

# Lisa S. Pearl | Curriculum Vitae

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## Research Interests

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**Language acquisition:** the mechanisms of language acquisition, combining probabilistic techniques with discrete representations, combining developing representations with developing processing abilities

*Acquisition modeling areas:* speech segmentation, morphology, syntax, syntax-semantics interface, metrical phonology, syntactic categorization, lexicon development, scope interpretations, non-literal language interpretation

**Natural language processing:** authorship, tone & intention detection, mental state inference, computational sociolinguistics

## Professional Positions

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<b>Department of Language Science</b> <i>University of California, Irvine</i>	<b>Chair &amp; Professor, Step II</b> <i>2018-Current</i>
<b>Department of Cognitive Sciences</b> <i>University of California, Irvine</i>	<b>Professor, Step II</b> <i>2018-Current</i>
<b>Department of Language Science/Linguistics</b> <i>University of California, Irvine</i>	<b>Chair &amp; Associate Professor, Step IV</b> <i>2016-2018</i>
<b>Department of Cognitive Sciences</b> <i>University of California, Irvine</i>	<b>Associate Professor, Step IV</b> <i>2015-2018</i>
	<b>Associate Professor, Step III</b> <i>2013-2015</i>
	<b>Assistant Professor, Step V</b> <i>2011-2013</i>
	<b>Assistant Professor, Step III</b> <i>2009-2011</i>
	<b>Assistant Professor, Step II</b> <i>2007-2009</i>
<b>Department of Logic and Philosophy of Science</b> <i>University of California, Irvine</i>	<b>Affiliated Faculty</b> <i>2013-Current</i>
<b>Institute for Mathematical Behavioral Sciences</b> <i>University of California, Irvine</i>	<b>Affiliated Faculty</b> <i>2010-Current</i>
<b>Center for Machine Learning and Intelligent Systems</b> <i>University of California, Irvine</i>	<b>Affiliated Faculty</b> <i>2007-Current</i>
<b>Department of Linguistics</b> <i>University of California, Irvine</i>	<b>Affiliated Faculty</b> <i>2007-2016</i>

Natural Language Processing Technologies Division

BBN

System Engineer Intern

2006-2007

Machine Translation Laboratory

University of Maryland Institute for Advanced Computer Studies (UMIACS)

Research Assistant

2000-2002

## Education

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**Ph.D. Linguistics**

University of Maryland, College Park

*Dissertation: Necessary Bias in Natural Language Learning*

2002-2007

Committee: Amy Weinberg (Chair), Jeffrey Lidz, William Idsardi, Charles Yang, James Reggia.

**B.A. Linguistics**

University of Maryland, College Park

*Honors*

1998-2002

**B.S. Computer Science**

University of Maryland, College Park

*High Honors*

1998-2002

## Languages

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**Natural:** English (native), Spanish (advanced reading & speaking), Latin (intermediate reading), Hebrew (basic reading)

**Research:** English, ASL, Spanish, Farsi, Japanese, German, Hungarian, Italian

**Computer:** perl, L<sup>A</sup>T<sub>E</sub>X, python, java, C++, html, lisp

## Selected Awards

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### Research

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**UCI Social Science Associate Professor Research Award: *Deeper linguistic features for automatic detection of opinion spam*. 2015.** This research investigates the use of psychologically-motivated automatically extractable linguistic features for detecting deceptive product and service reviews in online forums. Role: **PI**. Total Amount: \$5K.

**National Science Foundation: *Collaborative Research: An Integrated Theory of Syntactic Acquisition*. 2014-2017.** This research combines the methodologies of computational modeling and experimental syntax to create an integrated theory of how structural knowledge about language is learned. Collaborative effort with the University of Connecticut at Storrs. Role: **PI**. Total Amount: \$375K. UCI Amount: \$141.5K.

**National Institute on Alcohol Abuse and Alcoholism: *Automating Behavioral Coding via Text-Mining and Speech Signal Processing*. 2010-2015.** This research uses probabilistic topic models and speech signal processing to automatically analyze therapy sessions. The models learn the associations between, text, acoustic features, and behavioral codes assigned by therapists, with the goal of automating the coding of therapy transcripts and predicting the effectiveness of therapy. Collaborative effort with University of Washington and University of Southern California. Role: **Co-I**. Total Amount: \$3.1 million. UCI Amount: \$964K.

**Navy: *Using Stylistic Topic Models to Detect Deception Through Unusual Linguistic Activity*. 2010-2011.** A small grant to collaborate with a small business (Kitware) to develop a system to identify deceptive behavior in unstructured documents, particularly behavior signaled by deviations from an author's usual linguistic patterns. Role: **Co-PI** (Subcontract). Total Amount: \$70K. UCI Amount: \$39.5K.

**National Science Foundation: *Testing the Universal Grammar Hypothesis*. 2009-2013.** This research provides a methodology for addressing one of the central debates in language learning and demonstrates how to apply this methodology to complex phenomena central to linguistic theory. Role: **Co-PI**. Amount: \$177K. *Note: Funded first time through.*

**UCI Academic Senate Council on Research, Computing, and Libraries: *Linguistic Cues to Social Information*. 2009-2010.** A small seed grant designed to develop a large-scale database and computational techniques to automatically identify linguistic cues to social information in text. Multi-investigator faculty research grant with Mark Steyvers and Padhraic Smyth. Role: **Co-PI**. Amount: \$13K.

## Other

**UCI, Undergraduate Research Opportunities Program:** Chancellor's Award for Excellence in Fostering Undergraduate Research. 2016.

**UCI, School of Social Sciences:** Excellence in Undergraduate Teaching. 2011, 2015, 2016.

**UCI, Undergraduate Research Opportunities Program:** Faculty Mentor of the Month. 2014.

## Publications

### Journal publications

**Pearl, L. & Sprouse, J.** *Under review*. The acquisition of linking theories: A Tolerance Principle approach to learning UTAH and rUTAH. *Linguistic Inquiry*. lingbuzz: <https://ling.auf.net/lingbuzz/004088>.

Vogler, N. & **Pearl, L.** *Under review*. Using linguistically-defined specific details to detect deception across domains. *Natural Language Engineering*.

**Pearl, L. & Sprouse, J.** *Under review*. Comparing solutions to the linking problem using an integrated quantitative framework of language acquisition. *Language*. lingbuzz: <https://ling.auf.net/lingbuzz/003913>.

**J20: Pearl, L.** *In press*. Fusion is great, and interpretable fusion could be exciting for theory generation. *Perspectives* section of *Language*. lingbuzz: <https://ling.auf.net/lingbuzz/004142>.

**J19: Pearl, L., Ho, T., & Detrano, Z.** 2017. An argument from acquisition: Comparing English metrical stress representations by how learnable they are from child-directed speech. lingbuzz: <http://ling.auf.net/lingbuzz/002072>. [downloaded 3422 times as of 5/25/17] *Language Acquisition*, 24, 307-342. <http://dx.doi.org/10.1080/10489223.2016.1194422>. Published online June 2016.

**J18: Pearl, L.** 2017. Evaluation, use, and refinement of knowledge representations through acquisition modeling. *Language Acquisition*, 24, 126-147. lingbuzz: <http://ling.auf.net/lingbuzz/002776>. *Language Acquisition*. <http://dx.doi.org/10.1080/10489223.2016.1192633>.

**J17: Pearl, L. & Mis, B.** 2016. The role of indirect positive evidence in syntactic acquisition: A look at anaphoric *one*. *Language*, 92(1), 1-30. lingbuzz: <http://ling.auf.net/lingbuzz/001922>.

**J16: Pearl, L., Lu, K., & Haghghi, A.** 2016. The Character in the Letter: Epistolary Attribution in Samuel Richardson's *Clarissa*. *Digital Scholarship in the Humanities*, 32(2), 355-376. doi: 10.1093/llc/fqw007.

**J15: Pearl, L. & Braunwald, S.** 2015. Review of *Language in Mind: An Introduction to Psycholinguistics* by Julie Sedivy. *Teaching Linguistics* subsection of *Language*, 91(4), e181-e183.

**J14: Phillips, L. & Pearl, L.** 2015. The utility of cognitive plausibility in language acquisition modeling: Evidence from word segmentation. *Cognitive Science*, 39(8), 1824-1854. doi:10.1111/cogs.12217.

- J13: Pearl, L.** & Sprouse, J. 2015. Computational modeling for language acquisition: A tutorial with syntactic islands. *Journal of Speech, Language, and Hearing Research*, 58, 740-753. doi: 10.1044/2015\_JSLHR-L-14-0362. lingbuzz: <http://ling.auf.net/lingbuzz/002346>.
- J12: Pearl, L.** & Enverga, I. 2015. Can you read my mindprint? Automatically identifying mental states from language text using deeper linguistic features. *Interaction Studies*, 15(3), 359-387.
- J11: Pearl, L.** 2014. Evaluating learning strategy components: Being fair. *Language*, 90(3), e107-e114. lingbuzz: <http://ling.auf.net/lingbuzz/001940>.
- J10: Pearl, L.** & Steyvers, M. 2013. "C'mon – You Should Read This": Automatic Identification of Tone from Language Text. *International Journal of Computational Linguistics*, 4(1), 12-30.
- J9: Pearl, L.** & Sprouse, J. 2013. Syntactic islands and learning biases: Combining experimental syntax and computational modeling to investigate the language acquisition problem. *Language Acquisition*, 20, 19-64. doi: 10.1080/10489223.2012.738742.
- J8: Pearl, L.** & Steyvers, M. 2012. Detecting Authorship Deception: A Supervised Machine Learning Approach Using Author Writeprints. *Literary and Linguistic Computing*, 27(2), 183-196. doi: 10.1093/lc/fqs003.
- J7: Caponigro, I., Pearl, L., Brooks, N.** & Barner, D. 2012. Acquiring the meaning of free relative clauses and plural definite descriptions. *Journal of Semantics*, 29, 261-293. doi: 10.1093/jos/ffr014.
- J6: Pearl, L., Goldwater, S.,** & Steyvers, M. 2011. Online Learning Mechanisms for Bayesian Models of Word Segmentation. *Research on Language and Computation*, 8(2), 107-132. doi: 10.1007/s11168-011-9074-5.
- J5: Pearl, L.** 2011. When unbiased probabilistic learning is not enough: Acquiring a parametric system of metrical phonology. *Language Acquisition*, 18(2), 87-120.
- J4: Pearl, L.** & Lidz, J. 2009. When domain general learning fails and when it succeeds: Identifying the contribution of domain specificity. *Language Learning and Development*, 5(4), 235-265.
- J3: Caponigro, I.** & **Pearl, L.** 2009. The nominal nature of Where, When, and How: Evidence from Free Relatives. *Linguistic Inquiry*, 40(1), 155-164.
- J2: Lidz, J.** & **Pearl, L.** 2007. Language Learning through Selection. *Science*, 315, 332.
- J1: Pearl, L.** & Weinberg, A. 2007. Input Filtering in Syntactic Acquisition: Answers from Language Change Modeling. *Language Learning and Development*, 3(1), 43-72.

### Book chapters & conference proceedings.....

- Pearl, L.** *Under review.* Modeling syntactic acquisition. In J. Sprouse (ed.), *Oxford Handbook of Experimental Syntax*. lingbuzz: <http://lingbuzz.auf.net/lingbuzz/003416> [downloaded 406 times as of 7/18/18]
- BCCP27: Bates, A., Pearl, L.,** & Braunwald, S. 2018. I can believe it: Quantitative evidence for closed-class category knowledge in an English-speaking 20- to 24-month-old child. In *Proceedings of the Berkeley Linguistics Society*. lingbuzz: <https://ling.auf.net/lingbuzz/004110>.
- BCCP26: Bar-Sever, G., Lee, R., Scontras, G.,** & **Pearl, L.** 2018. Little lexical learners: Quantitatively assessing the development of adjective ordering preferences. In Bertolini, A. & Kaplan, M. (eds.), *Proceedings of the 42nd annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, 58-71.
- BCCP25: Savinelli, K., Scontras, G.,** & **Pearl, L.** 2018. Exactly two things to learn from modeling scope ambiguity resolution: Developmental continuity and numeral semantics. In *Proceedings of*

the 8th Workshop on Cognitive Modeling and Computational Linguistics, Salt Lake City, UT.

**BCCP24:** Nguyen, E. & Pearl, L. 2018. Do You Really Mean It? Linking Lexical Semantic Profiles and the Age of Acquisition for the English Passive. In the *Proceedings of the 35th West Coast Conference on Formal Linguistics*, Wm. G. Bennett, Lindsay Hracs, and Dennis Ryan Storoshenko (eds), Somerville, MA: Cascadilla Proceedings, 288-295.

**BCCP23:** Pearl, L. & Phillips, L. 2018. Evaluating language acquisition models: A utility-based look at Bayesian segmentation. In A. Villavicencio & T. Poibeau (eds), *Language, Cognition and Computational Models*. Cambridge University Press, 185-224.

**BCCP22:** Savinelli, K., Scontras, G., & Pearl, L. 2017. Modeling scope ambiguity resolution as pragmatic inference: Formalizing differences in child and adult behavior. *39th annual meeting of the Cognitive Science Society*, London, UK: Cognitive Science Society, 3064-3069.

**BCCP21:** Bar-Sever, G. & Pearl, L. 2016. Syntactic Categories Derived from Frequent Frames Benefit Early Language Processing in English and ASL. *Proceedings of the 40th annual Boston University Conference on Language Development*, ed. by Jennifer Scott and Deb Waughtal, Somerville, MA: Cascadilla Press, 32-46.

**BCCP20:** Pearl, L. & Goldwater, S. 2016. Statistical Learning, Inductive Bias, and Bayesian Inference in Language Acquisition. In J. Lidz, W. Snyder, & J. Pater (eds), *The Oxford Handbook of Developmental Linguistics*. Oxford University Press, 664-695.

**BCCP19:** Phillips, L. & Pearl, L. 2015. Utility-based evaluation metrics for models of language acquisition: A look at speech segmentation. *Workshop on Cognitive Modeling and Computational Linguistics 2015, NAACL*, Denver, Colorado.

**BCCP18:** Pearl, L., Ho, T., & Detrano, Z. 2014. More learnable than thou? Testing knowledge representations with child-directed speech. *Proceedings of the Berkeley Linguistics Society*, 398-422.

**BCCP17:** Phillips, L. & Pearl, L. 2014. Bayesian inference as a viable cross-linguistic word segmentation strategy: It's all about what's useful. *Proceedings of the 36th Annual Meeting of the Cognitive Science Society*, 2775-2780.

**BCCP16:** Phillips, L. & Pearl, L. 2014. Bayesian inference as a cross-linguistic word segmentation strategy: Always learning useful things. *Proceedings of the Computational and Cognitive Models of Language Acquisition and Language Processing Workshop, EACL*, Gothenberg, Sweden.

**BCCP15:** Pearl, L. & Sprouse, J. 2013. Computational Models of Acquisition for Islands. In J. Sprouse & N. Hornstein (eds), *Experimental Syntax and Islands Effects*, Cambridge University Press, 109-131.

**BCCP14:** Pearl, L. & Lidz, J. 2013. Parameters in Language Acquisition. In C. Boeckx & K. Grohmann (eds), *The Cambridge Handbook of Biolinguistics*, Cambridge University Press, 129-159.

**BCCP13:** Phillips, L. & Pearl, L. 2012. "Less is More" in Bayesian word segmentation: When cognitively plausible learners outperform the ideal. In N. Miyake, D. Peebles, & R. Cooper (eds), *Proceedings of the 34th Annual Conference of the Cognitive Science Society*, 863-868. Austin, TX: Cognitive Science Society.

**BCCP12:** Pearl, L. & Mis, B. 2011. How Far Can Indirect Evidence Take Us? Anaphoric *One* Revisited. In L. Carlson, C. Hölscher, & T. Shipley (eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*, 879-884. Austin, TX: Cognitive Science Society.

**BCCP11:** Caponigro, I., Pearl, L., Brooks, N., & Barner, D. 2011. On the acquisition of maximality in free relatives and definite plurals. In Nan Li & David Lutz (eds.), *Proceedings from Semantic*

and *Linguistic Theory*, 20, 508-524. [9% acceptance rate]

**BCCP10:** Pearl, L. 2010. Using computational modeling in language acquisition research. In E. Blom & S. Unsworth (eds.), *Experimental Methods in Language Acquisition Research*, John Benjamins.

**BCCP9:** Pearl, L. & Steyvers, M. 2010. Identifying Emotions, Intentions, & Attitudes in Text Using a Game with a Purpose. *Proceedings of NAACL-HLT 2010 Workshop on Computational Approaches to Analysis and Generation of Emotion in Text*, Los Angeles, CA: NAACL.

**BCCP8:** Pearl, L., Goldwater, S. & Steyvers, M. 2010. How Ideal Are We? Incorporating Human Limitations into Bayesian Models of Word Segmentation. In K. Franich, K. Iserman, & L. Keil (eds), *Proceedings of the 34th annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, 315-326. [15% acceptance rate]

**BCCP7:** Pearl, L. 2009. Learning English Metrical Phonology: When Probability Distributions Are Not Enough. In Jean Crawford, Koichi Otaki, and Masahiko Takahashi (eds.), *Proceedings of the 3rd Conference on Generative Approaches to Language Acquisition North America (GALANA 2008)*, Somerville, MA: Cascadilla Proceedings Project, 200-211.

**BCCP6:** Caponigro, I. & Pearl, L. 2008. Silent Prepositions: Evidence from Free Relatives. In A. Asbury, J. Dotlaél, B. Gehrke, & R. Nouwen (eds), *The Syntax and Semantics of Spatial P*. Amsterdam: Benjamins.

**BCCP5:** Pearl, L. 2008. Putting the Emphasis on Unambiguous: The Feasibility of Data Filtering for Learning English Metrical Phonology. In Chan, H., Jacob, H., & Kapia, E (eds.), *Proceedings of the 32nd Annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, 390-401. [14% acceptance rate]

**BCCP4:** Pearl, L. 2005. The Input to Syntactic Acquisition: Solutions from Language Change Modeling. *Proceedings of the Second Workshop on Psychocomputational Models of Human Language Acquisition*, Ann Arbor, Michigan, 1-9.

**BCCP3:** Pearl, L. 2005. Addressing Acquisition from Language Change: A Modeling Perspective. *University of Pennsylvania Working Papers in Linguistics*, 11(1) .

**BCCP2:** Dorr, B., Pearl, L., Hwa, R., & Habash, N. 2003. DUSTer: A Method for Unraveling Cross-Language Divergences for Statistical Word-Level Alignment. *Lecture Notes in Computer Science* Springer-Verlag, 31-43.

**BCCP1:** Green, R., Dorr, B., & Pearl, L. 2002. Mapping WordNet Senses to a Lexical Database of Verbs. *Proceedings of the 39th Annual Meeting of the Association for Computational Linguistics*.

#### Technical reports & manuscripts.....

**TRM5:** Pearl, L., Scontras, G., & Singh, S. 2017. Large-scale sophisticated linguistic monitoring. *A Decadal Survey of the Social and Behavioral Sciences for National Security*, Division of Behavioral and Social Sciences and Education (DBASSE) of the National Academies.

**TRM4:** Phillips, L. & Pearl, L. 2015. Evaluating language acquisition strategies: A cross-linguistic look at early segmentation. University of California, Irvine.

**TRM3:** Pearl, L. & Mis, B. 2013. Induction problems, indirect positive evidence, and Universal Grammar: Anaphoric *one* revisited. University of California, Irvine. *lingbuzz*: <http://ling.auf.net/lingbuzz/001516>. [downloaded 1247 times as of 5/25/17]

**TRM2:** Dorr, B., Pearl, L., Hwa, R., & Habash, N. 2002. Improved Word Level Alignment: Injecting Knowledge about MT Divergences. Technical Report ACL-2002-P0364, Language and



Media Processing Laboratory, University of Maryland, College Park.

**TRM1:** Green, R., **Pearl, L.**, Dorr, B., & Resnik, P. 2001. Lexical Resource Integration Across the Syntax-Semantics Interface. Technical Report LAMP-TR-069/CS-TR-4231/UMIACS-TR-2001-19/CS-TR-4231, University of Maryland, College Park.

## Datasets & software.....

**6: WordSleuth database.** 2016-CURRENT. Data from the WordSleuth game-with-a-purpose (GWAP) at <http://wordsleuth.ss.uci.edu>, which identifies mental states in language text, [http://www.socsci.uci.edu/~lpearl/CoLaLab/corpora/wordsleuth\\_data\\_curr.zip](http://www.socsci.uci.edu/~lpearl/CoLaLab/corpora/wordsleuth_data_curr.zip).

**5: CHILDES Treebank.** 2012-CURRENT. A syntactic tree corpus derived from data in the CHILDES database, used for syntactic acquisition studies. [http://childes.psy.cmu.edu/derived/pearl\\_sprouse.zip](http://childes.psy.cmu.edu/derived/pearl_sprouse.zip), <http://www.socsci.uci.edu/~lpearl/CoLaLab/CHILDESTreebank/childestreebank.html>.

**4: Clarissa Letters Dataset.** 2015. A collection of all character letters from Samuel Richardson's epistolary novel *Clarissa*, used for character authorship attribution studies. <http://www.socsci.uci.edu/~lpearl/CoLaLab/corpora/RichardsonsClarissa.zip>.

**3: Phillips-Pearl Cross-linguistic Segmentation Corpus.** 2015. (with Lawrence Phillips). A phonemically-transcribed and syllabified corpus derived from data from four non-English languages in the CHILDES database, used for speech segmentation studies. <http://www.socsci.uci.edu/~lpearl/CoLaLab/corpora/PhillipsPearl-cross-ling-corpora.zip>.

**2: UCI\_Brent Derived Segmentation Corpus..** 2013. (with Lawrence Phillips). A phonemically-transcribed and syllabified corpus derived from the American English Brent database in the CHILDES database, used for speech segmentation studies. <http://www.socsci.uci.edu/~lpearl/CoLaLab/uci-brent-syl-Dec2013.zip>.

**1: Pearl\_Brent Derived Segmentation Corpus..** 2010. A phonemically-transcribed corpus derived from the American English Brent database in the CHILDES database, used for speech segmentation studies. [http://childes.psy.cmu.edu/derived/pearl\\_brent.zip](http://childes.psy.cmu.edu/derived/pearl_brent.zip), [http://www.socsci.uci.edu/~lpearl/CoLaLab/pearl\\_brent.zip](http://www.socsci.uci.edu/~lpearl/CoLaLab/pearl_brent.zip).

## Publications about my work.....

**1:** Dupoux, E. 2015. Evaluating models of language acquisition: are utility metrics useful? *The Synthetic Learner Blog*, <http://bootphon.blogspot.com/2015/05/models-of-language-acquisition-machine.html>. Review of Phillips & **Pearl** (2015), *Utility-based evaluation metrics for models of language acquisition: A look at speech segmentation*.

## Presentations

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### Invited presentations.....

**53: Quantitative approaches to learning linking theories in language.** Institute for Mathematical Behavioral Sciences, University of California, Irvine. 2018

**52: Bayesian inference and linguistic parameters.** Norwegian Summer Institute on Language and Mind 2017, University of Oslo, Norway. 2017.

**51: Computational models of syntactic acquisition.** Norwegian Summer Institute on Language and Mind 2017, University of Oslo, Norway. 2017.

- 50: Introduction to computational models of language acquisition.** Norwegian Summer Institute on Language and Mind 2017, University of Oslo, Norway. 2017.
- 49: Integrating conceptual and syntactic cues to understand the development of English verb classes.** Symposium on Advances in Distributional Models of Language and Meaning, held at the joint meeting of the Society for Mathematical Psychology, and the International Conference on Cognitive Modeling. University of Warwick, UK. 2017.
- 48: The development of verb classes: A computational adventure with implications for linguistic theory.** Language Science Colloquium, University of California, Irvine. 2017.
- 47: Computational models of language acquisition: Why, how, and what we can learn.** Keynote Address, Cognitive Science Workshop. Simon Fraser University, Vancouver. 2017.
- 46: Computational Model Building for Language Acquisition: An Introduction.** Child Language Acquisition Lecture. CSU Fullerton. 2016.
- 45: Integrating conceptual and structural cues: Theories for syntactic acquisition.** SynLinks: Links between representation and processing in syntactic acquisition. University of Connecticut, Storrs. 2016.
- 44: Computational Model Building for Language Acquisition: An Introduction.** Great Lakes Expo of Experimental and Formal Undergraduate Linguistics (GLEEFUL). Michigan State University. 2016.
- 43: How to know what's necessary: Using computational modeling to specify Universal Grammar.** Linguistics Colloquium, McGill University, Montreal, Canada. 2016.
- 42: Speech and Structure.** Language Origins: Evolution, Genetics, and the Brain, University of California, Irvine. 2016.
- 41: The Computation of Language: Syntactic Acquisition Edition.** Linguistics Colloquium, University of California, Los Angeles. 2016.
- 40: Interactive music systems: Emotional content & music lyrics.** (with Fabio Paolizzo & John Crawford). Integrated Composition, Improvisation, and Technology Colloquium, University of California, Irvine. 2016.
- 39: Evaluation, use, and refinement of knowledge representations through acquisition modeling.** GALANA Annual Meeting, College Park, MD. 2015.
- 38: Language.** Developmental Psychology, University of California, Irvine. 2014.
- 37: More learnable than thou? Testing knowledge representations with realistic acquisition data.** Linguistics Colloquium, University of California, Santa Cruz. 2014.
- 36: More learnable than thou? Empirically testing linguistic knowledge representations.** Logic and Philosophy of Science Colloquium, University of California, Irvine. 2013.
- 35: More learnable than thou? Empirically testing linguistic knowledge representations.** Institute for Mathematical Behavioral Sciences, University of California, Irvine. 2013.
- 34: Knowing where to look: Identifying what children need to make syntactic generalizations.** Cognition and Language Workshop, Stanford University. 2013.
- 33: Language.** Developmental Psychology, University of California, Irvine. 2013.
- 32: Investigating the development of knowledge using computational methods.** Education, Johns Hopkins University. 2013.



- 31: Understanding language learning using computational methods.** Cognitive Science, Johns Hopkins University. 2013.
- 30: Empirically investigating the Universal Grammar hypothesis.** Linguistics Colloquium, New York University, New York. 2012.
- 29: Two good ways to use computational methods to understand language (Acquisition edition).** Mayfest, University of Maryland, College Park. 2012.
- 28: Testing the Universal Grammar hypothesis: The contribution of computational modeling.** Linguistics Symposium, CSU Fullerton, California. 2012.
- 27: Inferring Mental States from Language Text.** Center for Machine Learning and Intelligent Systems AI/ML Seminar Series, University of California, Irvine. 2012.
- 26: Syntactic islands without Universal Grammar.** (with Jon Sprouse) Workshop on Input & Syntactic Acquisition, Portland, OR. 2012.
- 25: On the meaning of Free Relative clauses and Plural Definite Descriptions: Evidence from acquisition.** (with Ivano Caponigro, Neon Brooks, & David Barner) Harvard-Australia Workshop on Language, Learning, and Logic, Sydney, Australia. 2011.
- 24: Making Sense of Information Overload.** (with Michael Lee & Mark Steyvers) Social Science Expert Speaker series, University of California, Irvine. 2011.
- 23: Looking Beyond: What Indirect Evidence Can Tell Us About Universal Grammar.** Workshop on Language, Cognition, and Computation & Workshop on Language, Variation, and Change, University of Chicago. 2011.
- 22: Some Fundamental Issues in Language Acquisition Research & the Contribution of Computational Modeling.** Guest lecturer, Psycholinguistics, California State University, Fullerton. 2010.
- 21: Computation in Acquisition.** Linguistics Colloquium, University of Maryland, College Park. 2010.
- 20: Learning-Driven Linguistic Evolution.** Social Dynamics Seminar, University of California, Irvine. 2009.
- 19: Constrained Probabilistic Learning for Complex Linguistic Systems.** Department of Linguistics Colloquium, University of California, San Diego. 2008.
- 18: Learning-Driven Linguistic Evolution.** Workshop on The Evolution of Psychological Categories, Institute for Mathematical Behavioral Sciences, University of California, Irvine. 2008.
- 17: Cognitive Modeling: How Humans Learn Complex Linguistic Systems.** Center for Machine Learning and Intelligent Systems AI/ML Seminar Series, University of California, Irvine. 2008.
- 16: Learning Complex Linguistic Systems: Parameters, Probability, and the Power of Selective Learning.** Psychobabble Talk Series, University of California, Los Angeles. 2008.
- 15: An Unambiguous Strategy for Learning Complex Linguistic Systems.** Department of Linguistics Colloquium, University of Southern California. 2007.
- 14: Jack only learns from this data point, but Lily learns from that one, too.** Center for Language Sciences, University of Rochester. 2007.
- 13: Language in Populations: The Interaction Between Learning and Change.** Northwestern Institute on Complex Systems, Northwestern University. 2007.

- 12: At the Interface of Computational Learning Theory and Human Language Learning.** Cognitive Sciences, University of California, Irvine. 2007.
- 11: Finding the Right Data to Learn From: Computational Modeling Investigations.** Psycholinguistics Supper Club, City University of New York. 2007.
- 10: At the Interface of Computational Learning Theory and Human Language Learning.** Linguistics Colloquium Series, University of Delaware. 2007.
- 9: At the Interface of Computational Learning Theory and Human Language Learning.** Yale Linguistics Colloquia Series. 2007.
- 8: At the Interface of Computational Learning Theory and Human Language Learning.** Cognitive Neuroscience of Language Lunch Talks, University of Maryland at College Park. 2007.
- 7: Bayesian Updating in Human Language Learning.** Decisive Analytics Corporation, Arlington, VA. 2006.
- 6: Computational Answers to Human Language Learning Questions.** National Security Agency, Ft. Meade, MD. 2006.
- 5: When domain general learning fails and when it succeeds: Identifying the contribution of domain specificity.** Cognitive Neuroscience of Language Lunch Talks, University of Maryland at College Park. 2006.
- 4: How Learning Works – A View from English Participle Morphology.** Cognitive Neuroscience of Language Lunch Talks, University of Maryland, College Park. 2004.
- 3: Modeling Object-Verb Loss in Old English: A Tale of Trigger-Based Acquisition.** Guest lecture at David Lightfoot's graduate seminar on Language Change, Georgetown University. 2003.
- 2: Modeling Object-Verb Loss in Old English: A Tale of Trigger-Based Acquisition.** Graduate Research Interaction Day, University of Maryland, College Park. 2003.
- 1: Modeling Object-Verb Loss in Old English: A Tale of Trigger-Based Acquisition.** Cognitive Neuroscience of Language Lunch Talks, University of Maryland, College Park. 2003.

**Peer-reviewed conference presentations.....**

- 42: What input gap is there across socioeconomic status for complex syntax? A quantitative and cognitive modeling analysis of linguistic evidence for learning syntactic islands.** (with Alandi Bates) Boston University Conference on Language Development 43, Boston, MA. 2018.
- 41: Using developmental modeling to specify learning and representation of the passive in English children.** (with Emma Nguyen) Boston University Conference on Language Development 43, Boston, MA. 2018.
- 40: Child behavior in truth-value judgments: The pragmatics of ambiguity resolution.** (with Greg Scontras) Conference on Interdisciplinary Approaches to Linguistic Theory 2, Berlin, 2018.
- 39: Using developmental modeling to specify learning and representation of the passive in English children.** (with Emma Nguyen) 8th Generative Approaches to Language Acquisition North America Conference, Indiana University, Bloomington, 2018.
- 38: Using Meaning Specificity to Aid Negation Handling in Lexicon-Based Sentiment Analysis.** (with Doreen Hii and Alan Yuen) SoCal Natural Language Processing Symposium, UC Irvine, 2018.
- 37: I can believe it: Quantitative evidence for closed-class category knowledge in a 20- to 24-month-old child.** (with Alandi Bates and Sue Braunwald) 44th Annual Meeting of the Berkeley

Linguistics Society, UC Berkeley, 2018.

**36: Exactly two things to learn from modeling scope ambiguity resolution: Developmental continuity and numeral semantics.** (with K.J. Savinelli and Greg Scontras) Cognitive Modeling and Computational Linguistics, Salt Lake City, UT, 2018.

**35: Quantitatively assessing the development of adjective ordering preferences using child-directed and child-produced speech corpora.** (with Galia Bar-Sever, Rachael Lee, and Greg Scontras) 1st Annual Meeting of the Society for Computation in Linguistics, Salt Lake City, UT, 2018.

**34: I can believe it: Quantitative evidence for closed-class category knowledge in a 20- to 24-month-old child.** (with Alandi Bates and Sue Braunwald) 1st Annual California Meeting on Psycholinguistics, UCLA, 2017.

**33: Quantitatively assessing the development of adjective ordering preferences using child-directed and child-produced speech corpora.** (with Galia Bar-Sever, Rachael Lee, and Greg Scontras) 1st Annual California Meeting on Psycholinguistics, UCLA, 2017.

**32: Small lexical learners: The development of adjective ordering preferences.** (with Galia Bar-Sever, Rachael Lee, and Greg Scontras) Boston University Conference on Language Development 42, Boston, MA. 2017. [19% talk acceptance rate]

**31: Continuity in development of scope ambiguity resolution and the importance of numeral semantics.** (with K.J. Savinelli and Greg Scontras) California Universities Semantics and Pragmatics (CUSP) 10, UC Irvine. 2017.

**30: Modeling scope ambiguity resolution as pragmatic inference: Formalizing differences in child and adult behavior.** (with KJ Savinelli and Greg Scontras) 39th annual meeting of the Cognitive Science Society, London, UK. 2017.

**29: Linking lexical semantic profiles and the age of acquisition for the English passive.** (with Emma Nguyen) 53rd Meeting of the Chicago Linguistic Society, University of Chicago. 2017.

**28: Do you really mean it? Linking lexical semantic profiles and the age of acquisition for the English passive.** (with Emma Nguyen) West Coast Conference on Formal Linguistics, Calgary, Alberta. 2017.

**27: Context management vs. grammatical processing in children's scope ambiguity resolution.** (with K.J. Savinelli and Greg Scontras). 30th Annual CUNY Conference on Human Sentence Processing, MIT. 2017.

**26: Case studies in eliciting the Spanish subjunctive in heritage bilingual children.** (with Margarita Rodriguez and Julio Torres) 4th National Symposium on Spanish as a Heritage Language, UC Irvine. 2017.

**25: The development of scope ambiguity resolution: New frontiers in the RSA framework.** (with K.J. Savinelli and Greg Scontras) CSLI workshop on *Bridging computational and psycholinguistic approaches to the study of meaning*, Stanford. 2017.

**24: Do you really mean it? Linking lexical semantic profiles and the age of acquisition for the English passive.** (with Emma Nguyen) Linguistic Society of America Annual Meeting, Austin. 2017.

**23: Syntactic categories derived from frequent frames benefit early language processing in English and ASL.** (with Galia Bar-Sever) Boston University Conference on Language Development 40, Boston University. 2015. [17% talk acceptance rate]

- 22: Utility-based evaluation metrics for models of language acquisition: A look at speech segmentation.** (with Lawrence Phillips) Workshop on Cognitive Modeling and Computational Linguistics, NAACL, Denver, Colorado. 2015.
- 21: A different kind of success: Frequent frames identify useful grammatical categories in a signed language.** (with Galia Bar-Sever) Arizona Linguistics Circle 8, Tucson, Arizona. 2014.
- 20: Bayesian inference as a viable cross-linguistic word segmentation strategy: It's all about what's useful.** (with Lawrence Phillips) 36th Annual Meeting of the Cognitive Science Society, Quebec City, Canada. 2014.
- 19: Bayesian inference as a cross-linguistic word segmentation strategy: Always learning useful things.** (with Lawrence Phillips) Computational and Cognitive Models of Language Acquisition and Language Processing Workshop, EACL, Gothenberg, Sweden. 2014.
- 18: More learnable than thou? Testing metrical phonology representations with child-directed speech.** (with Timothy Ho & Zephyr Detrano) 40th Annual Meeting of the Berkeley Linguistics Society, Berkeley, CA. 2014.
- 17: 'Less is More' in Bayesian word segmentation: When cognitively plausible learners outperform the ideal.** (with Lawrence Phillips) 34th Annual Meeting of the Cognitive Science Society, Saporro, Japan. 2012.
- 16: Syllable-based Bayesian inference: A (more) plausible model of word segmentation.** (with Lawrence Phillips) Workshop on Psychocomputational Models of Human Language Acquisition, Portland, OR. 2012.
- 15: Syllable-based Bayesian inference: A (more) plausible model of word segmentation.** (with Lawrence Phillips) 86th Annual Meeting of the Linguistic Society of America, Portland, OR. 2012.
- 14: How Far Can Indirect Evidence Take Us? Anaphoric One Revisited.** (with Ben Mis) 33rd Annual Conference of the Cognitive Science Society, Boston, MA. 2011.
- 13: Identifying Emotions, Intentions, and Attitudes in Text Using a Game with a Purpose.** (with Mark Steyvers) Human Language Technologies: The 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics, Workshop on Computational Approaches to Analysis and Generation of Emotion in Text, Los Angeles, California. 2010.
- 12: Acquiring maximality in free relatives and definite descriptions.** (with Ivano Caponigro, Neon Brooks, & Dave Barner) 20th Semantics and Linguistic Theory conference, Vancouver, British Columbia, Canada. 2010. [9% talk acceptance rate]
- 11: On the acquisition of maximality.** (with Ivano Caponigro, Neon Brooks, & Dave Barner) 36th Incontro di Grammatica Generativa, Università degli Studi di Milano-Bicocca, Milan, Italy. 2010.
- 10: How Ideal Are We? Incorporating Human Limitations into Bayesian Models of Word Segmentation.** (with Sharon Goldwater & Mark Steyvers) Boston University Conference on Language Development 34, Boston University. 2009.
- 9: Online Learning Mechanisms for Bayesian Models of Word Segmentation.** (with Sharon Goldwater & Mark Steyvers) Psychocomputational Models of Human Language Acquisition workshop, Cognitive Science Annual Conference, VU University Amsterdam, Netherlands. 2009.
- 8: Parametric Linguistic Systems: The Limits of Probabilistic Learning for Realistic Data.** Learning Meets Acquisition workshop at the 31st Annual Meeting of the German Linguistics Society,

University of Osnabrück, Germany. 2009.

**7: Learning English Metrical Phonology: Beyond Simple Probability.** Generative Approaches to Language Acquisition North America 3, University of Connecticut. 2008.

**6: Putting the Emphasis on Unambiguous: The Feasibility of Data Filtering for Learning English Metrical Phonology.** Boston University Conference on Language Development 32, Boston University. 2007. [14% talk acceptance rate]

**5: Silent (spatial) prepositions: Evidence from free relatives.** (with Ivano Caponigro) Syntax and Semantics of Spatial P, Utrecht, Netherlands. 2006.

**4: The Input for Syntactic Acquisition: Solutions from Language Change Modeling.** Psychocomputational Models of Human Language Acquisition workshop, Association for Computational Linguistics (ACL) conference, University of Michigan. 2005.

**3: Acquisition Theory in Language Change Modeling: Old English OV-Loss.** Thirteenth International Conference on English Historical Linguistics (ICEHL) conference, University of Vienna. 2004.

**2: Old English OV-Loss and Acquisition Theory: A View from Modeling.** Eighth Diachronic Generative Syntax (DIGS) conference, Yale University. 2004.

**1: What Language Change Modeling Can Do for Acquisition Theory.** Twenty-Eighth Pennsylvania Linguistics (PLC) Colloquium, University of Pennsylvania. 2004.

## Advising & mentoring

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### Postdoctoral: Language Science, University of California, Irvine.....

**Hannah Forsythe.** 2018-CURRENT.

- NSF SBE Postdoctoral Research Fellowship – Broadening Participation (SPRF-BP) & Science of Learning, 2018: “Modeling the Stages of Pronoun Acquisition”.

### Graduate: Cognitive Sciences, University of California, Irvine.....

**Alandi Bates.**

- 2017-CURRENT. Graduate advisor.

**K.J. Savinelli.**

- 2014-CURRENT. Graduate advisor.
- 2018. “The development of pragmatic competence”. Chair of advancement committee.
- 2016. “Acquisition of Pragmatic Competence”. Chair of concentration exam committee.

**Galia Bar-Sever.**

- 2014-CURRENT. Graduate advisor.
- 2018. “Language Development in Underrepresented Populations: Applying Quantitative Methods to Large-Scale Corpus Data”. Chair of advancement committee.
- 2015. “What Computational Modeling Can Do for Understanding Early Syntactic Categorization”. Chair of concentration exam committee.

**Colin Kupitz.** 2018. “Constructing a Bayesian Cognitive Meta Analysis”. Member of advancement committee.

**Ryan Stokes.**

- 2018. “A computational model of letter position encoding.” Member of advancement committee.
- 2015. “Letter Position Encoding”. Member of concentration exam committee.

**Stephen Bennett.** 2018. "Opting in and aggregate performance". Member of advancement committee.

**Ashley Thomas.**

- 2018. "Winners, Losers, Bullies, and Leaders. How infants and children think and feel about social hierarchy." Member of dissertation committee
- 2016. "Social hierarchy development". Member of advancement committee.
- 2014. "Fairness in Distributing Rewards". Member of concentration exam committee.

**Alex Bower.** 2017. "Insight Problem Solving: A Critical Review". Member of concentration exam committee.

**Beth Baribault.** 2017. "Neurocognitive process modeling: A new approach to neural decoding of behavior". Member of advancement committee.

**Blair Stewart.** 2016. "Individual Differences in Adult Second Language Acquisition". Member of concentration exam committee.

**Irina Danileiko.** 2016. "Bayesian Cognitive Modeling of Category Learning". Member of advancement committee.

**Lawrence Phillips.**

- *Post-graduate position: Postdoctoral scholar at the Pacific Northwest National Laboratory.*
- 2010-2015. Graduate advisor.
- 2015. "The Role of Empirical Evidence in Modeling Speech Segmentation". Chair of Ph.D. dissertation committee.
- 2013. "Incorporating Cognitive Realism into Models of Early Language Acquisition". Chair of Ph.D. advancement committee.

**Jessamy Norton-Ford.**

- 2015. "The Role of Dynamic Frequency Synchrony in Syntactic Processing". Acting chair of Ph.D. dissertation committee.
- 2012. "Time-Frequency Analysis of Language Processing". Member of Ph.D. advancement committee.

**Grant Walker.**

- 2015. "An exploratory computational investigation of aphasic speech production". Member of Ph.D. advancement committee.
- 2013. "Neurobiologically-inspired computational mechanisms for speech production". Member of concentration exam committee.

**William Matchin.**

- 2014. "Investigations of the syntax-brain relationship". Member of Ph.D. dissertation committee.
- 2013. Member of Ph.D. advancement committee.

**Sean Tauber.**

- 2013. "Inferring Mental Representations with Bayesian Models of Cognition". Member of Ph.D. dissertation committee.
- 2010. "Using Bayesian inverse planning to explore the relationship between production and inference of goal-directed behavior". Member of Ph.D. advancement committee.

**Benjamin Mis.**

- 2012. "Effects of Age and Language in the Second Language Acquisition of the English Nominal." Member of Ph.D. dissertation committee.
- 2010. "Age Effects on the Second Language Acquisition of English Nominal Morphosyntax".

Member of Ph.D. advancement committee.

**Jennifer Lindsay.**

- 2012. "Everything I Need to Know I Learned Before Elementary School: The Relationships Between Phonological Awareness, Letter Knowledge, and Working Memory." Member of Ph.D. dissertation committee.
- 2011. "Everything I Learned in Kindergarten: The Relationships between Phonological Awareness, Letter Knowledge, and Working Memory". Member of Ph.D. advancement committee.

**Timothy Rubin.** 2012. "Classification and Categorization in Machine Learning and Psychology." Member of Ph.D. dissertation committee.

**Meghan Goldman.** 2012. "Numerical Cognition in Bilingual Preschoolers". Member of Ph.D. dissertation committee.

**José Tabares.**

- 2011. "Phonological Influences in Verbal Working Memory in Monolinguals and Bilinguals.". Member of Ph.D. dissertation committee.
- 2009. "Phonological Influences in Verbal Working Memory in Monolinguals and Bilinguals". Member of Ph.D. advancement committee.

**Brent Miller.** 2011. "The Wisdom of Crowds and Rank Ordering Problems: Can we aggregate where we cannot average?" Member of Ph.D. advancement committee.

**Justin Marks.** 2011. "Natural Selection and Non-Veridical Perceptions". Member of Ph.D. advancement committee.

**Royce Anders.** 2011. "Frontiers of Cultural Consensus Theory". Member of Ph.D. advancement committee.

**Sabine Huemer.** 2010. "Name Recognition and Comprehension in Autism Spectrum Disorders". Member of Ph.D. advancement committee.

**James Negen.** 2010. "Numerical Cognition". Member of Ph.D. advancement committee.

**Tayopa Mogilner.** 2010. "Grammatical Sensitivity in Working Memory: Syllable Structure, Grammatical Category, and Morphology". Member of Ph.D. advancement committee.

**Emily Slusser.**

- 2010. "The Development of Number Concepts: Discrete Quantification and Numerosity". Member of Ph.D. dissertation committee.
- 2008. "Children's Partial Understanding of Number Words.". Member of Ph.D. advancement committee.

**Pernille Hemmer.** 2009. "The influence of prior knowledge on reconstructive memory". Member of Ph.D. advancement committee.

**Kenny Vaden.**

- 2009. "Phonological Processes in Speech Perception". Member of Ph.D. dissertation committee.
- 2008. "Sublexical and Lexical Phonological Processes.". Member of Ph.D. advancement committee.

**Miles Munro.** 2007. "Aptitude for Discriminating Novel Phones: Implications for Second-Language Pronunciation". Member of Ph.D. dissertation committee.

**Graduate: Other, University of California, Irvine.....**

**Karen Taylor.** 2018. "Academic Language Features in the Argumentative Writing of 2nd through



8th Grade Students". School of Education. Member of Ph.D. advancement committee.

**Youngmin Park.** 2014. "Technology-enhanced EFL Reading: Text Format Types and Syntactic Awareness". School of Education. Member of Ph.D. advancement committee.

**Ray Mendoza.** Institute for Mathematical Behavioral Sciences.

- 2012. "Extracting Useful Semantic Information from Large Scale Corpora of Text". Member of Ph.D. dissertation committee.
- 2010. "Methods for Classification of Emotion and Color Terms in Large-Scale Corpora". Member of Ph.D. advancement committee.

**Dale Webster.** 2011. "Relationships among Word Reading, Breadth and Depth of Vocabulary, and Reading Comprehension in English Learners and Evidence for a Common Sequence of English Learner Vocabulary Acquisition". School of Education. Member of Ph.D. advancement committee.

**America Chambers.** 2010. "Learning concept graphs from text.". Computer Science. Member of Ph.D. advancement committee.

### Graduate: Other.....

**Georgia Loukatou.** 2018-CURRENT. Computational cognitive models of infant speech segmentation. Ecole Doctorale Cerveau, Cognition, Comportement. Member of Thesis Advisory Committee.

**Emma Nguyen.** 2016-CURRENT. The acquisition of passives. Department of Linguistics, University of Connecticut. Computational modeling and corpus methods research advisor.

**Benjamin Börschinger.** 2014. "Exploring Issues in Lexical Acquisition Using Bayesian Modeling". Department of Computing, Macquarie University, Australia. Member of Ph.D. dissertation committee.

**Jessica Gamache.** 2012-2013. Linguistics, Michigan State University. Computational modeling consultant for dissertation improvement grant.

### Undergraduate research advising: University of California, Irvine.....

**John Lu.** 2018-CURRENT. Quantitative approaches to the development of syntactic categories.

**Sunny Singh.** 2018-CURRENT. Non-literal language and quantitative approaches to language development.

**Zeinab Kachakeche.** 2018-CURRENT. Quantitative approaches to language acquisition.

**Ellen Uyeda.** 2018-CURRENT. Co-supervisor, signed languages & natural language processing.

- SURP fellowship recipient 2018: "Creating a Machine Readable Dataset of Sign Language Annotation". Award amount: \$1500.

**Doreen Hii.** 2017-CURRENT. Honors project supervisor, sentiment analysis.

- UROP honorary fellowship recipient 2018: "Strategies for Handling Negation in Text-Based Sentiment Analysis".

**Alan Yuen.** 2018. Sentiment analysis.

**Ariana Barcenas.** 2017-2018. Acquisition in clinical populations.

**Sarah Lazbin.** 2017-2018. Honors project supervisor, automatic deception detection.

- Honors thesis 2018: "The Impact of Message Length and Medium on Imitation Attack Creation and Detection by Humans". Winner of best Cognitive Sciences and Psychology honors thesis 2018.
- SURP & UROP fellowship recipient 2017: "The Impact of Text Length and Medium on Imitation

Attack Detection by Humans and Machines”. Award amount: \$1500 (SURP), \$90 (UROP).

**Jasmine Uitz.** 2017-2018. Acquisition of semantics and pragmatics.

**Rachael Lee.** 2016-2018. Honors project co-supervisor, development of adjective ordering preferences.

- Honors thesis 2018: “How adjective ordering preferences develop in children”.
- SURP fellowship recipient 2017: “How Adjective Ordering Preferences Develop in Children”. Award amount: \$1500.

**Brennan Gonerig.** 2015-2018. Text analysis and gender identity.

- SURP fellowship recipient 2016: “Automatic Detection of Gender Identity in Blog Texts using Stylogram Features”. Award amount: \$1400.

**Alandi Bates.** 2015-2017. Syntactic acquisition.

- SURP fellowship recipient 2016: “Learning Abstract Linguistic Categories: Formally Measuring Knowledge of “Verb” in a Young Child’s Speech”. Award amount: \$1400.

**Alissa Powers.** 2015-2017. Honors project supervisor, mood detection in musical lyrics.

- Honors thesis 2017: “Building a game-with-a-purpose to annotate mood on musical media data”
- SURP fellowship recipient 2016: “Using a Game-with-a-Purpose to Create a Database of Musical Media Annotated with Mood Information”. Award amount: \$1400.

**Margarita Rodriguez.** 2015-2017. Honors project co-supervisor, linguistic development and theory of mind.

- Honors thesis 2017: “Case Studies in Eliciting the Spanish Subjunctive in Heritage Bilingual Children”
- SURP fellowship recipient 2016: “Connecting Language and the Mind: Acquisition of the Subjunctive and Theory of Mind in Bilingual Heritage Speakers”. Award amount: \$1400.

**Nikolai Vogler.** 2015-2017. Honors project supervisor and NSF research fellowship advisor, natural language processing.

- Honors thesis 2017: “Automatic detection of deceptive opinions using automatically identified specific details”.
- NSF Graduate Research Fellowship recipient 2017: “Eliminating Human Bias and Reducing False Convictions with Automatic Multimodal Deception Detection in Real-Time”. Amount: \$138K.
- SURP fellowship recipient 2016: “Automatic Detection of Deceptive Opinions using Automatically Identified Specific Details”. Award amount: \$1400.

**Julia Hershey.** 2016-2017. Automatic evaluation of translations.

**Isley Gao.** 2015-2017. Sentiment analysis.

- SURP fellowship recipient 2016: “Improving Sentiment Analysis Using Deeper Features”. Award amount: \$1400.

**Katie Khuu.** 2014-2017. Computational models of acquisition.

- UROP fellowship recipient 2016: “Evaluating Language Learning Strategies by how Useful they are to Children”. Award amount: \$500.
- UROP fellowship recipient 2015: “Adding Naturally Derived Utterance Types to a Model of Syntactic Category Acquisition”. Award amount: \$455.

**Emily Yang.** 2015-2016. Syntactic acquisition.

**Spencer Perry.** 2014-2015. Syntactic acquisition.

**Amanda Nili.** 2013-2015. Syntactic acquisition.

- UROP journal publication 2015: “Frequency of What: How Simple is the Story of Syntax

Acquisition?"

- Honors thesis 2014: "Frequency of what: How simple is the story of syntax acquisition?"
- UROP fellowship recipient 2014: "The Relationship between Acceptability and Frequency of Syntactic Structures in Child-Directed Speech". Award amount: \$300.

**Shawn Abrahamson.** 2014-2015. Sign language acquisition.

**Dana Urcia.** 2015. Syntactic acquisition.

**Jessica Cruz.** 2015. Syntactic acquisition.

**BreAnna Silva.** 2014-2015. Syntactic acquisition.

**Nayeem Siddique.** 2014-2015. Syntactic acquisition.

**Lucas Lo Ami Alvino Silva.** 2014. Sentiment analysis.

**Chen Qin.** 2013-2014. Sign language grammatical categorization.

**Alejandro Ibarra.** 2013-2014. Grammatical categorization.

**Ashkan Shadi.** 2013-2014. Speech segmentation, grammatical categorization, and deception detection.

**Alicia Yu.** 2013-2014. Speech segmentation.

- Honors thesis 2014: "Establishing cross-linguistic validity for unsupervised word segmentation models: A look at Italian and Farsi."

**Noel Covarrubias.** 2012-2014. Syntactic acquisition.

**Galia Bar-Sever.** 2011-2014. Speech segmentation, grammatical categorization, and linguistic cues to social information.

- SURP fellowship 2013: "A Comparison of Signed and Spoken Language: A Look at Grammatical Categorization". Award amount: \$1500.
- UROP honorary fellowship 2012: "Understanding the 'Less is More' Effect: A Look at Word Segmentation."

**Igii Enverga.** 2013. Linguistic cues to message tone.

- SURP fellowship 2013: "Automatic Message Tone Detection Using Improved Linguistic and Machine Learning Methods". Award amount: \$1500.

**Athenia Barouni.** 2013. Linguistic cues to mental states.

**Marlowe Clark.** 2013. Metrical stress.

- Campus-wide Honors Program Thesis: "Stress Patterns in Spanish Non-Verbs".

**Joanna Lee.** 2012-2013. Metrical stress acquisition, syntactic islands acquisition, and cross-linguistic speech segmentation.

**Tricia Ignacio.** 2012-2013. Verb acquisition and syntactic acquisition.

**Natashka Jinadasa.** 2012-2013. Syntactic acquisition and linguistic cues to social information.

**Tiffany Ng.** 2012-2013. Syntactic acquisition, cross-linguistic speech segmentation, and linguistic cues to social information.

**Olivia Hadfield.** 2012-2013. Syntactic acquisition.

**Janice Lee.** 2011-2012. Speech segmentation and cross-linguistic social information.

**Sarah Pieper.** 2012. Speech segmentation.

- Honors Thesis: "Japanese word segmentation using Bayesian inference".

**Morgan Sheldon.** 2012. Syntactic acquisition and speech segmentation.

- Daniel De Vera.** 2012. Syntactic acquisition and linguistic cues to social information.
- Uma Patel.** 2010-2012. Syntactic acquisition and linguistic cues to social information.
- Lyna Armendariz.** 2011. Syntactic acquisition.
- Kristen Byer.** 2011. Syntactic acquisition.
- Levon Gevorgyan.** 2011. Syntactic acquisition.
- Alec Finnell.** 2011. Syntactic acquisition.
- Christine Thrasher.** 2010-2011. Syntactic acquisition.
- Nazanin Sheikhan.** 2010-2011. Speech segmentation.
- Erika Webb.** 2010-2011. Syntactic acquisition.
- Shannon Stanton.** 2010-2011. Social language in text.
- UROP fellowship 2011 & Informatics Honors Thesis: "WordSleuth: Deducing Social Connotations from Syntactic Clues".
- Galina Tucker.** 2010-2011. Social language in text.
- Informatics Honors Thesis: "How to Get People to Want to Give You Data: Making WordSleuth Fun".
- Jessica Lee.** 2009-2011. Syntactic acquisition.
- Sarah Hunt.** 2009-2011. Syntactic acquisition.
- Caroline Wagenaar.** 2010-2011. Syntactic acquisition, speech segmentation, and social information in language.
- James White.** 2010-2011. Speech segmentation.
- Gabrielle Castro.** 2010. Syntactic acquisition.
- Amy Rothermund.** 2009-2010. Syntactic acquisition.
- Cort Werner.** 2009-2010. Syntactic acquisition.
- Courtney Smith.** 2009-2010. Syntactic acquisition.
- Jonathon Fero.** 2009-2010. Syntactic acquisition.
- Joshua Bancroft.** 2009-2010. Syntactic acquisition.
- Brian Toms.** 2009-2010. Syntactic acquisition.
- Sebo Mordian.** 2009. Natural language processing.
- Karen Villegas.** 2009. Speech segmentation.
- Meredith Fay.** 2008-2009. Automatic deception detection.
- Honors Thesis: "Linguistic Cues for Deception Detection in Online Mafia Forums".

**Other research advising: University of California, Irvine.....**

- Arabella Watkins.** 2018-CURRENT. Junior Specialist. Acquisition of non-literal language, impact of socio-economic status.
- Frank Zarrinkelk.** 2018-CURRENT. Junior Specialist. Acquisition of non-literal language, quantitative approaches to language acquisition.
- Joseph Lou.** 2018-CURRENT. Intern. Development of syntactic categories.
- Alan Yuen.** 2017-2018. Junior Specialist. Sentiment analysis.
- Dr. Susan Braunwald.** 2011-2018. Assistant Specialist. Verb acquisition.

**Doreen Hii.** 2017. Junior Specialist. Sentiment analysis.  
**Dr. Fabio Paolizzo.** 2015-2017. Postdoctoral researcher. Natural language processing & music.  
**BreAnna Silva.** 2015-2016. Lab assistant. Syntactic acquisition.  
**Mona Lee.** 2015. Junior Specialist. Linguistic cues to deception.  
**Anousheh Haghghi.** 2012-2015. Assistant Specialist. Linguistic cues to authorship.  
**Kristine Lu.** 2012-2015. Junior Specialist. Linguistic cues to authorship and mental states.  
**Timothy Ho.** 2012-2014. Junior Specialist. Metrical phonology.  
**Zephyr Detrano.** 2012-2014. Junior Specialist. Metrical phonology.  
**Megan Aikawa.** 2013. Intern. Syntactic acquisition.  
**Chloe Haviland.** 2013. Intern. Verb acquisition.  
**Sebastian Reyes.** 2013. Intern. Cross-linguistic speech segmentation.  
**Julia Hwang.** 2012. Intern. Verb acquisition.

#### Other research advising: Other.....

**Hannah Forsythe.** 2017. Acquisition of pronoun resolution. Department of Linguistics, Michigan State University. Computational modeling research advisor for postdoctoral grant submission.

## Teaching

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### University of California, Irvine: Graduate.....

**Computational Methods in Language Research.** 2011-CURRENT.  
**Language Acquisition.** 2008-CURRENT.  
**Computational Models of Language Learning.** (with Mark Steyvers) 2008-CURRENT.  
**Learning and Development.** (with Mimi Liljeholm) 2016.  
**Computational Models of Cognition.** (with Mark Steyvers) 2015.

### University of California, Irvine: Undergraduate.....

**Writing Skills for Language Science.** 2019-CURRENT.  
**Acquisition of Language II/Psychology of Language Learning.** 2008-CURRENT.  
**Acquisition of Language.** 2008-CURRENT.  
**Computational Models of Cognition.** (with Mark Steyvers) 2015.  
**Psychology of Language.** (with Greg Hickok) 2015.

### University of Maryland, College Park: Undergraduate.....

**Language and the Mind.** 2005.  
**Introduction to Linguistics.** 2004.

## Professional Service

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### Meeting organization, leadership, & outreach.....

**Computational Models of Language Blog.** 2010-CURRENT. Organizer and faculty leader of the interdisciplinary, internationally read blog: <http://www.socsci.uci.edu/~lpearl/CoLaReadingGroup/>

*index.html*.

**Conference on Quantitative Approaches to Language Science.** 2018. Co-Organizer. Institute for Mathematical Behavioral Sciences, UC Irvine.

<https://www.imbs.uci.edu/newsevents/events/conferences/2018-05-04-quantitativeconference.php>

**1st Annual Meeting of the Society for Computation in Linguistics.** 2018. Session Chair for session in Salt Lake City, UT: <https://blogs.umass.edu/scil/scil-2018/>.

**SynLinks: Links between representation and processing in syntactic acquisition.** 2016. Organizer of the workshop at the University of Connecticut, Storrs: <http://linguistics.uconn.edu/events/synlinks.html>.

**Input and Syntactic Acquisition & Psychocomputational Models of Human Language Acquisition.** 2012. Organizer of the joint workshop at the annual meeting of the Linguistic Society of America in Portland, OR: <http://www.socsci.uci.edu/~lpearl/CoLaLab/isa2012/index.html>.

**Input and Syntactic Acquisition.** 2009. Organizer of the workshop at the University of California, Irvine: <http://www.socsci.uci.edu/~lpearl/CoLaLab/isa2009/index.html>.

### Journal leadership.....

**Language Acquisition.** 2011-CURRENT. Editorial Board.

**Cognitive Science.** 2016-2018. Associate Editor (language acquisition and related topics).

### Reviewing: Journal.....

*Behavior Research Methods, Bilingualism, Cognition, Cognitive Science, Developmental Science, Journal of Comparative Germanic Linguistics, Interaction Studies, Language, Language Acquisition, Language Learning & Development, Literary and Linguistic Computing, Philosophy of Science, PLoS ONE, Psychonomic Bulletin & Review, Psychological Review, WIREs Cognitive Science.* 2007-CURRENT.

### Reviewing: Conference.....

**California Meeting on Psycholinguistics.** 2018.

**Society for Computation in Linguistics.** 2017-2018.

**Boston University Conference on Language Development.** 2008-2018.

**Generative Approaches to Language Acquisition - North America.** 2014, 2016, 2018.

**Workshop on Cognitive Aspects of Computational Language Learning (CogACLL).** 2016, 2018.

**Language Learning in Humans and Machines.** 2018.

**Cognitive Modeling and Computational Linguistics.** 2012, 2015, 2017.

**Empirical Methods in Natural Language Processing (EMNLP).** 2015-2016.

**Annual Conference for the Cognitive Science Society.** Reviewer: 2008-2016. Meta-reviewer: 2016.

**Annual Conference for the Linguistic Society of America.** 2011, 2014-2015.

**International Conference on Cognitive Science.** 2013.

**Cognitive Modelling and Psycholinguistics.** 2013.

**Linguistic Aspects of CL.** 2013.

**Workshop on Computational Psycholinguistics.** 2013.  
**Annual meeting of the North East Linguistic Society.** 2012.  
**Workshop on Psychocomputational Models of Human Language Acquisition.** 2011.  
**Western Conference on Linguistics.** 2008.

#### **Reviewing: Book**.....

**Oxford University Press:** *Oxford Research Encyclopedia of Linguistics: "Bayesian Techniques in Computational Linguistics"*. 2016.

**Cambridge University Press:** *Linguistics*. 2010, 2013.

**Sinauer Associates:** *Psychology of Language*. 2013.

**John Benjamins:** *Multilingual Individuals and Multilingual Societies*. 2011.

**Mouton de Gruyter:** *Statistical Learning and Language Acquisition*. 2009.

*Origins of Sound Change: Approaches to Phonologization*. 2009.

*The Syntax and Semantics of Spatial P*. 2006.

#### **Reviewing: Academic programs**.....

**The University of California:** Proposal for MS in Natural Language Processing at UC Santa Cruz. 2018.

#### **Reviewing: Funding**.....

**National Science Foundation, Perception, Action, and Cognition:** 2018.

**National Science Foundation, Linguistics:** 2007, 2011-2012, 2015-2016, 2018.

**Binational Science Foundation, Psychology: Cognitive - Psycholinguistics:** 2017.

#### **Reviewing: Academic promotion**.....

**The Ohio State University, Linguistics:** Tenure. 2017.

**The Ohio State University, Linguistics:** Tenure candidacy. 2015-2016.

## **University Service**

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#### **Department: University of California, Irvine**.....

**Language Science:** Distinguished Professor Committee, Member. 2018-CURRENT.

**Language Science:** UC Postdoctoral Fellows Committee, Member. 2018-CURRENT.

**Language Science/Linguistics:** Language Science Colloquium Committee, Member. 2016-CURRENT.

**Language Science/Linguistics:** Chair. 2016-CURRENT. Founding Chair for department with broader focus (Language Science).

**Language Science/Linguistics:** Graduate Curriculum Committee, Chair. 2016-CURRENT.

**Language Science/Linguistics:** Undergraduate Director of Language Science. 2015-CURRENT. Created Language Science B.A., approved June 2017.

**Cognitive Sciences:** Personnel Review Committee, Chair or Member. 2009-CURRENT.



**Cognitive Sciences:** Pro-seminar lecture on my research for honors students and/or beginning graduate students. 2007-CURRENT.

**Language Science/Linguistics:** Department Name Change Committee, Chair. 2017-2018.

**Linguistics:** Review of Dean of Social Sciences Committee, Chair. 2018.

**Linguistics:** Language Science Colloquium Committee, Chair. 2016.

**Linguistics:** Syntax Search Committee, Chair. 2016-2017.

**Linguistics:** Language Science Search Committee, Chair. 2015-2016.

**Cognitive Sciences:** Yellott Award Committee. 2008, 2013-2015.

**Cognitive Sciences:** Undergraduate Honors Seminar Research, Presenter. 2007-2015.

**Cognitive Sciences:** Undergraduate Graduate Proseminar Research, Presenter. 2007-2014.

**Cognitive Sciences:** Undergraduate Director of Psychology. 2012-2014.

**Cognitive Sciences:** Committee for the Assessment of the Psychology Major, Member. 2014.

**Cognitive Sciences:** Undergraduate Honors Thesis Award, Judge. 2014.

**Cognitive Sciences:** Language Search Committee, Chair. 2013-2014.

**Cognitive Sciences:** Interview Committee for Analyst position. 2013.

**Cognitive Sciences:** Undergraduate Honors Presentation Award, Judge. 2012.

**Cognitive Sciences:** Computational Search Committee, Member. 2010-2011.

**Linguistics:** Instructional Evaluator. 2009.

**Cognitive Sciences:** Cognitive Sciences Curriculum Committee. 2008-2009.

**School: University of California, Irvine**.....

**Social Sciences:** Center for the Advancement of Logic, its Philosophy, History & Applications (C-ALPHA), Founding member. 2013-CURRENT.

**Social Sciences:** Academic Resource Center, Research professor affiliate. 2012-CURRENT.

**Social Sciences:** Reader at School of Social Sciences Commencement. 2011-CURRENT.

**Social Sciences:** Center for Language Science, Associate Director. 2011-CURRENT.

**Social Sciences:** Outstanding Honors Thesis Award committee, Member. 2012-2014, 2018.

**Social Sciences:** Lauds & Laurels Committee for Faculty Achievement, Chair. 2017-2018.

**Social Sciences:** University Marshall at School of Social Sciences Commencement. 2016.

**Social Sciences:** Undergraduate Language Science Major Committee, Chair. 2014-2016.

**Social Sciences:** Alice Macy Paper Award committee, Member. 2015.

**Social Sciences:** Order of Merit Selection Committee, Member. 2012-2014.

**Social Sciences:** Instructional Evaluator. 2012-2014.

**Social Sciences:** Social Science Methods & Statistics Search Committee, Member. 2011-2012.

**Social Sciences:** Curriculum Board for Language Science, Member. 2009-2011.

**University: University of California, Irvine**.....

Undergraduate Opportunities Research Symposium, Oral presentation session moderator. 2011, 2014-2017.

Hearing & Speech Sciences Club, Faculty Advisor. 2015-2016.

Psi Chi Honor Society, Faculty Advisor. 2012-2014.

Latin and Ballroom Dance Association, Faculty Advisor. 2008-2012.

Category V General Education Requirement Review Committee, Member. 2010.

### University System-wide: University of California.....

UC course on computational social science, mini-lecture with video on using computational modeling to understand language acquisition. 2017.

Trailer for the course at [https://youtu.be/Zv\\_VZ5PjwE8](https://youtu.be/Zv_VZ5PjwE8).

## Public Service

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### Outreach.....

**UCI Family Weekend.** 2018. Creator and presenter of mini-class session on language science where parents and siblings of UC Irvine undergraduates get a taste of being a college student.

**UC-wide course on Computational Social Science.** 2017. Contributor to UC-wide mini-course on this topic, creating a video presentation aimed at introducing students to scientific research with modern empirical and theoretical methods, including web data science, social network analysis, agent-based computer simulations, and machine learning. Video topic: "Using Computational Modeling to Understand Language Acquisition". <https://youtu.be/44jpJEfDpis>

**North American Computational Linguistics Olympiad.** 2016-2018. Member of UCI committee coordinating UCI branch of this NSF-funded program, which is aimed at introducing high school and middle school students to language science.

### Media Appearances and Interviews.....

**The Ling Space.** 2016. Simon Snow, Good Omens, and Stylometrics. <http://thelingspace.tumblr.com/post/143126283104/simon-snow-good-omens-and-stylometrics>.

**The Ling Space.** 2016. Interview with Lisa Pearl. Announcement: <http://thelingspace.tumblr.com/post/141055678819/interview-with-lisa-pearl>. Interview: <http://thelingspace.tumblr.com/post/142754971399/were-really-excited-to-have-gotten-to-interview>.