R. Thomas McCoy

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Education

2017-present	Johns Hopkins University: Ph.D. in Cognitive Science *Advisors:* Paul Smolensky, Tal Linzen
2013-2017	Yale University: B.A. in Linguistics, *summa cum laude*, distinction in the major *Advisor:* Robert Frank
Summer 2016	Institute on Collaborative Language Research (CoLang), University of Alaska Fairbanks
Summer 2015	Linguistic Summer Institute, University of Chicago

Employment

Summer 2017	Carnegie Mellon University Low Resource Languages for Emergent Incidents (LORELEI) team Supervisor: Patrick Littell *Programmed a finite-state morphological analyzer for Oromo.*
Summer 2017	Chirila project Supervisor: Claire Bowern *Developed automatic semantic processing techniques for an online database of Australian languages.*
Summer 2016	Grammar Boot Camp Supervisor: Claire Bowern *Wrote a sketch grammar of Kuwarra.*
Summer 2015	Yale Grammatical Diversity Project Supervisors: Laurence Horn, Jim Wood, Raffaella Zanuttini, Jason Zentz *Edited web pages about regional grammatical phenomena.*
Summer 2014	Irish lip rounding research Supervisor: Ryan Bennett *Collected lip rounding measurements from images of Irish speakers.*
Summer 2014	Linguistic Core Multi-University Research Initiative

Supervisors: Chris Dyer, Lori Levin
Developed an English-to-Malagasy tree-to-string transducer.

Summer 2013 Linguistic Core Multi-University Research Initiative
Supervisors: Chris Dyer, Lori Levin
Developed a finite state morphological analyzer for Kinyarwanda.

Teaching

Spring 2018 Johns Hopkins University
Role: Teaching Assistant
Course: World of Language
Instructor: Géraldine Legendre
Led two weekly fieldwork sessions.

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.

Awards

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.

2018-2021 NSF Graduate Research Fellowship
Project title: Assessing the capacity of computational models to make linguistic generalizations

2017-2020 Owen Scholars Fellowship
Fellowship for outstanding incoming Johns Hopkins PhD students in the natural sciences.

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."

2017 Finalist, Rhodes Scholarship

2017 Finalist, Marshall 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 International Linguistics Olympiad
First-place team in the world. Individual bronze medal.

2013 United States Presidential Scholar
One of two for Pennsylvania.

Peer-reviewed proceedings papers

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. To appear 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. To appear 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*, pages 102-112.

2017 Jungo Kasai, Bob 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*, pages 1712-1722.

2017 Dan Friedman*, Jungo Kasai*, R. Thomas McCoy*, Robert Frank, Forrest Davis, 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*, pages 122-131.
*Equal contribution.

Papers reviewed by abstract

2017 R. Thomas McCoy. English comparatives as degree-phrase relative clauses. In *Proceedings of the Linguistic Society of America 2*, 26:1-7.

Work in preparation

Susan Hanson, Claire Bowern, and R. Thomas McCoy. A Dictionary and Sketch Grammar of Kuwarra.

Rebecca Everson, R. Thomas McCoy, and Claire Bowern. Creating a semantic database for Pama-Nyungan languages.

Unpublished conference presentations

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.

Service

2018	Conference reviewer: ACL 2018.
2016-2017	Computational Linguistics at Yale (CLAY) reading group: Co-organizer.
2015-2017	Yale Undergraduate Linguistics Society: Co-founder (2015), president (2105-2016), treasurer (2016-2017).

Outreach

2013-present	North American Computational Linguistics Olympiad (NACLO). National level: Problem writer (12 problems to date) and member of the 7-person NACLO Core governing committee for the national U.S. contest. Local level: Co-founder and co-organizer of the Yale contest site (2013-2017); co-organizer of the Johns Hopkins contest site (2017-present); organizer of pre-contest practice sessions at both sites.
2016	Yale Grammatical Diversity Project: Authored two webpages describing regional grammatical phenomena (*All the further* and *Subject contact relatives*).
2013-2017	Linguistics teaching initiatives: Designed and taught a one-lecture linguistics class to high school students in connection with the separate programs Splash, Sprout, and Math Mornings. Presented 8 times to groups ranging from 25 to 50 students.

Professional Memberships

2015-present	Linguistic Society of America (LSA).
2017-present	Association for Computational Linguistics (ACL).

Skills

Programming languages	Python, PyTorch, Haskell, C, Java, R, Scheme.

Natural languages	English (native), Bahasa Indonesia (conversational), Old English (basic reading ability), Old Norse (basic reading ability), Latin (basic reading ability).

Coursework

Undergraduate GPA: 4.0 *Graduate GPA:* 4.0

Computational Linguistics: Language and Computation I, Language and Computation II, Formal Foundations of Linguistic Theories, Computing Meaning

Natural Language Processing: Natural Language Processing, Machine Learning: Linguistic and Sequence Modeling

Syntax: Syntax I, Syntax II, Grammatical Diversity in US English

Phonetics/Phonology: Phonetics, Phonology I, Phonology II, The Phonetics/Phonology Interface

Semantics: Semantics I, Semantics II

Computer Science: Data Structures and Programming Techniques, Computational Tools for Data Science

Mathematics: Multivariable Calculus, Discrete Mathematics, Probability and Statistics, Advanced Statistical Methods

Other relevant courses: Linguistic Field Methods