Ethan Gotlieb Wilcox

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Employment

Postdoctoral Researcher — Zurich, Switzerland
ETH Zurich, Department of Computer Science — 9/2022 - present

- Joint affiliation with Rycolab and Mrinmyay's Lab in the Institute for Machine Learning

Education

Harvard University — Cambridge, MA
Ph.D. in Linguistics — 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 — Stanford, CA
B.A.S in Symbolic Systems and Slavic Languages and Literature with Honors — 9/2011 - 8/2015

Research and Teaching Areas

- Computational Models of Sentence Processing
- Experimental Semantics and Pragmatics
- Natural Language Processing and Computational Linguistics

Full-Length Journal Articles

[1] Alexandre Cremers, Ethan Gotlieb Wilcox, Benjamin Spector. "Exhaustivity and Anti-Exhaustivity in the RSA Framework: Testing the Effect of Prior Beliefs" *Under Review*. 2022.

[2] Ethan Gotlieb Wilcox, Richard Futrell and Roger Levy. "Using Computational Models to Test Syntactic Learnability." *Linguistic Inquiry (forthcoming)*. 2022.

Conference Proceedings

[1] T. Clark, E. G. Wilcox, E. Gibson, and R. Levy, "Evidence for availability effects on speaker choice in the russian comparative alternation", in *Proceedings of the Annual Meeting of the Cognitive Science Society*, vol. 44, 2022.

[2] P. Vani, E. G. Wilcox, and R. 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*, vol. 43, 2021.

[3] E. G. Wilcox, R. Levy, and K. Davidson, "Which presuppositions are subject to contextual felicity constraints?", *Semantics and Linguistic Theory*, 2021.

[4] E. G. Wilcox, P. Vani, and R. Levy, "A targeted assessment of incremental processing in neural language-models and humans", *ACL*, 2021.

[5] J. Gauthier, J. Hu, E. G. Wilcox, P. Qian, and R. 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.

[6] J. Hu, J. Gauthier, P. Qian, E. G. Wilcox, and R. Levy, "A systematic assessment of syntactic generalization in neural language models", in *ACL*, 2020.

[7] T. Thrush, E. G. Wilcox, and R. Levy, "Investigating novel verb learning in bert: Selectional preference classes and alternation-based syntactic generalization", in *BLACKBOXNLP*, 2020.

[8] E. G. Wilcox, J. Gauthier, J. Hu, P. Qian, and R. Levy, "On the predictive power of neural language models for human real-time comprehension behavior", *CogSci*, vol. abs/2006.01912, 2020.

[9] E. G. Wilcox, P. Qian, R. Futrell, R. Kohita, R. Levy, and M. Ballesteros, "Structural supervision improves few-shot learning and syntactic generalization in neural language models", in *EMNLP*, 2020.

[10] A. An, P. Qian, E. G. Wilcox, and R. Levy, "Representation of constituents in neural language models: Coordination phrase as a case study", in *EMNLP*, 2019.

[11] R. Futrell, E. G. Wilcox, T. Morita, P. Qian, M. Ballesteros, and R. Levy, "Neural language models as psycholinguistic subjects: Representations of syntactic state", in *NAACL*, 2019.

[12] E. G. Wilcox, R. Levy, and R. Futrell, "Hierarchical representation in neural language models: Suppression and recovery of expectations", in *BlackboxNLP@ACL*, 2019.

[13] E. G. Wilcox, R. Levy, and R. Futrell, "What syntactic structures block dependencies in rnn language models?", in *CogSci*, 2019.

[14] E. G. Wilcox, P. Qian, R. Futrell, M. Ballesteros, and R. Levy, "Structural supervision improves learning of non-local grammatical dependencies", in *NAACL*, 2019.

[15] E. G. Wilcox and B. Spector, "The role of prior beliefs in the rational speech act model of pragmatics: Exhaustivity as a case study", in *CogSci*, 2019.

[16] E. G. Wilcox, R. Levy, T. Morita, and R. Futrell, "What do rnn language models learn about filler–gap dependencies?", in *BlackboxNLP@EMNLP*, 2018.

Book Chapters

[1] E. Wilcox, J. Gautier, P. Qian, J. Hu and R. Levy "Learning Syntactic Structures from String Input." Algebraic Structures in Natural Language , 2022

Manuscripts and Theses

[1] Ethan G. Wilcox, "Informative Presupposition and Accommodation", PhD Dissertation, Harvard University, 2022.

[2] R. Futrell, E. G. Wilcox, T. Morita, and R. Levy, "RNNs as psycholinguistic subjects: Syntactic state and grammatical dependency", arXiv preprint, 2018.

[3] Ethan G. Wilcox. "Revolutionary Linguistics: The Ideology of the Soviet Esperanto Movement 1917-1938" BA Honors Thesis, Stanford University, 2015

Invited Presentations

– Structure and Statistical Processing in Humans and Machines; Language, Logic Learning Lab , UC Davis. (5/22)

– Using Presuppositions to Communicate Novel Information; Connecting Minds Talk Series , MIT. (4/22)

– Structure and Statistical Processing in Humans and Machines, Department of Linguistics Colloquium, Yale University. (3/22)

– Using Computational Models to Test Syntactic Learnability, Department of English Colloquium, Dongguk University, Korea. (1/22)

– Using Presuppositions to Introduce Novel Information. Universals Colloquium Series, Department of Linguistics, Harvard University. (11/21)

– How to Evaluate Neural Networks as Models of Linguistic Cognition. Department of English Colloquium, Dongguk University, Korea. (2/21)

– Benchmarking Neural Networks as Models of Human Language Processing. CogLunch, MIT, Cambridge MA. (3/20)

– Using Global Hotspots to Assess the Effects of Climate Change on Linguistic Diversity. Computational Psycholinguistics Lab Meeting, MIT, Cambridge, MA (10/19)

– Neural Network Language Models and the Argument from the Poverty of the Stimulus. Ling Lunch, MIT, Cambridge MA. (10/19)

– Neural Network Language Models as Psycholinguistic Subjects: The case of Filler-Gap Dependencies.
  – Group on Computation and Linguistics, MIT, Cambridge (5/19)
  – Mind Brain Behavior Lunch Series, Department of Psychology, Harvard (3/19)
  – Language and Cognition, Department of Psychology, Harvard University, Cambridge MA (3/19)
  – Workshop on Developing and Evaluating Neural and Symbolic Architectures for Language Modeling, MIT, Cambridge MA. (2/19)

– The Role of Prior Beliefs in The Rational Speech Act Model of Pragmatics: Exhaustivity as a Case Study. Meaning and Modality Lab Meeting, Harvard University, Cambridge MA. (3/19)

– Using Structure to Predict the next Word: What RNN Language Models Learn about Syntax
  – Computation and Psycholinguistics Lab, Johns Hopkins, MD (2/19)
  – CogLunch, MIT, Cambridge MA (3/19)

– What do RNN Language Models Learn about the Filler-Gap Dependency? Psycholinguistics and Cognitive Science Laboratory, Ecole Normale Superieure, Paris, France (8/18)

Conference Presentations

* indicates peer-reviewed

– *How Anaphoric are Presupposition Triggers: Evidence from Cataphora. Poster presented at the annual Human Sentence Processing Conference, remote (3/22)

– *Presuppositions of Regulation Verbs. Poster presented at the annual Human Sentence Processing Conference, remote (3/22)

– *A Targeted Assessment of Incremental Processing in Neural Language Models and Humans. Poster presented at the annual conference for the Association of Computational Linguistics, remote (8/21)

- *Which Presuppositions are Subject to Contextual Felicity Constraints? Poster Presented at the 31st conference on Semantics and Linguistic Theory, remote. (5/21)

- *Interpolated Maze: High Sensitivity Measurement of Ungrammatical Input Processing. Poster presented at the 34th CUNY Sentence Processing Conference, remote (3/21)

- *Structural Supervision Improves Few-Shot Learning and Syntactic Generalization in Neural Language Models. Poster presented at 2020 Conference on Empirical Methods in Natural Language Processing, remote (11/20)

- *Investigating Novel Verb Learning in BERT: Selectional Preference Classes and Alternation-Based Syntactic Generalization. Poster presented at Blackbox NLP Workshop, remote (11/20)

- *Benchmarking Neural Networks as Models of Language Processing. Talk presented at the 26th Conference on Architectures and Mechanisms of Language Processing, 2020, remote (9/20)

- Evaluating the Effect of Model Inductive Bias and Training Data in Predicting Human Reading Times. Poster presented at the MIT-IBM Watson AI Lab Week, remote (5/20)

- *Evaluating the Effect of Model Inductive Bias and Training Data in Predicting Human Reading Times. Poster presented at the 33rd CUNY Sentence Processing Conference, Amherst MA and remote (3/20)

- Syntax Gym: A Unified Platform for Psycholinguistic Assessment of Neural Language Models. IBM AI Week, Cambridge MA (9/19)

- Evaluating Syntactic Generalizations of Neural Language Models. Poster presented at IBM AI Week, Cambridge MA (9/19)

- *What Syntactic Structures block Dependencies in RNN Language Models? Poster presented at the Annual Conference of the Cognitive Science Society (7/19)

- *The Role of Prior Beliefs in The Rational Speech Act Model of Pragmatics: Exhaustivity as a Case Study. Poster presented at the Annual Conference of the Cognitive Science Society (7/19)

- *Testing Gender Markedness of Nouns with Self a Paced Reading Study. Poster presented at the Annual Conference of the Cognitive Science Society (7/19)

- *Phonological Cues to Syntactic Structure in a Large-Scale Corpus. Poster presented at the Annual Conference of the Cognitive Science Society (7/19)

- *Syntactic Structure Aids Learning of Grammatical Dependencies in Neural Networks. Poster Presented at the annual meeting of the North American Chapter of the Association of Computational Linguistics, 2019. (6/19)

- Syntactic Structure Aids Learning of Grammatical Dependencies in Neural Networks. IBM Watson AI Lab Poster Reception (5/19)

- *Syntactic Structure aids Learning of Grammatical Dependencies in Neural Networks. Poster presented at the 32nd CUNY Sentence Processing Conference, Boulder CO (3/19)

- Targeted Syntactic Analysis of RNNGs and LSTMs. Symposium on Robust, Interpretable, Deep Learning Systems, MIT, Cambridge MA (11/18)

- Hierarchically Structured Symbolic Architectures with Neural Control for Robust and Human-like Natural Language Parsing, IBM AI Research Horizons, MIT, Cambridge MA (10/18)

- *What do RNN Language Models Learn about the Filler-Gap Dependency? Talk presented at the 1st Blackbox NLP Workshop, Brussels, Belgium (11/18)

Grants and Awards

- Graduate Student Award, Mind Brain Behavior Initiative, Harvard   1/2021

- Graduate Student Award, Mind Brain Behavior Initiative, Harvard University 10/2019
- Graduate Student Award, Mind Brain Behavior Initiative, Harvard University 5/2018
- Best Honors Thesis Award, Division of Languages Cultures and Literatures, Stanford University 6/2015
- Major Language Study Grant, Division of Languages, Cultures and Literatures, Stanford University 5/2013
- Minor Language Study Grant, Department of Slavic Languages and Literatures, Stanford University 5/2012

Teaching

- Assistant Head Tutor, Department of Linguistics, Harvard 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)
  Certificate for Distinction in Teaching 9/2019 - 12/2019

Academic Service

Departmental

- Graduate Student External Representative, Linguistics Department, Harvard 2020-2021
- Graduate Student Representative, Department of Linguistics, Harvard University
  – Implimented first ever department climate survey (Spring 2019)
  – Ran graduate portion of new faculty search (Spring 2020)
  – Coordinated graduate student Covid-19 Response (Spring 2020) 2020-2021
- Chair, Admitted Students Committee, Linguistics Department, Harvard 2018-2019
- Event Organizer, Harvard Graduate Students in Linguistics, Harvard University 2017-2018
- Academic Theme Associate, Slavianskii Dom, Stanford University 2013-2015
- Writing Tutor, Structured Liberal Education, Stanford University 2013-2015
- Undergraduate Representative to the Breadth Governance Board, Stanford University 2013-2014

Reviewing

ACL Rolling Review (2022), COLING (2022), EMNLP (2020, 2021, 2022); ACL (2020); CogSci (2021), Meaning in Context Workshop @ ICLR (2021)

   – Outstanding reviewer recognition, EMNLP, 2020

Professional Experience

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

All work co-translated from Russian with Mikhail Lion

- "Sanctions and Retaliation: Where Russia-U.S. Relations are Headed" Andrey Movchan, Carnegie Center Moscow. 2018.
- "Is Putin Losing Control of Russia's Conservative Nationalists?" Alexander Baunov, Foreign Affairs, 2017
- "Is Putin Losing Control of Russia's Conservative Nationalists?" Alexander Baunov, Foreign Affairs, 2017 *Nominated: Open Russia, Journalism as a Profession best Opinion Article, 2017*
- "The Accidental Formation of Russia's War Coalition" Konstantin Gaaze, Carnegie Center Moscow. *Winner: Open Russia, Journalism as a Profession best Opinion Article, 2017*
- "The Snow Queen" by Evgeny Schwartz (stage play), produced by Dacha Theater / Lesser Known Players, Seattle WA
- "Going to the People – and Back Again: The Changing Shape of the Russian Regime" (white paper) by Alexander Baunov, Carnegie Center Moscow

REFERENCES

Roger Levy
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John L. Loeb Associate Professor
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