

# Kathryn D. Schuler

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## Personal Information

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Born January 11, 1984  
Address Center for Brain Plasticity and Recovery  
Georgetown University  
Building D, Room 154  
Washington, DC 20057

## Education

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2017 **Ph.D. Interdisciplinary Program in Neuroscience (expected)**  
Georgetown University, Washington, DC  
Committee: Elissa Newport (advisor), Peter Turkeltaub (chair), Michal Ullman, Ruth Kramer, Barbara Landau

Fall 2010 **B.A., Brain and Cognitive Sciences**  
University of Rochester, Rochester, NY

## Research interests

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My research is focused on understanding how children acquire language. To do this, I investigate (1) how children use the statistics in language input to acquire grammatical rules, (2) whether general cognitive or neural biases can explain the acquisition process, and (3) whether developmental changes in these biases can explain why children seem to be optimally suited for acquiring language.

## Appointments

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2012 - **Graduate Research Assistant**  
Center for Brain Plasticity and Recovery, Georgetown University, Washington, DC  
Elissa Newport (PI), Advisor

2010 - 2012 **Laboratory Coordinator**  
Newport Lab, University of Rochester, Rochester, NY  
Elissa Newport (PI), Supervisor

Spring 2010 **Research Assistant**  
Rochester Baby Lab, University of Rochester, Rochester, NY  
Richard Aslin (PI) and Celeste Kidd, Supervisors

2007 - 2009 **Research Assistant**  
Early Learning Lab, Northwestern University, Evanston, IL  
Amy Booth (PI), Supervisor

2005 – 2006     **Research Assistant**  
Newport Lab, University of Rochester, Rochester, NY  
Elissa Newport (PI) and Elizabeth Wonnacott, Supervisors

## Honors and awards

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2016            **Robert J. Glushko and Pamela Samuelson Foundation Travel Award** (\$500), Cognitive Science Society

2012            **Cognitive Science Fellowship** (declined), Northwestern University

2002 – 2006    **New York Leaders of Tomorrow Scholarship** (\$4,000), New York State Lottery

2002 – 2004    **Salutatorian Scholarship** (\$50,000), Elmira College

2002            **Frederick Douglass and Susan B. Anthony Award in Humanities and Social Sciences**, University of Rochester

## Publications

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2010            Booth, A.E., **Schuler, K.**, & Zajicek, R. (2010). Specifying the role of function in infant categorization. *Infant behavior and Development*, 33(4), 672-684.

2016            **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 38<sup>th</sup> annual meeting of the cognitive science society*. Austin, TX: Cognitive Science Society.

2016            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. PMID: PMC4980253

2016            **Schuler, K.D.**, Reeder, P.A., Newport, E.L., & Aslin, R.N. The effect of Zipfian frequency variations on category formation in adult artificial language learning. *Language Learning and Development*, in press.

In prep         **Schuler, K.D.**, Yang, C., & Newport, E.L. (in prep) Children use the Tolerance Principle to determine the computational efficiency of forming a productive rule during language acquisition.

In prep         Fama, M.E., **Schuler, K.D.**, Spiegel, K.A., Lacey, E.H., Newport, E.L., & Turkeltaub, P.E. (in prep) Impacts of healthy aging and left hemisphere stroke on statistical language learning.

In prep         Austin, A., Furlong, S., **Schuler, K.D.** & Newport, E.L. (in prep). When children learn more than they are taught: Regularization in child and adult learners

In prep         **Schuler, K.D.**, Lukens, K., Reeder, P.A., Newport, E.L. & Aslin, R.N. (in prep). Children can use distributional cues to acquire grammatical categories.

## Presentations

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- 2010 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.
- 2013 Schwab, J.F., **Schuler, K.D.**, Stillman, C.M., Newport, E.L., Howard, J.H. Jr., & Howard, D.V. (2013). *Aging and the statistical learning of grammatical form classes.* Poster presented at the annual Association for Psychological Science Convention. Washington, DC.
- 2015 **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.
- 2015 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.
- 2015 **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
- 2015 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
- 2015 **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 9<sup>th</sup> Biennial Meeting of the Cognitive Development Society. Columbus, OH
- 2016 **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

## Invited talks

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- April 2016 The Tolerance Principle in language acquisition. **Common Ground, Institute for Research on Cognitive Science**, University of Pennsylvania.

## Teaching experience

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- 2005 – 2006 **Instructor: Kaplan’s PSAT, SAT, and SAT courses**, Chicago, IL  
Lectured groups and tutored individual students in preparation for standardized tests
- Spring 2014 **Guest Lecturer: Cognitive Psychology**, Georgetown University  
Presented lecture on language development for undergraduate psychology course
- Fall 2016 **Teaching Assistant: Introduction to Cognitive Science**, Georgetown University  
Lectured, graded, and organized a team-taught undergraduate course in cognitive science.
- 2016 & 2017 **Teaching Assistant: Research modules in Cognitive Science**, Georgetown University

## Mentoring experience

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2012 – 2013 Jessica Schwab, Georgetown University Psychology undergraduate (co-mentored honors thesis)  
2014 – 2015 John Davis, Georgetown University Linguistics undergraduate (co-mentored honors thesis)  
Summer 2015 K. Breana Downey, Georgetown PhD student (co-mentored lab rotation)  
Summer 2016 Madison Connelly, University of Pennsylvania summer research student  
Summer 2016 Jessica Burke, University of Pennsylvania summer research student

## Service

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### Ad hoc reviewing

Annual Meeting of the Cognitive Science Society

### Professional memberships

Cognitive Development Society  
Cognitive Science Society

### Departmental and other service

Group guide, Brain Awareness Week, Hardy middle school (2014)  
Judge, Key elementary science fair (2014 & 2015)  
Organizer, Functional and Neuroanatomical Imaging Group journal club (2012 – 2014)  
Organizer and instructor, MATLAB basics tutorial for IPN students, faculty, and staff (2015)

## Laboratory skills

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### Techniques

Artificial grammar learning  
Serial reaction time tasks  
Infant preferential looking  
Eye-tracking (Tobii, Yabus, SMI)

### Programming languages

Python  
R  
MATLAB  
Javascript