

EMPLOYMENT

ETH Postdoctoral Fellow

Department of Computer Science, ETH Zürich,

Zürich, Switzerland

9/2022 - present

- Current projects: Information-theoretic models of reading; Psycholinguistic evaluation of NLP systems
- Joint association with Ryan Cotterell and Mrinmaya Sachan, Institute for Machine Learning

EDUCATION

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

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

WORKS IN PROGRESS

- [1] **Ethan Gotlieb Wilcox**, Tiago Pimentel, Clara Meister, Ryan Cotterell. “An Information-Theoretic Explanation of 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”, *in prep*
- [3] **Ethan Gotlieb Wilcox**, Roger Levy, Kathryn Davidson. “Presupposing Novel Information: A Cross-Trigger Experiment in English”, *in prep*
- [4] **Ethan Gotlieb Wilcox**, Richard Futrell, Roger Levy. “Use Caution when Using ANNs to Test Learnability: a Response to Lan et al., (2022)”, *in prep*

JOURNAL ARTICLES

- [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 Pimmentel, Clara Miester, **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*, 2022.

CONFERENCE PROCEEDINGS

- [1] 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
- [2] 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
- [3] 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
- [4] **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
- [5] **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
- [6] 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
- [7] **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
- [8] **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
- [9] 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
- [10] 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
- [11] 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
- [12] **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
- [13] 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

- [14] **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
- [15] 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
- [16] **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
- [17] **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
- [18] **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

- [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

- [1] **Ethan Gotlieb Wilcox**, “[Informative Presupposition and Accommodation](#)”, PhD 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

Conference Presentations

- “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)

Departmental Colloquia

- “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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| • ETH Zurich Postdoctoral Fellowship
<i>Evaluating Large Language Models with Human Psycholinguistic Data</i> | 1/2021 - present |
| • Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard
<i>Experimental and computational assessment of Presuppositions’ contextual felicity constraints</i> | 1/2021 |
| • Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard
<i>Workshop on linguistics and climate change</i> | 10/2019 |
| • Graduate Student Research Grant, Mind Brain Behavior Initiative, Harvard
<i>Can neural nets learn linguistic dependencies?</i> | 5/2018 |
| • Best Honors Thesis, Division of Languages Cultures and Literatures, Stanford University
<i>Revolutionary Linguistics: The ideology of the Soviet Esperanto movement, 1917-1938</i> | 6/2015 |

TEACHING

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| • Assistant Head Tutor, Department of Linguistics, Harvard
– <i>Co-supervised undergraduate course advising; coordinated all aspects of undergraduate honors thesis.</i> | 9/2020-5/2021 |
| • “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)
– <i>Awarded certificate for distinction in Teaching</i> | 9/2019 - 12/2019 |

ACADEMIC SERVICE

Conference Organization

- Organizing Committee, “BabyLM Challenge” shared task at the Conference on Computational Natural Language Learning (2023)

Departmental Service

- Graduate Student Representative, Department of Linguistics, Harvard University (2020-2022)
 - Implemented first ever department climate survey
 - Ran graduate portion of new faculty search
 - Coordinated graduate student Covid-19 Response

Reviewing

- **Journals:** Open Mind (MIT Press); Behavior Research Methods
- **Conferences:** ACL (2020, 2023); EMNLP (2020, 2021, 2022, 2023); ACL Rolling Review (2022, 2023), COLING (2022), CogSci (2021), Meaning in Context Workshop @ ICLR (2021)
Outstanding reviewer recognition, EMNLP, 2020

PROFESSIONAL EXPERIENCE

Transcendent Endeavors

Computational Linguist

New York, NY

10/16 –8/17

Carnegie Endowment for International Peace and Freelance

Translator and Editor

Moscow and Remote

10/15 –10/16

Palantir

Product Quality Engineer Intern

Palo Alto, CA

6/14 –9/14

SELECTED TRANSLATIONS

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

Roger Levy

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Assistant Professor

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