of Saarbrücken, Dept. Linguistics, 2018
- Free University, Berlin, Dept. Psychology, 2018
- Summer School on Statistical Methods for Linguistics, Potsdam, 2017
- 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
- Oxford Brookes University, Dept. Psychology, 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, 2010

# Competitive grants and awards

2014 - 2016	Two-year Research Fellowship, Alexander von	€110.000,00
	Humboldt Foundation	
2008 - 2011	PhD scholarship, University of Potsdam	€36.000,00
2017	Travel grant, German Academic Exchange Service	€1.400,00
	(DAAD)	
	Sum:	€147.400.00

# Reviewing

## Journal editorial boards:

• Associate Editor at Language, the flagship journal of the Linguistic Society of America.

## Ad-hoc reviewer for funding agencies:

- French National Research Agency (ANR)
- UK Economic and Social Research Council (ESRC)
- UK Arts & Humanities Research Council (AHRC)
- US National Science Foundation (NSF)

# Ad-hoc reviewer for scientific journals:

- Behavior Research Methods
- Cognitive Science
- Cortex
- Discourse Processes
- Frontiers in Psychology
- Glossa: A journal of general linguistics
- 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
- Laboratory Phonology: Journal of the Association for Laboratory Phonology
- Language, Cognition, and Neuroscience
- Memory and Cognition
- Nature: Scientific Reports
- NConferences editorial ebpgeuroImage
- Neuropsychologia
- PeerJ the Journal of Life and Environmental Sciences, Section Brain and Cognition
- PLOSIONE
- Quarterly Journal of Experimental Psychology
- Scientific Studies of Reading
- Topics in Cognitive Science

## Conferences:

- ACL: Annual Meeting of the Association for Computational Linguistics
- AMLaP: Architectures and Mechanisms for Language Processing
- AMLaP Asia: Architectures and Mechanisms for Language Processing, Asian edition
- CMCL: Cognitive Modeling and Computational Linguistics
- COLING: International Conference on Computational Linguistics
- CogSci: Conference of the Cognitive Science Society
- CUNY: Conference on Human Sentence Processing
- DETEC: Discourse Expectations: Theoretical, Experimental, and Computational perspectives
- LSA: Linguistic Society of America
- xCoAx: Computation, Communication, Aesthetics, and X

# Conferences and workshops organized

2020	Architectures and Mechanisms for Language Processing, AMLaP
	2020. University of Potsdam.
2018	Designing experiments with Python and OpenSesame.
	Collaborative Research Center: Limits of Variability in
	Language (SFB 1287), University of Potsdam.
2018	Eye-tracking Methods for Linguists. Center for Language and
	Brain, Higher School of Economics, Moscow.

## Collaborators

Colleagues with whom I have co-authored publications including conference presentations and papers under review (alphabetical order, last known academic affiliation):

Bernhard Angele (Bournemouth University), Roelien Bastiaanse (University of Groningen), Timo Baumann (University of Hamburg), Idan Blank (UC Los Angeles), Veronica Boyce (MIT), Frank Burchert (University of Potsdam), Heiner Drenhaus (Saarland University), Felix Engelman (University of Manchester), Evelina Fedorenko (Harvard, MIT), Victror Ferreira (UC San Diego), Richard Futrell (UC Irvine), Sabrina Gerth (University of Potsdam), Edward Gibson (MIT), John Hale (Franklin College of Arts and Sciences), Christoph Illing (free sound artist), Holly Joseph (University of Reading), Evelyne Lagrou (Ghent University), Mallory Leinenger (Denison University), Reinhold Kliegl (University of Potsdam), Gregory Kobele (University of Leipzig), Karin Kukkonen (University of Oslo), Sol Lago (University of Frankfurt), Anna Laurinavichyute (University of Potsdam), Roger Levy (MIT), Anastasiya Lopukhina (Higher School of Economics, Moscow), Tina Marusch (University of Potsdam), Genevieve McArthur (Macquarie University), Paul Metzner (University of Potsdam), Diane Mézière (Macquarie University), Adam Morgan (UC San Diego), Ryan Musa (University of Illinois), Kate Nation (University of Oxford), Dario Paape (University of Potsdam), Olga Parshina (City University of New York), Till Poppels (UC San Diego), Eric Reichle (Macquarie University), Frank Rösler (University of Hamburg), Robin Schäfer (University of Potsdam), David Schlangen (University of Potsdam), Liz Schotter (University of South Florida), Bernd Schurer (free composer), Irina Sekerina (City University of New York), Cory Shain (Ohio State University), Nathaniel Smith (UC Berkeley), Kate Stone (University of Potsdam), Emily Troscianko (University of Oxford), Shravan Vasishth (University of Potsdam), Ruben van de

Vijver (University of Düsseldorf), Leila Wehbe (Carnegie Mellon University), Eva Wittenberg (UC San Diego), Lili Yu (Macquarie University)

# Graduate advising

## Current students:

2019 – 2017 –	Diane Mézière, doctoral thesis Anna Laurinavichyute, doctoral thesis
Past students:	
2019 – 2020	Friedericke Hechler, M.Sc. thesis
2017 - 2020	Dr. Kate Stone, doctoral thesis
2019 - 2020	Christin Schütze, M.Sc. thesis
2018	Alexandra Lorson, M.Sc. thesis
2017 - 2018	Robin Schäfer, M.Sc. thesis
2017 - 2018	Kirk Gallardo, M.Sc. thesis
2012 - 2015	Dr. Paul Metzner, doctoral thesis (informal)
2013	Dario Paape, M.Sc. thesis
2013	Nora Kovacs, M.Sc. thesis

# Teaching experience

Course title	Term	Туре	Level
Foundations of mathematics (online)	Winter 2020	Lecture	MSc
Sentence processing (online)	Winter 2020	Seminar	BSc
Introduction to statistical data analysis (online)	Summer 2020	Lecture	BSc
Sentence processing (online)	Summer 2020	Seminar	BSc
Foundations of mathematics	Winter 2019	Lecture	MSc
Bayesian data analysis	Winter 2019	Lecture	MSc
Eyetracking in psycholinguistic research	Winter 2018	Seminar	MSc
Foundations of mathematics	Winter 2018	Lecture	MSc
Bayesian data analysis	Summer 2017	Lecture	MSc
Advanced topics in sentence processing	Summer 2017	Seminar	MSc, PhD
Statistical data analysis (advanced): Linear	Summer 2017	Lecture	MSc
modeling			
Comprehension of temporarily ambiguous	Summer 2017	Seminar	BSc
sentences			
Agreement attraction in sentence comprehension	Winter 2017	Seminar	BSc
Colloquium in sentence comprehension	Winter 2017	Seminar	MSc, PhD
Introduction to statistical data analysis	Winter 2017	Lecture	MSc
Comprehension of relative clauses	Winter 2017	Seminar	BSc
Advanced topics in sentence processing	Summer 2017	Seminar	MSc, PhD
Introduction to statistical data analysis	Summer 2017	Lecture	MSc
Advanced statistical data analysis: Linear	Summer 2017	Lecture	MSc
modeling			
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Course title	Term	Туре	Level
Comprehension of temporarily ambiguous	Summer 2017	Seminar	BSc
sentences			
Agreement attraction in sentence comprehension	Winter 2016	Seminar	BSc
Advanced topics in sentence comprehension	Winter 2016	Seminar	MSc, PhD
Scientific computing in R	Winter 2016	Lecture	MSc
Comprehension of relative clauses	Winter 2016	Seminar	BSc
Advanced topics in psycholinguistics	Summer 2013	Seminar	MSc

# Memberships

- German Association of University Professors and Lecturers (DHV)
- German Linguistic Society (DGfS)
- Society of the Fellows of the Alexander von Humboldt Foundation

#### Skills

- Frequentist and Bayesian statistics: Taught many courses in both statistical frameworks.
- Strong programming skills: R, Python, Lisp, Prolog, C, Java, among others.
- Eye-tracking: Worked with multiple eye-tracking systems and wrote software packages for processing eye-tracking data.
- Event-related brain potentials: Set up two EEG labs from scratch. Wrote software for ERP data processing and statistical testing.
- Large-scale data collection using crowdsourcing platforms like Prolific and Amazon Mechanical Turk.
- Data management workflows for big scientific data sets.
- Deep understanding of Unix-like operating systems, such as GNU Linux and OS X.
- Large-scale cluster computing.
- Project management tools, such as git, wikis, issue and bug trackers, etc.
- Literate programming with LATEX, Knitr, org-mode, R-Markdown.
- Human languages: German (native), English (fluent), French (rusty), Latin (reading)

#### **Publications**

#### Dissertation:

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.

#### Manuscripts under review:

Laurinavichyute, A., & von der Malsburg, T. (2020b). *Semantic attraction in sentence processing* [Under review]. Under review. https://doi.org/10.31234/osf.io/hk9nc

Parshina, O., Sekerina, I., Lopukhina, A., & von der Malsburg, T. (2020a). *Monolingual and bilingual reading strategies in Russian: An exploratory scanpath analysis* [Under review]. Under review.

Wehbe, L., Blank, I. A., Shain, C., Futrell, R., Levy, R., von der Malsburg, T., Smith, N., Gibson, E., & Fedorenko, E. (2020). Incremental language comprehension difficulty predicts activity in the language network but not the multiple demand network. *bioRxiv*, https://www.biorxiv.org/content/early/2020/04/17/2020.04.15.043844.full.pdf. https://doi.org/10.1101/2020.04.15.043844

#### *Journal articles:*

- Morgan, A. M., von der Malsburg, T., Ferreira, V. S., & Wittenberg, E. (2020). Shared syntax between comprehension and production: Multi-paradigm evidence that resumptive pronouns hinder comprehension [Accepted for publication]. *Cognition*. https://doi.org/10.17605/OSF.IO/9WHN6
- Paape, D., Vasishth, S., & von der Malsburg, T. (2020). Quadruplex negatio invertit? The on-line processing of depth charge sentences [In press]. *Journal of Semantics*. https://psyarxiv.com/uw64a/
- Stone, K., von der Malsburg, T., & Vasishth, S. (2020b). The effect of decay and lexical uncertainty on processing long-distance dependencies [Accepted for publication in PeerJ]. https://doi.org/10.31219/osf.io/xrm43
- von der Malsburg, T., Poppels, T., & Levy, R. P. (2020). Implicit gender bias in linguistic descriptions for expected events: The cases of the 2016 United States and 2017 United Kingdom elections. *Psychological Science*. https://doi.org/10.1177/0956797619890619
- Schotter, E., Leinenger, M., & von der Malsburg, T. (2018). When your mind ignores what your eyes see: How forced fixations lead to comprehension illusions in reading. *Psychonomic Bulletin & Review*, 25(5), 1884–1890. https://doi.org/10.3758/s13423-017-1356-y
- Schotter, E., von der Malsburg, T., & Leinenger, 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*. https://osf.io/c5bmd/
- 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. https://doi.org/10.1016/j.jml.2016.10.003
- 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. https://doi.org/10.1111/cogs.12384
- von der Malsburg, T., Kliegl, R., & Vasishth, S. (2015). Determinants of scanpath regularity in reading. *Cognitive Science*, *39*(7), 1675–1703. https://doi.org/10.1111/cogs.12208
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2015). Brain responses to world-knowledge violations: A comparison of stimulus- and fixation-triggered event-related potentials and neural oscillations. *Journal of Cognitive Neuroscience*, 27(5), 1017–1028. https://doi.org/10.1162/jocn\_a\_00731
- von der Malsburg, T., & Vasishth, S. (2013). Scanpaths reveal syntactic underspecification and reanalysis strategies. *Language and Cognitive Processes*, 28(10), 1545–1578. https://doi.org/10.1080/01690965.2012.728232
- Vasishth, S., von der Malsburg, T., & Engelmann, F. (2013). What eye movements can tell us about sentence comprehension. *Wiley Interdisciplinary Reviews: Cognitive Science*, 4(2), 125–134. https://doi.org/10.1002/wcs.1209
- Marusch, T., von der Malsburg, T., Bastiaanse, R., & Burchert, F. (2012). Tense morphology in german agrammatism: The production of regular, irregular and mixed verbs. *The Mental Lexicon*, 7(3), 351–380. https://doi.org/10.1075/ml.7.3.05mar

von der Malsburg, T., & Vasishth, S. (2011c). What is the scanpath signature of syntactic reanalysis? *Journal of Memory and Language*, 65(2), 109–127. https://doi.org/10.1016/j.jml.2011.02.004

# Long proceedings 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*, Potsdam, Germany, Universitätsverlag Potsdam.
- von der Malsburg, T., Vasishth, S., & Kliegl, R. (2012). Scanpaths in reading are informative about sentence processing (P. B. Michael Carl & K. K. Choudhary, Eds.). In P. B. Michael Carl & K. K. Choudhary (Eds.), *Proceedings of the First Workshop on Eye-tracking and Natural Language Processing*, 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, London, UK. Association for Computational Linguistics.

## Conference talks:

- Mézière, D., Yu, L., Reichle, E., von der Malsburg, T., & McArthur, G. (2020). A comparison of three reading comprehension tests using eye movements (C. Connor, Ed.). In C. Connor (Ed.), *Proceedings of the twenty-seventh annual meeting of the society for the scientific study of reading*, Irvine, CA 92616-5999 USA, Society for the Scientific Study of Reading.
- Parshina, O., Sekerina, I., Lopukhina, A., & von der Malsburg, T. (2020b). Reading strategies in monolingual adults and children vs. bilingual heritage and l2 speakers of russian: A scanpath analysis (S. Vasisht, T. von der Malsburg, & I. Wartenburger, Eds.). In S. Vasisht, T. von der Malsburg, & I. Wartenburger (Eds.), *Proceedings of the 26th architectures and mechanisms for language processing conference (AMLaP)*, Potsdam, Germany, Universität Potsdam.
- Boyce, V., von der Malsburg, T., Poppels, T., & Levy, R. (2019b). Remember 'him', forget 'her': Gender bias in the comprehension of pronominal referents (E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan, Eds.). In E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan (Eds.), *Proceedings of the 32th annual CUNY conference on human sentence processing*, Boulder, CO, USA, University of Colorado Boulder.
- Stone, K., Vasishth, S., & von der Malsburg, T. (2019a). Comprehenders generate long-distance predictions during reading: Erp evidence from verb-particle constructions (M. Whelpton, J. Jalbert, A. Beretta, S. Sigurjónsdóttir, P. Eyþórsson, Ó. Jóhannesson, A. Shaw, & Í. E. Nowenstein, Eds.). In M. Whelpton, J. Jalbert, A. Beretta, S. Sigurjónsdóttir, P. Eyþórsson, Ó. Jóhannesson, A. Shaw, & Í. E. Nowenstein (Eds.), *Proceedings of psycholinguistics in iceland parsing and prediction*, Reykjavík, Iceland, University of Iceland.
- Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2018b). This is the structure that we wonder why anyone produces it: Resumptive pronouns in English hinder comprehension (M. Pickering, M. Crocker, R. Hartsuiker, V. Ferreira, H. Branagan, & R. Mishra, Eds.). 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 (G. van Bergen & J. Spenader, Eds.). In G. van Bergen & J. Spenader (Eds.), *Proceedings of Discourse Expectations: Theoretical, Experimental and Computational perspectives (DETEC 2017)*, Nijmegen, Netherlands, Max Planck Institute for Psycholinguistics.
- von der Malsburg, T., Poppels, T., & Levy, R. (2017b). The president will give her inauguration speech: Explicit belief and implicit expectations in language production and comprehension (E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin, Eds.). In E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin (Eds.), *Proceedings of the 30th annual CUNY conference on human sentence processing*, Boston, MA, USA, Massachusetts Institute of Technology.
- Schotter, E., Leinenger, M., & von der Malsburg, T. (2017). Parafoveal and foveal information serve different purposes in reading: Parafoveal is used for saccade programming, foveal for comprehension (E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin, Eds.). In E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin (Eds.), *Proceedings of the 30th annual CUNY conference on human sentence processing*, Boston, MA, USA, Massachusetts Institute of Technology.
- Schotter, L., Leinenger, M., & von der Malsburg, T. (2017). The impact of forced fixations on word recognition: Dissociation ofoculomotor behavior and linguistic processing (H. Deubel, A. Nuthmann, S. Martinez-Conde, R. Radach, S. Everling, & U. Ettinger, Eds.). In H. Deubel, A. Nuthmann, S. Martinez-Conde, R. Radach, S. Everling, & U. Ettinger (Eds.), *Proceedings of the 19th european conference on eye movements (ecem)*, Wuppertal, Germany, Journal of Eye Movement Research. Bergische Universität Wuppertal.
- von der Malsburg, T., Poppels, T., & Levy, R. (2017c). The president gave her inauguration speech: Explicit belief and implicit expectations in language production and comprehension (M. Baptista & A. Coetzee, Eds.). In M. Baptista & A. Coetzee (Eds.), 91th annual meeting of the linguistics society of america, Austin, Texas, Linguistic Society of America.
- Angele, B., & von der Malsburg, T. (2016). Multiple comparisons and false positive rates in eye tracking studies of reading behaviour (M. T. Bajo, Ed.). In M. T. Bajo (Ed.), *Proceedings of the international meeting of the psychonomic society,* Granada, Spain, Psychonomic Society.
- Angele, B., & von der Malsburg, T. (2015b). False-positive rates in eyetracking studies with multiple dependent measures (M. Perea, M. Vergara-Martínez, E. M. Rosa Martínez, P. Tejero, J. Roca Ruíz, I. Fajardo, L. Salmerón, & R. Abu Mallouh, Eds.). In M. Perea, M. Vergara-Martínez, E. M. Rosa Martínez, P. Tejero, J. Roca Ruíz, I. Fajardo, L. Salmerón, & R. Abu Mallouh (Eds.), *Proceedings of the 12th symposium of psycholinguistics*, Valencia, Spain, Universitat de Valencia.
- von der Malsburg, T., & Angele, B. (2015b). The rules of statistics make no exception for reading research: False positive rates in eyetracking studies of reading behavior (A. Gatt & H. Mitterer, Eds.). In A. Gatt & H. Mitterer (Eds.), *Proceedings of the 21th architectures and mechanisms for language processing conference (AMLaP)*, Valetta, Malta, University of Malta.
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2014c). The relationship between regressive saccades and the P600 effect: Evidence from concurrent eye movement and EEG recordings (N. Patson, S. Speer, L. Squires, R. Turnbull, L. Wagner, & A. Walker, Eds.). In N. Patson, S. Speer, L. Squires, R. Turnbull, L. Wagner, & A. Walker (Eds.), *Proceedings of the 27th annual CUNY conference on human sentence processing*, Columbus, OH, USA, Ohio State University.

- von der Malsburg, T., Vasishth, S., & Kliegl, R. (2013). Scanpaths in reading are tractable and informative (K. Holmqvist, F. Mulvey, & R. Johansson, Eds.). In K. Holmqvist, F. Mulvey, & R. Johansson (Eds.), *Proceedings of the 17th european conference on eye movements (ecem)*, Lund, Sweden, Journal of Eye Movement Research. Lund University.
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2013a). Oscillatory brain dynamics differ between natural reading and serial presentation (K. Holmqvist, F. Mulvey, & R. Johansson, Eds.). In K. Holmqvist, F. Mulvey, & R. Johansson (Eds.), *Proceedings of the 17th european conference on eye movements (ecem)*, Lund, Sweden, Journal of Eye Movement Research. Lund University.
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2013b). World-knowledge violations elicit different rhythmic brain activity in natural reading and serial presentation (C. Frenck-Mestre, F.-X. Alario, N. Nguyen, P. Blache, & C. Meunier, Eds.). In C. Frenck-Mestre, F.-X. Alario, N. Nguyen, P. Blache, & C. Meunier (Eds.), *Proceedings of the 19th architectures and mechanisms for language processing conference (AMLaP)*, Marseilles, France, Aix-Marseille Université.
- Paape, D., Vasishth, S., & von der Malsburg, T. (2013). Local coherence and digging-in effects in german (F. Ferreira, A. Almor, & D.-B. den Ouden, Eds.). In F. Ferreira, A. Almor, & D.-B. den Ouden (Eds.), *Proceedings of the 26th annual CUNY conference on human sentence processing*, Columbia, SC, USA, University of South Carolina.
- von der Malsburg, T., & Vasishth, S. (2011b). Strategies for dealing with attachment ambiguities in Spanish, In *Proceedings of the 10th symposium of psycholinguistics*, San Sebastián, Spain. Basque Center on Cognition, Brain and Language.
- von der Malsburg, T., & Vasishth, S. (2010). Reanalysis strategies in temporarily ambiguous sentence A scanpath analysis (D. Bemis, J. Brennan, S. Dikker, I. Livitz, A. Marantz, B. McElree, L. Pylkkänen, & H. Rabagliati, Eds.). In D. Bemis, J. Brennan, S. Dikker, I. Livitz, A. Marantz, B. McElree, L. Pylkkänen, & H. Rabagliati (Eds.), *Proceedings of the 23th annual CUNY conference on human sentence processing*, New York City, NY, USA, New York University.
- von der Malsburg, T., & Vasishth, S. (2009b). Individual differences in scanpaths and reanalysis strategies while reading temporarily ambiguous sentences (S. Liversedge, Ed.). In S. Liversedge (Ed.), *Proceedings of the 15th european conference on eye movements (ecem)*, Southampton, UK, Journal of Eye Movement Research. University of Southampton.

#### Conference posters:

- Laurinavichyute, A., & von der Malsburg, T. (2020a). The Lewis and Vasishth model predicts agreement and semantic attraction effects in acceptability judgments, but not in response times (S. Vasisht, T. von der Malsburg, & I. Wartenburger, Eds.). In S. Vasisht, T. von der Malsburg, & I. Wartenburger (Eds.), *Proceedings of the 26th architectures and mechanisms for language processing conference (AMLaP)*, Potsdam, Germany, Universität Potsdam.
- Meziere, D., Yu, L., Reichle, E., von der Malsburg, T., & McArthur, G. (2020). Using eye movements to index reading comprehension ability (S. Vasisht, T. von der Malsburg, & I. Wartenburger, Eds.). In S. Vasisht, T. von der Malsburg, & I. Wartenburger (Eds.), *Proceedings of the 26th architectures and mechanisms for language processing conference* (*AMLaP*), Potsdam, Germany, Universität Potsdam.
- Stone, K., von der Malsburg, T., & Vasishth, S. (2020a). Contextual constraint and the frontal post-N400 positivity: A large-sample, pre-registered ERP study (M. Breen, B. Dillon, L. Frazier, J. Kingston, S. Momma, & A. Staub, Eds.). In M. Breen, B. Dillon, L. Frazier, J.

- Kingston, S. Momma, & A. Staub (Eds.), *Proceedings of the 33th annual CUNY conference on human sentence processing*, Amherst MA, USA, University of Massachusetts, Amherst.
- Boyce, V., von der Malsburg, T., Poppels, T., & Levy, R. (2019a). Female gender is consistently under-expressed in pronoun production and under-inferred in comprehension (R. Pancheva & K. Iskarous, Eds.). In R. Pancheva & K. Iskarous (Eds.), 93th annual meeting of the linguistics society of america, New York, NY, USA, Linguistic Society of America.
- Laurinavichyute, A., & von der Malsburg, T. (2019). Agreement attraction effects in the comprehension of grammatical sentences (E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan, Eds.). In E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan (Eds.), *Proceedings of the 32th annual CUNY conference on human sentence processing*, Boulder, CO, USA, University of Colorado Boulder.
- Schäfer, R., Lago, S., & von der Malsburg, T. (2019). ERP evidence of object agreement attraction in comprehension (E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan, Eds.). In E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan (Eds.), *Proceedings of the 32th annual CUNY conference on human sentence processing*, Boulder, CO, USA, University of Colorado Boulder.
- Stone, K., Vasishth, S., & von der Malsburg, T. (2019b). ERP evidence for long-distance lexical predictions in German particle verb constructions (E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan, Eds.). In E. Colunga, A. Kim, L. Michaelis, & B. Narasimhan (Eds.), *Proceedings of the 32th annual CUNY conference on human sentence processing*, Boulder, CO, USA, University of Colorado Boulder.
- Boyce, V., von der Malsburg, T., Poppels, T., & Levy, R. (2018). Implicit gender biases in the production and comprehension of pronominal references (F. Ferreira, J. Henderson, T. Swaab, & M. Traxler, Eds.). 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 (F. Ferreira, J. Henderson, T. Swaab, & M. Traxler, Eds.). 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 (P. Knoeferle, Ed.). In P. Knoeferle (Ed.), *Proceedings of the 24th architectures and mechanisms for language processing conference (AMLaP)*, Berlin, Germany, Humboldt Universität Berlin.
- Laurinavichyute, A., & von der Malsburg, T. (2018c). Semantic attraction in sentence processing (F. Ferreira, J. Henderson, T. Swaab, & M. Traxler, Eds.). 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.
- Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2018a). English resumptive pronouns do not help the comprehender (P. Knoeferle, Ed.). In P. Knoeferle (Ed.), *Proceedings of the 24th architectures and mechanisms for language processing conference* (*AMLaP*), Berlin, Germany, Humboldt Universität Berlin.
- Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2018c). This is the structure that we wonder why anyone produces it: Resumptive pronouns in English hinder comprehension (F. Ferreira, J. Henderson, T. Swaab, & M. Traxler, Eds.). 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.

- Schäfer, R., von der Malsburg, T., & Lago, S. (2018). Agreement attraction in german SOV structures: An ERP study (P. Knoeferle, Ed.). In P. Knoeferle (Ed.), *Proceedings of the 24th architectures and mechanisms for language processing conference (AMLaP)*, Berlin, Germany, Humboldt Universität Berlin.
- Stone, K., Vasishth, S., & von der Malsburg, T. (2018). Expectations and prediction in sentence comprehension: German particle verbs as a test case (F. Ferreira, J. Henderson, T. Swaab, & M. Traxler, Eds.). 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.
- von der Malsburg, T., Poppels, T., Boyce, V., & Levy, R. (2018). Gender-biases in language processing: Explicit beliefs about event outcomes vs. implicit linguistic expectations (P. Knoeferle, Ed.). In P. Knoeferle (Ed.), *Proceedings of the 24th architectures and mechanisms for language processing conference (AMLaP)*, Berlin, Germany, Humboldt Universität Berlin.
- Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2017). This is the structure that we wonder why anyone produces it: Resumptive pronouns in english help production but hinder comprehension (E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin, Eds.). In E. Gibson, I. Blank, E. Fedorenko, R. Futrell, M. Kline, & R. Ryskin (Eds.), *Proceedings of the 30th annual CUNY conference on human sentence processing*, Boston, MA, USA, Massachusetts Institute of Technology.
- Morgan, A., von der Malsburg, T., Ferreira, V., & Wittenberg, E. (2016). Resumptive pronouns hinder sentence comprehension in english (M. Carreiras, S. Mancini, N. Molinaro, D. Davidson, S. Caffarra, & C. Martin, Eds.). In M. Carreiras, S. Mancini, N. Molinaro, D. Davidson, S. Caffarra, & C. Martin (Eds.), *Proceedings of the 22th architectures and mechanisms for language processing conference (AMLaP)*, Bilbao, Spain, Basque Center on Cognition, Brain; Language. Bizkaia Aretoa, Bilbao.
- Angele, B., & von der Malsburg, T. (2015a). False positives in standard analyses of eye movements in reading (U. Ansorge, T. Ditye, A. Florack, & H. Leder, Eds.). In U. Ansorge, T. Ditye, A. Florack, & H. Leder (Eds.), *Proceedings of the 18th european conference on eye movements (ecem)*, Vienna, Austria, Journal of Eye Movement Research. University of Vienna.
- von der Malsburg, T., & Angele, B. (2015a). False-positive rates in eyetracking studies with multiple dependent measures (E. Kaiser, T. Mintz, R. Pancheva, & J. Zevin, Eds.). In E. Kaiser, T. Mintz, R. Pancheva, & J. Zevin (Eds.), *Proceedings of the 28th annual CUNY conference on human sentence processing*, Los Angeles, CA, USA, University of Southern California.
- von der Malsburg, T., Vasishth, S., Metzner, P., & Levy, R. (2015). How presentation modality influences reading comprehension (E. Kaiser, T. Mintz, R. Pancheva, & J. Zevin, Eds.). In E. Kaiser, T. Mintz, R. Pancheva, & J. Zevin (Eds.), *Proceedings of the 28th annual CUNY conference on human sentence processing*, Los Angeles, CA, USA, University of Southern California.
- von der Malsburg, T., Vasishth, S., & Levy, R. (2015). The impact of reading modality on sentence comprehension (A. Gatt & H. Mitterer, Eds.). In A. Gatt & H. Mitterer (Eds.), *Proceedings of the 21th architectures and mechanisms for language processing conference* (*AMLaP*), Valetta, Malta, University of Malta.
- von der Malsburg, T., Joseph, H., Troscianko, E., Kukkonen, K., & Nation, K. (2015). The influence of foreshadowing metaphors in a crime story by Ian Fleming (A. Gatt & H. Mitterer, Eds.). In A. Gatt & H. Mitterer (Eds.), *Proceedings of the 21th architectures*

- and mechanisms for language processing conference (AMLaP), Valetta, Malta, University of Malta.
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2014a). Different coping strategies in sentence processing can be disentangled using coregistered eye movements and brain potentials, In *Proceedings of the Sixth Annual Society for the Neurobiology of Language Conference*, Amsterdam, Netherlands, Society for the Neurobiology of Language.
- Metzner, P., von der Malsburg, T., Vasishth, S., & Rösler, F. (2014b). Recovering from syntactic and semantic violations: The relationship between eye movements and brain responses (M. Corley, H. Rabagliati, M. Nieuwland, P. Sturt, M. Pickering, & A. Martin, Eds.). In M. Corley, H. Rabagliati, M. Nieuwland, P. Sturt, M. Pickering, & A. Martin (Eds.), *Proceedings of the 20th architectures and mechanisms for language processing conference* (*AMLaP*), Edinburgh, UK, University of Edinburgh.
- von der Malsburg, T., Metzner, P., Vasishth, S., & Rösler, F. (2014). Using co-registration of eye movements and event-related brain potentials to study the processing of anaphoric dependencies (N. Patson, S. Speer, L. Squires, R. Turnbull, L. Wagner, & A. Walker, Eds.). In N. Patson, S. Speer, L. Squires, R. Turnbull, L. Wagner, & A. Walker (Eds.), *Proceedings of the 27th annual CUNY conference on human sentence processing*, Columbus, OH, USA, Ohio State University.
- von der Malsburg, T., Metzner, P., Vasishth, S., & Rösler, F. (2013). Co-registration of eye movements and brain potentials as a tool for research on reading and language comprehension (K. Holmqvist, F. Mulvey, & R. Johansson, Eds.). In K. Holmqvist, F. Mulvey, & R. Johansson (Eds.), *Proceedings of the 17th european conference on eye movements (ecem)*, Lund, Sweden, Journal of Eye Movement Research. Lund University.
- 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*, Potsdam, Germany, Universitätsverlag Potsdam.
- Kobele, G., Lagrou, E., Engelmann, F., von der Malsburg, T., Musa, R., Gerth, S., van de Vijver, R., & Hale, J. (2012). Incremental processing difficulty in cross-serial and nested verb cluster (G. Egidi, U. Hasson, R. Job, F. Vespignani, & R. Zamparelli, Eds.). In G. Egidi, U. Hasson, R. Job, F. Vespignani, & R. Zamparelli (Eds.), *Proceedings of the 18th architectures and mechanisms for language processing conference (AMLaP)*, Trento, Italy, University of Trento. Riva del Garda, Italy.
- von der Malsburg, T., Kliegl, R., & Vasishth, S. (2012). Determinants of scanpath regularity in reading (D. Bradley, E. Fernández, & J. D. Fodor, Eds.). In D. Bradley, E. Fernández, & J. D. Fodor (Eds.), *Proceedings of the 25th annual CUNY conference on human sentence processing*, New York City, NY, USA, CUNY Graduate School; University Center.
- von der Malsburg, T., & Vasishth, S. (2011a). Eye-movement strategies for dealing with garden-path sentences (A. Fernald, M. C. Frank, D. Jurafsky, I. A. Sag, & T. Wasow, Eds.). In A. Fernald, M. C. Frank, D. Jurafsky, I. A. Sag, & T. Wasow (Eds.), *Proceedings of the 24th annual CUNY conference on human sentence processing*, Stanford, CA, USA, Stanford University.
- von der Malsburg, T., Kliegl, R., & Vasishth, S. (2011). A scanpath measure reveals effects of age of reader and syntactic complexity of sentences (F. Vitu, E. Castet, & L. Goffart, Eds.). In F. Vitu, E. Castet, & L. Goffart (Eds.), *Proceedings of the 16th european conference on eye movements (ecem)*, Marseilles, France, Journal of Eye Movement Research. Université de Provence, Marseilles, France.
- Vasishth, S., Drenhaus, H., & von der Malsburg, T. (2010). Integration difficulty and expectation-based syntactic comprehension (D. Bemis, J. Brennan, S. Dikker, I. Livitz, A. Marantz,

- B. McElree, L. Pylkkänen, & H. Rabagliati, Eds.). In D. Bemis, J. Brennan, S. Dikker, I. Livitz, A. Marantz, B. McElree, L. Pylkkänen, & H. Rabagliati (Eds.), *Proceedings of the 23th annual CUNY conference on human sentence processing*, New York City, NY, USA, New York University.
- von der Malsburg, T., & Vasishth, S. (2009a). Analyzing spatio-temporal patterns in eye movements: A method and software (M. Traxler & T. Swaab, Eds.). In M. Traxler & T. Swaab (Eds.), *Proceedings of the 22th annual CUNY conference on human sentence processing*, Davis, CA, USA, University of California, Davis.
- von der Malsburg, T. (2009). Choice of saccade detection algorithm has a considerable impact on eye tracking measures (S. Liversedge, Ed.). In S. Liversedge (Ed.), *Proceedings of the 15th european conference on eye movements (ecem)*, Southampton, UK, Journal of Eye Movement Research. University of Southampton.
- von der Malsburg, T., & Vasishth, S. (2009c). Readers use different strategies to recover from garden-paths, In *Processings of the Summer School on Embodied Language Games and Construction Grammar*, Cortona, Italy. Evolutionary Linguistics Association.
- von der Malsburg, T., & Vasishth, S. (2008). A new method for analyzing eye movements in reading that is sensitive to spatial and temporal patterns in sequences of fixations (P. Gordon, Ed.). In P. Gordon (Ed.), *Proceedings of the 21th annual CUNY conference on human sentence processing*, Chapel Hill, NC, USA, University of North Caroline at Chapel Hill.
- von der Malsburg, T., & Vasishth, S. (2007). A time-sensitive similarity measure for scanpaths (R. Kliegl & R. Engbert, Eds.). In R. Kliegl & R. Engbert (Eds.), *Proceedings of the 14th European Conference on Eye Movements (ECEM)*, Potsdam, Germany, Journal of Eye Movement Research. University of Potsdam.

# Scientific data sets:

Rayner, K., Abbott, M. J., Schotter, E. R., Belanger, N. N., Higgins, E. C., Leinenger, M., von der Malsburg, T., & Plummer, P. (2015). Keith Rayner eye movements in reading data collection. https://doi.org/10.6075/J0JW8BSV

## Scientific software:

- von der Malsburg, T. (2015a). Saccades: An R package for detecting fixations in raw eye tracking data [Published on Zenodo]. https://doi.org/10.5281/zenodo.31799
- von der Malsburg, T. (2015b). Py-Span-Task: A software for testing working memory span [Published on Zenodo]. https://doi.org/10.5281/zenodo.18238
- von der Malsburg, T. (2015c). Scanpath: An R package for analyzing scanpaths [Published on Zenodo]. https://doi.org/10.5281/zenodo.31800

#### Artistic works:

- Schurer, B., & von der Malsburg, T. (2017). Automatic reading (obfuscation) (L. Ribas & R. Taveira, Eds.) [Eye-tracking and sound installation.]. In L. Ribas & R. Taveira (Eds.), *Proceedings of the fifth conference on Computation, Communication, Aesthetics and X*, Lisbon, Portugal, The xCoAx 2017 organizing committee. Eye-tracking and sound installation.
- Illing, C., & von der Malsburg, T. (2015). Brain decomposition [Sound installation]. http://www.einraumhaus.com/

- Illing, C., & von der Malsburg, T. (2014). Brain decompositions [Performance]. http://zkm.de/en/event/2014/12/produced-at-ima
- von der Malsburg, T., & Illing, C. (2014). Dem Gehirn zuhören [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 (M. Verdicchio & M. Carvalhais, Eds.) [Sound installation.]. In M. Verdicchio & M. Carvalhais (Eds.), *Proceedings of the first conference on Computation, Communication, Aesthetics and X*, Bergamo, Italy, The xCoAx 2013 organizing committee. Sound installation.

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