SHOHINI BHATTASALI

PERSONAL INFORMATION

email	shohini@umd.edu
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EMPLOYMENT

University of Maryland, College Park, MD 20742

2019 – Present **Postdoctoral Associate**, Department of Linguistics · Institute of Advanced Computer Studies (UMIACS)
PI: Philip Resnik
Postdoctoral Affiliate, Neuroscience and Cognitive Science (NACS)

EDUCATION

Cornell University, Ithaca, NY 14853

2014 – 2019 **PhD in Linguistics** · Graduate Minor in Cognitive Science
Dissertation: *A Neurolinguistic Approach to Noncompositionality & Argument Structure*
Advisor: John Hale
Committee Members: Miloje Despic, John Whitman, Wen-Ming Luh, Murielle Fabre

2017 **MA in Linguistics**

Bryn Mawr College, Bryn Mawr, PA 19010

2010 – 2014 **AB in Linguistics (Hons)**, magna cum laude · Minors in Computer Science and Chinese
Thesis: *Correlations Between Sentiment Analysis of Movie Tweets, Film Critics Reviews, and Box Office Earnings*

Yunnan University, Kunming, People's Republic of China

Summer 2012 Study Abroad

AWARDS

2019 President's Travel Fund for the Humanities, Cornell University

2019, 2018, 2017 Cognitive Science Travel Grant, Cornell University

2018, 2014 Sage Fellowship, Cornell University

2017 EFL Mobility Grant, Laboratoire d'excellence-EFL (CNRS, Paris)

2018, 2017, 2016 Graduate School Conference Travel Grant, Cornell University

2018, 2017, 2016 Linguistics Department Conference Travel Grant, Cornell University

2013 Summer Science Research Fellowship in Computer Science, Bryn Mawr College

2012 Thomas Raeburn White Scholarship in Foreign Language Study, Bryn Mawr College

PUBLICATIONS

In prep
Differentiating between broad and local contextual prediction during natural language comprehension: Evidence from fMRI and MEG
Shohini Bhattasali, Philip Resnik.

In prep
Eelbrain: A Python toolkit for time-continuous analysis with temporal response functions
Christian Brodbeck, Proloy Das, Joshua P. Kulasingham, **Shohini Bhattasali**, Philip Resnik, Phoebe Gaston, Jonathan Z. Simon.

Invited to resubmit
Le Petit Prince: A multilingual fMRI corpus using ecological stimuli
Jixing Li*, **Shohini Bhattasali***, Shulin Zhang, Berta Franzluebbers, Wen-Ming Luh, R. Nathan Spreng, Jonathan R. Brennan, Yiming Yang, Christophe Pallier, John Hale.
[*co-first author]

Resubmitted
Neural correlates of semantic number: A cross-linguistic investigation
Donald Dunagan,Shulin Zhang, Jixing Li, **Shohini Bhattasali**, Christophe Pallier, John Whitman, Yiming Yang, John Hale.

2022
Parallel processing in speech perception with local and global representations of linguistic context
Christian Brodbeck, **Shohini Bhattasali** , Aura Cruz Heredia, Philip Resnik, Ellen Lau, Jonathan Z. Simon.
eLife, 11: e72056.

2022
Neurocomputational models of language processing
John Hale, Luca Campanelli, Jixing Li, **Shohini Bhattasali**, Christophe Pallier, Jonathan Brennan.
Annual Review of Linguistics, 8:1, 427 – 446.

2021
Using surprisal and fMRI to map the neural bases of broad and local contextual prediction during natural language comprehension
Shohini Bhattasali, Philip Resnik.
Proceeding of the Findings of the ACL 2021, Bangkok, Thailand.

2021
Modeling incremental language comprehension in the brain with Combinatory Categorial Grammar
Miloš Stanojević, **Shohini Bhattasali**, Donald Dunagan, Luca Campanelli, Mark Steedman, Jonathan Brennan, John Hale.
Proceedings of the 11th workshop on Cognitive Modeling and Computational Linguistics (CMCL 2021), Mexico City, Mexico.

2020
The Alice Datasets: fMRI & EEG Observations of Natural Language Comprehension
Shohini Bhattasali, Jonathan Brennan, Wen-Ming Luh, Berta Franzluebbers, John Hale.
12th International Language Resources and Evaluation Conference (LREC 2020), Marseille, France.

2020
Modeling Conventionalization and Predictability in Multiword Expressions at the Brain level
Shohini Bhattasali, Murielle Popa–Fabre, John Hale, Christophe Pallier.
Proceedings of the Society for Computation in Linguistics (SCiL 2020), New Orleans, LA.

2019
Diathesis Alternations and Selectional Restrictions in Sentence Processing: A fMRI Study
Shohini Bhattasali, John Hale.
Proceedings of the 55th Meeting of the Chicago Linguistic Society (CLS 55), Chicago, IL.

2019
Localising Memory Retrieval and Syntactic Composition: A fMRI study of Natural Language Comprehension
Shohini Bhattasali, Murielle Fabre, Wen-Ming Luh, Hazem Alsaied, Matthieu Constant, Christophe Pallier, Jonathan Brennan, R. Nathan Spreng, John Hale.
Language, Cognition and Neuroscience, 34:4, 491 – 510.

2018 Processing MWEs: Neurocognitive Bases of Verbal MWEs and Lexical Cohesiveness within MWEs
Shohini Bhattasali, Murielle Fabre, John Hale.
Proceedings of the 14th Workshop on Multiword Expressions (COLING 2018), Santa Fe, NM.

2018 Differentiating Phrase Structure Parsing and Memory Retrieval in the Brain
Shohini Bhattasali, John Hale, Christophe Pallier, Jonathan Brennan, Wen-Ming Luh, R. Nathan Spreng.
Proceedings of the Society for Computation in Linguistics (SCiL 2018), Salt Lake City, UT.

2016 Computational Approach to Bengali Stress
Shohini Bhattasali.
Cornell Working Papers in Phonetics and Phonology, Ithaca, NY.

2015 Automatic Identification of Rhetorical Questions
Shohini Bhattasali, Jeremy Cytryn, Elana Feldman, Joonsuk Park.
Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics (ACL '15), Beijing, China.

PRESENTATIONS

2020 Neurocognitive correlates of broad & local context cues during natural language comprehension
Shohini Bhattasali, Philip Resnik.
12th Annual Meeting of the Society of Neurobiology of Language (SNL 2020), Philadelphia, PA. [Refereed]

2020 Differentiating between broad & local context cues using surprisal: An fMRI study
Shohini Bhattasali, Philip Resnik.
26th Architectures and Mechanisms of Language Processing conference (AMLaP 2020), Potsdam, Germany. [Refereed]

2020 Investigating the role of context in comprehension using topical surprisal: An fMRI study
Shohini Bhattasali, Philip Resnik.
33rd Annual CUNY Sentence Processing Conference (CUNY 2020), Amherst, MA. [Refereed]

2020 Probing the neural correlates of argument structure: A fMRI study of naturalistic language
Shohini Bhattasali, Murielle Popa–Fabre, John Hale.
33rd Annual CUNY Sentence Processing Conference (CUNY 2020), Amherst, MA. [Refereed]

2019 Modeling Conventionalization and Predictability in Multiword Expressions at the Cerebral Level
Murielle Popa–Fabre, **Shohini Bhattasali**, John Hale, Christophe Pallier.
Collaborative Research in Computational Neuroscience (CRCNS 2019), Austin, TX.

2018 Right Lateralization of Verbal Collocations
Shohini Bhattasali, Murielle Fabre, John Hale.
24th Architectures and Mechanisms of Language Processing conference (AMLaP 2018), Berlin, Germany. [Refereed]

2018 Break the ice vs. boa constrictors: Do they have different neural bases?
Shohini Bhattasali, Murielle Fabre, John Hale.
10th Annual Meeting of the Society of Neurobiology of Language (SNL 2018), Québec City, Canada. [Refereed]

2018 Dissociating prediction and constituent-structure during sentence-structure building
Murielle Fabre, **Shohini Bhattasali**, John Hale, Christophe Pallier.
10th Annual Meeting of the Society of Neurobiology of Language (SNL 2018), Québec City, Canada. [Refereed]

2018 Brain imaging of lexical cohesiveness and sentence-structure building
Murielle Fabre, **Shohini Bhattasali**, Hazem Alsaied, Matthieu Constant, Christophe Pallier, Wenming Luh, John Hale.
Collaborative Research in Computational Neuroscience (CRCNS 2018), Berkeley, CA.

2018 Mapping Memory Retrieval and Structure-building in the Brain
Shohini Bhattasali, Murielle Fabre, John Hale, Hazem Alsaied, Matthieu Constant.
31st Annual CUNY Sentence Processing Conference (CUNY 2018), UC Davis, CA. [Refereed]

2017 Localizing Structure-building and Memory Retrieval in Naturalistic Language Comprehension
John Hale, **Shohini Bhattasali**, Jonathan Brennan, Jixing Li, Wen-Ming Luh, Christophe Pallier, R. Nathan Spreng.
9th Annual Meeting of the Society of Neurobiology of Language (SNL 2017), Baltimore, MD. [Refereed]

2017 Neuroimaging the language network with a parsing algorithm
John Hale, Jonathan Brennan, **Shohini Bhattasali**, Wen-Ming Luh, Christophe Pallier.
Collaborative Research in Computational Neuroscience (CRCNS 2017), Providence, RI.

2017 Am I Stressed? Computational Approach to Bengali Stress
Shohini Bhattasali .
91st Annual Meeting of the Linguistic Society of America (LSA 2017), Austin, TX. [Refereed]

2015 Processing Ambiguity in Bengali Correlatives
Shohini Bhattasali.
Workshop on Relative Clauses: Relatives in East Asia and Beyond, Cornell University.

TALKS

2022 Experimental Approaches in Linguistics
Guest lecture, *LING 110: Introduction to Linguistic Analysis*, University of Rochester.

2022 Neurocomputational Approaches to Language Processing
Invited talk, *Linguistics Colloquium*, University of Toronto.

2022 Neurocomputational Approaches to Language Processing
Psycholinguistics Workshop, University of Maryland.

2022 Neurocomputational Approaches to Language Processing
Computational Linguistics and Information Processing Colloquium, University of Maryland.

2021 Using Topical Context to examine Language Processing
ONR MURI on Document Comprehension Annual Review Meeting, George Mason University.

2020 Investigating Contextual Influence on Language Understanding
ONR MURI on Document Comprehension Annual Review Meeting, George Mason University.

2020 Applying computational models to neuroimaging data in order to understand the physical basis of language comprehension
ONR MURI on Document Comprehension Annual Review Meeting, George Mason University.

2020 Investigating the role of context using surprisal: An fMRI study
Invited talk, *MIT Computational Psycholinguistics lab*.

2020 Exploring the neural correlates of context in sentence processing
Cognitive Neuroscience of Language, University of Maryland.

2020 Neural Mechanisms of Multiword Expressions

Invited talk, *Computational Linguistics (GUCL) colloquium*, Georgetown University.

2020 Introduction to Computational Neurolinguistics
Guest lecture, *LING 773: Computational Linguistics II*, University of Maryland.

2020 Computational Modeling of Neural Data in Sentence Understanding
ONR MURI on Document Comprehension Annual Review Meeting, George Mason University.

2020 The Alice Datasets
Panelist, *CUNY 2020 Workshop on Remote Data Collection*.

2019 Using Computational Linguistics to Investigate Multiword Expressions at the Brain Level
Invited talk, *Computational Linguistics and Information Processing Colloquium*, University of Maryland.

2019 Verbs in Sentence Processing: Subcategorization & Selectional Restrictions
Cognitive Science Grad Student Info Blitz, Cornell University.

2019 Processing Multiword Expressions & Verbal Argument Structure: A fMRI study
Invited talk, *Cognitive Neuroscience of Language*, University of Maryland.

2018 Differentiating Structure Building & Memory Retrieval in natural language using MWEs
Cognitive Science Grad Student Info Blitz, Cornell University.

2018 Neural Bases of Discourse Comprehension
Guest lecture, *LING 2264: Language, Mind, and Brain*, Cornell University.

2017 Sense & Reference: Introduction to Semantics
LING 3303: Introduction to Syntax & Semantics, Cornell University.

2017 Localization of composition and memory in language using fMRI data
Cognitive Science Grad Student Info Blitz, Cornell University.

2017 Processing MWEs: A Neurolinguistic Approach
Linguistics Graduate Research Workshop Presentations, Cornell University.

2016 Finite-state Approach to Bengali Stress
Linguistics Graduate Research Workshop Presentations, Cornell University.

TEACHING

University of Maryland

Fall 2019 Co-Instructor with Philip Resnik · LING 848A: Seminar in Computational Linguistics & Cognitive Neuroscience of Language
Designed and led an interdisciplinary graduate seminar discussing recent topics at the confluence of computational linguistics, psycholinguistics, and cognitive neuroscience of language.

Cornell University

Summer 2019 Co-Instructor with Kate Navickas · WRIT 7100: Teaching Writing
Trained graduate students to develop course materials and pedagogical tools for a writing seminar by developing class activities, responding to student assignments, and designing & leading workshops.

Spring 2018 Teaching Assistant · LING 4424: Introduction to Computational Linguistics
Held office hours & review sections and graded exams & biweekly assignments

Fall 2017 Teaching Assistant · LING 3303: Introduction to Syntax & Semantics
Designed and led weekly review sections to contextualize lectures and graded exams & weekly assignments

Spring 2017, Fall 2016
Teaching Assistant · HINDI 1101/2: Elementary Hindi I/II
Taught introductory-level Hindi, developed course materials, and graded daily assignments & weekly tests

Spring 2016, Fall 2015
Instructor, First-Year Writing Seminar · LING 1100: Translation & Writing
Developed and taught a seminar which incorporates topics in translation and linguistic theory with practical experience in academic writing

2014 - 2018
Teaching Assistant · Acquiring Multiple Languages
Compiled various language acquisition and developmental linguistics studies to develop course materials and create a repository for an online edX course
`https://edge.edx.org/courses/CornellX/CLAL1000-2x/Fall_2014/about`

Bryn Mawr College

Fall 2013
Undergraduate Teaching Assistant · Introduction to Computational Linguistics
Held two weekly problem sessions to help students with class readings and lab assignments

PROFESSIONAL DEVELOPMENT

March 2021
Exploring and Unpacking Post-PhD Career Possibilities · Center for the Integration of Research, Teaching, and Learning (CIRTL)
Participated in workshops to articulate and build on skills acquired through mentoring and advising relationships, communities and network, along with learning how to create and implement a career development plan.

August 2020
Summer Success Institute · NSF PROMISE & University of Maryland
Participated in panels to explore careers in academia and federal agencies, along with sessions on cross-cultural mentoring, sustaining support networks, and optimizing the postdoctoral experience.

Summer 2020
Mentoring for New Mentors Workshop Series · Office of Postdoctoral Affairs, University of Maryland
Participated in workshops to develop and improve mentoring skills and gain exposure to various mentoring challenges and strategies, along with creating a personal mentoring philosophy.

Spring 2020
Sharing Research with Younger Audiences · Graduate School Writing Center, University of Maryland
Learned how to communicate our research to younger audiences, create interest & foster appreciation for critical thinking, along with understanding different formats & medium for outreach.

Fall 2019 - Present
UTLP Workshops · Teaching & Learning Transformation Center, University of Maryland
Participated in various professional development & teaching workshops such as crafting teaching & mentoring philosophies, fostering diversity & inclusion in classrooms among others.

September 2019
Postdoctoral Research Symposium · Office of Postdoctoral Affairs, University of Maryland
Attended panels and participated in workshops to develop techniques needed for researchers including effective teaching & communication, along with career strategies to transition from postdoctoral researcher to independent researcher.

June 2018
Future Professors Institute: Advancing Diversity in the Academy · Graduate School Office of Inclusion & Student Engagement, Cornell University
Participated in workshops & seminars geared towards students of color & underrepresented groups preparing for academic careers.

Fall 2017
ALS 6015: Teaching in Higher Education · Centre for Teaching Innovation, Cornell University

Participated in course activities related to effective teaching and professional development to prepare for a faculty position in higher education

2016 - 2019 GET SET Pedagogy Workshops · Centre for Teaching Innovation, Cornell University
Participated in workshops covering various issues in teaching and learning in higher education such as assessing learning, creating an engaging classroom, innovative approaches in pedagogy among others

Summer 2015 WRIT 7100: Teaching Writing course · Knight Institute for Writing in the Disciplines, Cornell University

Spring 2015 ASIAN 5505: Methodology of Asian Language learning and teaching course · Department of Asian Studies, Cornell University

SERVICE & OUTREACH

2022 – Present Neuroscience & Biobehavioral Reviews
Reviewer

2021 – Present Nature
Reviewer

2021 – Present Glossa: Psycholinguistics
Reviewer

2021 – Present Conference on Human Sentence Processing (HSP; previously CUNY Conference on Human Sentence Processing)
Reviewer

2020 – Present Society for Computation in Linguistics (SCiL)
Reviewer

2020 Computational Cognitive Neuroscience of Language Reading Group · University of Maryland
Organizer

January 2020 Brains On! Science Podcast for Kids · American Public Media
Linguistics Consultant

2020 – Present European Chapter of the Association of Computational Linguistics (EACL)
Reviewer

2020 – Present SIGNLL Conference on Computational Natural Language Learning (CoNLL)
Reviewer

2020 – Present Empirical Methods in Natural Lnguage Processing (EMNLP)
Reviewer

2020 – Present Association of Computational Linguistics (ACL)
Reviewer

2018 – 2019 Tenure Track Position in Experimental Linguistics · Cornell University
Search Committee

2019, 2018, 2017 National Computational Linguistics Olympiad (NACLO) · Cornell University
Local Host Site Assistant Organizer

2017 – 2018 Annual Meeting for the North East Linguistics Society (NELS 49)
Organizing Committee

2016 – 2018 Graduate & Professional Students Assembly · Cornell University
Academic Integrity Hearing Board member

2016 Conference on Laboratory Phonology (LabPhon 15)
Volunteer

2014 – 2019 Cornell Linguistics Circle
President {2016 - 2017} · Web Admin {2014 - 2016} · Social Committee {2014 - 2015}

AFFILIATIONS

Professional Societies Cognitive Science Society · Society for the Neurobiology of Language · Linguistic Society of America · Association for Computational Linguistics

Lab Affiliations UMD: Cognitive Neuroscience of Language (CNL) lab · Computational Linguistics and Information Processing (CLIP) lab
Cornell University: Computational Linguistics lab · Brain & Language lab

SKILLS

Computer Skills Intermediate: PsychoPy · Matlab · RStudio · PCIbex
Advanced: Java · Python · C++ · SPM · HTML · LaTeX

Languages Native Speaker: English · Bengali · Hindi
Conversational: Mandarin Chinese

Others Dance: Trained in Odissi (classical Indian dance form) with Bhaskar certificate (equivalent to BA degree)
Classical Piano: Completed Grade 7 practical and musical theory exam with distinction under ABRSM.