

# Allyson Ettinger

Assistant Professor  
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## Contact

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## Appointments

2019–present Assistant Professor, Dept. of Linguistics, The University of Chicago  
2019–present Courtesy Faculty, Toyota Technological Institute at Chicago  
2018–2019 Research Assistant Professor, Toyota Technological Institute at Chicago

## Education

### University of Maryland, College Park

PhD - Linguistics, 2013–2018

With Certificate in Neuroscience and Cognitive Science

Dissertation: *Relating lexical and syntactic processes in language: Bridging research in humans and machines.*

### Brandeis University

BA, Linguistics/Psychology, Summa Cum Laude, May 2010

## Publications

- 2021 Pandia, L., **Ettinger, A.** Sorting through the noise: Testing robustness of information processing in pre-trained language models. *Proceedings of The 2021 Conference on Empirical Methods in Natural Language Processing.*
- 2021 Pandia, L., Cong, Y., **Ettinger, A.** Pragmatic competence of pre-trained language models through the lens of discourse connectives. *Proceedings of the 2021 SIGNLL Conference on Computational Natural Language Learning.*
- 2021 Wu, Q., **Ettinger, A.** Variation and generality in encoding of syntactic anomaly information in sentence embeddings. *Proceedings of the Fourth BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP.*
- 2021 Yu, L., **Ettinger, A.** On the Interplay Between Fine-tuning and Composition in Transformers. *Findings of ACL: ACL 2021.*
- 2021 Misra, K., **Ettinger, A.**, Taylor Rayz, J. Do language models learn typicality judgments from text?. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society.*

- 2020 Yu, L., **Ettlinger, A.** Assessing Phrasal Representation and Composition in Transformers. *Proceedings of The 2020 Conference on Empirical Methods in Natural Language Processing.*
- 2020 Misra, K., **Ettlinger, A.**, Taylor Rayz, J. Exploring BERT’s Sensitivity to Lexical Cues using Tests from Semantic Priming. *Findings of ACL: EMNLP 2020.*
- 2020 Toshniwal, S., Wiseman, S., **Ettlinger, A.**, Gimpel, K., Livescu, K. Learning to Ignore: Long Document Coreference with Bounded Memory Neural Networks. *Proceedings of The 2020 Conference on Empirical Methods in Natural Language Processing.*
- 2020 **Ettlinger, A.** What BERT is not: Lessons from a new suite of psycholinguistic diagnostics for language models. *Transactions of the Association for Computational Linguistics.*
- 2020 Klafka, J., & **Ettlinger, A.** Spying on your neighbors: Fine-grained probing of contextual embeddings for information about surrounding words. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics.*
- 2020 Toshniwal, S., **Ettlinger, A.**, Gimpel, K., Livescu, K. PeTra: A Sparsely Supervised Memory Model for People Tracking. *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics.*
- 2018 **Ettlinger, A.**, Elgohary, A., Phillips, C., & Resnik, P. Assessing Composition in Sentence Vector Representations. *Proceedings of the 27th International Conference on Computational Linguistics (COLING).*
- 2017 **Ettlinger, A.**, Rao, S., Daumé III, H., & Bender, E. M. Towards Linguistically Generalizable NLP Systems: A Workshop and Shared Task. *Proceedings of the First Workshop on Building Linguistically Generalizable NLP Systems.*
- 2016 **Ettlinger, A.**, Elgohary, A., & Resnik, P. Probing for semantic evidence of composition by means of simple classification tasks. *Proceedings of the First Workshop on Evaluating Vector Space Representations for NLP, ACL 2016. Recipient of Best Proposal Award.*
- 2016 **Ettlinger, A.**, Resnik, P., & Carpuat, M. Retrofitting sense-specific word vectors using parallel text. *Proceedings of NAACL-HLT 2016.*
- 2016 **Ettlinger, A.**, Feldman, N.H., Resnik, P., & Phillips, C. Modeling N400 amplitude using vector space models of word representation. *Proceedings of the 38th Annual Conference of the Cognitive Science Society.*
- 2016 **Ettlinger, A.** & Linzen, T. Evaluating vector space models using human semantic priming results. *Proceedings of the First Workshop on Evaluating Vector Space Representations for NLP, ACL 2016.*
- 2015 Rao, S., **Ettlinger, A.**, Daumé III, H., & Resnik, P. (2015). Dialogue focus tracking for zero pronoun resolution. *Proceedings of NAACL-HLT 2015*, 495-503.
- 2015 **Ettlinger, A.** & Malamud, S. Mandarin utterance-final particle ba in the conversational scoreboard. *Proceedings of Sinn und Bedeutung 2014.*
- 2014 **Ettlinger, A.**, Linzen, T., & Marantz, A. The role of morphology in phoneme prediction: Evidence from MEG. *Brain and Language* 129, 14-23.

## Grants

- 2019–present NSF EAGER grant: *World Modeling for Natural Language Understanding.*  
(with Kevin Gimpel, Toyota Technological Institute at Chicago)
- 2014–2017 NSF Graduate Research Fellowship

## Presentations

- 2021 *“Understanding” and prediction: Controlled examinations of meaning extraction in natural language processing models.* Invited talk, Ohio State University Linguistics Department Colloquium, Columbus, OH (virtual).
- 2021 *“Understanding” and prediction: Controlled examinations of meaning sensitivity in pre-trained models.* Invited talk, van Schijndel research group, Cornell University, Ithaca, NY (virtual).
- 2021 *“Understanding” and prediction: Controlled examinations of meaning sensitivity in pre-trained NLP models.* Invited talk, University of Chicago MACSS Computational Social Science Workshop, Chicago, IL (virtual).
- 2021 Invited panelist, *How can findings about the brain improve AI systems?*, panel at Brain2AI workshop, International Conference on Learning Representations (virtual).
- 2021 *“Understanding” and prediction: Controlled examinations of meaning sensitivity in pre-trained models.* Invited talk, New York University NLP/Text-as-Data speaker series, New York, NY (virtual).
- 2021 *Pre-trained language models evaluated relative to human cognition.* Invited talk, Dongguk University English Literature and Language Department Colloquium, Seoul, South Korea (virtual).
- 2020 *Word and phrase representations in machines and in humans: comprehension, context, and composition.* Invited talk, Massachusetts Institute of Technology CompLang discussion group, Cambridge, MA (virtual).
- 2020 *Holding AI to a human standard: Applying cognitive science to evaluation of NLP models.* Invited talk, Massachusetts Institute of Technology Computational Psycholinguistics Lab, Cambridge, MA (virtual).
- 2020 *“Understanding” and prediction in language: perspectives from AI and human cognition.* Invited talk, Georgia Institute of Technology Workshop on Language, Technology, and Society, Atlanta, GA (virtual).
- 2020 (postponed due to COVID-19) *“Understanding” and prediction in language: perspectives from AI and human cognition.* Invited talk, University of California, Irvine Summer School on Computational Cognitive Modeling for Language, Irvine, CA.
- 2020 *“Understanding” and prediction in language: perspectives from AI and human cognition.* Invited talk, Northwestern University Department of Linguistics Colloquium, Evanston, IL.
- 2020 (postponed due to COVID-19) *“Understanding” and prediction in language: perspectives from AI and human cognition.* Invited talk, University of Wisconsin-Milwaukee Department of Linguistics Colloquium Series, Milwaukee, WI.
- 2019 *NLP representations from a perspective of human cognition.* Invited talk, Johns Hopkins University Center for Language and Speech Processing Lecture Series, Baltimore, MD.
- 2019 Invited panelist, *A linguist, an NLP engineer, and a psycholinguist walk into a bar?*, interdisciplinary panel at RepEval Workshop, Minneapolis, MN.
- 2019 *Challenges in NLP evaluation (and how linguists can help).* Invited panel talk, Society for Computation in Linguistics Annual Meeting, New York, NY.
- 2019 *Vector space models.* Invited tutorial, Society for Computation in Linguistics Annual Meeting, New York, NY.
- 2018 *Bridging language research in humans and machines: toward a productive symbiosis.* Invited talk, CUNY Graduate Center, New York, NY.
- 2018 *Opening the black box: leveraging insights from linguistics and cognitive neuroscience to assess the linguistic capacities of NLP systems.* Invited presentation, University of Chicago Department of Linguistics, Chicago, IL.

- 2018 *Bridging language research in humans and machines: toward a productive symbiosis*. Invited talk, University of Chicago Department of Linguistics, Chicago, IL.
- 2018 *Bridging NLP and brain science to improve natural language understanding*. Invited talk, Toyota Technological Institute, Chicago, IL.
- 2017 *Building and evaluating meaning representations for NLP*. Invited talk, Tohoku University, Sendai, Japan.
- 2017 *Drawing cognitive insights from NLP: Assessing the usefulness of engineering models in modeling human language processing*. Invited talk, Tohoku University, Sendai, Japan.
- 2013 *Mandarin utterance-final particle ba in the conversational scoreboard*. [with Sophia Malamud]. Presented at 19th International Congress of Linguists, Geneva, Switzerland, and Linguistic Society of America Annual Meeting, Boston, MA.
- 2012 *Mandarin utterance-final particle ba and conversational goals*. [with Sophia Malamud]. Presented at NYU Semantics Discussion Group Meeting, New York, NY.
- 2010 *Linguistic construction of gender and generations in Hmong-American communities*. [with Mai Youa Moua, James Stanford]. Presented at Linguistic Society of America Annual Meeting, Baltimore, MD.

## Thesis Advising

- Daniel Lam, PhD in Linguistics (in progress).
- Kanishka Misra, Purdue University, PhD in Natural Language Understanding (in progress).
- Laura Aina, Universitat Pompeu Fabra, PhD in Translation and Language Sciences. Thesis title: *A Deep Learning Perspective on Linguistic Ambiguity*.
- Lang Yu, PhD in Computer Science. Thesis title: *Analyzing and Improving Compositionality in Neural Language Models*.
- Daniel Edmiston, PhD in Linguistics. Thesis title: *Identifying Linguistic Structures in Continuous Spaces*.
- Jiaxuan Li, Master's Program in Computational Social Science. Thesis title: *A Noisy Channel Model of N400 and P600 Effects in Sentence Comprehension*.
- Wanitchaya (Mint) Poonpatanapricha, Master's Program in Computational Social Science. Thesis title: *Use of emojis as markers of politeness*.
- Ethan Liu, Master's Program in Statistics. Thesis title: *Causal Relations and Feature Extraction in Contextualized Sentence Representation*.
- Zhou Xing, Master's Program in Computational Social Science. Thesis title: *Visually Grounded Multilingual Syntax Acquisition*.
- Alexander (Sasha) Tyan, Master's Program in Computational Social Science. Thesis title: *Using Topic Modelling to Detect Bias Between News Sources*.
- Michael Hanna, Bachelor's in Linguistics and Computer Science. Thesis title: *Evaluating the Interpretability of Variational Autoencoders' Latent Space Representations of Sentences*
- Hanson Lu, Bachelor's in Linguistics and Computer Science. Thesis title: *Applying the Rational Speech Acts Model to Coreference Resolution*

## Service

- **Chair**, Society for Computation in Linguistics, 2021-present
- **Program committee chair**, Society for Computation in Linguistics, 2020-2021
- **Action editor**, ACL Rolling Review, 2021-2022
- **Senior area chair**, North American Association for Computational Linguistics Annual Meeting, 2022
- **Area chair**, Association for Computational Linguistics Annual Meeting, 2020-2021
- **Area chair**, North American Association for Computational Linguistics Annual Meeting, 2021
- **Area chair**, SIGNLL Conference on Computational Natural Language Learning, 2021
- **Organizer**, Workshop on Building Linguistically Generalizable NLP Systems, EMNLP 2017
- **Organizer**, Student Research Workshop, ACL 2017
- **Chair**, Research Training Committee, UMD Language Science Center (2016–2017)
- **Chair**, Annual Winter Storm graduate training workshop, UMD Language Science Center (2014–2016)

## Reviewing

- ACL, EMNLP, ICLR, ICML, NAACL, NeurIPS, EACL, COLING
- Workshop on Analyzing and Interpreting Neural Networks for NLP (BlackBoxNLP)
- Society for Computation in Linguistics (SCiL)
- Workshop on Evaluating Vector Space Representations for NLP (RepEval)
- *Cognitive Science* (journal)
- *Transactions of the Association for Computational Linguistics* (journal)
- *Computational Linguistics* (journal)
- *Psychological Review* (journal)
- *Journal of Natural Language Engineering* (journal)

## Natural Languages

- **English:** native
- **Mandarin Chinese:** fluent
- **Spanish:** proficient
- **Korean, French, German, Modern Standard Arabic:** reading/communicative knowledge

## Honors and Awards

- Best Proposal Award, Workshop on Evaluating Vector Space Representations for NLP, Association for Computational Linguistics (ACL) Annual Meeting 2016
- National Science Foundation Graduate Research Fellowship recipient, 2014
- Member Phi Beta Kappa Academic Honor Society, Brandeis University Chapter
- Justice Louis D. Brandeis full-tuition scholarship, Brandeis University, 2006-2010
- National Presidential Scholar, U.S. Presidential Scholars Program, 2006

## Teaching

- **Computational Linguistics, undergrad / grad (2020-present)**
  - Interdisciplinary introductory course in computational cognitive modeling and natural language processing (cross-listed in linguistics and computer science). Single-quarter course taught separately for undergraduate and graduate students.
- **Computational Linguistics I (2019-2020)**
  - Interdisciplinary, mixed undergraduate/graduate level course in computational cognitive modeling and natural language processing (cross-listed in linguistics and computer science)
- **Computational Linguistics II (2019-2020)**
  - Advanced continuation of Computational Linguistics I
- **Seminar in Computational Linguistics**
  - Graduate seminar course focusing examining approaches to meaning in computational linguistics—particularly efforts to capture meaning and “understanding” in artificial intelligence
- **Language and the Human (2019-present)**
  - Humanities course in the University of Chicago Undergraduate Core Curriculum, structured around discussion and writing on topics involving Language and Identity