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Employment

2023– *Associate Professor*

2020–2023 *Assistant Professor*
Department of Linguistics and Center for Data Science
New York University

2021– *Research Scientist*
Google (language model post-training, evaluation and interpretability)

2017–2020 *Assistant Professor*
Department of Cognitive Science (primary appointment)
Department of Computer Science (joint appointment)
Affiliated faculty, Center for Language and Speech Processing
Johns Hopkins University

2015–2017 *Postdoctoral researcher*
Laboratoire de Sciences Cognitives et Psycholinguistique & Institut Jean Nicod
Ecole Normale Supérieure, Paris

Education

2010–2015 New York University, Ph.D., Linguistics

Thesis title: *Probabilistic linguistic representations: Between learning and processing.*

Committee: Alec Marantz (chair), Gillian Gallagher, Maria Gouskova, Liina Pylkkänen, Florian Jaeger

2008–2010 Tel Aviv University, M.A., Linguistics, *summa cum laude*

Thesis title: *Hebrew Possessive Datives: The effects of affectedness.*

Advisor: Mira Ariel

2005–2010 Tel Aviv University, B.Sc., Mathematics & Linguistics, *summa cum laude*

Funding

2025–2030 Senior personnel. AI Research Institute on Interaction for AI Assistants (ARIA). National Science Foundation (IIS-2433429). $20M in total.

2025–2029 PI. *CRCNS: Developing and Testing Language Models with Cognitively Plausible Memory*. NIH: National Institute of Biomedical Imaging and Bioengineering (NIBIB; 1R01EB038873). $896,200 to NYU.

2025–2029 PI. *Collaborative Research: CompCog: RI: Medium: Semantic Focusing: Controlling LM Interpretations for Human-Model Alignment*. National Science Foundation (IIS-2504953; collaborative award with Brian Dillon, University of Massachusetts). $763,741 to NYU.

2023–2028 PI. *CAREER: RI: Structural Linguistic Generalization Through Expert-Designed Tasks*. National Science Foundation (IIS-2239862). $550,001.

2020–2023 PI. *CompCog: Collaborative Research: Testing quantitative predictions of sentence processing theories with a large-scale eye-tracking database.* National Science Foundation (BCS-2020945; collaborative award with Brian Dillon, University of Massachusetts). $283,075 to NYU.

2019–2023 PI. *Collaborative Research: Inductive biases for the acquisition of syntactic transformations in neural networks*. National Science Foundation (BCS-2114505; collaborative award with Robert Frank, Yale). $381,087 to NYU.

2019–2023 PI. *Large-scale neural networks as models of human syntactic knowledge*. United States – Israel Binational Science Foundation (award 2018284). $264,000 to NYU.

2019–2024 Co-Investigator. *Integrating and separating information sequences in the human cerebral cortex*. National Institute of Mental Health (R01MH119099). $2,182,702 in total.

2019–2020 PI. *Syntactic evaluation of neural language models with applications to text entry.* Google Faculty Research Award. $80,897.

Publications

[102] Linlu Qiu, Fei Sha, Kelsey Allen, Yoon Kim, **Tal Linzen** & Sjoerd van Steenkiste (2026). Bayesian Teaching Enables Probabilistic Reasoning in Large Language Models. *Nature Communications*.

[101] Shauli Ravfogel, Gilad Yehudai, **Tal Linzen**, Joan Bruna & Alberto Bietti (2025). Emergence of Linear Truth Encodings in Language Models. *NeurIPS*.

[100] Qihan Wang, Shidong Pan, **Tal Linzen** & Emily Black (2025). Multilingual Prompting for Improving LLM Generation Diversity. *EMNLP*.

[99] Wentao Wang, Guangyuan Jiang, **Tal Linzen** & Brenden M. Lake (2025). Rapid Word Learning Through Meta In-Context Learning. *EMNLP*.

[98] Anastasia Kobzeva, Suhas Arehalli, **Tal Linzen** & Dave Kush (2025). Learning Filler-Gap Dependencies with Neural Language Models: Testing Island Sensitivity in Norwegian and English. *Journal of Memory and Language*.

[97] Michael Y. Hu, Jackson Petty, Chuan Shi, William Merrill & **Tal Linzen** (2025). Between Circuits and Chomsky: Pre-pretraining on Formal Languages Imparts Linguistic Biases. *ACL*. (Outstanding paper: 25 out of 3000 accepted papers.)

[96] Lindia Tjuatja, Graham Neubig, **Tal Linzen** & Sophie Hao (2025). What Goes Into a LM Acceptability Judgment? Rethinking the Impact of Frequency and Length. *NAACL*.

[95] Ethan Wilcox, Michael Y. Hu, Aaron Mueller, Alex Warstadt, Leshem Choshen, Chengxu Zhuang, Adina Williams, Ryan Cotterell & **Tal Linzen** (2025). Bigger is not always better: The importance of human-scale language modeling for psycholinguistics. *Journal of Memory and Language*.

[94] Jackson Petty, Sjoerd van Steenkiste & **Tal Linzen** (2025). How does code pretraining affect language model task performance? *Transactions of Machine Learning Research*.

[93] Linlu Qiu, Fei Sha, Kelsey R Allen, Yoon Kim, **Tal Linzen**, Sjoerd van Steenkiste (2024). Can language models perform implicit Bayesian inference over user preference states? *NeurIPS Workshop on System 2 Reasoning at Scale*.

[92] Grusha Prasad & **Tal Linzen** (2024). SPAWNing structural priming predictions from a cognitively motivated parser. *CoNLL*.

[91] William Merrill, Zhaofeng Wu, Norihito Naka, Yoon Kim & **Tal Linzen** (2024). Can you learn semantics through next-word prediction? The case of entailment. *Findings of ACL*.

[90] Satoru Ozaki, Aniello De Santo, **Tal Linzen** & Brian Dillon (2024). CCG parsing effort and surprisal jointly predict RT but underpredict garden-path effects. *Society for Computation in Linguistics (extended abstract)*.

[89] Aaron Mueller, Albert Webson, Jackson Petty & **Tal Linzen** (2024). In-context learning generalizes, but not always robustly: the case of syntax. *NAACL*.

[88] Tiwalayo Eisape, MH Tessler, Ishita Dasgupta, Fei Sha, Sjoerd van Steenkiste & **Tal Linzen** (2024). A systematic comparison of syllogistic reasoning in humans and language models. *NAACL*.

[87] Jackson Petty, Sjoerd van Steenkiste, Ishita Dasgupta, Fei Sha, Dan Garrette & **Tal Linzen** (2024). The impact of depth on compositional generalization in Transformer language models. *NAACL*.

[86] Matthew Mandelkern & **Tal Linzen** (2024). Do language models' words refer? *Computational Linguistics*, *50*(3), 1191–1200.

[85] Suhas Arehalli & **Tal Linzen** (2024). Neural networks as cognitive models of the processing of syntactic constraints. *Open Mind: Discoveries in Cognitive Science, 8,* 558–614.

[84] Kuan-Jung Huang, Suhas Arehalli, Mari Kugemoto, Christian Muxica, Grusha Prasad, Brian Dillon & **Tal Linzen** (2024). Large-scale benchmark yields no evidence that language model surprisal explains syntactic disambiguation difficulty. *Journal of Memory and Language, 137,* 104510.

[83] William Timkey & **Tal Linzen** (2023). A language model with limited memory capacity captures interference in human sentence processing. *Findings of EMNLP*.

[82] Bingzhi Li, Lucia Donatelli, Alexander Koller, **Tal Linzen**, Yuekun Yao & Najoung Kim (2023). SLOG: A structural generalization benchmark for semantic parsing. *EMNLP*.

[81] Sophie Hao & **Tal Linzen** (2023). Verb conjugation in Transformers is determined by linear encodings of subject number. *Findings of EMNLP*.

[80] Aditya Yedetore, **Tal Linzen**, Robert Frank & R. Thomas McCoy (2023). How poor is the stimulus? Evaluating hierarchical generalization in neural networks trained on child-directed speech. *ACL*.

[79] Aaron Mueller & **Tal Linzen** (2023). How to Plant Trees in Language Models: Data and Architectural Effects on the Emergence of Syntactic Inductive Biases. *ACL*.

[78] Anastasia Kobzeva, Suhas Arehalli, **Tal Linzen** & Dave Kush (2023). Neural networks can learn patterns of island-insensitivity in Norwegian. *Society for Computation in Linguistics*.

[77] Cara Su-Yi Leong & **Tal Linzen** (2023). Language models can learn exceptions to syntactic rules. *Society for Computation in Linguistics*.

[76] R. Thomas McCoy, Paul Smolensky, **Tal Linzen**, Jianfeng Gao & Asli Celikyilmaz (2023). How much do language models copy from their training data? Evaluating linguistic novelty in text generation using RAVEN. *Transactions of the Association for Computational Linguistics, 11*, 652–670

[75] Kristijan Armeni, Christopher Honey & **Tal Linzen** (2022). Characterizing verbatim short-term memory in neural language models. In *Proceedings of the 26th Conference on Computational Natural Language Learning*.

[74] Suhas Arehalli, Brian Dillon & **Tal Linzen** (2022). Syntactic surprisal from neural models predicts, but underestimates, human processing difficulty from syntactic ambiguities. In *Proceedings of the 26th Conference on Computational Natural Language Learning*. (Distinguished Paper.)

[73] Aaron Mueller, Yu Xia & **Tal Linzen** (2022). Causal analysis of syntactic agreement neurons in multilingual language models. In *Proceedings of the 26th Conference on Computational Natural Language Learning*.

[72] William Merrill, Alex Warstadt & **Tal Linzen** (2022). Entailment semantics can be extracted from an ideal language model. In *Proceedings of the 26th Conference on Computational Natural Language Learning*.

[71] Anastasia Kobzeva, Suhas Arehalli, **Tal Linzen** & Dave Kush (2022). LSTMs can learn basic wh- and relative clause dependencies in Norwegian. *Proceedings of the Cognitive Science Society*.

[70] Linlu Qiu, Peter Shaw, Panupong Pasupat, Paweł Krzysztof Nowak, **Tal Linzen**, Fei Sha, Kristina Toutanova (2022). Improving compositional generalization with latent structure and data augmentation. *Proceedings of the 20th Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*.

[69] Sebastian Schuster & **Tal Linzen** (2022). When a sentence does not introduce a discourse entity, Transformer-based models still often refer to it. *Proceedings of the 20th Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*.

[68] Aaron Mueller, Robert Frank, **Tal Linzen**, Luheng Wang & Sebastian Schuster (2022). Coloring the Blank Slate: Pre-training Imparts a Hierarchical Inductive Bias to Sequence-to-sequence Models . *Findings of the Association for Computational Linguistics 2022*.

[67] Thibault Sellam, Steve Yadlowsky, Jason Wei, Naomi Saphra, Alexander D'Amour, **Tal Linzen**, Jasmijn Bastings, Iulia Turc, Jacob Eisenstein, Dipanjan Das, Ian Tenney & Ellie Pavlick (2022). The MultiBERTs: BERT reproductions for robustness analysis. In *International Conference on Learning Representations (ICLR)*.

[66] Nouha Dziri, Hannah Rashkin, **Tal Linzen** & David Reitter (2022). Evaluating attribution in dialogue systems: the BEGIN benchmark. *Transactions of the Association for Computational Linguistics*, *10*, 1066–1083.

[65] Grusha Prasad & **Tal Linzen** (2021). Rapid syntactic adaptation in self-paced reading: detectable, but only with many participants. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *47*(7), 1156–1172.

[64] Marten van Schijndel & **Tal Linzen** (2021). Single-stage prediction models do not explain the magnitude of syntactic disambiguation difficulty. *Cognitive Science, 45*(6), e12988.

[63] **Tal Linzen** & Marco Baroni (2021). Syntactic structure from deep learning. *Annual Reviews of Linguistics, 7*, 195–212.

[62] Laura Aina & **Tal Linzen** (2021). The language model understood the prompt was ambiguous: probing syntactic uncertainty through generation. In *Proceedings of the Fourth BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP*, pages 42–57.

[61] Alicia Parrish, William Huang, Omar Agha, Soo-Hwan Lee, Nikita Nangia, Alex Warstadt, Karmanya Aggarwal, Emily Allaway, **Tal Linzen** & Samuel R. Bowman (2021). Does putting a linguist in the loop improve NLU data collection? In *Findings of the Association for Computational Linguistics: EMNLP 2021*, pages 4886–4901.

[60] Alicia Parrish, Sebastian Schuster, Alex Warstadt, Omar Agha, Soo-Hwan Lee, Zhuoye Zhao, Samuel R. Bowman & **Tal Linzen** (2021). NOPE: A corpus of naturally-occurring presuppositions in English. In *Proceedings of the 25th Conference on Computational Natural Language Learning (CoNLL)*, pages 349–366.

[59] Shauli Ravfogel, Grusha Prasad, **Tal Linzen** & Yoav Goldberg (2021). Counterfactual interventions reveal the causal effect of relative clause representations on agreement prediction. In *Proceedings of the 25th Conference on Computational Natural Language Learning (CoNLL)*, pages 194–209.

[58] Matthew Finalyson, Aaron Mueller, Stuart Shieber, Sebastian Gehrmann, **Tal Linzen** & Yonatan Belinkov (2021). Causal analysis of syntactic agreement mechanisms in neural language models. In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 1828–1843.

[57] Charles Lovering, Rohan Jha, **Tal Linzen** & Ellie Pavlick (2021). Predicting inductive biases of pre-trained models. In *International Conference on Learning Representations (ICLR)*.

[56] Karl Mulligan, Robert Frank & **Tal Linzen** (2021). Structure here, bias there: Hierarchical generalization by jointly learning syntactic transformations. In *Society for Computation in Linguistics*, pages 125–140.

[55] Naomi Havron, Camila Scaff, Maria Julia Carbajal, **Tal Linzen**, Axel Barrault & Anne Christophe (2020). Priming syntactic ambiguity resolution in children and adults. *Language, Cognition and Neuroscience*, *35*(10), 1445–1455.

[54] Richard T. McCoy, Robert Frank & **Tal Linzen** (2020). Does syntax need to grow on trees? Sources of hierarchical inductive bias in sequence-to-sequence networks. *Transactions of the Association for Computational Linguistics*, *8*, 125–140.

[53] Najoung Kim & **Tal Linzen** (2020). COGS: A compositional generalization challenge based on semantic interpretation. In *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pages 9087–9105.

[52] Paul Soulos, R. Thomas McCoy, **Tal Linzen** & Paul Smolensky (2020). Discovering the compositional structure of vector representations with Role Learning Networks. In *Proceedings of the Third BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP*, pages 238–254.

[51] R. Thomas McCoy, Junghyun Min & **Tal Linzen** (2020). BERTs of a feather do not generalize together: Large variability in generalization across models with similar test set performance. In *Proceedings of the Third BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP*, pages 217–227.

[50] R. Thomas McCoy, Erin Grant, Paul Smolensky, Tom Griffiths & **Tal Linzen** (2020). Imparting universal linguistic inductive biases via meta-learning. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*, pages 737–743.

[49] Suhas Arehalli & **Tal Linzen** (2020). Neural language models capture some, but not all, agreement attraction effects. In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*, pages 370–376.

[48] Aaron Mueller, Garrett Nicolai, Panayiota Petrou-Zeniou, Natalia Talmina & **Tal Linzen** (2020). Cross-linguistic syntactic evaluation of word prediction models. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 5523–5539.

[47] **Tal Linzen** (2020). How can we accelerate progress towards human-like linguistic generalization? In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 5210–5217. (Honorable mention for Best Theme Paper.)

[46] Michael Lepori, **Tal Linzen** & Richard T. McCoy (2020). Representations of syntax [MASK] useful: Effects of constituency and dependency structure in recursive LSTMs. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 3306–3316.

[45] Junghyun Min, Richard T. McCoy, Dipanjan Das, Emily Pitler & **Tal Linzen** (2020). Syntactic data augmentation increases robustness to inference heuristics. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 2339–2352.

[44] Natalia Talmina & **Tal Linzen** (2020). Neural network learning of the Russian genitive of negation: optionality and structure sensitivity. In *Proceedings of the Society for Computation in Linguistics (SCiL) 3*, 21.

[43] Afra Alishahi, Grzegorz Chrupała & **Tal Linzen** (2019). Analyzing and interpreting neural networks for NLP: A report on the first BlackboxNLP workshop. *Journal of Natural Language Engineering*, *25*(4), 543–557.

[42] Grusha Prasad, Marten van Schijndel & **Tal Linzen** (2019). Using priming to uncover the organization of syntactic representations in neural language models. In *Proceedings of the 23rd Conference on Computational Natural Language Learning (CoNLL)*, pages 66–76. (Honorable mention for Best Paper Award for Research Inspired by Human Language Learning and Processing.)

[41] Marten van Schijndel, Aaron Mueller & **Tal Linzen** (2019). Quantity doesn't buy quality syntax with neural language models. In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP 2019)*, pages 5835–5841.

[40] R. Thomas McCoy, Ellie Pavlick & **Tal Linzen** (2019). Right for the wrong reasons: diagnosing syntactic heuristics in natural language inference. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*, pages 3428–3448.

[39] Brenden Lake, **Tal Linzen** & Marco Baroni (2019). Human few-shot learning of compositional instructions. In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*, pages 611–616.

[38] Najoung Kim, Roma Patel, Adam Poliak, Alex Wang, Patrick Xia, R. Thomas McCoy, Ian Tenney, Alexis Ross, **Tal Linzen**, Benjamin Van Durme, Samuel R. Bowman, Ellie Pavlick (2019). Probing what different NLP tasks teach machines about function word comprehension. In *Proceedings of the Eighth Joint Conference on Lexical and Computational Semantics (*SEM 2019)*, pages 235–249. (Best Paper Award.)

[37] Shauli Ravfogel, Yoav Goldberg & **Tal Linzen** (2019(. Studying the inductive biases of RNNs with synthetic variations of natural languages. In *Proceedings of the 17th Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*, pages 3532–3542.

[36] R. Thomas McCoy, **Tal Linzen**, Ewan Dunbar & Paul Smolensky (2019). RNNs implicitly implement tensor product representations. In *International Conference on Learning Representations (ICLR) 2019*.

[35] R. Thomas McCoy & **Tal Linzen** (2019). Non-entailed subsequences as a challenge for natural language inference. In *Proceedings of the Society for Computation in Linguistics (SCiL) 2019* (extended abstract).

[34] Marten van Schijndel & **Tal Linzen** (2019). Can entropy explain successor surprisal effects in reading? In *Proceedings of the Society for Computation in Linguistics (SCiL) 2019*.

[33] **Tal Linzen** (2019). What can linguistics and deep learning contribute to each other? A response to Pater. *Language*, *95*(1), e99–e108.

[32] **Tal Linzen** & Yohei Oseki (2018). The reliability of acceptability judgments across languages. *Glossa: a journal of general linguistics*, *3*(1), 100.

[31] Laura Gwilliams, **Tal Linzen**, David Poeppel & Alec Marantz (2018). In spoken word recognition the future predicts the past. *Journal of Neuroscience 38*(35), 7585–7599.

[30] Marten van Schijndel & **Tal Linzen** (2018). A neural model of adaptation in reading. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP 2018)*, pages 4704–4710.

[29] Rebecca Marvin & **Tal Linzen** (2018). Targeted syntactic evaluation of language models. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP 2018*), pages 1192–1202.

[28] Marten van Schijndel & **Tal Linzen** (2018). Modeling garden path effects without explicit hierarchical syntax. In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*, pages 2600–2605.

[27] R. Thomas McCoy, Robert Frank & **Tal Linzen** (2018). Revisiting the poverty of the stimulus: hierarchical generalization without a hierarchical bias in recurrent neural networks. In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*, pages 2093–2098.

[26] **Tal Linzen** & Brian Leonard (2018). Distinct patterns of syntactic agreement errors in recurrent networks and humans. In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*, pages 692–697.

[25] Kristina Gulordava, Piotr Bojanowski, Edouard Grave, **Tal Linzen** & Marco Baroni (2018). Colorless green recurrent networks dream hierarchically. In *Proceedings of the 16th Annual*

Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL), pages 1195–1205.

[24] Laura Gwilliams, David Poeppel, Alec Marantz & **Tal Linzen** (2018). Phonological (un)certainty weights lexical activation. In *Proceedings of the 2018 Workshop on Cognitive Modeling and Computational Linguistics (CMCL)*, pages 29–34.

[23] James White, René Kager, **Tal Linzen**, Giorgos Markopoulos, Alexander Martin, Andrew Nevins, Sharon Peperkamp, Krisztina Polgárdi, Nina Topintzi & Ruben van de Vijver (2018). Preference for locality is affected by the prefix/suffix asymmetry: Evidence from artificial language learning. In Sherry Hucklebridge and Max Nelson (eds.), *Proceedings of the 48th Annual Meeting of the North East Linguistic Society (NELS 48)*, pages 207–220.

[22] Itamar Kastner & **Tal Linzen** (2018). A morphosyntactic inductive bias in artificial language learning. In Sherry Hucklebridge and Max Nelson (eds.), *Proceedings of the 48th Annual Meeting of the North East Linguistic Society (NELS 48)*, pages 81–90.

[21] **Tal Linzen** & Gillian Gallagher (2017). Rapid generalization in phonotactic learning. *Laboratory Phonology: Journal of the Association for Laboratory Phonology 8*(1): 24, 1–32.

[20] Émile Enguehard, Yoav Goldberg & **Tal Linzen** (2017). Exploring the syntactic abilities of RNNs with multi-task learning. In *Proceedings of the 21st Conference on Computational Natural Language Learning (CoNLL)*, pages 3–14.

[19] **Tal Linzen**, Noam Siegelman & Louisa Bogaerts (2017). Prediction and uncertainty in an artificial language. In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*, pages 2592–2597.

[18] Gaël Le Godais, **Tal Linzen** & Emmanuel Dupoux (2017). Comparing character-level neural language models using a lexical decision task. In *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL): Volume 2, Short Papers*, pages 125–130.

[17] **Tal Linzen**, Emmanuel Dupoux & Yoav Goldberg (2016). Assessing the ability of LSTMs to learn syntax-sensitive dependencies. *Transactions of the Association for Computational Linguistics*, *4*, 521–535.

[16] Einat Shetreet, **Tal Linzen** & Naama Friedmann (2016). Against all odds: Exhaustive activation in lexical access of verb complementation options. *Language, Cognition & Neuroscience 31*(9), 1206–1214.

[15] **Tal Linzen** (2016). The diminishing role of inalienability in the Hebrew Possessive Dative. *Corpus Linguistics and Linguistic Theory 12*(2), 325–354.

[14] **Tal Linzen** & Florian Jaeger (2016). Uncertainty and expectation in sentence processing: Evidence from subcategorization distributions. *Cognitive Science 40*(6), 1382–1411.

[13] **Tal Linzen** (2016). Issues in evaluating semantic spaces using word analogies. In *Proceedings of the First Workshop on Evaluating Vector Space Representations for NLP (RepEval)*, pages 13–18.

[12] Allyson Ettinger & **Tal Linzen** (2016). Evaluating vector space models using human semantic priming results. In *Proceedings of the First Workshop on Evaluating Vector Space Representations for NLP (RepEval)*, pages 72–77.

[11] **Tal Linzen**, Emmanuel Spector & Benjamin Spector (2016). Quantificational features in distributional word representations. In *Proceedings of the Fifth Joint Conference on Lexical and Computational Semantics (*SEM 2016)*, pages 1–11. (Finalist for Best Paper Award.)

[10] Joseph Fruchter*, **Tal Linzen***, Masha Westerlund & Alec Marantz (2015). Lexical preactivation in basic linguistic phrases. *Journal of Cognitive Neuroscience 27*(10), 1912–1935. (* indicates equal contribution.)

[9] Maria Gouskova & **Tal Linzen** (2015). Morphological conditioning of phonological regularization. *The Linguistic Review 32*(3), 427–473.

[8] **Tal Linzen** & Timothy J. O'Donnell (2015). A model of rapid phonotactic generalization. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP 2015)*, pages 1126–1131.

[7] Mira Ariel, Elitzur Dattner, John W. Du Bois & **Tal Linzen** (2015). Pronominal datives: The royal road to argument status. *Studies in Language 39*(2), 257–321.

[6] **Tal Linzen** (2014). Parallels between cross-linguistic and language-internal variation in Hebrew possessive constructions. *Linguistics 52*(3), 759–792.

[5] Allyson Ettinger, **Tal Linzen** & Alec Marantz (2014). The role of morphology in phoneme prediction: Evidence from MEG. *Brain and Language 129*, 14–23.

[4] **Tal Linzen** & Florian Jaeger (2014). Investigating the role of entropy in sentence processing. In *Proceedings of the 2014 ACL Workshop on Cognitive Modeling and Computational Linguistics (CMCL)*, pages 10–18.

[3] **Tal Linzen** & Gillian Gallagher (2014). The timecourse of generalization in phonotactic learning. In John Kingston, Claire Moore-Cantwell, Joe Pater, and Robert Staubs (eds.), *Proceedings of 2013 Annual Meeting on Phonology*.

[2] **Tal Linzen**, Alec Marantz & Liina Pylkkänen (2013). Syntactic context effects in single word recognition: An MEG study. *The Mental Lexicon 8*(2), 117–139.

[1] **Tal Linzen**, Sonia Kasyanenko & Maria Gouskova (2013). Lexical and phonological variation in Russian prepositions. *Phonology 30*(3), 453–515.

Invited presentations

[94] *Bayesian teaching enables probabilistic reasoning in large language models*. Speech & NLP Symposium, Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi, January 6, 2026.

[93] *To model human linguistic cognition, make LLMs less superhuman*. Linguistics Colloquium, University of Massachusetts, Amherst, October 17, 2025.

[92] (1) *Introduction to large language models*; (2) *Language models: Cognitive applications*. Machine Learning Summer School, Arequipa, Peru, August 11–12, 2025.

[91] *Formal languages for large language model pretraining and evaluation*. Machine Learning Seminar, Tel Aviv University, June 11, 2025.

[90] *Formal languages for large language model pretraining and evaluation*. Apple Machine Learning Research, May 28, 2025.

[89] *Towards language models with cognitive plausible memory.* Sentence processing workshop, University of Potsdam, Germany, May 27, 2025.

[88] *Reasoning in large language models and humans*. NIH Workshop on Reasoning Algorithms Across Species, Diagnoses, and Development, online, April 23, 2025.

[87] *Between Circuits and Chomsky*. Computational Linguistics Research Seminar, UT Austin, March 7, 2025.

[86] *Language model predictions do not explain human syntactic processing*. LingLangLunch, Brown University, October 28, 2024.

[85] *Language model predictions do not explain human syntactic processing*. Invited talk in Linguistics and Psychology, University College London, October 7, 2024.

[84] *Language model predictions do not explain human syntactic processing*. Keynote talk, Highlights in the Language Sciences, Nijmegen, Netherlands, July 8–11, 2024

[83] *Do language models understand us?* Princeton LLM Forum, Center for Digital Humanities, Princeton University, April 17, 2024.

[82] *The role of language models in psycholinguistics.* Cognitive Science Colloquium, University of Maryland, College Park, February 29, 2024.

[81] *The role of language models in psycholinguistics.* NLP Seminar, Columbia University, April 3, 2024.

[80] *How much data do neural networks need for syntactic generalization?* Language, Information and Computation lecture series, Montclair State University, New Jersey, February 14, 2024.

[79] *Surprisal does not explain syntactic disambiguation difficulty.* Virtual Psycholinguistics Forum, Chinese University of Hong Kong (online), September 27, 2023.

[78] *How much data do neural networks need for syntactic generalization?* Keynote talk, Learning with Small Data Conference, Gothenburg, Sweden, September 11, 2023.

[77] *Two types of cognitive evaluations for language models*. Cognitive-AI Benchmarking workshop, Annual Meeting of the Cognitive Science Society (online), July 26, 2023.

[76] *Sources of syntactic inductive biases in language models.* Invited talk, University of Potsdam, Germany, July 11, 2023.

[75] *Surprisal does not explain syntactic disambiguation difficulty.* Data Science Seminar, Ecole Normale Supérieure, Paris, June 29, 2023.

[74] *Surprisal does not explain syntactic disambiguation difficulty.* Psycholinguistics Lab Colloquium, University of Potsdam, Germany, June 22, 2023.

[73] *Surprisal does not explain syntactic disambiguation difficulty.* Linguistics Colloquium, Seoul National University, June 9, 2023.

[72] *Language models can learn semantics, no matter how you define it*. AI and the Barrier of Meaning 2, Santa Fe Institute, New Mexico, April 24–26, 2023.

[71] *What, if Anything, Can Large Language Models Teach Us About Human Language Acquisition?* Conference on the Philosophy of Deep Learning, NYU, March 25–26, 2023.

[70] *Large-scale investigation of syntactic processing reveals misalignments between humans and neural language models.* Institute of Cognitive and Brain Sciences, University of California, Berkeley, January 17, 2023

[69] *Large-scale investigation of syntactic processing reveals misalignments between humans and neural language models.* Psychology Department Colloquium, Stanford University, January 11, 2023.

[68] *Successes and failures of compositionality in neural networks for language*. The Challenge of Compositionality for AI, Online workshop. June 29–30, 2022.

[67] *Sensitivity to Initial Weights in Out-of-Distribution Generalization.* Keynote talk, Workshop on Insights from Negative Results in NLP, at ACL 2022, Dublin, May 26–27, 2022.

[66] *Beyond Probing Classifiers: Deconstructing the Function and Structure of Vector Representations.* Keynote talk, Workshop on Knowledge Extraction and Integration for Deep Learning Architectures (DeeLIO), at ACL 2022, Dublin, May 26–27, 2022.

[65] *Inductive Biases for the Acquisition of Syntactic Transformations by Neural Networks*. Linguistics Department Research Seminar, University of Geneva, May 17, 2022. (Online)

[64] *Inductive Biases for the Acquisition of Syntactic Transformations by Neural Networks*. Computational Linguistics Seminar, University of North Carolina, Chapel Hill, April 8, 2022.

[63] *Inductive Biases for the Acquisition of Syntactic Transformations by Neural Networks*. Language Evolution, Acquisition, and Processing Workshop, University of Chicago, February 11, 2022.

[62] *Can surprisal explain syntactic disambiguation difficulty?* Penn Linguistics Speaker Series, University of Pennsylvania, April 18, 2022.

[61] *Can surprisal explain syntactic disambiguation difficulty?* Linguistics and Languages Colloquium, McMaster University, Hamilton, Ontario, March 28, 2022. (Online).

[60] *Causal analysis of the syntactic representations used by Transformers*. NLP seminar, University of Pennsylvania, February 28, 2022.

[59] *Causal analysis of the syntactic representations used by Transformers*. Forum on Artificial Intelligence, University of Texas, Austin, February 18, 2022.

[58] *Causal analysis of the syntactic representations used by Transformers*. Weekly seminar, CLASP (Centre for Linguistic Theory and Studies in Probability), University of Gothenburg, Sweden, February 16, 2022. (Online)

[57] Language Technology Lab, University of Cambridge, October 21, 2021. (Online)

[56] Language Science Colloquium, University of California, Irvine, June 1, 2021. (Online)

[55] Computer Science Colloquium, Hebrew University of Jerusalem, Israel, April 5, 2021.

[54] Universals Colloquium, Harvard University, February 26, 2021. (Online)

[53] Keynote speaker, The 28th International Conference on Computational Linguistics (COLING'2020), Barcelona, December 8–11, 2020. (Online)

[52] Invited speaker, Annual Meeting of GDR TAL (Natural Language Processing Research Group, France), Online, December 1, 2020.

[51] Language Technology Group, Amazon, Online, October 20, 2020.

[50] *Neural networks as a framework for modeling human syntactic processing*. Keynote talk, Architectures and Mechanisms of Language Processing (AMLaP), Online, September 3, 2020.

[49] *What inductive biases enable human-like syntactic generalization?* Linguistics Colloquium, University of Massachusetts, Amherst, April 16, 2020. (Online)

[48] *How well do neural NLP systems generalize?* Data Science Colloquium, University of California, San Diego, February 11.

[47] *How well do neural NLP systems generalize?* NLP Seminar, University of California, Berkeley, January 23.

[46] *What inductive biases enable human-like syntactic generalization?* Linguistics Colloquium, University of California, San Diego, February 10, 2020.

[45] *What inductive biases enable human-like syntactic generalization?* Linguistics Colloquium, Stanford University, January 21, 2020.

[44] *Psycholinguistics and deep learning*. Lecture at the Brains, Minds, and Machines summer course, Woods Hole, MA, August 24, 2019.

[43] *What inductive biases enable human-like syntactic generalization?* Keynote talk, The 24th Conference on Formal Grammar, Riga, Latvia, August 11, 2019.

[42] *How well do neural NLP systems generalize?* Invited talk, RepEval: The Third Workshop on Evaluating Vector Space Representations for NLP (co-located with NAACL 2019), Minneapolis, MN, June 6, 2019.

[41] *What can psycholinguistics and deep learning contribute to each other?* Computational Psycholinguistics Seminar, Waseda University, Tokyo, May 24, 2019.

[40] *Assessing syntactic generalization in artificial neural networks.* Keynote talk, Midwest Speech and Language Days 2019, Chicago, May 3, 2019.

[39] *Assessing syntactic generalization in artificial neural networks.* Seminar talk, RIKEN Center for Advanced Intelligence Project, Tokyo, May 24, 2019.

[38] *Syntactic generalization in artificial neural networks*. Cognitive Talk Series, Princeton University, April 24, 2019.

[37] *Linguistics in the age of deep learning*. CompLang Seminar on Language and Computation, MIT, April 18, 2019.

[36] *Psycholinguistic evaluation of neural NLP systems*. Language Technologies Institute Colloquium, Carnegie Mellon University, Pittsburgh, PA, February 8, 2019.

[35] *Linguistics as a part of cognitive science*. Talk given as a part of "MarantzFest", a conference honoring Alec Marantz, January 6, 2019.

[34] *Using cognitive science to evaluate and interpret neural language models.* Google (NYC), January 7, 2019.

[33] *Using cognitive science to evaluate and interpret neural language models.* Allen Institute for Artificial Intelligence (Seattle, WA), December 14, 2018.

[32] *Using cognitive science to evaluate and interpret neural language models.* Microsoft Research (Redmond, WA), December 13, 2018.

[31] *On the syntactic abilities of recurrent neural networks.* Linguistics Colloquium, Yale University, December 10, 2017, 2018.

[30] *On the syntactic abilities of recurrent neural networks.* Linguistics Speaker Series, Georgetown University, October 19, 2018.

[29] *What can psycholinguistics and deep learning contribute to each other?* University of Potsdam, Germany, September 4, 2018.

[28] *Neural networks for (psycho)linguistics*. Tutorial given at the University of Potsdam, Germany, September 3, 2018.

[27] *On the syntactic abilities of recurrent neural networks.* Experimental Syntax and Heritage Languages Research Group, Humboldt University, Berlin, July 2, 2018.

[26] *On the syntactic abilities of recurrent neural networks.* Linguistics Colloquium, Tel Aviv University, Tel Aviv, Israel, June 7, 2018.

[25] *On the syntactic abilities of recurrent neural networks.* Linguistics Colloquium, Bar-Ilan University, Ramat Gan, Israel, May 29, 2018.

[24] *On the syntactic abilities of recurrent neural networks.* Joint Linguistics and CLIP (Computational Linguistics and Information Processing) Colloquium, University of Maryland College Park, April 11, 2018.

[23] *Hierarchical behavior without explicit hierarchical representations*? Common Ground Seminar at the University of Pennsylvania, Philadelphia, February 7, 2018.

[22] *Structure-sensitive dependency learning in recurrent neural networks.* Cognitive Science Colloquium, Indian Institute of Technology, Delhi, October 12, 2017 (via video conference).

[21] *Structure-sensitive dependency learning in recurrent neural networks.* Colloquium at the Department of Linguistics, Stony Brook University, Stony Brook, New York, September 29, 2017.

[20] *Structure-sensitive dependency learning in recurrent neural networks.* Center for Language and Speech Processing Seminar, Johns Hopkins University, September 22, 2017.

[19] *Structure-sensitive dependency learning in recurrent neural networks.* TLP seminar at LIMSI (Computer Science Laboratory for Mechanics and Engineering Sciences), Paris-Sud University, June 20, 2017.

[18] *Structure-sensitive dependency learning in recurrent neural networks.* Institute for Language, Cognition and Computation (ILCC) seminar, The University of Edinburgh, June 8, 2017.

[17] *Structure-sensitive dependency learning in recurrent neural networks.* Colloquium at Tilburg Center for Cognition and Communication (TiCC), Tilburg University, The Netherlands, May 31, 2017.

[16] *Cognitive science and neural network models of language*. Workshop on Deep Learning in Computational Cognitive Science at the 39th Annual Meeting of the Cognitive Science Society, London, July 26, 2017.

[15] *Information and representations in the neurobiology of morphology*. Workshop on usage statistics, semantic transparency and segmentability in the selection, access and (de)composition of complex words, University of Freiburg, Germany, May 4–6, 2017.

[14] *Entropy in language comprehension*. Keynote talk at the "Information-theoretic modeling of linguistic variation in context" workshop at the 39. Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft (German Linguistics Society), Saarbrücken, Germany, March 9, 2017.

[13] *Can recurrent neural networks acquire hierarchical representations from natural texts?* Ling Lunch, Paris Diderot University, January 26, 2017.

[12] *Using English subject-verb number agreement to evaluate the syntactic capabilities of contemporary neural networks*. Ling Lunch, Queen Mary University of London, November 21, 2016..

[11] *Can contemporary recurrent neural networks learn syntax-sensitive dependencies?* Language Research Cluster, University of Potsdam, Germany, July 6, 2016.

[10] *Probabilistic computation and formal representations*. Colloquium talk at the Department of Linguistics, UCLA, February 22, 2016.

[9] *Understanding probabilistic prediction in sentence processing*. Colloquium talk at the Department of Cognitive Science, Johns Hopkins University, January 6, 2016.

[8] *Understanding probabilistic prediction in sentence processing*. Language Learning and Processing Lab, The Hebrew University of Jerusalem, Israel, December 27, 2015

[7] *How might entropy affect comprehension difficulty*? FEAST (Forum Entwicklung und Anwendung von Sprach-Technologien), Saarland University, Germany, December 7, 2015.

[6] *Generalization in phonotactic learning.* Linguistics Seminar, Tufts University, Cambridge, Massachusetts, February 17, 2015.

[5] *Generalization in phonotactic learning.* Computational Cognitive Science Group, MIT, Cambridge, Massachusetts, February 18, 2015.

[4] *Probabilistic representations in language: between learning and processing*. Language and Cognition Lab, Stanford University, Palo Alto, California, January 13, 2015.

[3] *Statistical prediction in language comprehension*. Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center, Israel, June 2, 2014.

[2] *Prediction and competition as a window into linguistic representations*. Colloquium talk at the Linguistics Department at Tel Aviv University, Israel, May 29, 2014.

[1] *Competition and prediction in language comprehension*. Language Processing Brown Bag, University of Illinois at Urbana-Champaign, April 10, 2014.

Invited participation in workshops

2024 *New horizons in language science: large language models, language structure, and the cognitive and neural basis of language*. National Science Foundation, Alexandria, Virginia, May 13–14.

2019 *Compositionality in Brains and Machines*, Lorentz Center, Leiden, The Netherlands, August 5–9.

2019 *Understanding Human and Machine Intelligence: A Workshop on Cognitive Science and AI*, Facebook AI Research, New York City, May 28–29.

2019 *Language as goal-directed sequential behavior*, Shonan Village Center, Japan, May 20–23.

2017 *Meaning in Context (MIC 3)*, Stanford University, Palo Alto, California, September 11–16.

Conference and workshop presentations without proceedings

2025 William Timkey, Qingyang Zhu & **Tal Linzen**. Language model surprisal underpredicts garden path effects even with limited syntactic parallelism. Poster, *38th Annual Conference on Human Sentence Processing*.

2025 Dario Paape, **Tal Linzen** & Shravan Vashishth. Modeling latent processes during garden-pathing with data from a large benchmark study. Talk, *38th Annual Conference on Human Sentence Processing*.

2024 Grusha Prasad & **Tal Linzen**. SPAWNing priming predictions with an uncertainty-based reanalysis mechanism reveals distinct representations of reduced and full relative clauses in English. Poster, *37th Annual Conference on Human Sentence Processing*, May 16–18.

2024 Suhas Arehalli & **Tal Linzen**. Syntactic Effects on Agreement Attraction in Vocab-Limited Reading Experiments. Poster, *37th Annual Conference on Human Sentence Processing*, May 16–18.

2024 William Timkey, Suhas Arehalli, Kuan-Jung Huang, Grusha Prasad, **Tal Linzen** & Brian Dillon. Large-scale eye-tracking while reading benchmark shows surprisal captures early fixations, but not regressions. Poster, *37th Annual Conference on Human Sentence Processing*, May 16–18.

2023 Grusha Prasad & **Tal Linzen**. Studying relative clause representations: a novel parsing model and priming paradigm. Oral presentation, *36th Annual Conference on Human Sentence Processing*, March 9–11. Winner of Gibson-Fedorenko Young Scholar Prize.

2022 Suhas Arehalli, Brian Dillon & **Tal Linzen**. Syntactic surprisal from neural language models tracks garden path effects. Poster, *35th Annual Conference on Human Sentence Processing*, March 24–26.

2022 Anastasia Kobzeva, Suhas Arehalli, **Tal Linzen** & Dave Kush. What can an LSTM language model learn about filler-gap dependencies in Norwegian? Poster, *35th Annual Conference on Human Sentence Processing*, March 24–26.

2022 Kuan-Jung Huang, Suhas Arehalli, Mari Kugemoto, Christian Muxica, Grusha Prasad, Brian Dillon & **Tal Linzen**. SPR mega-benchmark shows surprisal tracks construction- but not item-level difficulty. Oral presentation, The 35th Annual Conference on Human Sentence Processing, March 24–26.

2021 Suhas Arehalli, **Tal Linzen** & Geraldine Legendre. Syntactic intervention cannot explain agreement attraction in English Wh-questions. Short talk, *Architectures and Mechanisms of Language Processing (AMLaP)*, September 2–4.

2020 Grusha Prasad & **Tal Linzen**. Rapid syntactic adaptation in SPR: detectable, but only with many participants. Oral presentation, *33rd CUNY Conference on Human Sentence Processing*, Amherst, Massachusetts, March 19–21.

2020 Suhas Arehalli & **Tal Linzen**. Neural language models capture some, but not all, agreement attraction effects. Poster, *33rd CUNY Conference on Human Sentence Processing*, Amherst, Massachusetts, March 19–21.

2020 Richard T. McCoy, **Tal Linzen**, Ewan Dunbar & Paul Smolensky. Tensor Product Decomposition Networks: Uncovering representations of structure learned by neural networks. Poster, *Society for Computation in Linguistics 2020* (based on paper published in ICLR 2019), New Orleans, January 2–5.

2019 Najoung Kim & **Tal Linzen**. Compositionality as directional consistency in sequential neural networks. Poster, *NeurIPS Workshop on Context and Compositionality in Biological and Artificial Neural Systems*, Vancouver, Canada, December 14.

2019 Paul Soulos, Richard T. McCoy, **Tal Linzen** & Paul Smolensky. Uncovering the compositional structure of vector representations with Role Learning Networks. Spotlight presentation, *NeurIPS Workshop on Context and Compositionality in Biological and Artificial Neural Systems*, Vancouver, Canada, December 14.

2019 Grusha Prasad & **Tal Linzen**. How much harder are hard garden path sentences than easy ones? Poster, *41st Annual Conference of the Cognitive Science Society*, Montreal, July 24–27.

2019 Grusha Prasad & **Tal Linzen**. Reassessing the evidence for syntactic adaptation from self-paced reading studies. Poster, *32nd CUNY Conference on Human Sentence Processing*, Boulder, Colorado, March 29–31.

2019 Grusha Prasad, Marten van Schijndel & **Tal Linzen**. Using syntactic priming to investigate how recurrent neural networks represent syntax. Poster, *32nd CUNY Conference on Human Sentence Processing*, Boulder, Colorado, March 29–31.

2019 Rebecca Marvin & **Tal Linzen**. Targeted syntactic evaluation of language models. Oral presentation, *Society for Computation in Linguistics 2019* (based on paper published in EMNLP 2018), New York City, January 3–6.

2019 Kristina Gulordava, Piotr Bojanowski, Edouard Grave, **Tal Linzen** & Marco Baroni. Colorless green recurrent networks dream hierarchically. Oral presentation, *Society for Computation in Linguistics 2019* (based on paper published in NAACL 2018), New York City, January 3–6.

2018 Marten van Schijndel & **Tal Linzen**. A neural model of adaptation in reading. Poster, *Architectures and Mechanisms of Language Processing (AMLaP) 2018*, Berlin, September 6–8.

2018 Marten van Schijndel & **Tal Linzen**. Can entropy explain successor surprisal effects in reading? Poster, *Architectures and Mechanisms of Language Processing (AMLaP) 2018*, Berlin, September 6–8.

2018 R. Thomas McCoy, Robert Frank & **Tal Linzen**. Investigating hierarchical bias in the acquisition of English question formation with recurrent neural networks. Poster, *2018 Legrain conference: Learning Language in Humans and in Machines*, Paris, July 5–6.

2018 **Tal Linzen** & Brian Leonard. Agreement attraction does not depend on time pressure. Poster, *31st Annual CUNY Conference on Human Sentence Processing*, Davis, California, March 15.

2018 Robert Frank, R. Thomas McCoy & **Tal Linzen**. Neural network syntax in the age of deep learning: the case of question formation. Oral presentation, *Society for Computation in Linguistics*, Salt Lake City, Utah, January 4–7.

2018 **Tal Linzen** & Yohei Oseki. The reliability of acceptability judgments beyond English. Oral presentation (by invitation) at the symposium "Understanding Judgment Data in Syntax and Semantics: Insights from Experimental Methodologies", *Linguistic Society of America 2018 Annual Meeting*, Salt Lake City, Utah, January 4–7.

2017 **Tal Linzen**, Yoav Goldberg & Emmanuel Dupoux. Agreement attraction errors in neural networks. Poster, *30th Annual CUNY Conference on Human Sentence Processing*, Cambridge, Massachusetts, March 30–April 1.

2016 Ewan Dunbar & **Tal Linzen**. Three important properties of Bayesian inference. Tutorial, *MFM Fringe Workshop on Computational Phonology*, Manchester.

2016 **Tal Linzen**. Variation and Change in the Hebrew Dative. Oral presentation, *The Second Usage-Based Linguistics Conference*, Tel Aviv, Israel, June 16.

2016 **Tal Linzen**, Timothy J. O'Donnell & Gillian Gallagher. Rapid phonotactic generalization: Behavioral evidence and a Bayesian model. Oral presentation, *Linguistic Society of America 2016 Annual Meeting*, Washington, D.C., January 6–10.

2016 **Tal Linzen** & Yohei Oseki. The reliability of acceptability judgments beyond English. Oral presentation, *Linguistic Society of America 2016 Annual Meeting*, Washington, D.C., January 6–10.

2015 **Tal Linzen** & Timothy J. O'Donnell. A model of rapid phonotactic generalization. Poster, *Workshop on Computational Phonology and Morphology at the Linguistic Summer Institute*, Chicago, July 11.

2014 **Tal Linzen** & Gillian Gallagher. The time course of phonotactic learning. Oral presentation, *Eighth Northeast Computational Phonology Meeting*, New York City, November 15.

2014 **Tal Linzen**, Phoebe Gaston, Laura Gwilliams & Alec Marantz. Competition and prediction in the auditory processing of morphologically complex words. Poster, *Sixth Annual Society for the Neurobiology of Language Conference*, Amsterdam, August 27–29.

2014 Joseph King, **Tal Linzen** & Alec Marantz. Noun/verb entropy: An MEG study of word-level syntactic category ambiguity. Poster, *Sixth Annual Society for the Neurobiology of Language Conference*, Amsterdam, August 27–29.

2014 **Tal Linzen** & Gillian Gallagher. The time course of generalization in phonotactic learning. Member abstract presented as a poster*, 36th Annual Conference of the Cognitive Science Society*, Québec, Canada, July 23–26.

2013 Maria Gouskova & **Tal Linzen**. Less than words: Morphological effects in lexical variation. Poster, *Phonology 2013*, Amherst, Massachusetts, November 8–10.

2013 **Tal Linzen** & Florian Jaeger. Uncertainty and surprisal in sentence processing. Poster, *Architectures and Mechanisms for Language Processing (AMLaP) 2013*, Marseille, September 5–7.

2013 **Tal Linzen**, Joseph Fruchter, Masha Westerlund & Alec Marantz. Predicting the foreseeable future: MEG evidence for preactivation of predicted words. Poster, *20th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, April 13–16.

2013 Allyson Ettinger, **Tal Linzen** & Alec Marantz. The role of morphology in phoneme prediction: Evidence from MEG. Poster, *20th Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, April 13–16.

2013 **Tal Linzen**, Joseph Fruchter, Masha Westerlund & Alec Marantz. Predicting the foreseeable future: MEG evidence for preactivation of predicted words. Oral presentation, *26th Annual CUNY Conference on Human Sentence Processing*, Columbia, South Carolina, March 21–23.

2013 Allyson Ettinger, **Tal Linzen** & Alec Marantz. The role of morphology in phoneme prediction: Evidence from MEG. Poster, *26th Annual CUNY Conference on Human Sentence Processing*, Columbia, South Carolina, March 21–23.

2012 **Tal Linzen**, Alec Marantz, & Liina Pylkkänen. Syntactic effects in single word recognition: Evidence from MEG. Oral presentation, *Eighth Mental Lexicon Conference*, Montreal, October 24–26.

2012 **Tal Linzen** & Masha Westerlund. Predicting the foreseeable future: Do readers use collocational transition probability to predict upcoming words? Oral presentation, *Eighth Mental Lexicon Conference*, Montreal, October 24–26.

2012 **Tal Linzen**, Sonia Kasyanenko & Maria Gouskova. Lexical and phonological variation in Russian prepositions. Oral presentation, *Ninth Old World Conference in Phonology*, Berlin, January 18–21.

2011 **Tal Linzen**, Einat Shetreet & Naama Friedmann. Exploring the neural basis of dependency resolution using coordination sentences. Poster, *Third Annual Neurobiology of Language Conference*, Annapolis, Maryland, November 10–11.

2011 Einat Shetreet, **Tal Linzen** & Naama Friedmann. The effects of complement predictability on the processing of verbs' complementation options. Poster, *Third Annual Neurobiology of Language Conference*, Annapolis, Maryland, November 10–11.

2011 Einat Shetreet, **Tal Linzen** & Naama Friedmann. Are all complementation options activated when accessing the verb? Oral presentation, *Structuring the Argument*, Paris. September 5–7.

2010 **Tal Linzen**. Tracking the change in Hebrew possessive constructions using a blog corpus. Poster, *New Ways of Analyzing Variation 40*, Washington, D.C., October 27–30.

2010 **Tal Linzen**. Hebrew statistical linguistics using a morphologically analyzed blog corpus. Oral presentation, *Israeli Seminar on Computational Linguistics*, Tel Aviv, June 16.

2010 **Tal Linzen**. The Hebrew possessive dative: From affectedness to possession. Oral presentation, *Variation and Change in Argument Realization*, Naples, May 27–30.

Awards

2019 Finalist, Excellence in Teaching Award: Graduate Teaching and Mentoring, Krieger School of Arts and Science, Johns Hopkins University

2012 Dean's Travel Grant, New York University

2010–2015 Henry M. MacCracken Fellowship, New York University

2008–2009 Graduate fellowship, Department of Linguistics, Tel Aviv University

2008 Excellence Prize, School of Mathematics, Tel Aviv University

2007 Excellence Prize, The Adi Lautman Interdisciplinary Program for Outstanding Students, Tel Aviv University

2005–2009 Fellowship, The Adi Lautman Interdisciplinary Program for Outstanding Students, Tel Aviv University

Teaching

New York University

Spring 2026 LING-UA 61: Human Sentence Processing

Spring 2026 DS-GA 1012: Large Language Models: Evaluation and Applications

Spring 2025 DS-GA 1012: Natural Language Understanding and Computational Semantics

Fall 2024 DS-GA 3001: Computational Linguistics & Cognitive Science *(Special Topics in Data Science)*

Spring 2024 LING-UA 61: Experimental Syntax and Semantics

Spring 2023 LING-UA 102: Experimental Syntax and Semantics *(Undergraduate seminar)*

DS-GA 3001: Computational Linguistics & Cognitive Science *(Special Topics in Data Science)*

Fall 2022 DS-GA 1011: Natural Language Processing with Representation Learning

Spring 2022 DS-GA 1003: Machine Learning (with He He)

Fall 2021 LING-GA 3320: Seminar in Syntax (with Ailis Cournane)

LING-UA 102: Computational Psycholinguistics (*Undergraduate seminar)*

Fall 2020 DS-GA 1011: Natural Language Processing with Representation Learning

LING-GA 3340: Seminar in Semantics (with Sam Bowman)

Johns Hopkins University

2017–2022 AS.050.819: *Research Seminar in Psycholinguistics* (every semester)

Fall 2019 AS.050.360/660: *Computational Psycholinguistics*

AS.050.202: *Introduction to Computational Cognitive Science*

Spring 2019 AS.050.360/660: *Computational Psycholinguistics*

Fall 2018 AS.050.202: *Introduction to Computational Cognitive Science*

Fall 2017 AS.050.101: *Cognition*

New York University

2013 *Math Tools for Cognitive Science and Neuroscience* (offered by the Psychology and Neural Science department). Teaching assistant for Nathaniel Daw.

2012 *Language* (offered by the Linguistics department). Teaching assistant for Maria Gouskova.

Tel Aviv University

2008 *Foundations of Theoretical Linguistics* (offered by the Linguistics department). Teaching assistant for Aya Meltzer and Lior Laks**.**

Other

2013 Statistics workshop, NYU Linguistics (six meetings on regression and mixed-effects modeling in R, co-taught with Sean Martin).

Advising and mentoring

Postdoctoral researchers

2021–2022 Sebastian Schuster (NSF/CRA Computing Innovation Fellow)

Now: Assistant Professor, University of Vienna

2020–2024 Kristijan Armeni (jointly supervised with Christopher Honey, JHU)

2017–2019 Marten van Schijndel

Now: Assistant Professor of Linguistics, Cornell

PhD advisees

2025– Shashwat Singh (Data Science, NYU, jointly advised with He He)

2023– Jackson Petty (Linguistics, NYU)

2023–2025 Wentao Wang (Data Science, NYU, jointly advised with Brenden Lake)

2023– William Timkey (Linguistics, NYU)

2022– Michael Hu (Data Science, NYU, NSF Graduate Research Fellow, jointly advised with Kyunghun Cho)

2022– Cara Leong (Linguistics, NYU)

2021–2025 William Merrill (Data Science, NYU, NSF Graduate Research Fellow)

Now: Young Investigator, Allen Institute for AI

Starting 2026: Assistant Professor of Computer Science, Toyota Technological Institute at Chicago (TTIC)

2021–2023 Aaron Mueller (Computer Science, JHU, NSF Graduate Research Fellow, jointly advised with Mark Dredze)

Now: Assistant Professor of Computer Science, Boston University

2018–2023 Suhas Arehalli (Cognitive Science, JHU)

Now: Assistant Professor of Computer Science, Macalester College

2017–2022 Grusha Prasad (Cognitive Science, JHU)

*No*w: *Assistant Professor of Computer Science, Colgate University*

2017–2022 Tom McCoy (Cognitive Science, JHU, NSF Graduate Research Fellow, jointly advised with Paul Smolensky)

Now: Assistant Professor of Linguistics, Yale University

2019–2021 Karl Mulligan (Cognitive Science, JHU)

Master's students

2019–2020 Junghyun Min (JHU)

Undergraduate researchers

2020–2022 Aditya Yedetore (JHU Summer Provost Undergraduate Research Award)

2019–2020 Michael Lepori (JHU Computer Science senior thesis)

2018–2019 Nicholas Douglass, Daniela Torres (JHU)

NYU qualifying paper/exam committees

2025 Julia Cataldo (Linguistics)

2025 Hung-Ting Chen (Computer Science)

2023–2024 Nitish Joshi (Computer Science)

2023 Nigel Flower (Linguistics)

2021–2022 Soo-Hwan Lee (Linguistics)

2020– Francesco Mantegna (Psychology)

JHU Graduate Board Oral exams

2021 Aaron Mueller (Computer Science)

2020 Shijie Wu (Computer Science)

2018 Hsiang-Yun Sherry Chien (Psychological and Brian Sciences)

2018 Chenxi Liu (Computer Science)

2017 Adi Renduchintala (Computer Science)

Dissertation committees

2025 Verna Dankers (University of Edinburgh)

2025 Nitish Joshi (NYU, Computer Science)

2023–2024 Nur Lan (Tel Aviv University and Ecole Normale Supérieure)

2024 Byung-Doh Oh (Ohio State University, Linguistics)

2024 Jason Phang (NYU, Data Science)

2024 Nikita Nangia (NYU, Data Science)

2022 Sidharth Rangan (Indian Institute of Technology Delhi)

2022 Phu Mon Htut (NYU, Data Science)

2021–2022 Alicia Parrish (NYU, Linguistics)

2021– Anastasia Kobzeva (Norwegian University of Science and Technology, Department of Language and Literature)

2021–2022 Mostafa Abdou (University of Copenhagen)

2020–2022 Alex Warstadt (NYU, Linguistics)

2020–2021 Najoung Kim (JHU, Cognitive Science)

2019–2021 Mariya Toneva (Carnegie Mellon University, Machine Learning and Neural Computation)

2020–2021 Hsiang-Yun Sherry Chien (JHU, Psychological and Brian Sciences)

2019–2020 Jane Lutken (JHU, Cognitive Science)

2019 Dingquan Wang (JHU, Computer Science)

Service

Departmental service (NYU)

2024– Director of Graduate Studies, Linguistics

2022–2024 Data Science Faculty Fellow search coordinator

2020– Co-organizer, text-as-data seminar

Departmental service (JHU Cognitive Science)

2019–2020 Chair, colloquium committee

2017–2019 Co-chair, colloquium committee

2017–2019 Brown Bag talk series organizer (except Spring 2018)

Conference and workshop organizing

2019 *Context and Compositionality in Biological and Artificial Neural Systems*, co-located with the 2019 Conference on Neural Information Processing Systems (NeurIPS), Vancouver, Canada, December 14 (co-organizer).

2019 *BlackboxNLP: Analyzing and interpreting neural networks for NLP*, co-located with the Association for Computational Linguistics (ACL), Florence, Italy, August 1 (co-organizer).

2019 *The 2019 Workshop on Cognitive Modeling and Computational Linguistics*, co-located with the North American Chapter of the Association for Computational Linguistics (NAACL), Minneapolis, MN, June 7 (co-organizer).

2018 *BlackboxNLP: Analyzing and interpreting neural networks for NLP*, co-located with Empirical Methods in Natural Language Processing (EMNLP), Brussels, Belgium, November 1 (co-organizer).

2018 *The 2018 Workshop on Cognitive Modeling and Computational Linguistics*, co-located with the Society for Computational in Linguistics (SCiL) and the Linguistic Society of America (LSA), Salt Lake City, Utah, January 7 (co-organizer).

2017 *The 2017 Workshop on Cognitive Modeling and Computational Linguistics*, co-located with the Conference of the European Chapter of the Association for Computational Linguistics, Valencia, Spain, April 3 (co-organizer).

Editorial responsibilities for journals

2024– Member of the editorial board, *Glossa: Psycholinguistics*.

2021– Action editor, *Computational Linguistics*.

2018– Standing reviewing team member, *Transactions of the Association for Computational Linguistics*.

2022–2024 Action editor, *Glossa: Psycholinguistics*.

Editorial responsibilities for scientific meetings

2025 Senior Area Chair, *Conference on Empirical Methods in Natural Language Processing* (EMNLP).

2025 Area Chair, *Conference on Language Modeling* (COLM)

2024 Senior Area Chair, *Conference on Empirical Methods in Natural Language Processing* (EMNLP).

2024 Paper Awards Committee, *Association for Computational Linguistics* (ACL).

2024 Area Chair, *Conference on Language Modeling* (COLM).

2024 Senior Area Chair, *North American Chapter of the ACL* (NAACL).

2022 Action Editor, *Cognitive Science Society* (CogSci).

2021 Area Chair, *Association for Computational Linguistics* (ACL).

2020 Co-Chair, *CoNLL 2020 (The SIGNLL Conference on Computational Natural Language Learning)*, Online, November 19–20.

2019 Area Chair (Language and Computation), *European Summer School in Logic, Language and Information*, Riga, Latvia, August 5–16.

2018 Technical chair, Learning Language in Humans and in Machines, Paris, France, July 5–6.

2018 Area chair, 27th International Conference on Computational Linguistics (COLING 2018), Santa Fe, New Mexico, August 20–26.

Grant review panels

2025 Social, Behavioral and Economic Sciences (SBE), National Science Foundation.

2022 Computer and Information Science and Engineering (CISE), National Science Foundation.

Ad-hoc grant proposal reviewing

2025 Israel–United States Binational Science Foundation (1), Canada Foundation for Innovation, Vienna Science and Technology Fund.

2024 National Science Foundation (1).

2022 National Science Foundation (1), Natural Sciences and Engineering Research Council of Canada (NSERC), Israeli Science Foundation.

2021 Israel–United States Binational Science Foundation (1), National Science Foundation (2), European Research Council (1).

2020 National Science Foundation (1).

2019 National Science Foundation (1).

2018 National Science Foundation (1).

Ad-hoc journal reviewing

2025 Nature Machine Intelligence; Language Acquisition; Proceedings of the National Academy of Sciences.

2024 Science; Journal of Memory and Language.

2023 Computational Linguistics; Open Mind; Trends in Cognitive Sciences.

2022 Cognitive Science; Nature Neuroscience; Proceedings of the National Academy of Sciences.

2021 Cognitive Science; Frontiers in Artificial Intelligence; Frontiers in Psychology; Linguistic Inquiry.

2020 Cognition; Journal of Language Modeling; Journal of Memory and Language; Transactions of the Association for Computational Linguistics.

2019 Journal of Memory and Language; Language, Cognition & Neuroscience; Proceedings of the National Academy of Sciences; Trends in Cognitive Sciences.

2018 Cognition; Glossa; Language, Cognition & Neuroscience.

2017 Journal of Memory and Language; Language; Language, Cognition & Neuroscience; Neuroscience & Biobehavioral Reviews; PLOS Computational Biology.

2016 Brain and Language; Cognition (x3); Frontiers in Human Neuroscience; Journal of Neuroscience.

2015 Cortex; Language, Cognition & Neuroscience; Phonology.

2014 Cognitive Science; Lingua.

2013 Phonology; Language and Cognitive Processes; The Mental Lexicon.

Conference reviewing

2025 ACL Rolling Review; Society for Computation in Linguistics (SCiL); NeurIPS.

2024 ACL Rolling Review; Cognitive Modeling and Computational Linguistics (CMCL), Human Sentence Processing (HSP).

2023 ACL Rolling Review; Human Sentence Processing (HSP).

2022 ACL Rolling Review; Human Sentence Processing (HSP).

2021 ACL Rolling Review; Computational Natural Language Learning (CoNLL); Workshop on Insights from Negative Results in NLP; Society for Computation in Linguistics (SCiL).

2020 Architectures and Mechanisms for Language Processing (AMLaP); Blackbox NLP (EMNLP workshop); Bridging AI and Cognitive Science Workshop; Cognitive Science Society; Deep Learning Inside Out (EMNLP workshop); The CUNY Sentence Processing Conference; Conference on Neural Information Processing Systems (NeurIPS); Society for Computation in Linguistics (SCiL); Workshop on Insights from Negative Results in NLP.

2019 Association for Computational Linguistics (ACL); Cognitive Science Society; Empirical Methods in Natural Language Processing (EMNLP); Joint Conference on Lexical and Computational Semantics (*SEM); Workshop on Evaluating Vector Space Representations for NLP (RepEval); Society for Computation in Linguistics (SCiL); The CUNY Sentence Processing Conference.

2018 Association for Computational Linguistics (ACL); The CUNY Sentence Processing Conference; Empirical Methods in Natural Language Processing (EMNLP); International Conference on Learning Representations (ICLR); Society for Computation in Linguistics (SCiL).

2017 Association for Computational Linguistics (ACL); Computational Natural Language Learning (CoNLL); Empirical Methods in Natural Language Processing (EMNLP); Society for Computation in Linguistics (SCiL); Society for the Neurobiology of Language (SNL).

2016 Computational Natural Language Learning (CoNLL); CUNY Sentence Processing Conference; Deutsche Gesellschaft für Sprachwissenschaft; Empirical Methods in Natural Language Processing (EMNLP); European Association for Computational Linguistics (EACL); International Conference on Computational Linguistics (COLING); Penn Linguistics Colloquium; Usage-Based Linguistics Conference; Society for the Neurobiology of Language (SNL).

2015 Empirical Methods in Natural Language Processing (EMNLP); Israeli Association for Theoretical Linguistics.

2014 Penn Linguistics Colloquium.