

## EMPLOYMENT

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### ETH Postdoctoral Fellow

Department of Computer Science, ETH Zürich,

Zürich, Switzerland

9/2022 - present

- Current projects: Computational models of sentence processing; psycholinguistic assessment of LLMs
- Joint association with Ryan Cotterell and Mrinmaya Sachan, Institute for Machine Learning

## EDUCATION

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### Harvard University

Ph.D. in Linguistics

Cambridge, MA

9/2017 - 5/2022

- Dissertation Title: “Informative Presupposition and Accommodation”  
Dissertation Committee: Kathryn Davidson, Gennaro Chierchia, Roger Levy
- Visiting student, Ecole Normale Supérieure, Department of Cognitive Science (Summer 2018)

### Stanford University

B.A.S in Symbolic Systems and Slavic Languages and Literature with Honors

Stanford, CA

9/2011 - 8/2015

## RESEARCH AND TEACHING AREAS

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- Computational Models of Sentence Processing
- Natural Language Processing and Computational Linguistics
- Experimental Psycholinguistics

## WORKS IN PREPARATION

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- [1] **Ethan Gotlieb Wilcox**, Tiago Pimentel, Clara Meister, Ryan Cotterell. “An Information-Theoretic Analysis of Targeted Regressions During Reading”, *under review, Cognition*
- [2] **Ethan Gotlieb Wilcox**, Cui Ding, Mrinmaya Sachan, Lena Jäger. “[Mouse Tracking while Reading \(MoTR\): A New Incremental Processing Measurement](#)”, *under review, Journal of Memory and Language*
- [3] **Ethan Gotlieb Wilcox**, Roger Levy, Kathryn Davidson. “[Presupposing Novel Information: A Cross-Trigger Experiment in English](#)”, *under review, Semantics & Pragmatics*

## JOURNAL ARTICLES

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- [1] **Ethan Gotlieb Wilcox**, Tiago Pimentel, Clara Meister, Ryan Cotterell, Roger Levy. “[Testing the Predictions of Surprisal Theory in 11 Languages](#)”, *Transactions of the Association for Computational Linguistics*, 2023.
- [2] Alexandre Cremers, **Ethan Gotlieb Wilcox**, Benjamin Spector. “[Exhaustivity and Anti-Exhaustivity in the RSA Framework: Testing the Effect of Prior Beliefs](#)”, *Cognitive Science*, 2023.
- [3] Tiago Pimentel, Clara Meister, **Ethan Gotlieb Wilcox**, Roger Levy and Ryan Cotterell. “[On the Effect of Anticipation on Reading Times](#)”, *Transactions of the Association for Computational Linguistics*, 2023.
- [4] **Ethan Gotlieb Wilcox**, Richard Futrell and Roger Levy. “[Using Computational Models to Test Syntactic Learnability](#)”, *Linguistic Inquiry*, 2023.

- [1] **Ethan Gotlieb Wilcox**, Clara Meister, Ryan Cotterell, Tiago Pimentel. “[Language Model Quality Correlates with Psychometric Predictive Power in Multiple Languages](#)” to appear in *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023
- [2] Tiago Pimentel, Clara Meister, **Ethan Gotlieb Wilcox**, Ryan Cotterell, Kyle Mahowald. “[Revisiting the Optimality of Word Lengths](#)”, in *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023
- [3] Lukas Wolf, Tiago Pimentel, Evelina Fedorenko, Ryan Cotterell, Alex Warstadt, **Ethan Gotlieb Wilcox**, Tamar Regev. “[Quantifying the redundancy between prosody and text](#)”, in *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023
- [4] Lukas Wolf, Klemen Kotar, Greta Tuckute, Eghbal Hosseini, Alex Warstadt, **Ethan Gotlieb Wilcox**, Tamar Regev. “[WhisBERT: Multimodal Text-Audio Language Modeling on 100M Words](#)”, in *Proceedings of the 2023 BabyLM Challenge*, 2023
- [5] Alex Warstadt, Aaron Mueller, Leshem Choshen, **Ethan Gotlieb Wilcox**, Chengxu Zhuang, Juan Ciro, Rafael Mosquera, Adina Williams, Bhargavi Paranjabe, Tal Linzen, Ryan Cotterell. “[Findings of the BabyLM Challenge: Sample-efficient Pretraining on Developmentally Plausible Corpora](#)”, in *Proceedings of the 2023 BabyLM Challenge*, 2023
- [6] Clara Meister, Tiago Pimentel, Luca Malagutti, **Ethan Gotlieb Wilcox**, Ryan Cotterell. “[On the Efficacy of Sampling Adapters](#)”, in *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, 2023
- [7] Wangchunshu Zhou, Yuchen Jiang, **Ethan Gotlieb Wilcox**, Ryan Cotterell, Mrinmaya Sachan. “[Controlled Text Generation with Natural Language Instructions](#)”, in *Proceedings of the International Conference on Machine Learning (ICML)*, 2023
- [8] Thomas Clark, **Ethan Gotlieb Wilcox**, Edward Gibson, Roger Levy. “[Which Evidence for Availability Effects on Speaker Choice in the Russian Comparative Alternation](#)”, in *Proceedings of the Annual Meeting of the Cognitive Science Society*, 2022
- [9] **Ethan Gotlieb Wilcox**, Roger Levy, Kathryn Davidson. “[Which Presuppositions are Subject to Contextual Felicity Constraints?](#)”, in *Proceedings of the Semantics and Linguistic Theory (SALT)*, 2021
- [10] **Ethan Gotlieb Wilcox**, Pranali Vani, Roger Levy. “[A Targeted Assessment of Incremental Processing in Neural Language Models and Humans](#)”, in *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, 2021
- [11] Pranali Vani, **Ethan Gotlieb Wilcox**, Roger Levy. “[Using the interpolated maze task to assess incremental processing in English relative clauses](#)”, in *Proceedings of the Annual Meeting of the Cognitive Science Society*, 2021
- [12] **Ethan Gotlieb Wilcox**, Jon Gauthier, Jennifer Hu, Peng Qian, Roger Levy. “[On the Predictive Power of Neural Language Models for Human Real-Time Comprehension Behavior](#)”, in *Proceedings of the Annual Meeting of the Cognitive Science Society*, 2020
- [13] **Ethan Gotlieb Wilcox**, Peng Qian, Richard Futrell, Ryosuke Kohita, Roger Levy, Miguel Ballesteros. “[Structural Supervision Improves Few-Shot Learning and Syntactic Generalization in Neural Language Models](#)”, in *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2020
- [14] Tristan Thrush, **Ethan Gotlieb Wilcox**, Roger Levy. “[Investigating Novel Verb Learning in BERT: Selectional Preference Classes and Alternation-Based Syntactic Generalization](#)”, in *Proceedings of the Third BlackboxNLP Workshop on Analyzing and Interpreting Neural Networks for NLP*, 2020

- [15] Jennifer Hu, Peng Qian, Jon Gauthier, **Ethan Gotlieb Wilcox**, Roger Levy. “[A Systematic Assessment of Syntactic Generalization in Neural Language Models](#)”, in *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, 2020
- [16] Jon Gauthier, Jennifer Hu, **Ethan Gotlieb Wilcox**, Peng Qian, Roger Levy. “[SyntaxGym: An Online Platform for Targeted Evaluation of Language Models](#)”, in *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics: System Demonstrations*, 2020
- [17] **Ethan Gotlieb Wilcox**, Roger Levy, Richard Futrell. “[What syntactic structures block dependencies in RNN language models?](#)”, in *Proceedings of the Annual Meeting of the Cognitive Science Society*, 2019
- [18] Richard Futrell, **Ethan Gotlieb Wilcox**, Takashi Morita, Peng Qian, Miguel Ballesteros, Roger Levy. “[Neural language models as psycholinguistic subjects: Representations of syntactic state](#)”, in *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long and Short Papers)*, 2019
- [19] **Ethan Gotlieb Wilcox**, Peng Qian, Richard Futrell, Miguel Ballesteros, Roger Levy. “[Structural Supervision Improves Learning of Non-Local Grammatical Dependencies](#)”, in *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long and Short Papers)*, 2019
- [20] Aixiu An, Peng Qian, **Ethan Gotlieb Wilcox**, Roger Levy. “[Representation of Constituents in Neural Language Models: Coordination Phrase as a Case Study](#)”, in *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP)*, 2019
- [21] **Ethan Gotlieb Wilcox**, Roger Levy, Richard Futrell. “[Hierarchical Representation in Neural Language Models: Suppression and Recovery of Expectations](#)”, in *Proceedings of the 2019 ACL Workshop BlackboxNLP: Analyzing and Interpreting Neural Networks for NLP*, 2019
- [22] **Ethan Gotlieb Wilcox**, Benjamin Spector. “[The Role of Prior Beliefs in The Rational Speech Act Model of Pragmatics: Exhaustivity as a Case Study](#)”, in *Proceedings of the Annual Meeting of the Cognitive Science Society*, 2019
- [23] **Ethan Gotlieb Wilcox**, Roger Levy, Takashi Morita, Richard Futrell. “[What do RNN Language Models Learn about Filler–Gap Dependencies?](#)”, in *Proceedings of the 2018 EMNLP Workshop BlackboxNLP: Analyzing and Interpreting Neural Networks for NLP*, 2018.

## BOOK CHAPTERS

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- [1] **Ethan Gotlieb Wilcox**, Jon Gauthier, Peng Qian, Jennifer Hu and Roger Levy “[Learning Syntactic Structures from String Input](#)”, *Algebraic Structures in Natural Language* , 2022 (pp. 113-138). CRC Press.

## MANUSCRIPTS AND THESES

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- [1] **Ethan Gotlieb Wilcox**, “[Informative Presupposition and Accommodation](#)”, Ph.D. Dissertation, Harvard University, 2022.
- [2] Richard Futrell, **Ethan Gotlieb Wilcox**, Takashi Morita, and Roger Levy, “[RNNs as psycholinguistic subjects: Syntactic state and grammatical dependency](#)”, arXiv preprint, 2018.
- [3] **Ethan Gotlieb Wilcox**, “[Revolutionary Linguistics: The Ideology of the Soviet Esperanto Movement 1917-1938](#)”, BA Honors Thesis, Stanford University, 2015

## INVITED PRESENTATIONS

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### Invited Conference Talks

- “Language Models as Cognitive Models: The Cases of Syntactic Generalization and Real-Time Language Comprehension”, The Fourth International Conference on Theoretical East Asian Psycholinguistics, Seoul Korea (8/23)

### Invited Colloquia

- “Information-Theoretic Perspectives on Language Comprehension”, Complex Human Data Hub, University of Melbourne, Australia (10/23)
- “Learning and Processing Linguistic Structure in Humans and Machines”, Department of Cognitive Science, Johns Hopkins University, USA. (2/23)
- “Using Computational Models to Test Syntactic Learnability”, Department of Linguistics, University of Geneva, Switzerland. (12/22)
- “Structure and Statistical Processing in Humans and Machines”, Department of Linguistics, Yale University, USA. (3/22)
- “Using Computational Models to Test Syntactic Learnability”, Department of English, Dongguk University, Korea. (1/22)
- “Using Presuppositions to Introduce Novel Information”, Department of Linguistics (Universals Colloquium Series), Harvard University, USA. (11/21)
- “How to Evaluate Neural Networks as Models of Linguistic Cognition”, Department of English, Dongguk University, Korea. (2/21)

### Lab Talks / Other Invited Presentations

- “Structure and Statistical Processing in Humans and Machines”, Language, Logic Learning Lab, UC Davis, USA. (5/22)
- “Neural Network Language Models and the Argument from the Poverty of the Stimulus”, Department of Linguistics (Ling Lunch Series), Massachusetts Institute of Technology, USA. (10/19)
- “Using Structure to Predict the next Word: What RNN Language Models Learn about Syntax”, Computation and Psycholinguistics Lab, Johns Hopkins University, USA. (2/19)
- “What do RNN Language Models Learn about the Filler-Gap Dependency?”, Psycholinguistics and Cognitive Science Laboratory, Ecole Normale Supérieure (Paris), France (8/18)

## GRANTS AND AWARDS

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### Awards

- Outstanding Paper Award, Conference on Empirical Methods in Natural Language Processing 12/2023  
*Language Model Quality Correlates with Psychometric Predictive Power in Multiple Languages*
- Outstanding Paper Award, Conference on Empirical Methods in Natural Language Processing 12/2023  
*Revisiting the Optimality of Word Lengths*
- Best Honors Thesis, Division of Languages Cultures and Literatures, Stanford University 6/2015  
*Revolutionary Linguistics: The ideology of the Soviet Esperanto movement, 1917-1938*

### Grants

- ETH Zurich Postdoctoral Fellowship 1/2021 - present  
*Evaluating Large Language Models with Human Psycholinguistic Data*

- Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard 1/2021  
*Experimental and computational assessment of presuppositions' contextual felicity constraints*
- Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard 10/2019  
*Workshop on linguistics and climate change*
- Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard 5/2018  
*Can neural nets learn linguistic dependencies?*

## TEACHING AND ADVISING

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### Teaching Experience

- Assistant Head Tutor, Department of Linguistics, Harvard 9/2020-5/2021  
– *Instructor for honors thesis seminar; co-supervised undergraduate course advising*
- “Statistical Methods in Linguistics” (Ling 190), Harvard (TA) 1/2020 - 5/2020
- “Computational Psycholinguistics” (BCS 9.19), MIT (TA) 1/2020 - 5/2020
- “Language, Structure and Cognition” (Ling 83), Harvard (TA) 9/2019 - 12/2019  
– *Awarded certificate for distinction in teaching*

### Theses Supervised

- Cui Ding. “Mouse Tracking for Reading (MoTR): A New Incremental Processing Paradigm”, Masters Thesis, University of Zürich, Department of Computational Linguistics, 2023.  
– *Awarded a “Semesterpreis” for outstanding thesis*
- Lukas Wolf. “On the Contribution of Prosody to Language Comprehension in Large Language Models”, Masters Thesis, ETH Zürich, Department of Computer Science, 2023.

## ACADEMIC SERVICE

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### Conference Organization

- Organizing Committee, BabyLM Challenge shared task 2023  
– *Coordinated publicity and peer-review process for workshop with 30+ submissions*  
– *The BabyLM Challenge was featured in a [New York Times article](#) about democratizing AI research*

### Departmental Service

- Graduate Student Representative, Department of Linguistics, Harvard University 2020-2022  
– *Represent departmental graduate student interests to the faculty and university*  
– *Implemented first ever department climate survey; ran graduate portion of new faculty search*

### Reviewing

- **Journals:** Open Mind (MIT Press); Behavior Research Methods (Springer); Journal of Linguistics (Cambridge); Language Acquisition (Taylor & Francis)
- **Funding Agencies:** European Research Commission (Advanced Grant, 2023)
- **Conferences:** ACL (2020, 2023); EMNLP (2020, 2021, 2022, 2023); ACL Rolling Review (2022, 2023), COLING (2022), CogSci (2021), Meaning in Context Workshop at ICLR (2021)  
– *Outstanding reviewer recognition, EMNLP, 2020*

## PROFESSIONAL EXPERIENCE

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<b>Transcendent Endeavors</b> Computational Linguist	New York, NY 10/16 –8/17
<b>Carnegie Endowment for International Peace and Freelance</b> Translator and Editor	Moscow and Remote 10/15 –10/16
<b>Palantir</b> Product Quality Engineer Intern	Palo Alto, CA 6/14 –9/14

## SELECTED TRANSLATIONS

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All work co-translated from Russian with Mikhail Lion

- “[Sanctions and Retaliation: Where Russia-U.S. Relations are Headed](#)” by Andrey Movchan, *Carnegie Center Moscow*. 2018.
- “[Is Putin Losing Control of Russia’s Conservative Nationalists?](#)” by Alexander Baunov, *Foreign Affairs*, 2017
- “[The Accidental Formation of Russia’s War Coalition](#)” by Konstantin Gaaze, *Carnegie Center Moscow*, 2017
- “[Going to the People – and Back Again: The Changing Shape of the Russian Regime](#)” (white paper) by Alexander Baunov, Carnegie Center Moscow, 2017
- “The Snow Queen” by Evgeny Schwartz (stage play), produced by Dacha Theater / Lesser Known Players, Seattle WA, 2016

## REFERENCES

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### [Roger Levy](#)

Professor  
Department of Brain and Cognitive Science  
Massachusetts Institute of Technology  
[rplevy@mit.edu](mailto:rplevy@mit.edu)

### [Kathryn Davidson](#)

Professor  
Department of Linguistics  
Harvard University  
[kathryndavidson@fas.harvard.edu](mailto:kathryndavidson@fas.harvard.edu)

### [Richard Futrell](#)

Associate Professor  
Department of Language Science  
University of California, Irvine  
[rfutrell@uci.edu](mailto:rfutrell@uci.edu)

### [Ryan Cotterell](#)

Assistant Professor  
Department of Computer Science  
Institute for Machine Learning  
ETH Zürich  
[ryan.cotterell@gmail.com](mailto:ryan.cotterell@gmail.com)