

ELIZABETH SHAY

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Education

UNIVERSITY OF ROCHESTER – PhD, Department of Brain and Cognitive Sciences – Rochester, NY – 2014 - 2019(Expected)

- Advisors: Jessica Cantlon, Bradford Mahon
- Committee: Michael Tanenhaus (chair), Rajeev Raizada, Jessica Cantlon, Bradford Mahon

UNIVERSITY OF ROCHESTER – Master of Arts in Brain and Cognitive Sciences – Rochester, NY – 2014 - 2017

- Advisor: Rajeev Raizada
- Committee: Richard Aslin (chair), Steven Piantadosi, Rajeev Raizada

UNIVERSITY OF PENNSYLVANIA – Bachelor of Arts with Distinction *Cum Laude* in Linguistics – Philadelphia, PA – 2010 - 2014

- Math and Music minors
- Thesis: *Presupposition resolution in biclausal statements using “also”*
- Advisor: Florian Schwarz

UNIVERSITY OF PENNSYLVANIA – Bachelor of Applied Science *Cum Laude* in Computer and Cognitive Science – Philadelphia, PA – 2010 - 2014

- Thesis: *Statistical modeling of behavioral linguistic data*
- Advisor: Mitch Marcus

Research Experience

CONCEPTS, ACTIONS, AND OBJECTS (CAOS) LAB – University of Rochester - Department of Brain and Cognitive Sciences - Rochester, NY - Summer 2017 - Present

- Advisors: Jessica Cantlon, Bradford Mahon

RAIZADA LAB – University of Rochester - Department of Brain and Cognitive Sciences - Rochester, NY - Fall 2014 - Summer 2017

- Advisor: Rajeev Raizada

EXPERIMENTAL MEANING OF LANGUAGE LAB - University of Pennsylvania - Departments of Linguistics and Psychology - Philadelphia, PA - Fall 2012 - Spring 2014

- Advisor: Florian Schwarz

MITCH LAB - University of Pennsylvania - Departments of Computer and Information Sciences and Linguistics - Philadelphia, PA - Fall 2012 - Spring 2014

- Advisor: Mitch Marcus

ALAB – University of South Carolina - Departments of Psychology and Linguistics - Columbia, SC - Summer 2013

- Advisors: Amit Almor, Rutvik Desai

CU LANGUAGE PROJECT - University of Colorado, Boulder - Departments of Psychology and Computer Science - Boulder, CO - Summer 2011 - Present

- Advisor: Eliana Colunga

STERNBERG LAB - University of Pennsylvania - Department of Psychology - Philadelphia, PA - Fall 2011

- Advisor: Saul Sternberg

TRENT-BROWN LAB - Hope College - Department of Psychology - Holland, MI - Fall 2009 - Spring 2010

- Advisor: Sonja Trent-Brown

Teaching Experience

LAB IN DEVELOPMENT & LEARNING - Lecturer - University of Rochester - Rochester, NY - Fall 2018

FOUNDATIONS OF COGNITIVE SCIENCE - Lecturer - University of Rochester - Rochester, NY - Summer 2018

LAB IN PERCEPTION & COGNITION – Teaching Assistant - University of Rochester - Rochester, NY - Spring 2018

- Professor Kevin Davis

LAB IN DEVELOPMENT & LEARNING - Lecturer - University of Rochester - Rochester, NY - Fall 2017

- Co-taught with Stephen Ferrigno

FOUNDATIONS OF COGNITIVE SCIENCE - Lecturer - University of Rochester - Rochester, NY - Summer 2017

MUSIC & THE MIND - Teaching Assistant - University of Rochester - Rochester, NY - Fall 2016

- Professor David Temperley

FOUNDATIONS OF COGNITIVE SCIENCE - Lecturer - University of Rochester - Rochester, NY - Summer 2016

- Co-taught with Alyssa Ibarra

ROCHESTER SCHOLARS - Teacher - University of Rochester - Rochester, NY - Summer 2016

- Developed a two-week-long course entitled *Building the Language Machine: Introduction to Computational Linguistics* for high school students
- Co-taught with Francis Mollica

MUSIC & THE MIND - Teaching Assistant - University of Rochester - Rochester, NY - Fall 2015

- Professor Elizabeth West Marvin

ROCHESTER SCHOLARS - Teacher - University of Rochester - Rochester, NY - Summer 2015

- Developed a week-long course entitled *The Language Scientist: Linguist, Psychologist, Computer Scientist* for high school students
- Co-taught with Francis Mollica

PENN EMERGING SCHOLARS PROGRAM (PESP) - Teacher - School of Engineering and Applied Sciences, University of Pennsylvania - Philadelphia, PA - Spring 2014

COLLEGE HOUSE COMPUTING - In-House Information Technology Advisor (ITA) Trainer - Gregory and Du Bois College Houses, University of Pennsylvania - Philadelphia, PA - Fall 2011 - Spring 2014

THE TUTORING CENTER – Single-Variable and Multivariable Tutor - University of Pennsylvania - Philadelphia, PA - Spring 2013

Presentations

Shay, E. A., Zinszer, B. D., & Raizada, R. D. S. (2017, September). *Between-subjects neural decoding of phrase representations outperforms Word2Vec decoding*. Poster to be given at the Cognitive Computational Neuroscience conference, New York, NY.

van Dam, W., Almor, A., Shinkareva, S., Kim, J., Boiteau, T., **Shay, E.**, & Desai, R. (2017, June). *Distinct neural mechanisms underlying conceptual knowledge of manner and instrument verbs*. Poster given at the meeting of the Organization for Human Brain Mapping, Vancouver, BC.

Shay, E. A. & Raizada, R. D. S. (2016, August). *A Brain-Based Feature Model of Adjective-Noun Composition*.

Poster given at the meeting of the Cognitive Science Society, Philadelphia, PA.

Shay, E. A. & Raizada, R. D. S. (2016, August). *A Brain-Based Feature Model of Adjective-Noun Composition*. Poster given at the meeting of the Emergent Meaning Workshop, Lehigh Valley, PA.

Shay, E. A. & Raizada, R. D. S. (2015, November). *Using neurobiologically-motivated features to investigate the semantic composition of adjectives with nouns*. Talk given at the meeting of the Society for Computers in Psychology, Chicago, IL.

Shay, E. A. & Raizada, R. D. S. (2015, October). *Using neurobiologically-motivated features to investigate the semantic composition of adjectives with nouns*. Poster presented at the meeting of the Society for Neurobiology of Language, Chicago, IL.

Shay, E. A., Almor, A., Van Dam, W., Boiteau, T., Desai, R. (2013, August). *Manner and instrument verb processing using fMRI*. Talk given at the Summer Research Experience in Brain and Cognitive Sciences Final Presentations, Columbia, SC.

Shay, E. A., Kan, P. F., Colunga, E. (2013, April). *One or two lexicons? Semantic networks in sequential bilingual preschoolers*. Poster presented at the meeting of the Society for Research in Child Development, Seattle, WA.

Shay, E. A., Colunga, E. (2011, September). *Noun and verb network connectivity in early and late talkers*. Poster presented at the National Science Foundation CRA-W Distributed Research Experience for Undergraduates grant review, Washington, D.C.

Shay, E. A., Trent-Brown, S. (2011, March). *Information recall from non-attended passages in dichotic listening*. Talk given at the National Conference for Undergraduate Research, Ithaca, NY.

Shay, E. A., Trent-Brown, S. (2010, October). *Information recall from non-attended passages in dichotic listening*. Poster presented at the University of Pennsylvania Undergraduate Research Conference, Philadelphia, PA.

Publications

van Dam, W., Almor, A., Shinkareva, S. V., Kim, J., Boiteau, T. W., **Shay, E. A.**, & Desai, R. H. (submitted). Distinct neural mechanisms underlying conceptual knowledge of manner and instrument verbs.

Shay, E. A., Chen, Q., Garcea, F. E., & Mahon, B. Z. (2018). Decoding intransitive actions in primary motor cortex using fMRI: Toward a componential theory of 'action primitives' in motor cortex. *Cognitive Neuroscience*. doi: 10.1080/17588928.2018.1453491.

Shay, E. A., Grimm, S. & Raizada, R. D. S. (2017). Commentary on Kemmerer: The challenges and rewards of trying to combine linguistics and cognitive neuroscience. *Language, Cognition and Neuroscience*, 32(4), 433-437. doi: 10.1080/23273798.2016.1259483.

Professional Experiences

AS&E GRADUATE STUDENT ASSOCIATION TRAVEL GRANT SUBMISSION REVIEWER - Fall 2017, Spring 2018

STUDENT RESEARCH AWARD SUBMISSION REVIEWER - Association of Psychological Science Student Caucus - Spring 2015, Spring 2016, Spring 2017, Spring 2018

MACHINE LEARNING SUMMER SCHOOL - Department of Computer Science, University of Texas, Austin - Austin, TX - January 2015

- Ten-day seminar in machine learning techniques
- Covered the broad spectrum of machine learning topics as well as applications to a variety of fields (including psychology and

natural language processing)

SUMMER RESEARCH EXPERIENCE FOR THE BRAIN AND COGNITIVE SCIENCES (SREBCS) - Department of Psychology, University of South Carolina - Columbia, SC - Summer 2013

- Conducted research with Amit Almor and Rutvik Desai
- Attended a twice-weekly research seminar where researchers presented their work
- Attended weekly seminars about technology for psychological research (including fMRI, eye-tracking, EEG, statistical techniques, data analysis)

Honors and Awards

EMERGENT MEANING TRAVEL GRANT - Emergent Meaning Workshop, Lehigh Valley University - 2016

HENRY HOENIGSWALD PRIZE IN LINGUISTICS - Department of Linguistics, University of Pennsylvania - 2014

NATIONAL SCIENCE FOUNDATION SUMMER FELLOWSHIP THROUGH UNIVERSITY OF SOUTH CAROLINA SREBCS - 2013

NATIONAL SCIENCE FOUNDATION SUMMER FELLOWSHIP THROUGH CRA-W DREU - 2011, 2012

UNIVERSITY OF PENNSYLVANIA COLLEGE OF ARTS AND SCIENCES TRAVEL GRANT – February 2011, February 2013

UNITED STATES COAST GUARD YOUTH AMBASSADOR– August 2010 - August 2011

Professional Organizations

SOCIETY FOR RESEARCH IN CHILD DEVELOPMENT - 2013 - 2017

LINGUISTICS SOCIETY OF AMERICA - 2013 - 2017

ASSOCIATION FOR PSYCHOLOGICAL SCIENCE- 2013 - Present

SOCIETY FOR THE NEUROBIOLOGY OF LANGUAGE - 2015 - 2017

PSYCHONOMIC SOCIETY - 2015 - Present

SOCIETY FOR COMPUTERS IN PSYCHOLOGY - 2015 - 2017

COGNITIVE SCIENCE SOCIETY - 2016 - 2017