

R. Thomas McCoy

Department of Linguistics
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EMPLOYMENT

- 2024–present Yale University: Assistant Professor
Department of Linguistics (primary appointment)
Department of Computer Science (secondary appointment)
Wu Tsai Institute (affiliated faculty member)
- 2022–2023 Princeton University: Postdoctoral Fellow in Computer Science
Advisor: Thomas Griffiths

EDUCATION

- 2017–2022 Johns Hopkins University: Ph.D. in Cognitive Science. GPA: 4.0.
Dissertation title: *Implicit compositional structure in the vector representations of artificial neural networks*
Advisors: Tal Linzen, Paul Smolensky
- 2013–2017 Yale University: B.A. in Linguistics, *summa cum laude*, distinction in the major. GPA: 4.0.
Thesis title: *Pivot-based word alignment*
Advisor: Robert Frank

AWARDS

1. Fellowships

- 2022–2023 NSF SBE Postdoctoral Research Fellowship
Project title: Investigating inductive biases for language acquisition with meta-learning
- 2018–2021 NSF Graduate Research Fellowship
Project title: Assessing the capacity of computational models to make linguistic generalizations
- 2021 Sweitzer Fellow
Fellowship awarded by the Johns Hopkins Department of Cognitive Science to one graduate student.

- 2020 Finalist: Facebook Fellowship
One of four finalists in the Natural Language Processing category; two of the four finalists received fellowships.
- 2017–2020 Owen Scholars Fellowship
Fellowship for outstanding incoming Johns Hopkins PhD students in the natural sciences.
- 2017 Finalist: Rhodes Scholarship
- 2017 Finalist: Marshall Scholarship

2. Prizes

- 2024 Glushko Dissertation Prize
Awarded by the Cognitive Science Society and the Glushko-Samuelson Foundation to recognize dissertations that “centrally address issues of interest to multiple fields that comprise cognitive science, including psychology, computer science, philosophy, linguistics, anthropology, neuroscience, and education.”
- 2022 Solver’s Choice Award at the International Linguistics Olympiad
Awarded to an Olympiad problem writer based on a survey asking Olympiad contestants to name their favorite problem from that year (out of five).
- 2017 Alpheus Henry Snow Prize
Award for the graduating Yale senior who is “adjudged by the faculty to have done the most for Yale by inspiring in his or her classmates an admiration and love for the best traditions of high scholarship.”
- 2016 Hart Lyman Prize
Award for the Yale junior who “has made through his/her own efforts the best record intellectually and socially.”
- 2016 Phi Beta Kappa
One of 13 Yale students admitted as juniors.
- 2013 World champion team at the International Linguistics Olympiad
Member of the four-person U.S. team selected by the North American Computational Linguistics Olympiad.
- 2013 United States Presidential Scholar
One of two for Pennsylvania.

3. Grants

- 2019 NeurIPS Travel Grant
Grant to fund travel to present work at the NeurIPS workshop on Context and Compositionality in Biological and Artificial Neural Systems.

- 2019 ICLR Travel Grant
Grant to fund travel to present two projects at the 2019 ICLR conference.
- 2018–2019 Johns Hopkins University Center for Educational Resources Technology Fellowship Grant
Co-Grantee: Tal Linzen
Grant to develop interactive visualizations of concepts in computational cognitive science.

PEER-REVIEWED PUBLICATIONS

- 2025 Takateru Yamakoshi, Thomas L. Griffiths, **R. Thomas McCoy**, and Robert D. Hawkins. [Evaluating distillation methods for data-efficient syntax learning.](#) *Findings of EMNLP*.
- 2025 **R. Thomas McCoy** and Thomas L. Griffiths. [Modeling rapid language learning by distilling Bayesian priors into artificial neural networks.](#) *Nature Communications*.
- 2025 Simeng Han, Stephen Xia, Grant Zhang, Howard Dai, Chen Liu, Lichang Chen, Hoang Huy Nguyen, Hongyuan Mei, Jiayuan Mao, and **R. Thomas McCoy**. [Creativity or Brute Force? Using Brainteasers as a Window into the Problem-Solving Abilities of Large Language Models.](#) *NeurIPS*.
- 2025 Gianluca Bencomo, Max Gupta, Ioana Marinescu, **R. Thomas McCoy**, and Thomas L. Griffiths. Teasing Apart Architecture and Initial Weights as Sources of Inductive Bias in Neural Networks. Accepted to *Proceedings of the 47th Annual Conference of the Cognitive Science Society*. Preprint available at <https://arxiv.org/abs/2502.20237>.
- 2025 Max Gupta, Sunayana Rane, **R. Thomas McCoy**, and Thomas L. Griffiths. Convolutional Neural Networks Can (Meta-) Learn the Same-Different Relation. Accepted to *Proceedings of the 47th Annual Conference of the Cognitive Science Society*. Preprint available at <https://arxiv.org/abs/2503.23212>.
- 2025 Zhenghao Herbert Zhou, Robert Frank, and **R. Thomas McCoy**. [Is In-Context Learning a Type of Gradient-Based Learning? Evidence from the Inverse Frequency Effect in Structural Priming.](#) *Proceedings of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL)*.
- 2025 Nathan A. Chi, Teodor Malchev, Riley Kong, Ryan A. Chi, Lucas Huang, Ethan A. Chi, **R. Thomas McCoy**, Dragomir Radev. [ModeLing: A novel dataset for testing linguistic reasoning in language models.](#) *Eighth Workshop on Technologies for Machine Translation of Low-Resource Languages (LoResMT 2025)*.
- 2024 **R. Thomas McCoy**, Shunyu Yao, Dan Friedman, Mathew Hardy, and Thomas L. Griffiths. [Embers of autoregression show how large language models are shaped by the problem they are trained to solve.](#) *Proceedings of the National Academy of Sciences*.

- 2024 Akshara Prabhakar, Thomas L. Griffiths, and **R. Thomas McCoy**. [Deciphering the factors influencing the efficacy of chain-of-thought: Probability, memorization, and noisy reasoning](#). *Findings of EMNLP*.
- 2024 **R. Thomas McCoy** and Thomas L. Griffiths. [Meta-learning as a bridge between neural networks and symbolic Bayesian models: Commentary on “Meta-learned models of cognition”](#). *Behavioral and Brain Sciences*.
- 2024 Ioana Marinescu, **R. Thomas McCoy**, and Thomas L. Griffiths. [Distilling Symbolic Priors for Concept Learning into Neural Networks](#). *Proceedings of the 46th Annual Conference of the Cognitive Science Society*.
- 2024 Thomas L. Griffiths, Jian-Qiao Zhu, Erin Grant, and **R. Thomas McCoy**. [Bayes in the age of intelligent machines](#). *Current Directions in Psychological Science*.
- 2023 Aditya Yedetore, Tal Linzen, Robert Frank, and **R. Thomas McCoy**. [How poor is the stimulus? Evaluating hierarchical generalization in neural networks trained on child-directed speech](#). *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*.
- 2023 **R. Thomas McCoy**, Paul Smolensky, Tal Linzen, Jianfeng Gao, and Asli Celikyilmaz. [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 (TACL)*.
- 2023 Thomas L. Griffiths, Sreejan Kumar, and **R. Thomas McCoy**. On the hazards of relating representations and inductive biases: Commentary on “The Best Game in Town: The Re-Emergence of the Language of Thought Hypothesis Across the Cognitive Sciences”. *Behavioral and Brain Sciences*.
- 2022 Paul Smolensky, **R. Thomas McCoy**, Roland Fernandez, Matthew Goldrick, and Jianfeng Gao. [Neurocompositional computing: From the central paradox of cognition to a new generation of AI systems](#). *AI Magazine*.
- 2021 **R. Thomas McCoy**, Jennifer Culbertson, Paul Smolensky, and Géraldine Legendre. [Infinite use of finite means? Evaluating the generalization of center embedding learned from an artificial grammar](#). In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*.
- 2021 Paul Soulos, Sudha Rao, Caitlin Smith, Eric Rosen, Asli Celikyilmaz, **R. Thomas McCoy**, Yichen Jiang, Coleman Haley, Roland Fernandez, Hamid Palangi, Jianfeng Gao and Paul Smolensky. [Structural Biases for Improving Transformers on Translation into Morphologically Rich Languages](#). In *Proceedings of the 4th Workshop on Technologies for Machine Translation of Low Resource Languages (LoResMT2021)*.
- 2020 **R. Thomas McCoy**, Erin Grant, Paul Smolensky, Thomas L. Griffiths, and Tal Linzen. [Universal linguistic inductive biases via meta-learning](#). In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

- 2020 **R. Thomas McCoy**, Robert Frank, and Tal Linzen. [Does syntax need to grow on trees? Sources of hierarchical inductive bias in sequence-to-sequence networks.](#) *Transactions of the Association for Computational Linguistics (TACL)*.
- 2020 Michael Lepori and **R. Thomas McCoy**. [Picking BERT’s brain: Analyzing contextualized embeddings using Representational Similarity Analysis.](#) In *Proceedings of the 28th International Conference on Computational Linguistics (COLING)*.
- 2020 Paul Soulos, **R. Thomas McCoy**, Tal Linzen, and Paul Smolensky. [Uncovering the compositional structure of vector representations with Role Learning Networks.](#) In *BlackboxNLP: Analyzing and Interpreting Neural Networks for NLP*.
- 2020 Michael Lepori, Tal Linzen, and **R. Thomas McCoy**. [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)*.
- 2020 Junghyun Min, **R. Thomas McCoy**, Dipanjan Das, Emily Pitler, and Tal Linzen. [Syntactic data augmentation increases robustness to inference heuristics.](#) In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*.
- 2020 **R. Thomas McCoy**, Junghyun Min, and Tal Linzen. [BERTs of a feather do not generalize together: Large variability in generalization across models with similar test set performance.](#) In *BlackboxNLP: Analyzing and Interpreting Neural Networks for NLP*.
- 2019 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. [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)*.
Best paper award at *SEM 2019.
- 2019 **R. Thomas McCoy**, Tal Linzen, Ewan Dunbar, and Paul Smolensky. [RNNs implicitly implement tensor-product representations.](#) *International Conference on Learning Representations (ICLR)*.
- 2019 Ian Tenney, Patrick Xia, Berlin Chen, Alex Wang, Adam Poliak, **R. Thomas McCoy**, Najoung Kim, Benjamin Van Durme, Samuel R. Bowman, Dipanjan Das, and Ellie Pavlick. [What do you learn from context? Probing for sentence structure in contextualized word representations.](#) *International Conference on Learning Representations (ICLR)*.
- 2019 **R. Thomas McCoy**, Ellie Pavlick, and Tal Linzen. [Right for the Wrong Reasons: Diagnosing Syntactic Heuristics in Natural Language Inference.](#) *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*.

- 2019 Samuel R. Bowman, Ellie Pavlick, Edouard Grave, Benjamin Van Durme, Alex Wang, Jan Hula, Patrick Xia, Raghavendra Pappagari, **R. Thomas McCoy**, Roma Patel, Najoung Kim, Ian Tenney, Yinghui Huang, Katherin Yu, Shuning Jin, and Berlin Chen. [Can You Tell Me How to Get Past Sesame Street? Sentence-Level Pretraining Beyond Language Modeling](#). *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*.
- 2019 **R. Thomas McCoy** and Tal Linzen. [Non-entailed subsequences as a challenge for natural language inference](#). In *Proceedings of the Society for Computation in Linguistics (SCiL) 2019*.
- 2018 **R. Thomas McCoy**, Robert Frank, and Tal Linzen. [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*.
- 2018 Patrick Littell, **R. Thomas McCoy**, Na-Rae Han, Shruti Rijhwani, Zaid Sheikh, David Mortensen, Teruko Mitamura, and Lori Levin. [Parser combinators for Tigrinya and Oromo morphology](#). In *Language Resources and Evaluation Conference (LREC) 2018*.
- 2018 **R. Thomas McCoy** and Robert Frank. [Phonologically Informed Edit Distance Algorithms for Word Alignment with Low-Resource Languages](#). In *Proceedings of the Society for Computation in Linguistics (SCiL) 2018*.
- 2017 Jungo Kasai, Robert Frank, **R. Thomas McCoy**, Owen Rambow, and Alexis Nasr. [TAG parsing with neural networks and vector representations of supertags](#). In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (EMNLP)*.
- 2017 Dan Friedman*, Jungo Kasai*, **R. Thomas McCoy***, Robert Frank, Forrest Davis, and Owen Rambow. [Linguistically Rich Vector Representations of Supertags for TAG Parsing](#). In *Proceedings of the 13th International Workshop on Tree Adjoining Grammars and Related Formalisms*.
*Equal contribution.
- 2017 **R. Thomas McCoy**. [English comparatives as degree-phrase relative clauses](#). In *Proceedings of the Linguistic Society of America 2*.

WORK IN PREPARATION

R. Thomas McCoy. Not-so-strange love: Language models and generative linguistic theories are more compatible than they appear. Commentary on “How Linguistics Learned to Stop Worrying and Love the Language Models”.

Xiaomeng Zhu, **R. Thomas McCoy**, and Robert Frank. The Structural Sources of Verb Meaning Revisited: Large Language Models Display Syntactic Bootstrapping. Preprint available at <https://arxiv.org/pdf/2508.12482>.

Thomas L. Griffiths, Brenden M. Lake, **R. Thomas McCoy**, Ellie Pavlick, Taylor W. Webb. Whither symbols in the era of advanced neural networks? Preprint available at <https://arxiv.org/pdf/2508.05776?>.

Ioana Marinescu, **R. Thomas McCoy**, and Thomas L. Griffiths. Neural Networks Can Capture Human Concept Learning Without Assuming Symbolic Representations. Preprint available at https://osf.io/preprints/psyarxiv/3qjfg_v1.

Alexander Ku, Declan Campbell, Xuechunzi Bai, Jiayi Geng, Ryan Liu, Raja Marjeh, **R. Thomas McCoy**, Andrew Nam, Ilia Sucholutsky, Veniamin Veselovsky, Liyi Zhang, Jian-Qiao Zhu, and Thomas L. Griffiths. Using the Tools of Cognitive Science to Understand Large Language Models at Different Levels of Analysis. Preprint available at <https://arxiv.org/abs/2503.13401>.

Leroy Z. Wang, **R. Thomas McCoy**, and Shane Steinert-Threlkeld. Minimization of Boolean Complexity in In-Context Concept Learning. Preprint available at <https://arxiv.org/abs/2412.02823>.

Liyi Zhang, **R. Thomas McCoy**, Theodore R. Sumers, Jian-Qiao Zhu, and Thomas L. Griffiths. Deep de Finetti: Recovering Topic Distributions from Large Language Models. Under review. Preprint available at <https://arxiv.org/abs/2312.14226>.

R. Thomas McCoy, Tal Linzen, and Paul Smolensky. DISCOVER: A framework for dissecting compositionality in vector representations.

UNPUBLISHED CONFERENCE PRESENTATIONS

- 2020 **R. Thomas McCoy**, Tal Linzen, Ewan Dunbar, and Paul Smolensky. Tensor product decomposition networks: Uncovering representations of structure learned by neural networks. Poster presentation, *Society for Computation in Linguistics*, New Orleans, Louisiana, January 2.
- 2018 **R. Thomas McCoy**, Robert Frank, and Tal Linzen. Investigating hierarchical bias in the acquisition of English question formation with recurrent neural networks. Poster presentation, *2018 Legrain conference: Learning Language in Humans and in Machines*, Paris, France, July 6.
- 2018 Robert Frank, **R. Thomas McCoy**, and 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 5.
- 2017 Patrick Littell, **R. Thomas McCoy**, and Lori Levin. The North American Computational Linguistics Olympiad. Oral presentation, in Datablitz: Getting High School Students into Linguistics: Current Activities and Future Directions, *Linguistic Society of America Annual Meeting*, Austin, Texas, January 7.

NON-PEER-REVIEWED PAPERS

- 2024 **R. Thomas McCoy**, Shunyu Yao, Dan Friedman, Mathew D. Hardy, and Thomas L. Griffiths. [When a language model is optimized for reasoning, does it still show embers of autoregression? An analysis of OpenAI o1.](#)
- 2019 **R. Thomas McCoy**. [Touch down in Pittsburghese.](#) *Yale Working Papers in Grammatical Diversity*.

INVITED TALKS

- 2026 Colloquium speaker at the Language Technologies Institute, Carnegie Mellon University. January 30, 2026.
Title TBD.
- 2025 NLP and Text-as-Data Speaker Series, New York University. October 16, 2025.
How do neural networks represent compositional symbolic structure?.
- 2025 Inaugural speaker for the Center for Language, Intelligence, and Computation, University of California, Irvine. October 14, 2025.
A Top-Down Perspective on Language Models: Reconciling Neural Networks and Bayesian Inference.
- 2025 Invited speaker at the Safer With Google Summit. October 9, 2025.
Embers of Autoregression: Understanding AI systems by understanding what they were trained to do.
- 2025 Linguistics Department Colloquium, University of California, Berkeley. October 6, 2025.
Using neural networks to test hypotheses about language acquisition.
- 2025 Invited speaker at the Mind Workshop at Columbia. August 7, 2025.
What type of computational system is the mind?
- 2025 Invited speaker at the Rumelhart 25th Anniversary Event at the Annual Meeting of the Cognitive Science Society. July 30, 2025.
Language and Neural Networks.
- 2025 Online seminar on Interactions between Formal and Computational Linguistics (ILFC). June 11, 2025.
Bridging the Divide Between Linguistics and NLP: From Vectors to Symbols and Back Again
- 2025 UChicago/TTIC NLP Seminar. May 22, 2025.
Bridging the Divide Between Linguistics and NLP: From Vectors to Symbols and Back Again
- 2025 Natural Language Processing seminar at MIT. May 14, 2025.
Bridging the Divide Between Linguistics and NLP: From Vectors to Symbols and Back Again

- 2025 Integrated Language Science and Technology (ILST) seminar at the University of Pennsylvania. April 11, 2025.
Bridging the Divide Between Linguistics and Artificial Intelligence: From Vectors to Symbols and Back Again
- 2025 Computer Science Colloquium talk at UMass Lowell. March 28, 2025.
Understanding the abilities of AI systems: Memorization, generalization, and points in between
- 2024 Invited talk at the workshop on “Unknown Futures of Generalization” at the Simons Institute for the Theory of Computing. December 5, 2024.
Understanding the abilities of AI systems: Memorization, generalization, and points in between
- 2024 Debate with Sebastián Bubeck at the Simons Institute for the Theory of Computing. December 5, 2024.
Sparks vs. Embers
- 2024 Linguistics Department Colloquium, University of California, Davis. November 4, 2024.
Bridging the Divide Between Linguistics and Artificial Intelligence: From Vectors to Symbols and Back Again
- 2024 Linguistics Department Colloquium, Stanford University. November 1, 2024.
Bridging the Divide Between Linguistics and Artificial Intelligence: From Vectors to Symbols and Back Again
- 2024 Linguistics Department Colloquium, The Ohio State University. September 26, 2024.
Bridging the Divide Between Linguistics and Artificial Intelligence: From Vectors to Symbols and Back Again
- 2024 Cognitive Science Colloquium, University of Arizona. September 13, 2024.
Understanding and controlling neural networks through the problem they are trained to solve
- 2024 Workshop on “In-context learning in Natural and Artificial Intelligence” at CogSci 2024. July 24, 2024.
Understanding and controlling language models via the problem they are trained to solve
- 2023 Keynote speaker: ACL Student Research Workshop. November 1, 2023.
Understanding and controlling neural networks through the problem they are trained to solve
- 2023 MIT Center for Constructive Communication. October 31, 2023.
Embers of Autoregression: Understanding large language models through the problem they are trained to solve
- 2023 MilaNLP Lab @ Bocconi University. October 27, 2023.

Embers of Autoregression: Understanding large language models through the problem they are trained to solve

- 2023 UT Austin CompLing Research Seminar. October 4, 2023.
Modeling rapid language learning by distilling Bayesian priors into artificial neural networks
- 2023 Santa Fe Institute workshop: AI and the Barrier of Meaning 2. April 24, 2023.
Bridging the Divide Between Vectors and Symbols
- 2022 Brown University panel on compositionality. October 13, 2022.
Compositionality in vector space
- 2022 Google NLX Conversation Group Meeting. January 27, 2022.
How much do language models copy from their training data? Evaluating linguistic novelty in text generation using RAVEN.
- 2021 Montreal Computational and Quantitative Linguistics Lab at McGill (MCQLL). October 26, 2021.
Discovering implicit compositional representations in neural networks
- 2021 Edinburgh Centre for Language Evolution. September 28, 2021.
How do neural networks represent compositional symbolic structure?
- 2021 USC ISI Natural Language Seminar. April 15, 2021.
Universal linguistic inductive biases via meta-learning.
- 2020 DeepMind language reading group. December 7, 2020.
Analyzing the syntactic inductive biases of sequence-to-sequence networks.
- 2020 Berkeley NLP Seminar. October 16, 2020.
Analyzing the syntactic inductive biases of sequence-to-sequence networks.
- 2020 NLP With Friends seminar series. August 12, 2020.
Universal linguistic inductive biases via meta-learning.
- 2019 Workshop on Gradient Symbolic Computation. Johns Hopkins University. September 19, 2019.
Tensor product decomposition of continuous vector representations
- 2018 Microsoft Research, Redmond. December 11, 2018.
Discovering the compositional structure implicitly learned by neural networks

TEACHING

Spring 2025	Yale University Role: Instructor Course: Computational Psycholinguistics <i>Developing course and delivering lectures</i>
Spring 2024 Fall 2024	Yale University Role: Instructor Course: Language and Computation <i>Developing course and delivering lectures</i>
Fall 2022	Princeton University Role: Project Advisor Course: Probabilistic Models of Cognition Lecture Instructor: Tom Griffiths <i>Advised final research projects for seven students.</i>
Spring 2020	Johns Hopkins University Role: Teaching Assistant Course: Foundations of Cognitive Science Lecture Instructor: Paul Smolensky <i>Led one seminar discussion and graded assignments.</i>
Fall 2019	Johns Hopkins University Role: Teaching Assistant, Lab Instructor Course: Computational Psycholinguistics Lecture Instructor: Tal Linzen <i>Led lab sessions and graded assignments.</i>
Spring 2019	Johns Hopkins University Role: Teaching Assistant Course: Syntax I Lecture Instructor: Géraldine Legendre <i>Led review sessions and graded assignments.</i>
Fall 2018	Johns Hopkins University Role: Teaching Assistant Course: Introduction to Computational Cognitive Science Lecture Instructor: Tal Linzen <i>Created educational simulations, tutorials, and homeworks in Javascript and Jupyter and taught lectures using these resources.</i>
Spring 2018	Johns Hopkins University Role: Fieldwork Instructor Course: World of Language Lecture Instructor: Géraldine Legendre <i>Led two sections of weekly fieldwork sessions complementing lectures.</i>

Summer 2015 Linguistic Society of America Summer Institute
Role: Workshop Co-Instructor
Course: Linguistic Enigmatography
Co-Instructor: Lori Levin
Developed and co-taught a one-week workshop on creating linguistic puzzles.

MENTORING

PhD students

2025–present Kaya Stechly
PhD advisor; co-advised by Tyler Brooke-Wilson.

2024–present Miranda Zhu
PhD advisor; co-advised by Bob Frank.

2024–present Herbert Zhou
PhD advisor; co-advised by Bob Frank.

2024–present Enyan Zhang
PhD advisor.

Master's students

2024 Yining Wang
Independent study advisor.

2023–2024 Akshara Prabhakar
Research advisor; co-supervised with Tom Griffiths.

2019–2020 Junghyun Min
Research advisor; co-supervised with Tal Linzen.

2019–2020 Paul Soulos
Research advisor; co-supervised with Paul Smolensky.

Undergraduate students

2025–present Darren Kao
Research advisor.

2025–present Deja Dunlap
Senior thesis advisor (Major: Applied Mathematics).

2025–present Mandy Osuji
Senior thesis advisor (Major: Computing & Linguistics).

2025–present	Claire Hobbs <i>Senior thesis advisor (Major: Cognitive Science).</i>
2025	Jordan Romano <i>Senior thesis advisor (Major: Applied Mathematics).</i>
2024–2025	Breanna Nguyen <i>Senior thesis advisor (Major: Cognitive Science); co-advised with primary advisor Joshua Knobe.</i>
2024–2025	Hannah Szabó <i>Senior thesis advisor (Major: Computing & Linguistics).</i>
2024–present	Abi Tenenbaum <i>Independent study advisor.</i>
2024	Katelyn DeKeersgieter <i>Senior thesis advisor (Major: Applied Mathematics).</i>
2024	Madeline Gupta <i>Senior thesis advisor (Major: Statistics & Data Science).</i>
2023–2024	Ioana Marinescu <i>Research advisor; co-supervised with Tom Griffiths.</i>
2019–2022	Aditya Yedetore <i>Research advisor; co-supervised with Tal Linzen.</i>
2019–2020	Michael Lepori <i>Research advisor; co-supervised with Tal Linzen.</i>

Dissertation committees

Ongoing	Michael Stern <i>Yale University, Linguistics</i>
Ongoing	Bjarki Ármannsson <i>University of Iceland, Icelandic Linguistics</i>
2025	Simeng Han <i>Yale University, Computer Science</i>
2025	Tatsuya Aoyama <i>Georgetown University, Linguistics</i>
2024	Linyong Nan <i>Yale University, Computer Science</i>

OUTREACH AND CONTRIBUTIONS TO DIVERSITY

2013–present	<p>North American Computational Linguistics Olympiad (NACLO).</p> <p><i>Contest that introduces high school students to computational linguistics, with 1000 to 1500 students participating each year. Last year, 42% of participants were female, a high proportion for a computational initiative. National level: Co-Program Chair; problem writer (25 problems to date). Local level: Co-founder and co-organizer of the Yale contest site (2013–2017); co-organizer of the Johns Hopkins contest site (2017–2021); co-organizer of the Princeton contest site (2022–2023); organizer of pre-contest practice sessions at all three sites.</i></p>
2024	<p>Large Language Model tutorial hosted by SAL2.</p> <p><i>Co-created and co-ran tutorial for Yale faculty about large language models (LLMs), along with Claire Bower, Robert Frank, Maria Piñango, Natalie Weber, and Raffaella Zanuttini, sponsored by the Scholars as Leaders, Scholars as Learners initiative (SAL2).</i></p>
2020–2022	<p>Johns Hopkins Cognitive Science Representation and Diversity Committee</p> <p><i>Co-created and co-organized a program for giving feedback on PhD applications to prospective students who belong to underrepresented groups. Served as a mentor for 6 prospective students.</i></p>
2020	<p>Johns Hopkins Cognitive Science syllabus section for raising awareness about research and graduate school.</p> <p><i>With one other graduate student, wrote a statement that faculty members added to their syllabi and course discussions describing how to pursue research opportunities and graduate school, in order to raise awareness of these opportunities among a broader group of undergraduates.</i></p>
2020	<p>Public talk for the National Museum of Language: <i>Language Squared: The Linguistics of Crosswords.</i></p>
2018–2019	<p>International Linguistics Olympiad (IOL): Problem writer.</p>
2016	<p>Yale Grammatical Diversity Project</p> <p><i>Authored two webpages describing regional grammatical phenomena (all the further, subject contact relatives).</i></p>
2013–2017	<p>Linguistics teaching initiatives</p> <p><i>Designed and taught a one-lecture linguistics class to high school students in New Haven in connection with the programs Splash, Sprout, and Math Mornings. Presented 8 times to groups ranging from 25 to 50 students.</i></p>

SERVICE

2024–present	Yale Department of Linguistics website committee.
2024–2025	Yale Department of Linguistics colloquium committee.
2024	*SEM Publication Chair.
2022	CoNLL Publication Chair.

2019–2022	Departmental representative for the Department of Cognitive Science in the Johns Hopkins Graduate Representative Organization.
2016–2017	Computational Linguistics at Yale (CLAY) reading group: Co-organizer.
2015–2017	Yale Undergraduate Linguistics Society: Co-founder (2015), president (2015–2016), treasurer (2016–2017).

REVIEWING

2025	Journal reviewer: Journal of Memory and Language.
2025	Conference reviewer: ACL Rolling Review.
2025	Conference reviewer: CogSci 2025.
2024	Journal reviewer: Journal of Memory and Language.
2024	Journal reviewer: Language, Cognition, and Neuroscience.
2024	Journal reviewer: Open Mind.
2024	Conference area chair: COLM.
2024	Conference reviewer: ACL Rolling Review.
2023	Journal reviewer: Trends in Cognitive Sciences.
2023	Journal reviewer: Cognitive Science.
2023	Journal reviewer: British Journal for the Philosophy of Science.
2023	Conference reviewer: ICLR.
2023	Journal reviewer: TMLR.
2023	Conference reviewer: NeurIPS.
2023	Conference area chair: ACL 2023. Recognized as an outstanding area chair.
2023	Conference reviewer: CogSci 2023.
2023	Journal reviewer: Language and Speech.
2022	Conference reviewer: EMNLP 2022.
2022	Journal reviewer: Cognitive Psychology.
2022	Journal reviewer: Transactions on Machine Learning Research.
2022	Journal reviewer: Journal of Language Evolution.
2021	Workshop reviewer: SCiL 2022.
2021	Workshop reviewer: BlackboxNLP 2021.
2021	Journal reviewer: Natural Language Engineering.
2021	Conference reviewer: EMNLP 2021. Recognized as an outstanding reviewer.
2020	Conference reviewer: CoNLL 2020.
2020	Conference reviewer: EMNLP 2020. Recognized as an outstanding reviewer.
2020	Conference reviewer: ACL 2020.
2019	Journal reviewer: Language Acquisition.
2019	Conference reviewer: CoNLL 2019.
2018	Conference reviewer: CoNLL 2018.
2018	Conference reviewer: ACL 2018. Recognized as a top reviewer.