

Aaron Steven White

University of Rochester
Department of Linguistics
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Positions

Full-time appointments

Assistant Professor, [Department of Linguistics](#), University of Rochester, 2017–.

Secondary appointments: [Computer Science](#), [Brain and Cognitive Sciences](#)

Affiliations: [Goergen Institute for Data Science](#)

Postdoctoral Fellow, [Science of Learning Institute](#), Johns Hopkins University, 2015–2017.

Advisors: [Kyle Rawlins](#) (Cognitive Science), [Benjamin Van Durme](#) (Computer Science)

Affiliations: [Cognitive Science](#), [Center for Language and Speech Processing](#)

Temporary appointments

Instructor, [European Summer School on Logic, Language, and Information](#), Summer 2017

Education

Ph.D. Linguistics, University of Maryland, College Park, 2015.

Thesis: [Information and incrementality in syntactic bootstrapping](#)

Advisors: [Valentine Hacquard](#), [Jeffrey Lidz](#)

Other committee members: [Philip Resnik](#), [Hal Daumé III](#), [Naomi Feldman](#)

B.A. Linguistics, University of California, Santa Cruz, 2009.

Interests

Computational (psycho)linguistics, linguistic theory, syntax-semantics interface, first language acquisition

Awards

Grants and Contracts

Principal Investigator (Lead Organization). NSF BCS-1748969. [Collaborative Research: The MegaAttitude Project: Investigating selection and polysemy at the scale of the lexicon](#). \$283,818. PI (University of Rochester): Aaron Steven White; PI (Johns Hopkins University): Benjamin Van Durme; Co-PI (Johns Hopkins University): Kyle Rawlins. 2018–2021.

Subcontract Principal Investigator. DARPA BAA HR001119S0014-KAIROS-FP-019. Decompositional Schema Induction and Prediction. \$4 million (contract); \$671,291 (subcontract). PI: Benjamin Van Durme (Johns Hopkins University); Co-PIs: Jan Trmal, Kyle Rawlins, David Etter, Rachel Rudinger; Subcontract PI: Aaron Steven White (University of Rochester). 2019–2024.

Subcontract Principal Investigator. IARPA BAA 18-05-BETTER. Multilingual Decompositional Analysis and Retrieval. \$2.8 million (contract); \$292,586 (subcontract). PI: Benjamin Van Durme (Johns Hopkins University); Subcontract PIs: Aaron Steven White (University of Rochester); Jordan Boyd-Graber (University of Maryland, College Park); Eugen Agichtein (University of North Carolina, Chapel Hill). 2019–2022.

Subcontract Principal Investigator. DARPA BAA HR001117S0026-AIDA-FP-013. Multimodal Decompositional Semantics. \$3.3 million (contract); \$147,037 (subcontract). PI: Benjamin Van Durme (Johns Hopkins University); Co-PIs: Sanjeev Khudanpur, Kyle Rawlins, Raman Arora, Thomas Lippincott; Subcontract PI: Aaron Steven White (University of Rochester). 2018–2022.

Co-Principal Investigator. NSF-BCS-DDRIG-1456013, [Doctoral Dissertation Research: Learning attitude verb meanings](#). \$18,112. PI: Valentine Hacquard, Co-PIs: Jeffrey Lidz, Aaron Steven White. 2015–2016.

Fellowships

[Distinguished Postdoctoral Fellowship](#), [Science of Learning Institute](#), Johns Hopkins University, 2015–2017.

Graduate Fellowship, NSF-DGE-IGERT-0801465, [Biological and Computational Foundations of Language Diversity](#), University of Maryland, 2011–2013.

[Baggett Fellowship](#), [Department of Linguistics](#), University of Maryland, 2009–2010.

Papers

White, A.S. 2019. [Lexically triggered veridicality inferences](#). Under review at *Handbook of Pragmatics*. John Benjamins Publishing Company.

White, A.S. & K. Rawlins. 2019. [Frequency, acceptability, and selection: A case study of clause-embedding](#). Under review at *Glossa*.

White, A.S. 2019. [Nothing’s wrong with believing \(or hoping\) whether](#). Under review at *Semantics and Pragmatics*.

Vashishtha, S., B. Van Durme, & A.S. White. 2019. [Fine-Grained Temporal Relation Extraction](#). To appear in *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL 2019)*, Florence, Italy, July 29–31, 2019.

Govindarajan, V.S., B. Van Durme, & A.S. White. 2019. [Decomposing Generalization: Models of Generic, Habitual, and Episodic Statements](#). To appear in *Transactions of the ACL*.

Yan, S. & A.S. White. 2019. [A Framework for Decoding Event-Related Potentials from Text](#). In *Proceedings of the 9th Workshop on Cognitive Modeling and Computational Linguistics (CMCL 2019)*, pages 86–92, Minneapolis, USA, June 7, 2019.

White, A. S., R. Rudinger, K. Rawlins, & B. Van Durme. 2018. [Lexicosyntactic Inference in Neural Models](#). *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing*, pages 4717–4724. Brussels, Belgium, October 31–November 4, 2018.

- Poliak, A., A. Haldar, R. Rudinger, J.E. Hu, E. Pavlick, **A. S. White**, & B. Van Durme. 2018. [Collecting Diverse Natural Language Inference Problems for Sentence Representation Evaluation](#). *Proceedings of 2018 Conference on Empirical Methods in Natural Language Processing*, pages 67–81. Brussels, Belgium, October 31–November 4, 2018.
- White, A. S.** & K. Rawlins. 2018. [The role of veridicality and factivity in clause selection](#). In *Proceedings of the 48th Meeting of the North East Linguistic Society*. 221–234.
- White, A. S.** & K. Rawlins. 2018. [Question agnosticism and change of state](#). In the *Proceedings of Sinn und Bedeutung 21*, eds. R. Truswell, C. Cummins, C. Heycock, B. Rabern, and H. Rohde, 1325–1342. Semantics Archive.
- White, A. S.**, V. Hacquard, & J. Lidz. 2018. [Semantic information and the syntax of propositional attitude verbs](#). *Cognitive Science* 42:2, 416–456.
- White, A. S.**, V. Hacquard, & J. Lidz. 2017. [The labeling problem in syntactic bootstrapping: Main clause syntax in the acquisition of propositional attitude verbs](#). In *Semantics in Acquisition*, eds. K. Syrett and S. Arunachalam. Trends in Language Acquisition Research (TiLAR), 197–222. Amsterdam: John Benjamins Publishing Company.
- Lidz, J., **A. S. White** & R. Baier. 2017. [The role of incremental parsing in syntactically conditioned word learning](#). *Cognitive Psychology* 97, 62–78.
- White, A. S.**, K. Rawlins, & B. Van Durme. 2017. [The Semantic Proto-Role Linking Model](#). *Proceedings of 15th Conference of the European Chapter of the Association for Computational Linguistics*, pages 92–98, Valencia, Spain, April 3–7, 2017.
- White, A. S.** & K. Rawlins. 2016. [A computational model of S-selection](#). In *Semantics and Linguistic Theory* 26, eds. M. Moroney, C-R. Little, J. Collard, and D. Burgdorf, 641–663. Ithaca, NY: CLC Publications.
- A. S. White**, D. Reisinger, K. Sakaguchi, T. Vieira, S. Zhang, R. Rudinger, K. Rawlins, & B. Van Durme. 2016. [Universal compositional semantics on universal dependencies](#). In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing*, pages 1713–1723, Austin, Texas, November 1–5, 2016. [peer-reviewed proceedings]
- Fetters, M. & **A. S. White** 2016. Pseudogapping does not involve heavy shift. In *Proceedings of the 34th West Coast Conference on Formal Linguistics*, ed. A. Kaplan et al., 205–213. Somerville, MA: Cascadilla Proceedings Project.
- White, A. S.** 2016. [The interaction of implicativity with the form and scope of negation](#). Under revision for *Journal of Semantics*.
- White, A. S.**, V. Hacquard, P. Resnik & J. Lidz. 2016. [The contextual modulation of semantic information](#). Under revision for *Cognitive Science*.
- White, A. S.**, D. Reisinger, R. Rudinger, K. Rawlins, & B. Van Durme. 2016. [Computational linking theory](#). arXiv:1610.1687806v1 [cs.CL]
- Altshuler, D., V. Hacquard, T. Roberts, & **A. S. White** 2015. [On double access, cessation and parentheticality](#). In *Semantics and Linguistic Theory* 25, eds. S. D’Antonio, C. Little, M. Moroney, and M. Wiegand, 18–37. Ithaca, NY: CLC Publications.
- White, A. S.** 2014. [Factive-implicatives and modalized complements](#). In *Proceedings of the 44th Meeting of the North East Linguistic Society*, eds. J. Iyer, L. Kusmer, 267–278. Amherst, MA: GLSA Publications.

White, A. S. & Grano, T. 2014. [An experimental investigation of partial control](#). In *Proceedings of Sinn und Bedeutung 18*, eds. U. Etxeberria, A. Falaus, A. Irurtzun, B. Leferman, 469–486. Semantics Archive.

White, A. S., Dudley, R., V. Hacquard, & Lidz, J. 2014. [Discovering classes of attitude verbs using subcategorization frame distributions](#). In *Proceedings of the 43rd Meeting of the North East Linguistic Society*, eds. H-L. Huang, E. Poole, A. Rysling, 249–260. Amherst, MA: GLSA Publications.

Bonilla, C., Tare, M. & **White, A.** 2013. Homework and language learning at DLIFLC: An analysis of Dari, French, and Pashto learners. *Center for the Advanced Study of Language Technical Report*.

Bonilla, C., Tare, M., **White, A.**, Mullan, B. & Hughes, M. 2013. Analysis of self-study practices in language learning: Relationships among time spent, preferred activities, and outcomes. *Center for the Advanced Study of Language Technical Report*.

Presentations

White, A. S., R. Rudinger, K. Rawlins, & B. Van Durme. 2018. [Lexicosyntactic Inference in Neural Models](#). Talk given at the 2018 Conference on Empirical Methods in Natural Language Processing, Brussels, Belgium, October 31-November 4, 2018.

Poliak, A., A. Haldar, R. Rudinger, J.E. Hu, E. Pavlick, **A. S. White**, & B. Van Durme. 2018. Collecting Diverse Natural Language Inference Problems for Sentence Representation Evaluation. Talk given at the 2018 Conference on Empirical Methods in Natural Language Processing, Brussels, Belgium, October 31-November 4, 2018.

White, A. S. & K. Rawlins. 2018. [The typology of veridicality inferences](#). Talk given at the 49th annual meeting of the North East Linguistic Society, Cornell University, October 5-7, 2018.

Rudinger, R., **A. S. White**, & B. Van Durme. 2018. [Neural Models of Factuality](#). Presented at the 2018 Conference of the North American Chapter of the Association for Computational Linguistics, New Orleans, LA, June 1-6, 2018.

White, A. S. & K. Rawlins. 2017. [The role of veridicality and factivity in clause selection](#). Presented at the 48th annual meeting of the North East Linguistic Society. University of Iceland. October 27-29, 2017.

Hirzel, M., **A. S. White**, & J. Lidz. 2017. Biased distributions in dialogs do not shape verb learning. Presented at the 42nd Boston University Conference on Language Development. Boston University. November 3-5, 2017.

White, A. S., P. Rastogi, K. Duh, & B. Van Durme. 2017. [Inference is Everything: Recasting Semantic Resources into a Unified Evaluation Framework](#). Presented at the 8th International Joint Conference on Natural Language Processing. Taipei, Taiwan, November 27-December 1, 2017.

White, A. S., K. Rawlins, & B. Van Durme. 2017. [The Semantic Proto-Role Linking Model](#). Presented at the 15th Conference of the European Chapter of the Association for Computational Linguistics. Valencia, Spain. April 3-7, 2017.

White, A. S. & K. Rawlins. 2017. [Entropy predicts uncertainty in subcategorization frame distributions](#). Presented at the 39th Annual Conference of the German Linguistic Society, AG1: Information-theory based modeling of linguistic variation in context, Saarland University. March 8-10, 2017.

- White, A. S.**, D. Reisinger, K. Sakaguchi, T. Vieira, S. Zhang, R. Rudinger, K. Rawlins, & B. Van Durme. 2016. Universal compositional semantics on universal dependencies. Presented at Empirical Methods in Natural Language Processing 2016, Austin, TX. November 1-5, 2016.
- White, A. S.** & K. Rawlins. 2016. [Question agnosticism and change of state](#). Presented at Sinn und Bedeutung 21, University of Edinburgh. September 4-6, 2016.
- White, A. S.** & K. Rawlins. 2016. [A computational model of S-selection](#). Presented at Semantics and Linguistic Theory 26, University of Texas, Austin. May 12-15, 2016.
- Fetters, M. & **A. S. White** 2016. [Pseudogapping does not involve heavy shift](#). Presented at the 34th West Coast Conference on Formal Linguistics, University of Utah. April 29-May 1, 2016.
- White, A. S.** & J. Sprouse. 2016. [The trace of categorical structure in gradient judgments](#). Presented at the 34th West Coast Conference on Formal Linguistics, University of Utah. April 29-May 1, 2016.
- White, A. S.**, V. Hacquard, P. Resnik, & J. Lidz. 2016. [Subcategorization frame entropy in online verb-learning](#). Presented at the 29th CUNY Conference on Human Sentence Processing, University of Florida. March 3-5, 2016.
- Altshuler, D., V. Hacquard, T. Roberts & **White, A. S.** 2015. [On double access, cessation and parentheticality](#). Presented at Semantics and Linguistic Theory 25, Stanford University. May 15-17, 2015.
- White, A. S.** 2015. [Soft implicative entailments](#). Presented at the 89th Annual Meeting of the Linguistic Society of America, Portland, OR. January 8-11, 2015.
- White, A. S.** 2014. [Contextually modulated syntactic variability in child-directed speech](#). Presented at the 13th International Congress for the Study of Child Language, Amsterdam, The Netherlands. July 14-18, 2014.
- White, A. S.**, J. Lidz & V. Hacquard 2014. Syntactic sources of semantics and pragmatics. Presented at the 13th International Congress for the Study of Child Language, Amsterdam, The Netherlands. July 14-18, 2014.
- White, A. S.** 2013. [Factive-implicatives and modalized complements](#). Presented at the 44th annual meeting of the North East Linguistic Society, University of Connecticut. October 18-20, 2013.
- White, A. S.** & T. Grano 2013. An experimental investigation of partial control. Presented at Sinn und Bedeutung 18, University of the Basque Country. September 11-13, 2013.
- Lidz, J., & **A. S. White** 2013. Predictive parsing and the acquisition of thematic structure. Presented at the SRCD Biennial Meeting, Seattle, WA. April 18-20, 2013.
- White, A. S.**, R. Dudley, V. Hacquard, & J. Lidz (2012). Discovering classes of attitude verbs using subcategorization frame distributions. Presented at the 43rd annual meeting of the North East Linguistic Society, CUNY. October 19-21, 2012.
- White, A. S.**, R. Baier & J. Lidz (2011). Prediction and subcategorization frame frequency in the developing parser. Presented at the 24th CUNY Conference on Human Sentence Processing, Stanford University. March 24-26, 2011.
- White, A. S.**, R. Baier & J. Lidz (2010). When knowledge causes failure: Effects of subcategorization frequency in novel word learning. Presented at the 35th Boston University Conference on Language Development, Boston University. November 5-7, 2010.

Invited Talks

White, A. S. 2018. Distribution, Inference, and Event Structure. Colloquium talk given at Stanford University. October 12, 2018.

White, A. S. 2017. Computational approaches to selection and complementation. Invited talk given at *Selectionfest 2017*. Humboldt University of Berlin and ZAS Berlin. Berlin, Germany. November 10-11, 2017.

White, A. S. 2017. Factoring word knowledge. Goergen Institute for Data Science Seminar Series, University of Rochester. March 2, 2017.

White, A. S. 2015. Learner as lexical semanticist. Distinguished Alumnus Address, Linguistics Undergraduate Research Conference, University of California, Santa Cruz. May 29, 2015.

Teaching*Current courses*

Sole Instructor, LIN 224/424: Introduction to Computational Linguistics. University of Rochester, Fall 2019.

Co-Instructor, LIN 268/468: Computational Semantics. University of Rochester, Fall 2019.

Past courses

Sole Instructor, LIN 281/481: Statistical and Neural Computational Linguistics. University of Rochester, Spring 2019.

Sole Instructor, LIN 224/424: Introduction to Computational Linguistics. University of Rochester, Fall 2018.

Sole Instructor, LIN 225/425: Introduction to Semantic Analysis. University of Rochester, Fall 2018.

Sole Instructor, LIN 224/424: Introduction to Computational Linguistics. University of Rochester, Spring 2018.

Co-Instructor, LIN 268/468: Computational Semantics. University of Rochester, Fall 2017.

Sole Instructor, Unsupervised Methods for Linguistic Data. 29th European Summer School in Logic, Language, and Information, University of Toulouse, Summer 2017.

Co-Instructor, Computational Lexical Semantics. 29th European Summer School in Logic, Language, and Information, University of Toulouse, Summer 2017.

Co-Instructor, CS 766: Selected Topics in Computational Semantics, Johns Hopkins University, Fall 2015.

Sole Instructor, LING 419L: Topics in Syntax: Learning Meanings, University of Maryland, College Park, Fall 2014.

Teaching Assistant, LING 410: Grammar and Meaning, University of Maryland, College Park, Spring 2014.

Teaching Assistant, LING 240: Introduction to Linguistics (for majors), University of Maryland, College Park, Spring 2013.

Teaching Assistant, LING 200: Introduction to Linguistics (for nonmajors), University of Maryland, College Park, Spring 2012.

Teaching Assistant, LING 240: Introduction to Linguistics (for majors), University of Maryland, College Park, Fall 2011.

Service

Administrative committees

Faculty Council, University of Rochester (2018-)

Hiring Committee, Open Rank (Syntax), Department of Linguistics, University of Rochester, 2019.

Cognitive Science Dinner Committee, University of Rochester (2017-2019)

Hiring Committee, Open Rank (Semantics), Department of Linguistics, University of Rochester, 2018.

Advising

Siddharth Vashishtha, PhD in Computer Science, expected 2024.

Hongbin Qing, MS in Computational Linguistics, expected 2021.

Ellise Moon, MA in Linguistics, expected 2020.

LaChelle Stewart, MA in Linguistics, expected 2020.

Andrea Clark Sevilla, MS in Data Science, expected 2020.

Venkata Govindarajan, MS in Computational Linguistics, 2019.

Hannah An, MS in Computational Linguistics, 2019.

Thesis committees

Committee Member, PhD Thesis, Department of Computer Science, University of Rochester, Parker Riley (advisor: Daniel Gildea), expected 2021.

Committee Member, PhD Thesis, Department of Computer Science, University of Rochester, Tianlang Chen (advisor: Jiebo Luo), expected 2021.

Committee Member, PhD Thesis, Department of Computer Science, University of Rochester, Gene Kim (advisor: Lenhart Schubert), expected 2020.

Committee Member, PhD Thesis, Department of Computer Science, University of Rochester, Georgiy Platonov (advisor: Lenhart Schubert), expected 2020.

Committee Member, PhD Thesis, Department of Computer Science, University of Rochester, Nabil Hossain, (advisor: Henry Kautz), expected 2020.

Committee Member, PhD Thesis, Department of Computer Science, Johns Hopkins University, Rachel Rudinger (advisor: Benjamin Van Durme), expected 2019.

Committee Member, PhD Thesis, Department of Computer Science, Johns Hopkins University, Adam Teichert (advisor: Benjamin Van Durme), expected 2019.

Defense Chair, PhD Thesis, Department of Computer Science, University of Rochester, Ryan Yates (advisor: Michael Scott), expected 2019.

Committee Member, PhD Thesis, Department of Brain & Cognitive Sciences, University of Rochester, Matthew Overlan (advisor: Robert Jacobs), 2019.

Defense Chair, PhD Thesis, Department of Brain & Cognitive Sciences, University of Rochester, Frank Mollica (advisor: Steven Piantidosi), 2019.

Defense Chair, PhD Thesis, Department of Computer Science, University of Rochester, Xiaochang Peng (advisor: Daniel Gildea), 2018.

Other university service

Academic Job Search Faculty Panel, University of Rochester (Nov. 16, 2018)

Journal reviewing (ad hoc)

Semantics & Pragmatics

Journal of Semantics

Natural Language Semantics

Cognitive Science

Language Acquisition

Glossa

Language, Cognition, and Neuroscience

Chapter reviewing

Semantics in Acquisition, Trends in Language Acquisition Research (John Benjamins series)

Conference reviewing

Semantics and Linguistic Theory (SALT 2017)

Amsterdam Colloquium (AC 2017)

Annual Meeting of the North East Linguistic Society (NELS 2017-2019)

Cognitive Science Society annual conference (CogSci 2014-2019)

Boston University Conference on Language Development (BUCLD 2017)

International Conference on Computational Linguistics (COLING 2018)

International Joint Conference on Natural Language Processing (IJCNLP 2017)

Empirical Methods in Natural Language Processing (EMNLP 2018-2019)

AAAI Conference on Artificial Intelligence (AAAI 2019)

Language, Data, and Knowledge (LDK 2019)

Authored resources

Software

[PredPatt \(v1.0\)](#)

Description: Software framework for constructing extensible, interpretable, language-neutral predicate-argument extraction patterns on Universal Dependencies parses ([White et al. 2016a](#)).

Data

[MegaAcceptability \(v1.0\)](#)

Description: Extremely large-scale acceptability judgment study (>5,000 participants) investigating the syntactic distribution of clause-embedding verbs ([White & Rawlins 2016](#)). Part of the [MegaAttitude Project](#).

[MegaVeridicality \(v1.0, 2.0\)](#)

Description: Extremely large-scale veridicality judgment study investigating veridicality inferences triggered by clause-embedding verbs ([White & Rawlins 2018](#)). Part of the [MegaAttitude Project](#).

[Universal Decompositional Semantics Semantic Proto-Roles \(v2.x\)](#)

Description: Large-scale corpus annotation of predicate arguments for Dowty’s proto-role entailments atop the English Universal Dependencies corpus v1.2 ([White et al. 2016a](#)). Part of the [Decompositional Semantics Initiative](#).

[Universal Decompositional Semantics Factuality \(v1.0, 2.0\)](#)

Description: Large-scale corpus annotation of event realis atop the English Universal Dependencies corpus v1.2 ([White et al. 2016a](#), [Rudinger et al. 2018](#)). Part of the [Decompositional Semantics Initiative](#).

[Universal Decompositional Semantics Genericity \(v1.0\)](#)

Description: Large-scale corpus annotation of event realis atop the English Universal Dependencies corpus v1.2 ([Govindarajan et al. 2019](#)). Part of the [Decompositional Semantics Initiative](#).

[Universal Decompositional Semantics Time \(v1.0\)](#)

Description: Large-scale corpus annotation of temporal relations atop the English Universal Dependencies corpus v1.2 ([Vashishtha et al. 2019](#)). Part of the [Decompositional Semantics Initiative](#).

[Spatial Human Simulation Paradigm dataset](#)

Description: Extremely large-scale human simulation paradigm study (>5,000 participants) investigating how distributional and semantic information are affected by context ([White et al. 2016b](#)).

[Implicative verbs dataset](#)

Description: Set of large-scale contradiction detection, plausibility judgment, and likelihood judgment experiments (~900 participants) investigating implicative verbs ([White 2016](#)).

Partial control dataset

Description: Set of medium-scale acceptability judgment experiments (~300 participants) investigating partial control (White & Grano 2014).

Proficiencies

Programming languages: C, Java, Python, R, Haskell, L^AT_EX

Operating systems: Debian/Ubuntu Linux, Arch Linux, Mac OS X

Platforms: Amazon Mechanical Turk

Software: Emacs, RStudio, SciPy stack, IPython/Jupyter, PyTorch, TensorFlow, PyMC, IntelliJ, Ibex

Last updated: July 12, 2019

<http://aaronstevenwhite.io/cv.pdf>