Michael C. Frank

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Employment

Stanford University
- Assistant Professor of Psychology and (by courtesy) Linguistics (2010 – 2014)
- Associate Professor of Psychology and (by courtesy) Linguistics (2014 – present)

Education

Massachusetts Institute of Technology
- Ph.D (2010), Department of Brain and Cognitive Sciences
  - Advisor: Edward Gibson
  - Thesis title: "Early word learning through communicative inference"

Stanford University
- B.S. with Honors (2004), Symbolic Systems
- B.A. (2004), Comparative Literature

Honors and Awards

Gordon and Dailey Pattee Faculty Fellowship (2014)

Kavli Frontiers of Science Fellow (2014)

Association for Psychological Science Rising Star (2011)

Robert J. Glushko Dissertation Prize, Cognitive Science Society (2011)

National Science Foundation Graduate Fellowship (2006–2010)

Jacob Javits Fellowship for Graduate Study (2006–2010)

Cognitive Science Society Travel Award (2007, 2008, 2009)

Society for Research in Child Development Travel Award (2009)

Walle Nauta Award for Continued Dedication to Teaching, MIT BCS (2009)

Linguistic Society of America Bloch Fellowship (2007–2009)

Angus MacDonald Award for Excellence in Undergraduate Teaching, MIT BCS (2008)

David Marr Prize for Best Student Paper, Cognitive Science Society (2008)

International Conference on Infant Studies Travel Award (2008)

Neural Information Processing Systems Travel Award (2007)

Vision Sciences/Elsevier Travel Award (2007)

Publications

Peer-Reviewed Journal Articles

1. Barner, D., Alvarez, G. A., Sullivan, J., Brooks, N. B., Srinivasan, M., & Frank, M. C. (in press). Learning mathematics in a visuospatial format: a randomized, controlled trial of mental abacus instruction. *Child Development*.

2. Frank, M. C., Sugarman, E., Horowitz, A. C., Lewis, M. L., & Yurovsky, D. (in press). Using tablets to collect data from young children. *Journal of Cognition and Development*.

3. Horowitz, A. C. & Frank, M. C. (in press). Children's pragmatic inferences as a route for learning about the world. *Child Development*.

4. Potts, C., Lassiter, D., Levy, R., & Frank, M. C. (in press). Embedded implicatures as pragmatic inferences under compositional lexical uncertainty. *Journal of Semantics*.

5. Yurovsky, D. & Frank, M. C. (in press). Beyond naïve cue combination: salience and social cues in early word learning. *Developmental Science*.

6. Goodman, N. D., Frank, M. C., Griffiths, T. L., Tenenbaum, J. B., Battaglia, P. W., & Hamrick, J. B. (2015). Relevant and robust: A response to Marcus and Davis (2013). *Psychological Science*, *26*(4), 539–541.

7. Hall, S. S., Frank, M. C., Pusiol, G. T., Farzin, F., Lightbody, A. A., & Reiss, A. L. (2015). Quantifying naturalistic social gaze in fragile x syndrome using a novel eye tracking paradigm. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*.

8. Roy, B. C., Frank, M. C., DeCamp, P., Miller, M., & Roy, D. (2015). Predicting the birth of a spoken wod. *Proceedings of the National Academy of Sciences*.

9. Yurovsky, D. & Frank, M. C. (2015). An integrative account of constraints on cross-situational learning. *Cognition*, *145*, 53–62.

10. Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, *349*.

11. Horowitz, A. C. & Frank, M. C. (2015b). Young children's developing sensitivity to discourse continuity as a cue for inferring reference. *Journal of Experimental Child Psychology*, *129*, 84–97.

12. Phillips, J., Ong, D. C., Surtees, A. D. R., Xin, Y., Williams, S., Saxe, R., & Frank, M. C. (2015). A second look at automatic theory of mind: Reconsidering Kovács, Téglás, and Endress (2010). *Psychological Science*.

13. Stiller, A. J., Goodman, N. D., & Frank, M. C. (2015). Ad-hoc implicature in preschool children. *Language Learning and Development*, *11*(2), 176–190.

14. Frank, M. C., Amso, D., & Johnson, S. P. (2014). Visual search and attention to faces during early infancy. *Journal of Experimental Child Psychology*, *118*, 13–26.

15. Frank, M. C. & Goodman, N. D. (2014). Inferring word meanings by assuming that speakers are informative. *Cognitive Psychology*, *75*, 80–96.

16. Nordmeyer, A. E. & Frank, M. C. (2014). The role of context in young children's comprehension of negation. *Journal of Memory and Language*, *77*, 25–39.

17. Rohde, H. & Frank, M. C. (2014). Markers of topical discourse in child-directed speech. *Cognitive Science*, *38*(8), 1634–1661.

18. Yoon, J. M., Witthoft, N., Winawer, J., Frank, M. C., Everett, D. L., & Gibson, E. (2014). Cultural differences in perceptual reorganization in US and Pirahã adults. *PloS ONE*, *9*, e110225.

19. Frank, M. C. (2013). Throwing out the bayesian baby with the optimal bathwater: response to endress (2013). *Cognition*, *128*(3), 417–423.

20. Frank, M. C., Tenenbaum, J. B., & Fernald, A. (2013). Social and discourse contributions to the determination of reference in cross-situational word learning. *Language, Learning, and Development*, *9*, 1–24.

21. Frank, M. C., Tenenbaum, J. B., & Gibson, E. (2013). Learning and long-term retention of large-scale artificial languages. *PloS ONE*, *8*(1), e52500.

22. Kurumada, C., Meylan, S. C., & Frank, M. C. (2013). Zipfian frequency distributions facilitate word segmentation in context. *Cognition*, *127*(3), 439–453.

23. Luong, M.-T., Frank, M. C., & Johnson, M. (2013). Parsing entire discourses as very long strings: capturing topic continuity in grounded language learning. *Transactions of the Association for Computational Linguistics*, *1*, 315–326.

24. Frank, M. C., Fedorenko, E., Lai, P., Saxe, R., & Gibson, E. (2012). Verbal interference suppresses exact numerical representation. *Cognitive Psychology*, *64*(1), 74–92.

25. Frank, M. C. & Goodman, N. D. (2012). Predicting pragmatic reasoning in language games. *Science*, *336*(6084), 998.

26. Frank, M. C. & Saxe, R. (2012). Teaching replication. *Perspectives on Psychological Science*, *7*, 595–599.

27. Frank, M. C., Vul, E., & Saxe, R. (2012). Measuring the development of social attention using free-viewing. *Infancy*, *17*, 355–375.

28. Shafto, P., Goodman, N. D., & Frank, M. C. (2012). Learning from others: the consequences of psychological reasoning for human learning. *Perspectives on Psychological Science*, *7*(4), 341–351.

29. Open Science Collaboration. (2012). An open, large-scale, collaborative effort to estimate the reproducibility of psychological science. *Perspectives on Psychological Science*, *7*, 657–660.

30. Frank, M. C. & Barner, D. (2011). Representing exact number visually using mental abacus. *Journal of Experimental Psychology: General*, *141*, 131–149.

31. Frank, M. C. & Gibson, E. (2011). Overcoming memory limitations in rule learning. *Language Learning and Development*, *7*(2), 130–148.

32. Frank, M. C. & Tenenbaum, J. B. (2011). Three ideal observer models for rule learning in simple languages. *Cognition*, *120*, 360–371.

33. Frank, M. C., Goldwater, S., Griffiths, T. L., & Tenenbaum, J. B. (2010). Modeling human performance in statistical word segmentation. *Cognition*, *117*(2), 107–125.

34. Fletcher-Watson, S., Leekam, S. R., Benson, V., Frank, M., & Findlay, J. (2009). Eye-movements reveal attention to social information in autism spectrum disorder. *Neuropsychologia*, *47*, 248–257.

35. Frank, M. C., Goodman, N. D., & Tenenbaum, J. B. (2009). Using speakers' referential intentions to model early cross-situational word learning. *Psychological Science*, *20*(5), 578–585.

36. Frank, M. C., Slemmer, J. A., Marcus, G. F., & Johnson, S. P. (2009). Information from multiple modalities helps 5-month-olds learn abstract rules. *Developmental Science*, *12*(4), 504–509.

37. Frank, M. C., Vul, E., & Johnson, S. P. (2009). Development of infants' attention to faces during the first year. *Cognition*, *110*(2), 160–170.

38. Johnson, S. P., Fernandes, K. J., Frank, M. C., Kirkham, N., Marcus, G., Rabagliati, H., & Slemmer, J. A. (2009). Abstract rule learning for visual sequences in 8-and 11-month-olds. *Infancy*, *14*(1), 2–18.

39. Frank, M. C., Everett, D. L., Fedorenko, E., & Gibson, E. (2008). Number as a cognitive technology: Evidence from Pirahã language and cognition. *Cognition*, *108*, 819–824.

40. Johnson, S. P., Davidow, J., Hall-Haro, C., & Frank, M. C. (2008). Development of perceptual completion originates in information acquisition. *Developmental Psychology*, *44*, 1214.

41. Oppenheimer, D. M. & Frank, M. C. (2008). A rose in any other font would not smell as sweet: effects of perceptual fluency on categorization. *Cognition*, *106*, 1178–1194.

42. Winawer, J., Witthoft, N., Frank, M. C., Wu, L., Wade, A. R., & Boroditsky, L. (2007). Russian blues reveal effects of language on color discrimination. *Proceedings of the National Academy of Sciences*, *104*, 7780–7785.

Chapters, Reviews, and other Manuscripts

43. Frank, M. C. (in press). Chasing the rubicon? *American Journal of Psychology*.

44. Frank, M. (2013). Learning words through probabilistic inferences about speakers' communicative intentions. In I. Arnon, M. Casillas, C. Kurumada, & B. I. Estigarribia (Eds.), *Language in interaction*. Stanford, CA: CSLI Press.

45. Frank, M. C. (2012). Cross-cultural differences in representations and routines for exact number. In N. Evans & M. Klamer (Eds.), *Language documentation and conservation, special publication no. 5: melanesian languages on the edge of asia: challenges for the 21st century* (pp. 219–238). University of Hawai'i Press.

46. Fernald, A. & Frank, M. C. (2012). Finding the words: how young children develop skill in interpreting spoken language. In M. Spivey, K. McRae, & M. Joanisse (Eds.), *The cambridge handbook of psycholinguistics* (p. 104). Cambridge, UK: Cambridge University Press.

47. Johnson, S., Amso, D., Frank, M., & Shuwairi, S. (2008). Development of event perception in infancy. In T. F. Shipley & J. M. Zacks (Eds.), *Understanding events: how humans see, represent, and act on events* (pp. 436–464). Oxford, UK: Oxford University Press.

Peer-Reviewed Conference Proceedings

48. Braginsky, M., Yurovsky, D., Marchman, V. A., & Frank, M. C. (2015). Developmental changes in the relationship between grammar and the lexicon. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

49. Horowitz, A. C. & Frank, M. C. (2015a). Sources of developmental change in pragmatic inferences about scalar terms. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

50. Lewis, M. L. & Frank, M. C. (2015). Conceptual complexity and the evolution of the lexicon. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

51. MacDonald, K., Yurovsky, D., & Frank, M. C. (2015). Referential cues modulate attention and memory during cross-situational word learning. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

52. Nordmeyer, A. E. & Frank, M. C. (2015). The pragmatics of negation across contexts. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

53. Schneider, R. M., Yurovsky, D., & Frank, M. C. (2015). Large-scale investigations of variability in children's first words. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

54. Yoon, E. J., Wu, Y. C., & Frank, M. C. (2015). Children's online processing of ad-hoc implicatures. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

55. Yurovsky, D., Wagner, K., Barner, D., & Frank, M. C. (2015). Signatures of domain-general categorization mechanisms in color word learning. In *Proceedings of the 37th Annual Conference of the Cognitive Science Society*.

56. Doyle, G. & Frank, M. C. (2015b). Shared common ground influences information density in microblog texts. In *Proceedings of NAACL-HLT*.

57. Doyle, G. & Frank, M. C. (2015a). Audience size and contextual effects on information density in twitter conversations. In *Proceedings of the Workshop on Cognitive Modeling and Computational Linguistics*.

58. Räsänen, O., Doyle, G., & Frank, M. C. (2015). Unsupervised word discovery from speech using automatic segmentation into syllable-like units. In *Proceedings of Interspeech*.

59. Schuster, S., Pancoast, S., Ganjoo, M., Frank, M. C., & Jurafsky, D. (2014). Speaker-independent detection of child-directed speech. In *Spoken language technology workshop (slt), 2014 ieee* (pp. 366–371). IEEE.

60. Frank, M. C. (2014). Modeling the dynamics of classroom education using teaching games. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.

61. Horowitz, A. C. & Frank, M. C. (2014). Preschoolers infer contrast from adjectives if they can access lexical alternatives. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.

62. Lewis, M. L., Sugarman, E., & Frank, M. C. (2014). The structure of the lexicon reflects principles of communication. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.

63. Pusiol, G., Soriano, L., Fei-Fei, L., & Frank, M. C. (2014). Discovering the signatures of joint attention in child-caregiver interaction. In *Proceedings of the 36th annual conference of the cognitive science society*.

64. Vogel, A., Emilsson, A. G., Frank, M. C., Jurafsky, D., & Potts, C. (2014). Learning to reason pragmatically with cognitive limitations. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.

65. Yurovsky, D. & Frank, M. C. (2014). Beyond naıve cue combination: salience and social cues in early word learning. In *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.

66. Smith, N. J., Goodman, N., & Frank, M. (2013). Learning and using language via recursive pragmatic reasoning about other agents. In *Advances in neural information processing systems*.

67. Casillas, M. & Frank, M. C. (2013). The development of predictive processes in children's discourse understanding. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (pp. 299–304). Cognitive Society.

68. Frank, M. C., Simmons, K., Yurovsky, D., & Pusiol, G. (2013). Developmental and postural changes in children's visual access to faces. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

69. Horowitz, A. C. & Frank, M. C. (2013). Young children's developing sensitivity to discourse continuity as a cue to reference. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

70. Lewis, M. L. & Frank, M. C. (2013b). Modeling disambiguation in word learning via multiple probabilistic constraints. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

71. Lewis, M. L. & Frank, M. C. (2013a). An integrated model of concept learning and word-concept mapping. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

72. Meylan, S., Frank, M. C., & Levy, R. (2013). Modeling the development of determiner productivity in children's early speech. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

73. Nordmeyer, A. E. & Frank, M. C. (2013). Measuring the comprehension of negation in 2-to 4-year-old children. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

74. Yurovsky, D., Wade, A., & Frank, M. C. (2013). Online processing of speech and social information in early word learning. In *Proceedings of the 35th Annual Conference of the Cognitive Science Society*.

75. Tice, M. P. & Frank, M. C. (2012). Cues to turn boundary projection in adults and preschoolers. In *Proceedings of SemDial 16*.

76. Johnson, M., Demuth, K., & Frank, M. (2012). Exploiting social information in grounded language learning via grammatical reductions. In *Proceedings of the 50th Annual Conference of the Association for Computational Linguistics*.

77. Frank, M. C., Vul, E., & Saxe, R. (2012). Measuring the development of social attention using free-viewing. *Infancy*, *17*, 355–375.

78. Horowitz, A. C. & Frank, M. C. (2012). Learning from speaker word choice by assuming adjectives are informative. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society*.

79. Meylan, S., Kurumada, C., Börschinger, B., Johnson, M., Frank, M. C., et al. (2012). Modeling online word segmentation performance in structured artificial languages. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society*.

80. Ouyang, L., Boroditsky, L., & Frank, M. C. (2012). Semantic coherence facilitates distributional learning of word meanings. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society*.

81. Roy, B. C., Frank, M. C., & Roy, D. (2012). Relating activity contexts to early word learning in dense longitudinal data. In *Proceedings of the 34th Annual Conference of the Cognitive Science*.

82. Smith, C. & Frank, M. C. (2012). Zero anaphora and object reference in japanese child-directed speech. In *Proceedings of the 34th Annual Conference of the Cognitive Science Society*.

83. Kurumada, C., Meylan, S. C., & Frank, M. C. (2011). Zipfian word frequencies support statistical word segmentation. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.

84. Stiller, A., Goodman, N. D., & Frank, M. C. (2011). Ad-hoc scalar implicature in adults and children. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.

85. Rohde, H. & Frank, M. C. (2011). Markers of discourse structure in child-directed speech. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.

86. Tily, H., Frank, M. C., & Jaeger, T. F. (2011). The learnability of constructed languages reflects typological patterns. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.

87. Yoon, J., Witthoft, N., Winawer, J., Frank, M. C., Gibson, E., & Markman, E. M. (2011). Thinking for seeing: enculturation of visual-referential expertise as demonstrated by photo-triggered perceptual reorganization of two-tone mooney images. In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*.

88. Johnson, M., Demuth, K., Frank, M. C., & Jones, B. (2010). Synergies in learning words and their referents. In *Advances in neural information processing systems* (Vol. 23).

89. Jones, B. K., Johnson, M., & Frank, M. C. (2010). Learning words and their meanings from unsegmented child-directed speech. In *Proceedings of NAACL-HLT*.

90. Vosoughi, S., Roy, B. C., Frank, M. C., & Roy, D. (2010). Contributions of prosodic and distributional features of caregivers' speech in early word learning. In *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*.

91. Frank, M. C., Tily, H., Arnon, I., & Goldwater, S. (2010). Beyond transitional probabilities: human learners impose a parsimony bias in statistical word segmentation. In *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*.

92. Vul, E., Frank, M. C., Alvarez, G., & Tenenbaum, J. (2009). Explaining human multiple object tracking as resource-constrained approximate inference in a dynamic probabilistic model. In *Advances in neural information processing systems* (Vol. 22).

93. Frank, M. C., Goodman, N. D., Tenenbaum, J. B., & Fernald, A. (2009). Continuity of discourse provides information for word learning. In *Proceedings of the 31st Annual Cognitive Science Society.*

94. Frank, M. C., Goodman, N. D., Lai, P., & Tenenbaum, J. B. (2009). Informative communication in word production and word learning. In *Proceedings of the 31st Annual Conference of the Cognitive Science Society*.

95. Ichinco, D., Frank, M. C., & Saxe, R. (2009). Cross-situational word learning respects mutual exclusivity. In *Proceedings of the 31st Annual Conference of the Cognitive Science Society*.

96. Roy, B. C., Frank, M. C., & Roy, D. (2009). Exploring word learning in a high-density longitudinal corpus. In *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Cognitive Science Society.

97. Frank, M. C., Fedorenko, E., & Gibson, E. (2008). Language as a cognitive technology: English-speakers match like Pirahã when you don't let them count. In *Proceedings of the 30th Annual Conference of the Cognitive Science Society*. **[Marr Prize]**

98. Frank, M. C., Ichinco, D., & Tenenbaum, J. B. (2008). Principles of generalization for learning sequential structure in language. In *Proceedings of the 30th Annual Conference of the Cognitive Science Society*.

99. Frank, M. C., Goodman, N. D., & Tenenbaum, J. B. (2007). A bayesian framework for cross-situational word-learning. In *Advances in neural information processing systems*.

100. Frank, M. C., Goldwater, S., Mansinghka, V., Griffiths, T. L., & Tenenbaum, J. B. (2007). Modeling human performance in statistical word segmentation. In *Proceedings of the 29th Annual Meeting of the Cognitive Science Society*.

101. Frank, M. C., Mansinghka, V., Gibson, E., & Tenenbaum, J. B. (2007). Word segmentation as word learning: integrating meaning learning with distributional cues to segmentation. In *Proceedings of the 31st Annual Boston University Conference on Language Development*. Cascadilla Press.

102. Johnson, S. P., Davidow, J., Hall, C. H., & Frank, M. C. (2006). Developmental mechanisms of perceptual completion. In *Proceedings of the International Conference on Development and Learning*.

103. Witthoft, N., Winawer, J., Wu, L., Frank, M. C., Wade, A., & Boroditsky, L. (2003). Effects of language on color discriminability. In *Proceedings of the 25th Annual Conference of the Cognitive Science Society*.

104. Boroditsky, L., Ramscar, M., & Frank, M. C. (2001). Roles of body and mind in abstract thought. In *Proceedings of the 23rd Annual Meeting of the Cognitive Science Society*.

Grants

NSF DRK (Co-PI: David Barner, UCSD). 9/1/15 – 8/31/16. "Collaborative Research: RAPID: Evaluating the Cognitive and Educational Benefits of Mental Abacus Training." Stanford budget: $99,958.

Gift from Kinedu, Inc. for the purpose of studying electronically-delivered parenting interventions. $80,000.

France-Stanford Collaborative Grant (Co-PI: Emmanuel Dupoux, LSCP, Paris). 9/1/2015 – 8/31/2016 "Learning Sound and Meaning Jointly in Early Language Acquisition." $14,000.

NSF Perception, Action, and Cognition (Co-PIs: Roger Levy, UCSD; Chris Potts, Stanford). 9/1/15 – 8/31/18. "Collaborative Research: CompCog: Broad-coverage probabilistic models of communication in context." Stanford budget: $427,940.

NSF Development and Learning Sciences. 7/1/15 – 6/30/18. "Wordbank: An open repository for developmental vocabulary data." $502,087.

National Institutes of Health R21 (Co-PI, with Antonio Hardan and Grace Gengoux, Psychiatry), 12/13 – 12/15, "Pivotal response treatment package for young children with autism." $431,750.

Department of the Navy (Co-PI, with Chris Potts, Linguistics, and Noah Goodman, Psychology), 01/13 – 12/15, "Grounded language understanding as social cognition." $494,731.

John Merck Scholars (PI), 5/11 – 5/15, "Social attention and word learning in typical development and autism spectrum disorders." $300,000.

Stanford Bio-X Interdisciplinary Initiatives Program (Co-PI, with Fei-Fei Li, Computer Science), 1/13 – 12/14, "Computational methods for characterizing children's first-person social experiences." $150,000.

Stanford Child Health Research Initiative (PI), 2/13 – 2/14, "Social and attentional components of early word learning." $32,000.

Australian Research Council Discovery Proposal DP110102506 (Partner Investigator, with PIs Mark Johnson and Katherine Demuth, Macquarie University), 6/11 – 6/13, "Computational models of synergies in human language acquisition." $368,000.

Hellman Faculty Scholars (PI), 9/11 – 9/12, "Characterization of children's social attention via eye-tracking at the San Jose Children's Discovery Museum." $36,400.

Humanities Center Workshop (Co-Organizer, with Chris Potts, Linguistics, and Krista Lawlor, Philosophy), 9/11 – 9/12, "Context dependence in language and cognition." $12,000.

NSF Doctoral Dissertation Research Improvement Grant #0746251 (Co-PI, with Edward Gibson, MIT), 2/07 – 2/09, "Empirical studies and probabilistic models of word segmentation and word learning." $12,000.

Invited Presentations (Selected)

Princeton Cognitive Science Colloquium, March 2016

Harvard Psychology Colloquium, Feb 2016

UNLV Psychology Colloquium, December 2015

Brain and Mind Institute Opening Symposium, Chinese University of Hong Kong, November 2015

Keynote at XPRAG.de (Experimental Pragmatics Workshop), July 2015

Keynote at SocialNLP Workshop, North American Conference on Computational Linguistics (NAACL), June 2015

Google Tech Talks, March 2015

Pennsylvania State University, Young Scholar Series, January 2015

University of Edinburgh, School of Informatics, August 2014

UC Merced Psychology Colloquium, March 2014

Indiana University Cognitive Science Colloquium, February 2014

Society for Language Development Invited Symposium, "Mechanisms of word learning," November 2013

Child Development Society Invited Symposium, "Science at an exhibition: What we learn from studying children in museums," October 2013

Morris Symposium (at Stony Brook Linguistics), "What counts in language and cognition: Number and quantification in the mind/brain," September 2013

NYU Linguistics Colloquium, upcoming September 2013

Max Planck Institute for Psycholinguistics (Nijmegen, Netherlands), Invited Symposium, "Challenges for the field of language development," October 2012

RIKEN Brain Sciences Institute (Tokyo, Japan), July 2012

UC Berkeley Program in Undergraduate Research Keynote, April 2012

UC Merced Cognitive Science Colloquium, April 2012

UC Santa Cruz Psychology Colloquium, April 2012

UC Berkeley Cognitive Science Colloquium, February 2012

University of Michigan Theme Semester, "Language: the Human Quintessence," January 2012

Australian National University Linguistics Colloquium, August 2011

Macquarie University (Sydney, Australia) Workshop on Language, Logic, and Learning, August 2011

Stanford Undergraduate Psychology Conference Keynote, May 2011

International Research Training Group on Language Technology and Cognitive Systems, Kloster Irsee (Munich, Germany), June 2009

University of Edinburgh School of Informatics Colloquium, June 2009

Conference on Natural Language Learning (CoNLL) Keynote, June 2009

Psychonomic Society Invited Symposium, " Language as a Tool for Thinking," November 2008

Mentorship

Postdoctoral Fellows

Emily Hembacher - current postdoc

Gabriel Doyle – current postdoc

Daniel Yurovsky – current postdoc (NIH NRSA award through NICHD, Anne Fernald, co-mentor)

Guido Pusiol – former postdoc (co-advised, Fei-Fei Li, CS Department), currently Stanford CS postdoc

Brandon C. Roy – former postdoc (co-advised, Deb Roy, MIT Media Lab), currently Twitter, Inc.

Graduate Students

Molly L. Lewis – current graduate student, NSF Honorable Mention

Ann E. Nordmeyer – current graduate student, NSF Graduate Fellowship

Erica Yoon – current graduate student, NSERC (Canadian NSF-equivalent) Fellow

Kyle Macdonald – current graduate student, NSF Graduate Fellowship

Alexandra Horowitz – former graduate student, Stanford Weiland Fellow, now Kidaptive, Inc.

Ph.D Committee Memberships

(Psychology Department except where noted.)

Eleanor Chestnut, Alex Genevsky, Justine Kao, Ricardo Bion, Sarah Gripshover, Taylor Holubar, Daniel Hawthorne, Long Ouyang, Chigusa Kurumada (Linguistics), Marisa Casillas (Linguistics), Hilarie Mazur, Brandon Roy (MIT Media Lab), Lucas Butler, Jennifer Yoon, Hanna Popick, Steven Flusberg, Jessica Tsang (Education), Bokyung Kim (Communication)

Research Assistants

Veronica Christiano – current RA

Rose Schneider – current RA

Mika Braginsky – current RA

Andrew Weaver – former RA

Sarah James – former RA

Janelle Klaas – former RA

Allison Kraus – former RA, now Uber

Stephan Meylan – former RA, now Psychology PhD student, UC Berkeley

Theresa Hennings – former RA, now Psychology PhD student, University of Washington

Selected Masters, Undergraduate, and High School Students

(All undergraduates listed participated in laboratory research for at least 2–3 quarters.)

Stanford:

Benjamin Peloquin – Symbolic Systems MS
Sarah Case – HumBio BA, honors thesis
Rachel Chung – Science, Technology, & Society BS, honors thesis, Haas Fellow
Nicholas Moores – Ling BA, Psych MA, honors thesis, UAR Major Grant
Elise Sugarman – Symbolic Systems BS, honors thesis, UAR Major Grant
Laura Soriano – HumBio BA, honors thesis, UAR Major Grant
Stephanie Muscat – HumBio BA, honors thesis (Dornbusch award), UAR Major Grant
Kaia Simmons – HumBio BA, honors thesis (Dornbusch award), UAR Major Grant
Stephanie Nicholson – Psych BA, UAR Major Grant (declined), Beinecke Scholar
Rebecca Chung – SymSys BS, honors thesis
Monchette Gonda – HumBio BA, reading on Cog Neuro of Language (with Sam McClure)
Binna Kim – Psych BA, Psych co-term
Maya Mathur – Psych BA, Statistics co-term
Adrienne Gispen – SymSys BS, DAAD fellow in Germany
Cybelle Smith – Ling BA, now PhD student University of Illinois, NSF GRFP
Alex Stiller – Symbolic Systems MS, now Linguistics PhD student UCSD

Other Institutions:

Charles Wu – CSLI intern (Wabash), now PhD student, CMU
Liza Benabbas – RISE intern, Emoryville HS
Angelica Perez – RISE intern, Eastside College Prep (HS), Yale undergraduate
Allison Gofman – Hendrick Hudson School (HS), Intel Semifinalist, Harvard undergraduate
Avril Kenney – MIT SB, now M.Eng. student at MIT
Peter Lai – MIT SB, now software engineer at Crocodoc
Denise Ichinco – MIT SB, now software engineer at Smarter Travel Media

Memberships and Professional Service

Memberships

Continuing memberships in: Cognitive Science Society, International Society for Infant Studies, Society for Research in Child Development, Association for Psychological Science

Professional Service

Governing Board: Cognitive Science Society (2015–present)

Advisory Board: MacArthur-Bates Communicative Development Inventory (2014–present)

Editorial Board: Cognitive Science Journal (2010–present)

National Children's Study: Cognitive Health Domain Team Member (2014–2015)

Program Committee: Cognitive Science Society Annual Meeting (2010–present), Workshop on Cognitive Modeling and Computational Linguistics (at the Association for Computational Linguistics meeting, 2010–2013)

Conference reviewing: Boston University Conference on Language Development; Neural Information Processing Systems; International Conference on Infant Studies; Association for Computational Linguistics; Semantics and Linguistic Theory (SALT); and others.

Executive board member: Linguistic Society of America (2007–2009)

Organizational board: CUNY Sentence Processing Conference (2011), Stanford Child Language Research Forum (2009)

Ad-hoc reviewer: Child Development, Cognition, Cognitive Science, Developmental Psychology, Developmental Science, Journal of Memory and Language, Language and Cognitive Processes, Linguistic Review, Nature, Perception, Public Library of Science, Proceedings of the National Academy of Sciences, Psychological Review, Psychological Science, and others.

Other Service

Organizer, Center for the Study of Language and Information (CSLI) Summer Program for undergraduate research experiences (2015–present)

Secretary and board member, The I-HELP Liberia Project, Inc., not-for-profit 501(c)(3) dedicated to improving math and science education in Liberia.

Media Coverage

Roy et al. (2015): "Predicting the birth of a spoken word"

Reported in Stanford Report, Science News, Spectrum.de, Focus.it

Open Science Collaboration (2015): "Estimating the reproducibility of psychological science"

Reported in many major media outlets, including New York Times, Washington Post, Nature, Science, The Atlantic, etc.

Personally conducted radio interviews for WNYC and for KUSP

Frank & Goodman (2012): "Predicting pragmatic reasoning in language games"

Reported in Stanford Report, Science Daily, Wired Magazine, EFE Newswire.

Frank & Barner (2011): "Representing exact number visually using mental abacus"

Reported in Stanford Report, Discover Magazine Online, New Scientist, India Express, Times of India.

Frank, Vul, & Johnson (2009): "Development of infants' attention to faces in the first year"

Reported in Babytalk magazine, April 2009.

Frank et al. (2008): "Number as a cognitive technology: Evidence from Pirahã language and cognition"

Reported on `sciencenews.org`, Language Log, `slashdot.org`, London Telegraph, Discover Magazine (100 Top Science Stories of 2008).

Last updated: November 2, 2015
`http://www.stanford.edu/~mcfrank/papers/cv.pdf`