## Shravan Vasishth

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PERSONAL  $\diamond$  Date and place of birth: 20 March 1964, New Delhi, India

DETAILS  $\diamond$  Nationality: German citizen.

Profess-

♦ GradStat ID 128307: Professional member since 2016, Royal Statistical So-

IONAL ciety, UK.

Member

#### EDUCATION & University of Sheffield, Sheffield UK.

MSc in Statistics, Sept 2012-November 2015, School of Mathematics and Statistics.

MSc Dissertation: A Meta-analysis of relative clause processing in Mandarin Chinese using Bias Modelling.

Advisor: Jeremy Oakley.

#### ♦ University of Sheffield, Sheffield, UK.

Graduate Certificate in Statistics, Sept 2011-June 2012, School of Mathematics and Statistics.

## ♦ Ohio State University, Columbus, OH, USA.

Ph.D. in Linguistics, April 1997-June 2002.

Dissertation: Working memory in Sentence Comprehension: Processing Hindi Center Embeddings

Advisors: Shari Speer, Richard L. Lewis. Dissertation committee members: Chris Brew, Keith Johnson, John Josephson.

## ♦ Ohio State University, USA.

M.S. in Computer and Information Science, August 2000-March 2002.

Master's thesis: An Abductive Inference Based Model of Human Sentence Parsina

Advisors: John Josephson, Richard L. Lewis. Thesis committee member: B. Chandrasekaran.

♦ Osaka University, Japan.

Ph.D. student, April 1996-March 1997, Faculty of Language and Culture. Advisor: Takao Gunji.

♦ Osaka University, Japan.

Research student, Faculty of Language and Culture, 1995-1996.

- Jawaharlal Nehru University, New Delhi, India.
   M.A. Linguistics, 1992-1994.
- ♦ Osaka University of Foreign Studies, Japan. Diploma in Advanced Japanese, 1989-1990.
- Alliance Française, New Delhi, India. Diplôme de langue française, 1986-1989.
- Jawaharlal Nehru University, New Delhi, India.
   B.A. Japanese (Honours), 1986-1989.
- ⋄ Nov. 1984-Sept. 1986: Studies interrupted due to kidney failure followed by transplant.
- ♦ Delhi University, India.
  First year B.A. Economics (Honours), 1983-1984. Studies ended due to illness.
- St. Columba's School, India.
  Indian School Certificate (Mathematics, Physics, Chemistry, Biology, English), 1971-1983.

## WORK EXPERIENCE

- ⋄ Full professor (W2, 1st October 2008 onwards: Chair of Psycholinguistics & Neurolinguistics: Language Processing, Department of Linguistics, University of Potsdam, Germany. (Beamter auf Lebenszeit; this is a lifetime appointment as a civil servant in the state of Brandenburg)
- ♦ Assistant professor (Juniorprofessor): Empirical Methods in Syntax. Department of Linguistics, University of Potsdam, Germany (August 2004-July 2010; resigned September 2008). This was a non-tenure track, fixed term (6 years maximum) position. The mid-term evaluation (considered equivalent to a Habilitation) was carried out in March 2007 and was successful.
- Postdoctoral researcher (Wiss. Mitarbeiter, BAT IIa): Computational Linguistics, Saarland University, Germany (June 2002-July 2004).
- ♦ Research assistant: Statistical data analysis for Shari Speer, Ohio State University, USA (Spring 2002).
- ♦ Verbmobil machine translation project: tree annotation, perl scripting, Ohio State University, USA (1997-2000).
- ♦ **Teaching assistant**: Osaka University, Japan (1996-1997).
- ♦ Freelance patent translator: Japanese to English translation for clients in Japan and the UK (1995-present). Specialization: computer hardware and software patents, mechanical, electrical, and electronics engineering.
- ♦ In-house patent translator: Japanese to English translation, Osaka, Japan (October 1990-March 1992).

♦ Freelance interpreter and translator: Japanese to English/Hindi translation for clients in Delhi (1985-1986, 1992-1994). Specialization: mechanical, electrical, and electronics engineering.

#### SKILLS

- ♦ Programming (various languages)
- ♦ LATEX, literate programming (knitr, Rmarkdown)
- ♦ Unix, Linux, OS X
- ⋄ Native English and Hindi-Urdu speaker, good written and spoken Japanese (Japanese Proficiency Test Level I, passed in 1990); French (Diplôme de Langue Française, 1989, with grade assez bien); and German (Oberstufe, C2.1 level of Goethe Institut).

## AWARDS, HONORS, JOB OFFERS AND SCHOL-ARSHIPS

- ♦ Best teacher award: Charité, SFB 1340 Matrix in Vision, 18 January, 2019.
- ♦ Visiting Professor, University of Tokyo, Japan (Oct-Dec 2015)
- AND SCHOLADDITIONS

  ADDITIONS

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  - ♦ Full Professorship in Cognitive Modeling (W3), offered by the University of Tübingen, Department of Computer Science (declined, 2011)
  - ♦ Full Professorship (W2), offered by the University of Potsdam (accepted, 2008)
  - ♦ Full Professorship (W2), offered by Ruhr-Universität Bochum (declined, 2008)
  - Tenure-track assistant professorship, offered by Northwestern University (declined, 2007)
  - ⋄ Third position in short list for Full Professorship in Theoretical Computational Linguistics (W3), Tübingen
  - ♦ Dissertation selected for publication in Outstanding Dissertations series, Garland Publishers, Routledge (2003)
  - ♦ Graduate research assistant, Ohio State University (Winter and Spring 2002)
  - ♦ Adjacent Technology fellowship, Ohio State University (Fall 2001)
  - ♦ GRA, Center for Cognitive Science, Ohio State University (Summer 2001)
  - ♦ Internal grant, Computer and Information Science, Ohio State University (2000-2001)
  - ♦ Eberhard Karls Universität Tübingen Study Grant, Ohio State University (1997-2000)
  - ♦ Japanese government (Monbusho) research scholarship (1995-1997)
  - ♦ Nehru Centenary Fellowship for study in the UK (declined) (1995-1998)
  - ♦ Junior Research Fellowship, Government of India (declined) (1995)
  - ♦ Japanese government (Monbusho) scholarship (1989-1990)

## CURRENT RESEARCH FUNDING

♦ Three projects in the SFB 1287, Limits of Variability in Language: Cognitive, Grammatical, and Social Aspects (July 2017- June 2021)

- ♦ Opus magnum Award, Volkswagenstiftung (Oct 2016-Sept 2018)
- ♦ DFG project INHIBIT (funded Nov 2016, for three years)
- ♦ DFG project AGREE (funded 2016, for three years, initially to Prof. Dr. Sol Lago, transferred to me in April 2019)

## PREVIOUS RESEARCH FUNDING

- ♦ **Project title**: A1 Dynamic modeling of eye-movement control in reading. Funded by the DFG, 2011-2013 (three years). Co-PIs: Ralf Engbert and Reinhold Kliegl (Psychology), Shravan Vasishth (Linguistics).
- Project title: A4 EM-ERPs and anaphoric resolution. Funded by the DFG, 2011-2013 (three years). Co-PIs: Shravan Vasishth (Linguistics), Frank Rösler (Senior Professor, Psychology, Hamburg)
- ⋄ Project title: Online sentence processing, aphasic impairments, computational modelling. Funded by the DFG, 2011-2012 (two years). PIs: Shravan Vasishth, Ria De Bleser, Frank Burchert.
- ♦ **Project title**: Prosody in parsing, phase 2. Funded by the DFG as part of the DFG Schwerpunktprogramm 1234 (2009-2012).
- ◇ Project title: Experimental and corpus investigations of information structure in Hindi. DFG proposal funded as part of the Potsdam-Humboldt Collaborative Research Center (Sonderforschungsbereich, SFB) on Information Structure (2007-2011).
- ◇ Project title: Computational models of human sentence processing: a model comparison approach. DFG proposal funded as a single project (2008-2010). Co-PI: Reinhold Kliegl, Psychology.
- ♦ Project title: Prosody in parsing. Funded by the DFG as part of the DFG Schwerpunkt-programm 1234 (2006-2009).

## RESEARCH INTERESTS

Cognitive modeling, in particular computational psycholinguistics (sentence processing); computational modeling of high-level cognitive processes; mathematical, computational, experimental, and statistical methods in linguistics and psychology.

## CURRENT RESEARCH

♦ Bayesian modeling tutorial. Michael Betancourt (USA) and Paul Bürkner (Finland).

### COLLABOR-ATIONS

- ♦ Interference in sentence processing, with Brian Dillon, UMass.
- ♦ Investigating predictive processing with ERP. With Prof. Dr. Frank Rösler, Hamburg.
- ♦ Investigating agreement processes in L1 and L2. With Prof. Dr. Sol Lago, Frankfurt.
- ♦ Connecting models of eye movement control and sentence processing theories. With Ralf Engbert, Psychology, Potsdam.
- Predictive processing. With Frank Rösler, Senior Professor in Psychology, University of Hamburg.

## PAST COLLABOR-ATIONS

♦ Developing statistical methods. With Robin Ryder and Nicolas Chopin. CERE-MADE (Centre de Recherche en Mathématiques de la Décision), Université Paris-Dauphine, Michael Betancourt (NYC).

- Research on reflexives in German, with Brian Dillon, University of Massachusetts, USA.
- ♦ Chinese relative clauses. With Charles Lin, Illinois.
- ♦ The role of working memory constraints in parsing. With Philip Hofmeister, Essex, UK.
- Anaphor resolution. With Frank Rösler, Senior Professor in Psychology, University of Hamburg.
- Constraints on human sentence processing: empirical and modeling aspects.
   With Richard Lewis, Psychology, Michigan, USA, and John Hale, Cornell University, USA

#### Member

- ⋄ Royal Statistical Society
- ♦ Society for Mathematical Psychology
- ♦ International Society for Bayesian Analysis

# RESEARCH $\diamond$ Publications OUTPUT

#### Books

- [1] Shravan Vasishth and Michael Broe. The Foundations of Statistics: A Simulation-based Approach. Springer, Heidelberg, second edition, 2021. In preparation.
- [2] Shravan Vasishth, Daniel Schad, Audrey Bürki, and Reinhold Kliegl. *Linear Mixed Models for Linguistics and Psychology: A Comprehensive Introduction*. 2021. Under contract with Chapman and Hall/CRC Statistics in the Social and Behavioral Sciences Series.
- [3] Bruno Nicenboim, Daniel Schad, and Shravan Vasishth. *Introduction to Bayesian Data Analysis for Cognitive Science*. 2021. Under contract with Chapman and Hall/CRC Statistics in the Social and Behavioral Sciences Series.
- [4] Shravan Vasishth and Felix Engelmann. Sentence comprehension as a cognitive process: A computational approach. 2020. Under contract with Cambridge University Press.
- [5] Shravan Vasishth and Michael Broe. The Foundations of Statistics: A Simulation-based Approach. Springer, Heidelberg, 2011.
- [6] Shravan Vasishth. Working memory in sentence comprehension: Processing Hindi center embeddings. Garland Press, New York, 2003. Published in the Garland series Outstanding Dissertations in Linguistics, edited by Laurence Horn.
- [7] Nick Cipollone, Steven Hartman Keiser, and Shravan Vasishth. Language files: materials for an introduction to language & linguistics. Ohio State University Press, 1998.

#### Journal articles

- [1] Felix Engelmann, Lena A. Jäger, and Shravan Vasishth. The effect of prominence and cue association in retrieval processes: A computational account. *Cognitive Science*, 2020.
- [2] Daniel J. Schad, Sven Hohenstein, Shravan Vasishth, and Reinhold Kliegl. How to capitalize on a priori contrasts in linear (mixed) models: A tutorial. *Journal of Memory and Language*, 110, 2020. In Press.
- [3] Serine Avetisyan, Sol Lago, and Shravan Vasishth. Does case marking affect agreement attraction in comprehension? *Journal of Memory and Language*, 112, 2020.
- [4] Lena A. Jäger, Daniela Mertzen, Julie A. Van Dyke, and Shravan Vasishth. Interference patterns in subject-verb agreement and reflexives revisited: A large-sample study. *Journal of Memory and Language*, 111, 2020.
- [5] Shravan Vasishth, Bruno Nicenboim, Felix Engelmann, and Frank Burchert. Computational models of retrieval processes in sentence processing. *Trends in Cognitive Sciences*, 23:968–982, 2019.
- [6] Bruno Nicenboim and Shravan Vasishth. Models of retrieval in sentence comprehension: A computational evaluation using Bayesian hierarchical modeling. *Journal of Memory and Language*, 99:1–34, 2018.
- [7] Shravan Vasishth, Bruno Nicenboim, Mary E. Beckman, Fangfang Li, and Eun Jong Kong. Bayesian data analysis in the phonetic sciences: A tutorial introduction. *Journal of Phonetics*, 71:141–161, 2018.
- [8] Bruno Nicenboim, Timo B. Roettger, and Shravan Vasishth. Using metaanalysis for evidence synthesis: The case of incomplete neutralization in German. *Journal of Phonetics*, 70:39–55, 2018.
- [9] Bruno Nicenboim, Shravan Vasishth, Felix Engelmann, and Katja Suckow. Exploratory and confirmatory analyses in sentence processing: A case study of number interference in German. *Cognitive Science*, 42, 2018.
- [10] Dario Paape, Barbara Hemforth, and Shravan Vasishth. Processing of ellipsis with garden-path antecedents in French and German: Evidence from eye tracking. PLoS ONE, 2018.
- [11] Shravan Vasishth, Daniela Mertzen, Lena A. Jäger, and Andrew Gelman. The statistical significance filter leads to overoptimistic expectations of replicability. *Journal of Memory and Language*, 103:151–175, 2018.
- [12] Paul Mätzig, Shravan Vasishth, Felix Engelmann, David Caplan, and Frank Burchert. A computational investigation of sources of variability in sentence comprehension difficulty in aphasia. *Topics in Cognitive Science*, 10(1):161–174, 2018.
- [13] Shravan Vasishth. Planned experiments and corpus based research play a complementary role: Comment on "Dependency distance: A new perspective on syntactic patterns in natural languages" by Liu et al. *Physics of Life Reviews*, page ??, 2017.
- [14] R. Harald Baayen, Shravan Vasishth, Reinhold Kliegl, and Douglas M. Bates. The cave of shadows: Addressing the human factor with generalized

- additive mixed models. *Journal of Memory and Language*, pages 206–234, 2017.
- [15] Hannes Matuschek, Reinhold Kliegl, Shravan Vasishth, R. Harald Baayen, and Douglas M. Bates. Balancing Type I Error and Power in Linear Mixed Models. *Journal of Memory and Language*, 94:305–315, 2017.
- [16] Fuyun Wu, Elsi Kaiser, and Shravan Vasishth. Effects of early cues on the processing of Chinese relative clauses: Evidence for experience-based theories. *Cognitive Science*, 2017.
- [17] Lena A. Jäger, Felix Engelmann, and Shravan Vasishth. Similarity-based interference in sentence comprehension: Literature review and Bayesian meta-analysis. *Journal of Memory and Language*, 94:316–339, 2017.
- [18] Dario Paape, Bruno Nicenboim, and Shravan Vasishth. Does antecedent complexity affect ellipsis processing? An empirical investigation. *Glossa*, 2, 2017.
- [19] Gerrit Kentner and Shravan Vasishth. Prosodic focus marking in silent reading: Effects of discourse context and rhythm. 7(319), 2016. Frontiers in Psychology.
- [20] Shravan Vasishth and Bruno Nicenboim. Statistical methods for linguistic research: Foundational ideas Part I. Language and Linguistics Compass, 10(8):349–369, 2016.
- [21] Bruno Nicenboim and Shravan Vasishth. Statistical methods for linguistic research: Foundational ideas Part II. Language and Linguistics Compass, 10:591–613, 2016.
- [22] Molood Sadat Safavi, Samar Husain, and Shravan Vasishth. Dependency resolution difficulty increases with distance in Persian separable complex predicates: Implications for expectation and memory-based accounts. Frontiers in Psychology, 7, 2016.
- [23] Umesh Patil, Sandra Hanne, Frank Burchert, Ria De Bleser, and Shravan Vasishth. A computational evaluation of sentence comprehension deficits in aphasia. *Cognitive Science*, 40:5–50, 2016.
- [24] Umesh Patil, Shravan Vasishth, and Richard L. Lewis. Retrieval interference in syntactic processing: The case of reflexive binding in English. Frontiers in Psychology, 2016. Special Issue on Encoding and Navigating Linguistic Representations in Memory.
- [25] Tanner Sorensen, Sven Hohenstein, and Shravan Vasishth. Bayesian linear mixed models using Stan: A tutorial for psychologists, linguists, and cognitive scientists. *Quantitative Methods for Psychology*, 12(3):175–200, 2016.
- [26] Pavel Logačev and Shravan Vasishth. Understanding underspecification: A comparison of two computational implementations. *Quarterly Journal of Experimental Psychology*, 69(5):996–1012, 2016.
- [27] Bruno Nicenboim, Pavel Logačev, Carolina Gattei, and Shravan Vasishth. When high-capacity readers slow down and low-capacity readers speed up: Working memory differences in unbounded dependencies. Frontiers in Psychology, 7(280), 2016. Special Issue on Encoding and Navigating Linguistic Representations in Memory.

- [28] Paul Metzner, Titus von der Malsburg, Shravan Vasishth, and Frank Rösler. The importance of reading naturally: Evidence from combined recordings of eye movements and electric brain potentials. *Cognitive Science*, 2016.
- [29] Dario Paape and Shravan Vasishth. Local coherence and preemptive digging-in effects in German. Language and Speech, 59:387–403, 2016.
- [30] Titus von der Malsburg, Reinhold Kliegl, and Shravan Vasishth. Determinants of scanpath regularity in reading. *Cognitive Science*, 39(7):1675–1703, 2015.
- [31] Lena A. Jäger, Felix Engelmann, and Shravan Vasishth. Retrieval interference in reflexive processing: Experimental evidence from Mandarin, and computational modeling. *Frontiers in Psychology*, 6(617), 2015.
- [32] Lena A. Jäger, Zhong Chen, Qiang Li, Chien-Jer Charles Lin, and Shravan Vasishth. The subject-relative advantage in Chinese: Evidence for expectation-based processing. *Journal of Memory and Language*, 79–80:97–120, 2015.
- [33] Lena A. Jäger, Lena Benz, Jens Roeser, Brian W. Dillon, and Shravan Vasishth. Teasing apart retrieval and encoding interference in the processing of anaphors. *Frontiers in Psychology*, 6(506), 2015.
- [34] Pavel Logačev and Shravan Vasishth. A multiple-channel model of task-dependent ambiguity resolution in sentence comprehension. *Cognitive Science*, 40:266–298, 2015.
- [35] Bruno Nicenboim, Shravan Vasishth, Reinhold Kliegl, Carolina Gattei, and Mariano Sigman. Working memory differences in long distance dependency resolution. *Frontiers in Psychology*, 2015.
- [36] Stefan L. Frank, Thijs Trompenaars, and Shravan Vasishth. Cross-linguistic differences in processing double-embedded relative clauses: Working-memory constraints or language statistics? *Cognitive Science*, 40:554–578, 2015.
- [37] Sandra Hanne, Frank Burchert, Ria De Bleser, and Shravan Vasishth. Sentence comprehension and morphological cues in aphasia: What eye-tracking reveals about integration and prediction. *Journal of Neurolinguistics*, 34:83–111, 2015.
- [38] Sandra Hanne, Frank Burchert, and Shravan Vasishth. On the nature of the subject-object asymmetry in wh-question comprehension in aphasia: Evidence from eye-tracking. *Aphasiology*, 2015.
- [39] Samar Husain, Shravan Vasishth, and Narayanan Srinivasan. Integration and prediction difficulty in Hindi sentence comprehension: Evidence from an eye-tracking corpus. *Journal of Eye Movement Research*, 8(2):1–12, 2015.
- [40] Paul Metzner, Titus von der Malsburg, Shravan Vasishth, and Frank Rösler. 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, 2014.
- [41] Philip Hofmeister and Shravan Vasishth. Distinctiveness and encoding effects in online sentence comprehension. *Frontiers in Psychology*, 5:1–13, 2014. Article 1237.

- [42] Samar Husain, Shravan Vasishth, and Narayanan Srinivasan. Strong expectations cancel locality effects: Evidence from Hindi. *PLoS ONE*, 9(7):1–14, 2014
- [43] Shravan Vasishth, Zhong Chen, Qiang Li, and Gueilan Guo. Processing Chinese relative clauses: Evidence for the subject-relative advantage. *PLoS ONE*, 8(10):1–14, 10 2013.
- [44] Felix Engelmann, Shravan Vasishth, Ralf Engbert, and Reinhold Kliegl. A framework for modeling the interaction of syntactic processing and eye movement control. *Topics in Cognitive Science*, 5(3):452–474, 2013.
- [45] Titus von der Malsburg and Shravan Vasishth. Scanpaths reveal syntactic underspecification and reanalysis strategies. Language and Cognitive Processes, 28(10):1545–1578, 2013.
- [46] Niloofar Keshtiari and Shravan Vasishth. Reactivation of antecedents by overt vs null pronouns: Evidence from Persian. 1(2):243–266, 2013.
- [47] Kate McCurdy, Gerrit Kentner, and Shravan Vasishth. Implicit prosody and contextual bias in silent reading. *Journal of Eye Movement Research*, 6(2):1–17, 2013.
- [48] Shravan Vasishth, Rukshin Shaher, and Narayanan Srinivasan. The role of clefting, word order and given-new ordering in sentence comprehension: Evidence from Hindi. *Journal of South Asian Linguistics*, 2012.
- [49] Frank Burchert, Sandra Hanne, and Shravan Vasishth. Sentence comprehension disorders in aphasia: The concept of chance performance revisited. *Aphasiology*, 2012.
- [50] Shravan Vasishth, Titus von der Malsburg, and Felix Engelmann. What eye movements can tell us about sentence comprehension. Wiley Interdisciplinary Reviews: Cognitive Science, pages 125–134, 2012.
- [51] Sandra Hanne, Irina Sekerina, Shravan Vasishth, Frank Burchert, and Ria De Bleser. Chance in agrammatic sentence comprehension: What does it really mean? Evidence from Eye Movements of German Agrammatic Aphasics. *Aphasiology*, 25:221–244, 2011.
- [52] Shravan Vasishth, Katja Suckow, Richard L. Lewis, and Sabine Kern. Short-term forgetting in sentence comprehension: Crosslinguistic evidence from head-final structures. *Language and Cognitive Processes*, 25:533–567, 2011.
- [53] Marisa F. Boston, John T. Hale, Shravan Vasishth, and Reinhold Kliegl. Parallel processing and sentence comprehension difficulty. *Language and Cognitive Processes*, 26(3):301–349, 2011.
- [54] Brian Bartek, Richard L. Lewis, Shravan Vasishth, and Mason Smith. In search of on-line locality effects in sentence comprehension. *Journal of Ex*perimental Psychology: Learning, Memory and Cognition, 37(5):1178–1198, 2011.
- [55] Titus von der Malsburg and Shravan Vasishth. What is the scanpath signature of syntactic reanalysis? *Journal of Memory and Language*, 65:109–127, 2011.

- [56] Heiner Drenhaus, Malte Zimmermann, and Shravan Vasishth. Exhaustiveness effects in clefts are not truth-functional. *Journal of Neurolinguistics*, 24:320–337, 2011.
- [57] Shravan Vasishth and Heiner Drenhaus. Locality in German. *Dialogue and Discourse*, 1:59–82, 2011.
- [58] Sigrid Beck and Shravan Vasishth. Multiple focus. *Journal of Semantics*, 2009.
- [59] Marisa Ferrara Boston, John T. Hale, Umesh Patil, Reinhold Kliegl, and Shravan Vasishth. Parsing costs as predictors of reading difficulty: An evaluation using the Potsdam Sentence Corpus. *Journal of Eye Movement Research*, 2(1):1–12, 2008.
- [60] Umesh Patil, Gerrit Kentner, Anja Gollrad, Frank Kügler, Caroline Féry, and Shravan Vasishth. Focus, word order and intonation in Hindi. *Journal of South Asian Linguistics*, 1(1):55–72, October 2008.
- [61] Shravan Vasishth, Sven Bruessow, Richard L. Lewis, and Heiner Drenhaus. Processing polarity: How the ungrammatical intrudes on the grammatical. *Cognitive Science*, 32(4):685–712, 2008.
- [62] Shravan Vasishth and Richard L. Lewis. Argument-head distance and processing complexity: Explaining both locality and antilocality effects. *Language*, 82(4):767–794, 2006.
- [63] Richard L. Lewis, Shravan Vasishth, and Julie Van Dyke. Computational principles of working memory in sentence comprehension. *Trends in Cognitive Sciences*, 10(10):447–454, 2006.
- [64] Richard L. Lewis and Shravan Vasishth. An activation-based model of sentence processing as skilled memory retrieval. *Cognitive Science*, 29:1–45, 2005.
- [65] S. Vasishth. Discourse context and word order preferences in Hindi. Year-book of South Asian Languages, pages 113–127, 2004.
- [66] Shravan Vasishth. Word order, negation, and negative polarity in Hindi. Research on Language and Computation, 3, 2002.

### In peer-reviewed collections

- [1] Shravan Vasishth. Integration and prediction in head-final structures. In Hiroko Yamashita, Yuki Hirose, and Jerry Packard, editors, *Processing and Producing Head-Final Structure*, Studies in Theoretical Psycholinguistics, pages 349–367. Springer, 2011.
- [2] Pavel Logačev and Shravan Vasishth. Case matching and conflicting bindings interference. In Peter de Swart and Monique Lamers, editors, Case, Word Order, and Prominence: Psycholinguistic and theoretical approaches to argument structure, volume 2 of Studies in Theoretical Psycholinguistics. Springer, 2011.
- [3] Zhong Chen, Lena Jäger, and Shravan Vasishth. How structure sensitive is the parser? Evidence from Mandarin Chinese. In *Empirical approaches to linguistic theory: Studies of meaning and structure*, Studies in Generative Grammar. Mouton de Gruyter, 2011.

- [4] Shravan Vasishth and Richard L. Lewis. Human language processing: Symbolic models. In Keith Brown, editor, *Encyclopedia of Language and Linguistics*, volume 5, pages 410–419. Elsevier, 2006.
- [5] Mineharu Nakayama, Shravan Vasishth, and Richard Lewis. Difficulty of certain sentence constructions in comprehension. In M. Nakayama, R. Mazuka, Y. Shirai, and P. Li, editors, East Asian Psycholinguistics. Cambridge University Press, 2006.
- [6] Shravan Vasishth. Quantifying processing difficulty in human language processing. In Rama Kant Agnihotri and Tista Bagchi, editors, *Book title not available yet*. Sage Publishers, New Delhi, 2005.

#### Unpublished work (under review or under revision)

- [1] Audrey Bürki, Shereen Elbuy, Sylvain Madec, and Shravan Vasishth. Picture naming in the context of semantically related distractors: A Bayesian meta-analysis 40 years after Lupker's first reaction time study. Submitted, 2020.
- [2] Maximilian Rabe, Shravan Vasishth, Sven Hohenstein, Reinhold Kliegl, and Daniel Schad. hypr: An R package for hypothesis-driven contrast coding. submitted, 2020.
- [3] Paula Lissón, Mick van het Nederend, Bruno Nicenboim, Dario Paape, Dorothea Pregla, Frank Burchert, Nicole Stadie, David Caplan, and Shravan Vasishth. A computational evaluation of two models of retrieval processes in sentence processing: The case of aphasia. preprint, 2020.
- [4] Kate Stone, Titus von der Malsburg, and Shravan Vasishth. The effect of decay and lexical uncertainty on processing long-distance dependencies in reading. 2020.
- [5] Garrett Smith and Shravan Vasishth. A principled approach to feature selection in models of sentence processing. 2019.
- [6] Shravan Vasishth. Using Approximate Bayesian Computation for estimating parameters in the cue-based retrieval model of sentence processing. Submitted, 2019.
- [7] Shravan Vasishth and Andrew Gelman. How to embrace variation and accept uncertainty in linguistic and psycholinguistic data analysis. Submitted, 2019.
- [8] Bruno Nicenboim, Shravan Vasishth, and Frank Rösler. Are words preactivated probabilistically during sentence comprehension? evidence from new data and a Bayesian random-effects meta-analysis using publicly available data. Submitted, 2019.
- [9] Maximilian M. Rabe, Johan Chandra, André Krü"gel, Stefan A. Seelig, Shravan Vasishth, and Ralf Engbert. A Bayesian approach to dynamical modeling of eye-movement control in reading of normal, mirrored, and scrambled texts. Submitted, 2019.
- [10] Daniel J. Schad, Michael Betancourt, and Shravan Vasishth. Towards a principled Bayesian workflow: A tutorial for cognitive science. Submitted, 2019.

- [11] Daniel J. Schad and Shravan Vasishth. The posterior probability of a null hypothesis given a statistically significant result. Submitted, 2019.
- [12] Shravan Vasishth, Bruno Nicenboim, Nicolas Chopin, and Robin Ryder. Bayesian hierarchical finite mixture models of reading times: A case study. Unpublished MS, 2017.
- [13] Douglas M. Bates, Reinhold Kliegl, Shravan Vasishth, and Harald Baayen. Parsimonious mixed models. Unpublished manuscript, 2015.

#### Peer-reviewed conference presentations

- [1] Kate Stone, Titus von der Malsburg, and Shravan Vasishth. Contextual constraint and the frontal post-N400 positivity: A large-sample, pre-registered ERP study. In Mara Breen, Brian Dillon, Lyn Frazier, John Kingston, Shota Momma, and Adrian Staub, editors, *Proceedings of the 33th Annual CUNY Conference on Human Sentence Processing*, Amherst MA, USA, 3 2020. University of Massachusetts, Amherst.
- [2] Dario Paape, Serine Avetisyan, Sol Lago, and Shravan Vasishth. Modeling misretrieval and feature substitution in agreement attraction. In *Proceedings* of the Architectures and Mechanisms for Language Processing Conference, Moscow, Russia, 2019.
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- [134] Titus von der Malsburg and Shravan Vasishth. A time-sensitive similarity measure for scanpaths. In *Proceedings of the ECEM*, Potsdam, Germany, 2007.
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- [136] Katja Suckow, Shravan Vasishth, Richard L. Lewis, and Mason Smith. Interference and memory overload during parsing of grammatical and ungrammatical embeddings. In *Proceedings of the CUNY Sentence Processing Conference*, New York City, March 2006. CUNY.
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- [139] Richard L. Lewis and Shravan Vasishth. A hypothesis about serial order information in parsing (that yields a novel explanation of center-embedding difficulty). In *Proceedings of the CUNY Sentence Processing Conference*, University of Arizona, 2005.
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- [148] Shravan Vasishth and Hans Uszkoreit. Self center embeddings revisited. In *Proceedings of the Architectures and Mechanisms for Language Processing Conference*, Aix en Provence, 2004.
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- [150] Shravan Vasishth. The referential (in)accessibility of definite/indefinite subjects and objects. In *Proceedings of the CUNY Sentence Processing conference*, MIT, Boston, 2003.
- [151] Shravan Vasishth. Quantifying processing difficulty in human sentence parsing: The role of decay, activation, and similarity-based interference. In *Proceedings of the European Cognitive Science Conference (Osnabrück)*. Lawrence Erlbaum, 2003.
- [152] Shravan Vasishth. Discourse context sometimes fails to neutralize default word order preferences: The interaction between working memory constraints and information structure. In *Proceedings of the European Cognitive Science Conference (Osnabrück)*, 2003.
- [153] Shravan Vasishth and Richard Lewis. Decay and interference in human sentence processing: Parsing in a unified theory of cognition. In *Proceedings of the 16th Annual CUNY Sentence Processing Conference*, MIT, Cambridge, MA, 2003.
- [154] Shravan Vasishth, Irene Cramer, Christoph Scheepers, and Joel Wagner. Does increasing distance facilitate processing? In Proceedings of the 16th Annual CUNY Sentence Processing Conference, MIT, Cambridge, MA, 2003.

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- [157] Shravan Vasishth and Brian D. Joseph. Constellations, Polysemy, and Hindi -ko. In *Proceedings of the Berkeley Linguistics Society Conference*, University of Berkeley, CA, 2002.
- [158] Shravan Vasishth. Processing Hindi center embeddings. In *Proceedings of the CUNY Sentence Processing Conference*, page 36, University of Pennsylvania, Philadelphia, 2001.
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- [162] Scott A. Schwenter and Shravan Vasishth. Absolute and relative scalar particles in Spanish and Hindi. In *Proceedings of the 26th Berkeley Linguistics Society Conference*, pages 225–233, Berkeley, CA, 2000.
- [163] Shravan Vasishth. Word order, negation, and negative polarity in hindi. In Amanda Miller-Ockhuizen, Robert Levine, and Anthony J. Gonsalves, editors, *OSUWPL*, *Volume 53*, pages 108–131, Ohio State University, 2000.
- [164] Shravan Vasishth and Geert-Jan M. Kruijff. Processing as abduction: a sentence processing model. In *Proceedings of the Workshop on Linguistic Theory and Grammar Implementation*, Birmingham University, England, 2000.
- [165] Shravan Vasishth. Monotonicity constraints on negative polarity in Hindi. In Mary Bradshaw, David Odden, and Derek Wyckoff, editors, OSUWPL, Volume 51, Ohio State University, 1998.
- [166] Dorothea Pregla, Nicole Stadie, Shravan Vasishth, and Frank Burchert. Auditory comprehension of control structures in german individuals with aphasia using self-paced listening, visual world eye tracking and an object manipulation task. Number 59.

## ⋄ Invited talks/workshops

1. Invited lecture at Ruhr-Universität Bochum. May 2020.

- 2. Invited lecture at the University of Hamburg: The role of replication in Bayesian data analysis. December 2019.
- 3. Four-hour workshop and two-hour hands-on session at the Doing Good symposium at MPI Leipzig, November 2019.
- 4. Five-day course at the Elastometry Department at Charité Hospital, Mitte, Berlin, on Bayesian statistical methods. November 2019.
- 5. Two-day course at the Psychology department, Göttingen University, on using Bayesian methods for visual world data. June 2019.
- 6. Two-day course at the Elastometry Department at Charité Hospital, Mitte, Berlin, on Statistical methods. June 2019.
- 7. Invited talk on processing prenominal relative clauses at Linguistics, Frankfurt am Main. June 2019.
- 8. Invited talk, Is pre-registration a bad idea or a very bad idea? Talk given at Humboldt-University, Berlin, Germany, 24 January 2019.
- 9. Invited talk, Bayesian vs. frequentist data analysis: A comparison. Talk given at the block seminar for Charité's SFB 1340, Matrix in Vision, Berlin, Germany, 18 January 2019.
- 10. Invited talk on Bayesian mixed modeling, symposium at ESCoP 2017, University of Potsdam, Germany.
- 11. One-day workshop (Introduction to Bayesian Modeling using Stan) at the 13. Tagung der Fachgruppe Methoden und Evaluation der Deutschen Gesellschaft für Psychologie, Tübingen, Germany, 17 Sept 2017.
- 12. Three lectures on sentence comprehension at the Summer School of Linguistics, Litomyšl, Czech Republic, 20 to 26 August 2017.
- 13. Month long course on Bayesian statistics for psycholinguistics at Paris 7 (International Chair, Laboratoire d'excellence "Empirical Foundations of Linguistics: data, methods, models"), France, October 2014.
- 14. University of Tokyo, August 2014.
- 15. University of Tokyo, August 2014.
- 16. Rikkyo University, Tokyo, July 2014.
- 17. Kansai Psycholinguistics Circle, April 19, 2014.
- 18. Keynote speaker, Translation in Transition Conference, Copenhagen, January 2014.
- 19. Invited speaker, Geneva, December 2013.
- 20. One week course on experimental methods for linguistics, France, June 2013.
- 21. Workshop, Lectures on Language Technology and Cognition, March 2012, Uppsala, Sweden.
- 22. Three-day workshop on linear mixed effects models, Bielefeld Mixed Models Workshop, February 2012. See http://www.spectrum.uni-bielefeld.de/BiMM2012/.
- 23. Two-day workshop on eyetracking, University of Bielefeld. February 2012.

- 24. Mini-Workshop zur Methode des Eye-Tracking in Linguistik und Technischem Design. Forschungsverbundes für Sprachwissenschaft und Kognition an der Universität Stuttgart.
- 25. 17. November 2010, 48th StuTS Tagung, Potsdam.
- 26. 6. November 2010, Poitiers, France.
- 27. 6. October 2010, Kogwis 2010, Potsdam.
- 28. July 2010, Wilhelm-Schickard Institute for Computer Science, University of Tuebingen.
- 29. Berlin-Brandenburgische Akademie der Wissenschaften.
- 30. Linguistic Evidence, Tübingen, February 2010.
- 31. Bielefeld, June 2009.
- 32. Shravan Vasishth. Predictive and retrieval processes in online sentence comprehension. Neurospin, Paris.
- 33. Shravan Vasishth. A case against chance performance: Evidence from eye movements of agrammatic aphasics. Neurospin, Paris.
- 34. Shravan Vasishth. The integration advantage due to topic- and focus-marking: Evidence from Hindi. Neurospin, Paris.
- 35. Shravan Vasishth. Prediction and retrieval in dependency resolution: Models and data Feb 12, 2009. University of Saarland, Saarbruecken, Germany.
- 36. Shravan Vasishth. A case against chance performance: Evidence from eye movements of agrammatic aphasics. Feb 12, 2009. University of Saarland, Saarbruecken,
- 37. Shravan Vasishth & Rukshin Shaher. June 2008. The integration advantage due to topic- and focus-marking: Evidence from Hindi. Dialogue Matters workshop, London.
- 38. Shravan Vasishth. April 2008. Clefting and topicalization in Hindi. University of Bielefeld.
- 39. Shravan Vasishth (with Pavel Logačev). November 2007. Cue-based parsing and morphological ambiguity. At a workshop on incremental interpretation of case and prominence, held at Radboud University, Nijmegen.
- 40. Shravan Vasishth. September 2007. Locality and interference effects in sentence comprehension. At Michigan State University.
- 41. Shravan Vasishth. September 2007. Determinants of parsing complexity: A computational and empirical investigation. At the University of Rochester.
- 42. Shravan Vasishth. September 2007.Integration processes in online sentence comprehension: A cross-linguistic and cross-methodological investigation. At the International Conference on the processing of head-final languages. Rochester Institute of Technology, NY.
- 43. Shravan Vasishth. July 2006. Locality in human sentence comprehension. At the 13th International Conference on Head-driven phrase structure grammar (website).

- 44. Shravan Vasishth. October 2005. Sentence processing as skilled memory retrieval: A computational model. Talk presented at *The Fifth International Forum on Language*, *Brain, and Cognition*. Theme: Natural Language in Computer and Brain Sciences: Toward a Unified View. Tohoku University, Sendai, Japan. Conference co-organized by the German Embassy in Japan on the 'Germany in Japan Years 2005/2006.'
- 45. Shravan Vasishth. May 2005. Sentence processing as skilled memory retrieval: A computational model. Center for Cognitive Studies, University of Potsdam.
- 46. Shravan Vasishth. July 2003. Quantifying processing difficulty in human sentence parsing. Talk presented at Potsdam University, Germany.
- 47. Shravan Vasishth. June 2003. Processing center embeddings: Some new evidence from Hindi. Talk presented at the University of Konstanz, Germany.
- 48. Shravan Vasishth. January 2003. Argument-head distance as an index of sentence comprehension difficulty. Talk presented at the National Brain Research Centre, Gurgaon, India.
- 49. Shravan Vasishth. January 2003. How to design an experiment (for linguistics and psycholinguistics). Talk presented at Delhi University's Linguistics department.
- 50. Richard Lewis and Shravan Vasishth. March 2002. Talk presented at the Institute for Research in Cognitive Science, University of Pennsylvania.
- 51. Shravan Vasishth. June 2001. Encoding and retrieval processes in human working memory: An empirical investigation of Hindi center-embedding constructions. Presented at the Computational Linguistics department, University of Saarland, Germany.

#### 

- 1. Academic editor: PeerJ.
- 2. Associate editor and statistics consultant: Language (from 2020).
- 3. Editorial board: Journal of Memory and Language (from 2020).

#### ♦ Service to community

- 1. StanCon committee Code of Conduct 2020.
- 2. Organizing AMLaP 2020 at Potsdam.
- 3. European Commission Evaluator for Marie Sklodowska Curie Actions Individual Fellowships, 2019.
- 4. External reviewer, University of Oxford PhD dissertation, 2019.
- 5. DFG project proposal reviewer, 2019.
- 6. Member, European Science Foundation College of Expert Reviewers (2017-2020).
- 7. DGfS Program committee, Information theoretic modeling of linguistic variation in context approaches, Saarbrücken, 2017.

- 8. Program Committee Chair ESSLLI 2017, Toulouse, France, July 17-28, 2017.
- 9. Area chair for computational psycholinguistics, COLING 2016, Osaka, Japan.
- 10. Tenure case: external reviewer for two US universities.
- 11. Area expert, Student Session of ESSLLI 2015.
- 12. Speaker, Language Cluster, Cognitive Science, University of Potsdam.
- 13. External examiner PhD dissertation, University of Paris 7.
- 14. Programme Committee of the 25th ESSLLI to be held in Duesseldorf, Germany, 2013.
- 15. Speaker of Strukturbereich Kognitionswissenschaften, University of Potsdam (2011-2012).
- 16. Member of Beirat (Member of Advisory Committee), Interdisciplinary Masters degree program in the Excellence Area in Cognitive Science (from October 2010).
- 17. Head of the department, Department of linguistics (from October 2010 to September 2012).
- 18. Member of editorial board: Journal of South Asian Linguistics, CSLI.
- 19. Member of Erasmus Mundus European Masters in Clinical Linguistics program, Potsdam-Groningen-Finland.
- 20. Member of the International M.Sc. / Ph.D. Programme for Experimental and Clinical Linguistics, Potsdam.
- 21. Stellvertreter for the Speaker position for the Department of Linguistics (Winter 2010-October 2010).
- 22. Head of the commission for a W3 position in Theoretical Computational Linguistics, Potsdam.
- Reviewing: journals, conferences, funding bodies



ACL: Association of Computational Linguistics; AMLaP: Architectures and Mechanisms for Language Processing; BRM: Behavior Research Methods; BBSRC: Biotechnology and Biological Sciences Research Council; CBG: Copenhagen Business School; CMCL: Computational Modeling and Computational Linguistics, COLING: Computational Linguistics; CUNY: CUNY Sentence Processing Conference; Cog\_Sci: Cognitive Science; Cog\_Sci\_Conf: Cognitive Science Conference; DFG: Deutsche Forschungsgemeinschaft; Dial\_and\_Discourse: Dialogue and Discourse; EACL: European ACL; ERC: European Research Council; ETAP: Experimental and Theoretical Approaches in Prosody; ESF: European Science Foundation; ICCM: International Conference on Cognitive Modeling; JML: Journal of Memory and Linguistics; J\_Jap\_Ling: Journal of Japanese Linguistics; J\_of\_Ling: Journal of Linguistics; LCP: Language and Cognitive Processes; JSLHR: Journal of Speech, Language, and Hearing Research; JoP: Journal of Phonetics; Lang\_and\_Speech: Language and Speech; Ling\_Evidence: Linguistic Evidence; NLLT: Natural Language and Linguistic Theory; NSF: National Science Foundation (USA); NWO: Netherlands Organization for Scientific Research; PBR: Psychological Bulletin and Review; PsychMethods: Psychological Methods; SwissNSF: Swiss National Science Foundation; Research\_Lang\_Comp: Research on Language and Competition; QJEP: Quarterly Journal of Expt. Psychology; TiCS: Topics in Cognitive Science; TQMP: The Quantitative Methods in Psychology.

Postdoc

♦ Sol Lago. Tenure-track Juniorprofessor at Frankfurt am Main.

(COM-

 $^{\rm MENTORING} \diamond \ {\bf Samar \ Husain}.$  Assistant professor at the Indian Institute of Technology, New Delhi, India.

PLETED)

- ♦ **Daniel Schad**. Assistant professor at Tilburg University, the Netherlands.
- ♦ **Bruno Nicenboim**. Assistant professor at Tilburg University, the Netherlands.

РнD

- ♦ Umesh Patil, February 2012. Current employer: Cologne, Germany.
- ${\rm SUPERVISION} \diamondsuit$  Titus von der Malsburg, April, 2012. Current employer: University of Potsson (COMPLETED) dam. Previous employers: University of Oxford, UK; University of California, San Diego.
  - ♦ Sabrina Gerth, PhD program. Topic: Minimalist parsing. Current employer: University of Potsdam.
  - ♦ Pavel Logačev: PhD program. Topic: evaluating models of sentence comprehension. Winner of best poster award at AMLaP 2013. Current employer: Assistant professor, Bogadizi University, Istanbul, Turkey.
  - ♦ Paul Metzner: PhD program. Topic: dependency resolution, locality and interference in German. Current Employer: Wooga.
  - ♦ Lena Jäger: PhD program. Topic: Retrieval and predictor processes in sentence comprehension. Winner of best dissertation award, Universität Potsdam, 2015; award of 1,250 Euros. Current employer: Computer Science, University of Potsdam.
  - ♦ Felix Engelmann: PhD program. Topic: parsing and eye movements. Current employer: co-founder/owner, startupdetector.
  - ♦ Bruno Nicenboim: PhD program. Topic: expectations vs locality effects in Spanish and German; models of retrieval processes. Current employer: Tilburg University.
  - ♦ Dario Paape: PhD program. Topic: ellipsis. Current employer: University of Potsdam.

EXTERNAL  $\diamond$  Marten van Schijndel: external committee member, Ohio State, USA (2015-РнD 17).

 $^{\rm SUPERVISION} \diamondsuit$  Brian Bartek: PhD, Michigan (2011).

- ♦ Mattias Nilsson, (second supervisor), Uppsala, Sweden (2012).
- BA, MA ♦ Katja Suckow, Master's degree (completed November 2005). Topic: syntactic STUDENT complexity. Current employment: Postdoctoral researcher, University of Goettingen, Germany. SUPERVISION
- (COMPLETEQ) **Sven Brüssow**, Master's degree (completed July 2006). Topic: Modeling polarity processing in German. Current employment: Data Scientist, Landeshauptstadt Stuttgart.

- ♦ Kuei-Lan Kuo, Master's degree (completed September 2006). Topic: Processing relative clauses in Chinese. Current employment: Specialist Project Controlling Eberspächer Exhaust Technology GmbH & Co. KG.
- ♦ Rachel Whalen: EMCL Master's program (completed February 2008). Topic: similarity-based interference. Current employment: PhD student, Montreal.
- ♦ Ramesh Mishra: EMCL Master's program (completed February 2008). Topic: word order, givenness and information structure in Hindi.
- ♦ Kai Sippel, Master's degree (completed January 2009). Topic: probabilistic parsing and sentence processing.
- ♦ Pavel Logačev, Master's degree (completed October 2008). Topic: syntactic features in sentence processing. Current employment: Freelance Data Scientist
- ♦ Lars Meyer, EMCL program (completed January 2009). Topic: locality. Current employment: Postdoctoral researcher, MPI Leipzig
- ♦ Felix Engelmann, Master's degree (completed January 2009). Topic: connectionist modeling. Current employment: Researcher at the Department of Psychology, University of Manchester, UK.
- ♦ Qiang Li, Niloofar Keshtiari: EMCL program students.
- ♦ **Anna Melzer**: BA student.
- ♦ **Anja Goldschmidt**: BA program linguistics
- ♦ Paul Metzner: MA program HU Berlin
- ♦ Sophia Jähnigen: BA program linguistics
- ♦ Carolina Gattei: MA program, EMCL.
- ♦ Cintia Widmann: MA program, EMCL.
- ♦ **Juliane Böhme**: MA program linguistics
- ♦ Kate McCurdy: MA, EMCL
- Dario Paape: Linguistics
- ♦ Ulla Behr: Linguistics
- ♦ Jens Roeser: Linguistics
- ♦ Wei Zhan: Linguistics
- ♦ Serine Avetisyan: MA, EMCL
- ◇ Daniela Mertzen, Master's degree (completed August 2016). Topic: ungrammatical center embeddings in German. Current employment: University of Potsdam.
- Paul Maetzig, Master's degree. Topic: computational modeling of sentence comprehension in aphasia.
- ♦ Esther Karp. Master's degree. Topic: illusions of grammaticality in center embeddings.
- ♦ Marie Tzschaschel. Master's degree. Topic: modeling illusions of grammaticality in center embeddings.

Current

♦ Anna Laurinavichyute: Good-enough processing.

ACTIVE PHD STUDENTS

- ♦ **Kate Stone**: Predictive parsing.
- ♦ Serine Avetisyan: Agreement attraction and related topics.
- ♦ Daniela Mertzen: Interference effects in German and English.
- ♦ **Dorothea Pregla**: Sentence comprehension in aphasia.
- ♦ Paula Lissón: Computational models of sentence processing in aphasia.
- ♦ Himanshu Yadav: topic undecided.

### Teaching capability:

In addition to the courses listed below, I can teach courses on mathematics and statistical theory (both frequentist and Bayesian), formal/mathematical logic, formal language theory, regular computer science courses (e.g., Introduction to Computer Science; Introduction to Artificial Intelligence; Algorithms and Complexity), Nontransformational grammar formalisms (categorial grammar and head-driven phrase structure grammar), Syntax of Hindi and Japanese. Morphology.

### ♦ Compact courses 2001-present:

- 1. One-week course (with Bruno Nicenboim), at Physalia, Berlin. March 2020.
- 2. One-week course (with Bruno Nicenboim), at LOT Winter School, Tilburg, Netherlands, on Bayesian methods. January 2020.
- 3. One-week course on Bayesian methods at Physalia courses, Berlin. March 2019.
- 4. Organized the third Summer School on Statistical Methods in Linguistics and Psychology, at the University of Potsdam, Germany, 2019.
- 5. Organized the second Summer School on Statistical Methods in Linguistics and Psychology, at the University of Potsdam, Germany, 2018.
- 6. Organized the first Summer School on Statistical Methods in Linguistics and Psychology, at the University of Potsdam, Germany, 2017.
- 7. A one-week course on computational modeling in sentence comprehension using the ACT-R parsing architecture (ESSLLI 2016, Bolzano, Italy).
- 8. A two-month course on predictive parsing processes in sentence comprehension, University of Tokyo, October-December 2015.
- 9. A two-week course on statistical data analysis, European Summer School on Logic, Language, and Information (ESSLLI), Barcelona, August 2015. Teaching evaluation: http://bit.ly/ESSLLI15Eval.
- 10. A one-month course in Paris 7 (Diderot) on Bayesian Statistics, October 2014.
- 11. The foundations of statistics: A simulation-based approach. A one-week course taught at the European Summer School on Logic, Language, and Information (ESSLLI), Bordeaux, July 2009.

- 12. Foundations of human sentence processing. A five-day (90 minutes×5) block seminar conducted at the Seminar für Sprachwissenschaft, Universität Tübingen, 24-28 April 2006.
- 13. A 90-minute tutorial on linear (and non-linear) mixed-effects modeling. Alfa-informatica, Fac. der Letteren, Rijksuniversiteit Groningen, 29th March 2006.
- 14. An introduction to Computational Psycholinguistics: a two-week course (ten lectures) taught at Computational Linguistics Summer School in Bochum, Germany, 19-30 September 2005

  Student Evaluation Score (19 respondents): 4.27 (Rating scale 1-5, with 5 the highest possible score).
- 15. Data Analysis using R, a system for statistical computing and graphics: A one-week course taught at European Summer School on Logic, Language, and Information (ESSLLI), Edinburgh, Scotland, August 2005.
- 16. Competence/performance modeling of free word order languages: A one week course, co-taught with Geert-Jan M. Kruijff at ESSLLI, Helsinki, Finland, 2001.

#### ♦ Semester-long courses 2003-present

- 2018-19 · Introduction to Statistical Data Analysis (Winter)
  - · Bayesian Data Analysis (Winter)
  - · Advanced data analysis (Summer)
  - · Current issues in sentence comprehension (undergrad, Summer)
  - · Theories of sentence processing (graduate, Summer)
- 2016-18 Sabbatical from teaching (Opus Magnum award)
  - 2015  $\,$   $\cdot$  Introduction to data analysis using R (All MSc Linguistics programs, Summer)
    - · Linear modeling (MSc Cognitive Systems, Summer)
    - · Current issues in sentence comprehension (undergrad, Summer)
- 2013-2014 · Foundations of Mathematics (Winter)
  - · Computational Models of Parsing (Winter)
  - · Advanced Data Analysis: Bayesian Methods (Winter)
- 2013-2014 · Introduction to data analysis using R (Summer)
  - · Advanced issues in sentence comprehension (Summer)
  - · Case studies in psycholinguistics (Summer)
  - · Advanced data analysis using R (Bayesian data analysis) (Winter)
  - · Theories of Sentence Processing (Winter)
  - · Working Memory Constraints and Dependency Resolution (Winter)
  - · Experimental Semantics (Winter; with Malte Zimmermann)
- 2012-2013 · Scientific Writing (Summer)
  - · Reanalysis (Summer)
  - · Introduction to R (Summer)
  - · Psycholinguistics colloquium (Winter)

- · Theories of Sentence Processing (Winter)
- 2011-2012 · Applications of advanced multivariate statistics with R (Summer, with Reinhold Kliegl, Psychology)
  - · Introduction to R (Summer)
  - · Reanalysis (Summer)
- $2010\mbox{-}2011$   $\,$   $\,$  Computational models of sentence comprehension (Winter). Graduate level course.
  - · Methods and Statistics (Winter). Graduate level course (co-taught with Reinhold Kliegl, Psychology).
- 2009-2010 · Statistical methods (Summer 2010). Graduate level course.
  - · Language, Memory, and Attention (Summer 2010). Graduate level course co-taught with Pavel Logačev.
  - · Current issues in sentence comprehension (EMCL, IECL, MA combined)
  - · Psycholinguistics Colloquium.
  - · Advanced psycholinguistic data analysis with R (Winter; with Reinhold Kliegl)
  - · Models of processing and acquisition of alternations (Winter; with Ruben van de Vijver)
  - · A practical course on eyetracking (Winter)
  - · Clefting and focus: Syntactic, semantic, and psycholinguistic aspects (Winter; with Malte Zimmermann)
  - 2009 · Practical data analysis using R (Summer)
    - · EMCL program: Eye movements and sentence comprehension (Summer)
    - · Sentence processing and the visual world (Summer)
    - · Psycholinguistics Colloquium (Summer)
    - · Psycholinguistics Colloquium (Winter)
    - · Developing an HPSG grammar of Hindi (Winter)
    - · Eyetracking research on sentence comprehension (Winter)
    - · Current issues in sentence processing (Winter)
  - 2008 · Computational modeling (Summer)
    - · Advanced issues in psycholinguistic research (Summer)
    - · Empirical Methods in Linguistics (Summer).
    - · Introduction to psycholinguistics (Summer).
  - 2007 · Sentence comprehension; cross-listed in Psychology and taught jointly with Reinhold Kliegl, Psychology (Winter).
    - · Introduction to morphology (Winter).
    - · Eyetracking research in sentence processing (Winter).
  - 2006 · The Syntax of Hindi-Urdu (Summer).
    - · Computational Psycholinguistics: An introduction (Summer).

- · Introduction to morphology (Winter).
- · Hypothesis testing in linguistics research (Winter).
- 2005 · Psychological reality and syntactic theories (Summer).
  - · An introduction to Head-driven phrase structure grammar (Summer).
  - $\cdot$  Data Analysis using R, a system for statistical computing and graphics (Winter).
  - · Empirical and theoretical issues in sentence processing (Winter).
- 2004  $\,\,$   $\,$  Data Analysis using R, a system for statistical computing and graphics (Summer).