

## Kathryn Schuler

kschuler@sas.upenn.edu

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### Positions and Education

2017-present	Assistant Professor, Department of Linguistics, University of Pennsylvania
2017	Ph.D., Neuroscience, Georgetown University
2010	B.A., Brain and Cognitive Sciences, University of Rochester

### Grants

2024-2025	<b>University Research Foundation Award</b> <i>Probability matching as generalization</i> Award: \$32,423 Role: Primary Investigator with Co-PI Charles Yang
2023-2024	<b>NSF Doctoral Dissertation Research Improvement Grant</b> <i>The role of input reliability and shared variability on the acquisition of linguistic variation</i> Award: \$10,876 Role: Primary Investigator with Co-PI Yiran Chen
2022-2024	<b>MindCORE Collaborative Research Award</b> <i>Sociolinguistic variation in the developing mental lexicon</i> Award: \$67,061 Role: Primary Investigator with Co-PIs David Embick and Meredith Tamminga
2021-2024	<b>National Science Foundation Grant</b> <i>Acquisition of variation in child language learners (BCS-2043724)</i> Award: \$192,227 Role: Primary Investigator
2021-2022	<b>Penn Research Recovery Grant</b> <i>Online recruitment and running of child research participants</i> Award: \$12,190 Role: Primary Investigator

### Awards

2017	Paula Menyuk Travel Award, Boston University Conference on Language Development
2016	Robert J. Glushko & Pamela Samuelson Foundation Travel, Cognitive Science Society
2012	Cognitive Science Fellowship (declined), Northwestern University
2002	New York Leaders of Tomorrow Scholarship, New York State Lottery
2002-2004	Salutatorian Scholarship, Elmira College

**Peer-reviewed Papers**

1. Chen, Y.\*\* & Schuler, K.D. (2024) French Variable Ne-omission in Child-Directed Speech and Children's Early Productions. *Language Learning and Development*
2. Li, D.\*\* & Schuler, K.D. (2024) Children can use distributional cues to acquire recursive structures. *Proceedings of the 46th annual conference of the Cognitive Science Society*.
3. Li, D.\*\* & Schuler, K.D. (2023) Acquiring recursive structures through distributional learning. *Language Acquisition* **Awarded best paper by untenured scientists**
4. Fama, M.E., Schuler, K.D., Newport, E.L., & Turkeltaub, P.E. (2022) Impacts of healthy aging and left hemisphere stroke on statistical language learning. *Language Cognition and Neuroscience*
5. Austin, A.\*, Schuler, K.D.\*, Furlong, S. & Newport, E.L. (2021) Learning a language from inconsistent input: Regularization in child and adult learners. *Language Learning and Development*
6. Li, D.\*\* & Schuler, K. (2021) Distributional Learning of Recursive Structures *Proceedings of the 43rd Annual meeting of the Cognitive Science Society*
7. Schuler, K. D., Kodner, J., & Caplan, S. (2020). Abstractions are good for brains and machines: A commentary on Ambridge (2020). *First Language*
8. Culbertson, J.C. & Schuler, K.D. (2019). Artificial language learning in children. *Annual Review of Linguistics*.
9. Schuler, K.D., Reeder, P.A., Newport, E.L., & Aslin, R.N. (2017) The effect of Zipfian frequency variations on category formation in adult artificial language learning. *Language Learning and Development*.
10. Schuler, K.D., Yang, C. & Newport, E.L. (2016). Testing the Tolerance Principle: Children form productive rules when it is more computationally efficient to do so. In Papafragou, A., Grodner, D., Mirman, D., & Trueswell, J.C. (Eds.) *Proceedings of the 38th annual meeting of the Cognitive Science Society*.
11. Schwab, J.F., Schuler, K.D., Stillman, C.M., Newport, E.L. Howard, J.H., & Howard, D.V. (2016) Aging and the Statistical Learning of Grammatical Form Classes. *Psychology and Aging*, 2016, 31, 481-487.
12. Booth, A.E., Schuler, K., & Zajicek, R. (2010). Specifying the role of function in infant categorization. *Infant Behavior and Development*, 33(4), 672-684.

\* co-first authors, \*\* trainee coauthor

**Manuscripts submitted**

13. Schuler, K.D., Yang, C., & Newport, E.L. (in revision) Children form productive rules when it is more computationally efficient. *Journal of Memory and Language*
14. Schuler, K.D., Lukens, K., Reeder, P.A., Newport, E.L. & Aslin, R.N. (under review) Children can use distributional cues to acquire grammatical categories. *Journal of Cognition and Development*

## Conference Proceedings Papers

15. Li, D.\*\* & Schuler, K. (forthcoming) Children can use distributional cues to acquire recursive structures. *Proceedings of the 49th annual Boston University Conference on Language Development*
16. Chen, Y.\*\* & Schuler, K. (2023) Variable ne in the negative utterances of French children and their caregivers. *Proceedings of the 47th Boston University Conference on Language Development*
17. Li, D.\*\* & Schuler, K. (2023) Distributional learning of recursive structures: the role of the structural representation. *Proceedings of the 47th Boston University Conference on Language Development*
18. Li, D.\*\* & Schuler, K. (2023) Adapting infant looking time paradigms for the web. *Proceedings of the 47th Boston University Conference on Language Development*
19. Chen, Y.\*\* & Schuler, K. (2022) Adults regularize unpredictable variation when variants resemble possible speech errors. *Proceedings of the Linguistic Society of America Vol 7, No 1.*
20. Pophristic, S.\*\* & Schuler, K.D. (2021) The role of gender in the acquisition of the Serbian case system. *Proceedings of the Linguistic Society of America*, 6(1), 896–905.
21. Chen, Y.\*\* & Schuler, K.D. (2020) Does Learner's preference match the typological pattern of Animacy Hierarchy in morphological marking? *University of Pennsylvania Working Papers in Linguistics Vol 27, No 1.*

\*\* trainee coauthor

## Software

22. Schuler, K.D. (2021) Exbuilder: a framework for doing reproducible research with docker containers. Available at: <https://github.com/exbuilder/exbuilder>

## Invited Talks

2024	Integrative Language Science and Technology Seminar, University of Pennsylvania.
2023	Department of Linguistics Colloquium, Stony Brook University
2022	Speech-Language-Hearing Sciences Colloquium, City University of New York
2022	Keynote at the child learners in syntactic change workshop, DiGS 23 (canceled)
2021	Keynote at the Edinburgh Virtual Workshop in Artificial Language Learning
2021	Workshop tutorial at the Edinburgh Virtual Workshop in Artificial Language Learning
2021	Penn Linguistic Conference panel moderator
2020	Cognitive Neuroscience Seminar, George Washington University
2020	Keynote at the Edinburgh Summer School in Artificial Language Learning (canceled)
2019	Department of Linguistics Colloquium, NYU
2018	Integrated Language Science and Technology Seminar, Penn
2018	Center for Autism Research Science Meeting, CHOP
2016	Common Ground Seminar, Institute for Research on Cognitive Science

## Conference Presentations

1. Roberts, T. Melch, M., Blaskey, L., Jackel, C., Schuler, K., Embick, D. (submitted) Word Repetition Priming Defines Subpopulations of Autistic Children: Digital Pitch Shifting Can Restore Priming Effects Lost to Speaker Pitch Differences. *International Society for Autism Research*
2. Li, D.\*\* & Schuler, K. (2024) Children can use distributional cues to acquire recursive structures. *Poster presented at the 49th annual Boston University Conference on Language Development (BUCLD 49)*
3. Li, D.\*\* & Schuler, K. (2024) Children can use distributional cues to acquire recursive structures. *Poster presented at the 46th annual conference of the cognitive science society.*
4. Chen, Y. & Schuler, K. (2024) The use of statistical structure of variation and input reliability cues in regularization. *Talk presented at the 98th Annual Meeting of the Linguistic Society of America*
5. Schuler, K. & Chen, Y.\*\* (2023) Children's regularization increases when variation resembles speech errors. *Talk presented at the 48th annual Boston University Conference on Language Development.*
6. Li, D.\*\* & Schuler, K. (2023) Distributional learning of recursive structures: The role of the structural representation. *Poster presented at 45th annual conference of the cognitive science society*
7. Li, D.\*\* & Schuler, K. (2023) Distributional learning of recursive structures: The role of the structural representation. *Poster presented at HSP 2023*
8. Li, D.\*\* & Schuler, K. (2022) Distributional learning of recursive structures: The role of the structural representation. *Poster presented at BUCLD 2022*
9. Li, D.\*\* , Zhong, S.\*\* & Schuler, K. (2022) Adapting infant looking time paradigms for the web. *Talk presented at BUCLD 2022*
10. Chen, Y.\*\* & Schuler, K. (2022) Variable ne-omission in French children's input and production. *Poster presented at BUCLD 2022*
11. Li, D.\*\* , Zhong, S.\*\* & Schuler, K. (2022) Adapting infant looking time paradigms for the web. *Talk presented at ICIS 2022.*
12. Li, D.\*\* , Zhong, S.\*\* & Schuler, K. (2022) Adapting infant looking time paradigms for the web. *Poster presented at HSP 2022.*
13. Li, D.\*\* & Schuler, K. (2022) Acquiring recursive structures through distributional learning. *Talk presented at the LSA 2022.*
14. Chen, Y.\*\* , Altenhof, A.\*\* , Kendrick, A.\*\* & Schuler, K. (2022) Adults regularize unpredictable variation when variants resemble possible speech errors. *Talk presented at the LSA 2022*
15. Chen, Y.\*\* & Schuler, K. (2021) The Acquisition of Variable Ne-omission in Parisian French. *Talk presented at the Arizona Linguistics Circle 15*
16. Chen, Y.\*\* & Schuler, K. (2021) The role of shared variation on the acquisition of variable rules. *Talk presented at the Boston University Conference on Language Development*

17. Chen, Y.\*\* & Schuler, K. (2021) The role of shared variation on the acquisition of variable rules. *Talk presented at New Ways of Analyzing Variation 49*
18. Li, D.\*\* & Schuler, K. (2021) Acquiring recursive structures through distributional learning. *Talk presented at Recursion Across Languages. The intricacies of Babel*
19. Alberski, A.\*\* & Schuler, K. (2021) The role of language context in the acquisition of novel words. *Poster presented at CUNY 2021*
20. Li, D.\*\* & Schuler, K. (2021) Acquiring recursive structures through distributional learning. *Talk presented at CUNY 2021*
21. Alberski, A.\*\* & Schuler, K. (2021) Learning words in linguistic contexts: using language to fast-map and acquire partial knowledge. *Poster presented at SRCD 2021*
22. Kendrick, A.\*\* & Schuler, K. (2021) Adults do not regularize unpredictable language variation, even when learning from an unreliable speaker. *Talk presented at the 95th annual meeting of the Linguistic Society of America.*
23. Nam, S.\*\* & Schuler, K. (2021) The influence of verb information on learning novel words. *Poster presented at the 95th annual meeting of the Linguistic Society of America*
24. Pophristic, S.N.\*\* & Schuler, K. (2021) The role of gender in the acquisition of the serbian case system. *Poster presented at the 95th annual meeting of the Linguistic Society of America.*
25. Schuler, K. & Chen, Y.\*\* (2021) Morphosyntactic variation is preserved, not regularized, when an optional form is rare. *Talk presented at the 95th annual meeting of the Linguistic Society of America.*
26. Schuler, K. (2020) Children and adults condition variable rules on social context. *Poster presented at the 45th annual Boston University Conference on Language Development. Boston, MA*
27. Chen, Y.\*\* & Schuler, K.D. (2020) Is an animate-marking rule easier to acquire than an inanimate-marking rule? *Poster at the 15th annual Congress of the International Association for the Study of Child Language. Canceled due to COVID-19*
28. Schuler, K.D. & Chen, Y.\*\* (2020) Morphosyntactic variation is preserved, not regularized, when an optional form is rare. *Talk at the Workshop on the Evolution of Morphological Systems, Evolution of Language International Conferences. Canceled due to COVID-19.*
29. Chen, Y.\*\* & Schuler, K.D. (2020) Does Learner's preference match the typological pattern of Animacy Hierarchy in morphological marking? *Talk at the 44th annual Penn Linguistics Conference. Canceled due to COVID-19*
30. Irani, A.\*\* & Schuler, K.D (2019) Children can acquire verb argument structure with sufficient positive evidence. *Poster presented at the 44th annual Boston University Conference on Language Development. Boston, MA*

31. Schuler, K.D., Horowitz, J.E., Yang, C., Newport, E.L. (2017) The threshold for regularization: When children will and will not regularize inconsistent language input. *Talk presented at the 41st annual Boston University Conference on Language Development*. Boston, MA
32. Schuler, K.D., Horowitz, J.E., Yang, C., Newport, E.L. (2017) The threshold for regularization: When children will and will not regularize inconsistent language input. *Poster presented at the 10th biennial meeting of the Cognitive Development Society*.
33. Schuler, K.D., Fama, M.E., Turkeltaub, P.E., & Newport, E.L. (2017) The time-course of statistical learning in patients with left hemisphere stroke. *Poster presented at the 9th annual meeting of the Society for the Neurobiology of Language*.
34. Schuler, K.D., Horowitz, J.E., Yang, C., Newport, E.L. (2017) The Sufficiency Principle: Predicting when children will regularize inconsistent language variation. *Poster presented at the 39th annual meeting of the Cognitive Science Society*.
35. Schuler, K.D., Yang, C. & Newport, E.L (2016) Children form productive rules when it is more computationally efficient to do so. *Poster presented at the Boston University Conference on Language Development*, Boston, MA
36. Schuler, K.D., Davis, J., Yang, C., Newport, E.L. (2015) Testing the tolerance principle for rule productivity in an artificial grammar. *Poster presented at the 9th Biennial Meeting of the Cognitive Development Society*. Columbus, OH
37. Fama, M.E., Schuler, K.D., Spiegel, K.A., Lacey, E.H., Newport, E.L., & Turkeltaub, P.E. (2015) The effects of healthy aging and left hemisphere stroke on statistical language learning. *Poster presented at the Society for the Neurobiology of Language Conference*. Chicago, IL
38. Schuler, K.D., Aslin, R.N., Newport, E.L. (2015) The time-course of statistical learning across development: Word segmentation and syntax in a serial reaction time task. *Poster presented at the Boston University Conference on Language Development*. Boston, MA
39. Fama, M.E., Schuler, K.D., Spiegel, K.A., Lacey, E.H., Newport, E.L., & Turkeltaub, P.E. (2015) The effects of healthy aging and left hemisphere stroke on statistical language learning. *Poster presented at Georgetown Student Research Day*. Washington, DC.
40. Schuler, K.D., Newport, E.L. (2015) Using growth curve analysis to model the time-course of learning in serial reaction time tasks. *Poster presented at Georgetown Student Research Day*. Washington, DC.
41. Booth, A.E., Zajcek, R.L. & Schuler, K.D. (2010) How does function facilitate early categorization? Not by enhancing attention alone. *Poster presented at the International Conference on Infant Studies*.

\*\* trainee coauthor

## Teaching

Fall 2024	LING 0700: Data science for studying language & the mind (82 students) LING 5740: Neurolinguistics (20 students)
Fall 2023	LING 0700: Data science for studying language & the mind (46 students) LING 5740: Neurolinguistics (18 students)
Spring 2023	LING 0700: Data science for studying language & the mind (63 students)
Fall 2021	LING 0700: Data science for studying language & the mind (78 students) LING 5740: Neurolinguistics (16 students)
Spring 2021	LING 6700: Acquisition of variation (9 students)
Fall 2020	LING 104: Language and the Brain (28 students) LING 504: Neurolinguistics (6 students)
Spring 2020	LING 001: Introduction to linguistics (168 students)
Fall 2019	LING 504: Neurolinguistics (9 students) LING 104: Language and the brain (30 students)
Spring 2019	LING 607: Topics in Psycholinguistics (3 students)
Fall 2018	LING 104: Language and the brain (30 students)
Spring 2018	LING 607: Topics in Psycholinguistics (4 students)
2015-2016	ICOS 202: Research Modules in Cognitive Science, Georgetown University (as TA)
2015	ICOS 201: Introduction to Cognitive Science, Georgetown University (as TA)

## Mentoring

### *PhD Students (n=3)*

2023-present	Christine Soh Yue ( <b>Dean's Scholar, NSF GRFP</b> ), secondary-advisor
2019-2024	Daoxin Li, co-advisor, <i>postdoc at Northwestern (S. Waxman)</i>
2018-2023	Yiran Chen, primary advisor, <i>postdoc at UW Madison (J. Saffran)</i>

### *Other PhD dissertation committees (n=8)*

2025	June Choe, committee member
2024	Urgucan Vurgun, committee member
2023	Ollie Sayeed, committee member
2021	Yosiane White, committee member
2021	Sigríður Björnsdóttir (external member, University of Tromsø)
2020	Hong Zhang, committee member
2019	Nattanun Chanchaochai, committee member
2018	Ava Irani, committee member

*Dissertation proposal and qualifying paper committees (n=19)*

2024	Annika Heuser, qualifying paper
2024	Christine Soh, dissertation proposal
2024	June Choe, dissertation proposal
2023	Urgucan Vurgun, dissertation proposal
2023	Daoxin Li, dissertation proposal
2022	Aini Li, dissertation proposal
2022	Yiran Chen, dissertation proposal
2022	Ava Creemers, dissertation proposal
2022	Daoxin Li, qualifying paper
2021	Yiran Chen, qualifying paper
2021	Ollie Sayeed, dissertation proposal
2020	Ryan Budnick, dissertation proposal
2020	Yosiane White, dissertation proposal
2020	Ollie Sayeed, qualifying paper
2019	Spencer Caplan, dissertation proposal
2019	Hong Zhang, dissertation proposal
2019	Nattanun Chanchaochai, dissertation proposal
2019	Nikita Bezrukov, qualifying paper
2018	Andrea Ceolin, qualifying paper

*Graduate master's theses and independent studies (n=6)*

2024	Annika Heuser, independent study mentor
2023	Karen Li, Masters thesis committee
2022	Daoxin Li, independent study mentor
2021	Gwen Hildebrant, independent study mentor
2020	Ollie Sayeed, independent study mentor
2019	Nikita Bezrukov, independent study mentor

*Undergraduate honors theses and independent studies (n=7)*

2024	Esther Werbach, independent study mentor
2021	Iris Zhong, external honors thesis (Smith College, Jill DeVilliers)
2020	Sarah Nam, honors thesis mentor
2020	Anna Alberski, independent study mentor
2019	Stefan Pophristic, independent study mentor
2019	Sarah Nam, independent study mentor
2015	Jessie Schwab, honors thesis co-mentor (Georgetown, Elissa Newport)
2016	John Davis, honors thesis co-mentor (Georgetown, Elissa Newport)



### *Lab managers (n=4)*

2023-2025	Madison Paron
2023	Alessandra Pintado-Urbanc ( <b>Dean's Scholar</b> ), PhD student at Yale
2019-2022	Ariel Mathis, Educator
2018	Lauren Krawczyk, Program Manager Main Line Health

### *Undergraduate and high school research assistants (n=27)*

Undergraduates	Esther Werbach, Izabela Baran, Zaid Tabaza ( <b>Benjamin Franklin Scholar, College Alumni Society Prize for Research in Cognitive Science</b> ), Mia Schwartzberg, Milana Korobko, Nina Wang, Abby Ray, Lauren Kim ( <b>Hoenigswald prize</b> ), Cynthia Gu, Amy Krimm ( <b>Dean's Scholar</b> ), Tula Childs, Aja Altenhof, Anna Alberski, Iris Zhong, Annalise Kendrick, Stefan Pophristic ( <b>University Scholar</b> ), Madison Paron, Nathaniel Serio ( <b>Beinecke Scholar</b> ), Breasia Scott, Dorina Domi, Ayyah Alhuraibi, Jasmine Raj, Jesse Schwab, John Davis, Madison Connelly, and Jessica Burke
High School	Katarina Siggelkow

### **Service**

2024	Graduate admissions committee, Linguistics Department, Penn
2024	Annual Meeting of the Cognitive Science Society, Program Committee
2024	Natural Science and Math Panel, Committee member, Penn
2023	SAS Teaching Awards, Committee member, Penn
2023	Annual Meeting of the Cognitive Science Society, Program Committee
2023	Natural Science and Math Panel, Committee member, Penn
2022	Graduate admissions committee, Linguistics Department, Penn
2021	University Scholars selection committee, Penn
2021	SAS's New Faculty Orientation, panel discussion on teaching, Penn
2021	Organizing committee, CUNY sentence processing conference
2020-2022	University Scholars faculty council member and research advisor, Penn
2019-2020	Faculty facilitator, Owning your own educational story at Penn (first-gen initiative)
2019-2021	mindCORE education committee, Penn
2019	Graduate admission committee, Linguistics Department
2018	Faculty fulbright committee, Penn
2018	Organizer and instructor, 4-day PsychoPy bootcamp
2015	Organizer and instructions, MATLAB tutorial, Georgetown
2012-2014	Organizer, Functional and Neuroanatomical Imaging Group journal club, Georgetown

## Reviewing

Grants	European Science Foundation, National Science Foundation
Book proposals	Cambridge University Press
Journals	Nature Reviews Psychology, Bulletin Vals-Asla, Linguistics Vanguard, Language, Memory and Cognition, Language Learning and Development, Cognitive Science, Cognition, Journal of Memory and Language, Language Acquisition, and Language Learning
Conferences	NELS, Linguistic Society of America, Annual Meeting of the Cognitive Science Society, Boston University Conference on Language Development, Penn Linguistics Conference, Experiments in Linguistic Meaning, CUNY Sentence Processing Conference
Memberships	International Congress of Infant Studies, Cognitive Development Society, Cognitive Science Society, Society for Research on Child Development, Linguistic Society of America

## Outreach

### *Related to first-generation and underrepresented scholars*

2024	AAC&U TIDES Institute, faculty attendee
2024	PennCAP Faculty Friday, faculty guest speaker
2023	mindCORE NSF Research Experience for Undergraduates, faculty mentor
2023	Middle School Linguistics Summer Camp, faculty director
2021	mindCORE NSF Research Experience for Undergraduates, faculty mentor
2021	mindCORE NSF Research Experience for Undergraduates, workshop instructor
2021	Penn First Plus, Ambassador Training
2020	Penn First Plus, Work study and research information session panelist
2020	MindCORE Interdisciplinary faculty Q&A, panelist
2019	MindCORE Working in research and academia, faculty panel for undergrads
2019	Preparing for your first year as a faculty member or postdoc, faculty panelist
2019	Penn First Plus, working in research faculty panelist
2019	Penn's First Two Years Program, faculty panelist on women in science
2018-2019	Penn's Summer Workshop in Interdisciplinary Mind and Brain Studies
2018	Penn Undergraduate Research Mentoring Program (PURM), faculty mentor
2018	Career development workshop at Penn, faculty speaker
2018	Center for Teaching and Learning graduate student workshop, faculty speaker

*Other public-facing materials and community events*

2021-present	Stories in many languages, lab outreach project, <a href="https://www.childlanglab.com/outreach">https://www.childlanglab.com/outreach</a>
2020	Growing up in science talk, <a href="https://mindcore.sas.upenn.edu/behind-the-cv/">https://mindcore.sas.upenn.edu/behind-the-cv/</a>
2019	Science Cafe talk, Philadelphia, PA
2018-present	Language and the brain blog, <a href="http://languageandthebrain.org">http://languageandthebrain.org</a>
2014-2016	Science fair judge, Key elementary school, Washington, DC
2014	Group guide, Brain awareness week, Hardy middle school, Washington, DC