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Employment

Stanford University

- Director, Program in Symbolic Systems (2020 – present)
- David and Lucile Packard Foundation Professor of Human Biology (2018 – present)
- Associate Professor of Psychology and (by courtesy) Linguistics (2014 – present)
- Assistant Professor of Psychology and (by courtesy) Linguistics (2010 – 2014)

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

Society for the Improvement of Psychological Sciences (SIPS) Commendation, for Metalab (2020)

National Academy of Sciences (NAS) Troland Research Award (2020)

Society for the Improvement of Psychological Sciences (SIPS) Mission Award, for ManyBabies 1 (2019)

Cognitive Science Society Computational Modeling Prize (2019) for Peloquin, Goodman, & Frank, "The interactions of rational, pragmatic agents lead to efficient language structure and use"

Society for Language Development Peter Jusczyk Best Paper Award (2018) for Nordmeyer & Frank, "Early understanding of pragmatic principles in children's judgments of negative sentences."

Federation of Associations in Behavioral and Brain Sciences (FABBS) Early Career Impact Award (2017)

Klaus W. Jacobs Foundation Advanced Research Fellowship (2016)

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)

Linguistic Society of America Bloch Fellowship (2007–2009)

David Marr Prize for Best Student Paper, Cognitive Science Society (2008) for Frank, Fedorenko, & Gibson, "Language as a cognitive technology: English-speakers match like Pirahã when you don't let them count."

National Science Foundation Graduate Fellowship (2006–2010)

Jacob Javits Fellowship for Graduate Study (2006–2010)

Publications

Books

1. Frank, M. C., Braginsky, M., Yurovsky, D., & Marchman, V. A. (in press). *Variability and Consistency in Early Language Learning: The Wordbank Project*. Cambridge, MA, MIT Press.

Peer-Reviewed Journal Articles

2. Long, B., Wong, P., Frank, M. C., Lai, E., Chan, P., & Kachergis, G. (accepted pending data collection). Consistency and variability between cultures during toddlers' naturalistic play. *Infancy*.

3. Byers-Heinlein, K., Bergmann, C., Black, A., Carbajal, J. M., Fennell, C. T., Frank, M. C., Gervain, J., Gonzalez-Gomez, N., Hamlin, J. K., Kline, M., Kovacs, A. M., Lew-Williams, C., Liu, L., Polka, L., Singh, L., Soderstrom, M., & Tsui, A. S.-M. (in press). A multi-lab study of bilingual infants: Exploring the preference for infant-directed speech. *Advances in Methods and Practices in Psychological Science*.

4. Byers-Heinlein, K., Bergmann, C., Davies, C., Frank, M. C., Hamlin, J. K., Kline, M., ..., & Soderstrom, M. (in press). Building a collaborative psychological science: Lessons from manybabies 1. *Canadian Psychology*.

5. Ebersole, C. R., Mathur, M. B., Baranski, E., Bart-Plange, D.-J., Buttrick, N. R., ..., & Nosek, B. A. (in press). Many labs 5: Testing pre-data collection peer review as an intervention to increase replicability. *Advances in Methods and Practices in Psychological Science*.

6. Hembacher, E., deMayo, B., & Frank, M. C. (in press). Children's social referencing reflects sensitivity to referential ambiguity. *Child Development*.

7. Mathur, M. B., Bart-Plange, D.-J., Aczel, B., Bernstein, M. H., Ciunci, A., Ebersole, C. R., ..., & Frank, M. C. (in press). Many labs 5: Registered multisite replication of tempting-fate effects in risen & gilovich (2008). *Advances in Methods and Practices in Psychological Science*.

8. Yoon, E. J., Tessler, M. H., Goodman, N. D., & Frank, M. C. (in press). Polite speech emerges from competing social goals. *Open Mind*.

9. Bohn, M., & Frank, M. C. (2020). The pervasive role of pragmatics in early language. *Annual Review of Developmental Psychology*, *1*(1), 223–249.

10. Fourtassi, A., & Frank, M. C. (2020). How optimal is word-referent identification under multimodal uncertainty? *Cognition*, *199*, 104092.

11. Fourtassi, A., Regan, S., & Frank, M. C. (2020). Continuous developmental change explains discontinuities in word learning. *Developmental Science*, e13018.

12. Fourtassi, A., Bian, Y., & Frank, M. C. (2020). The growth of children's semantic and phonological networks: Insight from 10 languages. *Cognitive Science*, *44*(7), e12847.

13. Gennetian, L. A., Tamis-LeMonda, C. S., & Frank, M. C. (2020). Advancing transparency and openness in child development research: Opportunities. *Child Development Perspectives*, *14*(1), 3–8.

14. Hawkins, R. X. D., Frank, M. C., & Goodman, N. D. (2020). Characterizing the dynamics of learning in repeated reference games. *Cognitive Science*, *44*(6), e12845.

15. Hembacher, E., & Frank, M. C. (2020). The early parenting attitudes questionnaire: Measuring intuitive theories of parenting and child development. *Collabra: Psychology*, *6*(1), 16.

16. Lewis, M. L., Cristiano, V., Lake, B. M., Kwan, T., & Frank, M. C. (2020). The role of developmental change and linguistic experience in the mutual exclusivity effect. *Cognition*, *198*, 104191.

17. MacDonald, K., Marchman, V. A., Fernald, A., & Frank, M. C. (2020). Children flexibly seek visual information during signed and spoken language comprehension. *Journal of Experimental Psychology: General*, *149*, 1078–1096.

18. Peloquin, B., Goodman, N. D., & Frank, M. C. (2020). The interactions of rational, pragmatic agents lead to efficient language structure and use. *Topics in Cognitive Science*, *12*, 433–445.

19. Tsuji, S., Cristia, A., Frank, M. C., & Bergmann, C. (2020). Addressing publication bias in meta-analysis: Empirical findings from community-augmented meta-analyses of infant language development. *Zeitschrift für Psychologie*, *228*, 50–61.

20. ManyBabies Consortium. (2020). Quantifying sources of variability in infancy research using the infant-directed speech preference. *Advances in Methods and Practices in Psychological Science*, *3*(1), 24–52.

21. Braginsky, M., Yurovsky, D., Marchman, V. A., & Frank, M. C. (2019). Consistency and variability in word learning across languages. *Open Mind*, *3*, 52–67.

22. Hardwicke, T. E., Frank, M. C., Vazire, S., & Goodman, S. N. (2019). Should psychology journals adopt specialized statistical review? *Advances in Methods and Practices in Psychological Science*, *2*, 240–249.

23. Sanchez*, A., Meylan*, S. C., Braginsky, M., MacDonald, K., Yurovsky, D., & Frank, M. C. (2019). Childes-db: A flexible and reproducible interface to the child language data exchange system. *Behavior Research Methods*, *51*(4), 1928–1941.

24. Yoon, E. J., & Frank, M. C. (2019b). The role of salience in young children's processing of ad-hoc implicatures. *Journal of Experimental Child Psychology*, *186*, 99–116.

25. Bergmann, C., Tsuji, S., Piccinini, P. E., Lewis, M. L., Braginsky, M., Frank, M. C., & Cristia, A. (2018). Promoting replicability in developmental research through meta-analyses: Insights from language acquisition research. *Child Development*, *89*(6), 1996–2009.

26. Hardwicke, T. E., Mathur, M. B., MacDonald, K., Nilsonne, G., Banks, G. C., Kidwell, M. C., Mohr, A. H., Clayton, E., Yoon, E. J., Tessler, M. H., Lenne, R. L., Altman, S., Long, B., & Frank, M. C. (2018). Data availability, reusability, and analytic reproducibility: Evaluating the impact of a mandatory open data policy at the journal cognition. *Royal Society Open Science*, *5*(8).

27. Hawkins*, R. X. D., Smith*, E. N., Students, P. 2., & Frank, M. C. (2018). Improving the replicability of psychological science through pedagogy. *Advances in Methods and Practices in Psychological Science*.

28. Lewis, M. L., & Frank, M. C. (2018). Still suspicious: The suspicious coincidence effect revisited. *Psychological Science*, *29*(12).

29. Klein, O., Hardwicke, T. E., Aust, F., Breuer, J., Danielsson, H., Mohr, A. H., IJzerman, H., Nilsonne, G., Vanpaemel, W., & Frank, M. C. (2018). A practical guide for transparency in psychological science. *Collabra: Psychology*, *4*, 20.

30. Nordmeyer, A. E., & Frank, M. C. (2018a). Early understanding of pragmatic principles in children's judgments of negative sentences. *Language Learning and Development*, *14*(4), 262–278. **Society for Language Development Peter Jusczyk Best Paper Award.**

31. Srinivasan, M., Wagner, K., Frank, M. C., & Barner, D. (2018). The role of design and training in artifact expertise: The case of mental abacus and visual attention. *Cognitive Science*, *42*, 757–782.

32. Barner, D., Athanasopoulou, A., Chu, J., Lewis, M. L., Marchand, E., Schneider, R. M., & Frank, M. C. (2017). A one-year classroom-randomized trial of mental abacus instruction for first- and second-grade students. *Journal of Numerical Cognition*, *3*(3).

33. Brooks, N. B., Barner, D., Frank, M. C., & Goldin-Meadow, S. (2017). The role of gesture in supporting mental representations: The case of mental abacus arithmetic. *Cognitive Science*, *42*(2), 554–575.

34. Casillas, M. C., & Frank, M. C. (2017). The development of children's ability to track and predict turn structure in conversation. *Journal of Memory and Language*, *92*, 234–253.

35. Frank, M. C., Bergelson, E., Bergmann, C., Cristia, A., Floccia, C., Gervain, J., Hamlin, J. K., Hannon, E. E., Kline, M., Levelt, C., Lew-Williams, C., Nazzi, T., Panneton, R., Rabagliati, H., Soderstrom, M., Sullivan, J., Waxman, S., & Yurovsky, D. (2017). A collaborative approach to infant research: Promoting reproducibility, best practices, and theory-building. *Infancy*, *22*(4), 421–435.

36. Horowitz*, A. C., Schneider*, R. M., & Frank, M. C. (2017). The trouble with quantifiers: Explaining children's deficits in scalar implicature. *Child Development*.

37. MacDonald, K., Yurovsky, D., & Frank, M. C. (2017). Social cues modulate the representations underlying cross-situational learning. *Cognitive Psychology*, *94*, 67–84.

38. Meylan, S. C., Roy, B. C., Frank, M. C., & Levy, R. (2017). The emergence of an abstract grammatical category in children's early speech. *Psychological Science*, *28*, 181–192.

39. Ouyang, L., Boroditsky, L., & Frank, M. C. (2017). Semantic coherence facilitates distributional learning of word meaning. *Cognitive Science*, *41*(54), 855–884.

40. Räsänen, O., Doyle, G., & Frank, M. C. (2017). Pre-linguistic segmentation of speech into syllable-like units. *Cognition*, *171*, 130–150.

41. Yurovsky, D., Case, S., & Frank, M. C. (2017). Preschoolers flexibly adapt to noisy linguistic input. *Psychological Science*, *28*(1), 132–140.

42. Goodman, N. D., & Frank, M. C. (2016). Pragmatic language interpretation as probabilistic inference. *Trends in Cognitive Sciences*, *20*, 818–829.

43. Lewis, M. L., & Frank, M. C. (2016d). Understanding the effect of social context on learning: A replication of xu and tenenbaum (2007b). *Journal of Experimental Psychology: General*, *145*(9), e72–e80.

44. Anderson, C. J., Bahnik, S., Barnett-Cowan, M., Bosco, F. A., Chandler, J., Chartier, C. R., ..., & Zuni, K. (2016). Response to a comment on "Estimating the reproducibility of psychological science". *Science*, *351*(6277), 1037.

45. Frank, M. C. (2016b). Comment on "Math at home adds up to achievment in school". *Science*, *351*, 1161.

46. Frank, M. C., Braginsky, M., Yurovsky, D., & Marchman, V. A. (2017). Wordbank: An open repository for developmental vocabulary data. *Journal of Child Language*, *44*(3), 677–694.

47. Lewis, M. L., & Frank, M. C. (2016a). The length of words reflects their conceptual complexity. *Cognition*, *153*, 182–195.

48. Waskom, M. L., Frank, M. C., & Wagner, A. D. (2016). Adaptive engagement of cognitive control in context-dependent decision-making. *Cerebral Cortex*, *27*(2), 1270–1284.

49. Barner, D., Alvarez, G. A., Sullivan, J., Brooks, N. B., Srinivasan, M., & Frank, M. C. (2016). Learning mathematics in a visuospatial format: A randomized, controlled trial of mental abacus instruction. *Child Development*.

50. Frank, M. C., Sugarman, E., Horowitz, A. C., Lewis, M. L., & Yurovsky, D. (2016). Using tablets to collect data from young children. *Journal of Cognition and Development*, *17*(1), 1–17.

51. Horowitz, A. C., & Frank, M. C. (2016). Children's pragmatic inferences as a route for learning about the world. *Child Development*, *87*(3), 807–819.

52. Sullivan, J., Frank, M. C., & Barner, D. (2016). Intensive math training does not affect approximate number acuity: Evidence from a three-year longitudinal curriculum intervention. *Journal of Numerical Cognition*, *2*(2), 57–76.

53. 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*, *168*(7), 564–572.

54. 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.

55. 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.

56. Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, *349*(6251).

57. 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*, *26*(9), 1353–1367.

58. Potts, C., Lassiter, D., Levy, R., & Frank, M. C. (2015). Embedded implicatures as pragmatic inferences under compositional lexical uncertainty. *Journal of Semantics*, *33*(4), 755–802.

59. Roy, B. C., Frank, M. C., DeCamp, P., Miller, M., & Roy, D. (2015). Predicting the birth of a spoken word. *Proceedings of the National Academy of Sciences*, *112*(41), 12663–12668.

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

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

62. Yurovsky, D., & Frank, M. C. (2017). Beyond naıve cue combination: Salience and social cues in early word learning. *Developmental Science*, *20*(2), e12349.

63. 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.

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

65. 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.

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

67. 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.

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

69. 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.

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

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

72. 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.

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

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

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

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

77. 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.

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

79. Frank, M. C., & Barner, D. (2011). Representing exact number visually using mental abacus. *Journal of Experimental Psychology: General*, *141*(1), 131–149.

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

81. Frank, M. C., & Tenenbaum, J. B. (2011). Three ideal observer models for rule learning in simple languages. *Cognition*, *120*(3), 360–371.

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

83. 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*(1), 248–257.

84. 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.

85. 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.

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

87. 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.

88. Frank, M. C., Everett, D. L., Fedorenko, E., & Gibson, E. (2008). Number as a cognitive technology: Evidence from Pirahã language and cognition. *Cognition*, *108*(3), 819–824.

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

90. 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.

91. 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, Commentaries, and other Manuscripts

92. Mahowald, K., Kachergis, G., & Frank, M. C. (2020). What counts as an exemplar model, anyway? a commentary on ambridge (2020). *First Language*.

93. Frank, M. C. (2019b). Towards a more robust and replicable science of infant development. *Infant Behavior and Development*, *57*, 101349.

94. Frank, M. C. (2019a). N-best evaluation for academic hiring and promotion. *Trends in Cognitive Sciences*, *23*, 983–985.

95. Frank, M. C. (2018). With great data comes great (theoretical) opportunity. *Trends in Cognitive Sciences*, *22*(8), 669–671.

96. Hardwicke, T. E., Tessler, M. H., Peloquin, B., & Frank, M. C. (2018). A bayesian decision-making framework for replication. *Behavioral and Brain Sciences*, *41*, e132.

97. Lewis, M. L., & Frank, M. C. (2016c). Linguistic structure emerges through the interaction of memory constraints and communicative pressures. Commentary on M. Christiansen & N. Chater, The Now-or-Never Bottleneck: A Fundamental Constraint on Language. *Behavioral and Brain Sciences*, *39*.

98. Frank, M. C. (2016a). Chasing the Rubicon? Review of "Chaser: Unlocking the Genius of the Dog Who Knows a Thousand Words". *American Journal of Psychology*, *129*(1), 99–104.

99. 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.

100. 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.

101. 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.

102. 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

103. Fourtassi, A., Wilson, K., & Frank, M. C. (2020). Discovering conceptual hierarchy through explicit and implicit cues in child-directed speech, In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

104. Geiger, A., Carstensen, A., Frank, M. C., & Potts, C. (2020). Relational reasoning and generalization using non-symbolic neural networks, In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

105. Long, B., Kachergis, G., Agrawal, K., & Frank, M. C. (2020). Detecting social information in a dense database of infants' natural visual experience, In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

106. Portelance, E., Degen, J., & Frank, M. C. (2020). Predicting age of acquisition in early word learning using recurrent neural networks, In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

107. Stenhaug, B., & Frank, M. C. (2020). The latent factor structure of developmental change in early childhood, In *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*.

108. Bohn, M., Tessler, M. H., & Frank, M. C. (2019). Integrating common ground and informativeness in pragmatic word learning, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

109. Fourtassi*, A., Scheinfeld*, I., & Frank, M. C. (2019). The development of abstract concepts in children's early lexical networks, In *Proceedings of the 10th Workshop on Cognitive Modeling and Computational Linguistics (CMCL)*.

110. Fourtassi, A., Regan, S., & Frank, M. C. (2019). Continuous developmental change can explain discontinuities in word learning, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

111. Long, B., Fan, J. E., Chai, Z., & Frank, M. C. (2019). Developmental changes in the ability to draw distinctive features of object categories, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

112. MacDonald, K., Swanson, E., & Frank, M. C. (2019). Integration of gaze information during online language comprehension and learning, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

113. Peloquin, B., Goodman, N. D., & Frank, M. C. (2019). The interactions of rational, pragmatic agents lead to efficient language structure and use, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. **[Cognitive Science Society computational modeling prize]**

114. Yoon, E. J., & Frank, M. C. (2019a). Preschool children's understanding of polite requests, In *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

115. Asaba, M., Hembacher, E., Qiu, S., Anderson, B., Frank, M., & Gweon, H. (2018). Young children use statistical evidence to infer the informativeness of praise, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

116. Fourtassi, A., Bian, Y., & Frank, M. C. (2018). Word learning as network growth: A cross-linguistic analysis, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

117. Jasbi, M., Jaggi, A., & Frank, M. C. (2018). Conceptual and prosodic cues in child-directed speech can help children learn the meaning of disjunction, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

118. Long, B., Fan, J. E., & Frank, M. C. (2018). Drawings as a window into developmental changes in object representations, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

119. MacDonald, K., Marchman, V. A., Fernald, A., & Frank, M. C. (2018). Adults and preschoolers seek visual information to support language comprehension in noisy environments, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

120. Nordmeyer, A. E., & Frank, M. C. (2018b). Individual variation in children's early production of negation, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

121. Sanchez*, A., Long*, B., Kraus, A. M., & Frank, M. C. (2018). Postural developments modulate children's visual access to social information, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

122. Nordmeyer, A. E., & Frank, M. C. (2018b). Individual variation in children's early production of negation, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

123. Yoon*, E. J., MacDonald*, K., Asaba, M., Gweon, H., & Frank, M. C. (2018). Balancing informational and social goals in active learning, In *Proceedings of the 40th Annual Conference of the Cognitive Science Society*.

124. Doyle, G., Goldberg, A., Srivastava, S. B., & Frank, M. C. (2017). Alignment at work: Accommodation and enculturation in corporate communication, In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics*.

125. Fourtassi, A., & Frank, M. C. (2017). Word identification under multimodal uncertainty, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

126. Hawkins, R. X. D., Frank, M. C., & Goodman, N. D. (2017). Convention-formation in iterated reference games, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

127. Hembacher, E., deMayo, B., & Frank, M. C. (2017). Children's social referencing reflects sensitivity to graded uncertainty, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

128. Jasbi, M., & Frank, M. C. (2017). The semantics and pragmatics of logical connectives: Adults' and children's interpretations of "and" and "or" in a guessing game, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

129. MacDonald, K., Blonder, A., Marchman, V. A., Fernald, A., & Frank, M. C. (2017). An information-seeking account of eye movements during spoken and signed language comprehension, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

130. Ouyang, L., & Frank, M. C. (2017). Pedagogical learning, In *Nips workshop on teaching machines, robots, and humans*.

131. Yoon, E. J., Tessler, M. H., Goodman, N. D., & Frank, M. C. (2017). "i won't lie, it wasn't amazing": Modeling polite indirect speech, In *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.

132. Braginsky, M., Yurovsky, D., Marchman, V. A., & Frank, M. C. (2016). From uh-oh to tomorrow: Predicting age of acquisition for early words across languages, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

133. Crone, P., & Frank, M. C. (2016). Inferring generic meaning from pragmatic reference failure, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

134. Doyle, G., Yurovsky, D., & Frank, M. C. (2016). A robust framework for estimating linguistic alignment in social media conversations, In *Proceedings of the 25th international world wide web conference*.

135. Doyle, G., & Frank, M. C. (2016). Investigating the sources of linguistic alignment in conversation, In *Proceedings of the 54th Annual Conference of the Association for Computational Linguistics*.

136. Frank, M. C., Lewis, M. L., & MacDonald, K. (2016). A performance model for early word learning, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

137. Hembacher, E., & Frank, M. C. (2016). Measuring lay theories of parenting and child development, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

138. Lewis, M. L., & Frank, M. C. (2016b). Linguistic niches emerge from pressures at multiple timescales, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

139. MacDonald, K., & Frank, M. C. (2016). When does passive learning improve the effectiveness of active learning? In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

140. Nordmeyer, A. E., Yoon, E. J., & Frank, M. C. (2016). Distinguishing processing difficulties in inhibition, implicature, and negation, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

141. Peloquin, B., & Frank, M. C. (2016). Determining the alternatives for scalar implicature, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

142. Pusiol, G., Esteva, A., Hall, S. S., Frank, M. C., Milstein, A., & Li, F.-F. (2016). Vision-based classification of developmental disorders using eye-movements, In *19th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)*.

143. Schneider, R. M., & Frank, M. C. (2016). A speed-accuracy trade-off in children's processing of scalar implicatures, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

144. Yoon*, E. J., Tessler*, M. H., Goodman, N. D., & Frank, M. C. (2016). Talking with tact: Polite language as a balance between kindness and informativity, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

145. Yurovsky, D., Doyle, G., & Frank, M. C. (2016). Linguistic input is tuned to children's developmental level, In *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.

146. 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*.

147. 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*.

148. 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*.

149. 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*.

150. 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*.

151. 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*.

152. 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*.

153. 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*.

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

155. 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*.

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

157. 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*. IEEE.

158. 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*.

159. 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*.

160. 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*.

161. 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*.

162. 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*.

163. 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*.

164. 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*.

165. 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*. Cognitive Society.

166. 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*.

167. 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*.

168. 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*.

169. 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*.

170. 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*.

171. 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*.

172. 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*.

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

174. 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*.

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

176. 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*.

177. 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*.

178. 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*.

179. 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*.

180. 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*.

181. 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*.

182. 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*.

183. 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*.

184. 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*.

185. 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*.

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

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

188. 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*.

189. 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*.

190. 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*.

191. 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.*

192. 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*.

193. 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*.

194. 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.

195. 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]**

196. 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*.

197. 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*.

198. 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*.

199. 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.

200. 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*.

201. 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*.

202. 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 and Contracts

Stanford Human-Centered AI Institute Hoffman-Yee Stage 1 Award. (PI: Chris Potts, 6 Co-PI team). 6/1/20 – 5/31/21. "Towards grounded, adaptive communication agents." $500,000.

Stanford Human-Centered AI Institute Hoffman-Yee Stage 1 Award. (PI: Daniel Yamins, 5 Co-PI team). 6/1/20 – 5/31/21. "Learning to Play: Using the Learning Principles of Early Childhood to Build Self-Supervising AI Agents and Understand Developmental Variability." $500,000.

Facebook AI Research. (Co-PI: Daniel Yamins). 6/1/20 – 5/31/22. "Learning to play: understanding infant development with intrinsically motivated artificial agents." $270,000.

Institute for Research in the Social Sciences. 6/1/20 – 5/31/21. "Using an Online Platform to Measure Early Language in Children from Diverse Families." $10,000.

NSF Research Experience for Undergraduates (Co-PI: Chris Potts, Linguistics). Renewal. 5/1/20 – 4/30/23. "REU Site: Language, Cognition, and Computation." $379,000.

Fetzer-Franklin Foundation Metascience award. "MetaLab: from meta-analysis to mega-analysis." 1/1/2020 - 12/31/2020: $20,000.

John S. McDonald Foundation. Collaborative grant "The ontogeny of propositional thought." PI: Susan Carey. Subcontract to Stanford: $76,000.

Stanford Human-centered AI institute. 5/1/19 – 4/30/20. "Learning to Play: Understanding Infant Development with Intrinsically Motivated Artificial Agents." $75,000.

NIH R01 (Co-I, with Antonio Hardan and Karen Parker, Psychiatry). 7/1/17 – 3/31/22. "Intranasal vasopressin treatment in children with autism." $3,864,801.

Gift from Kinedu, Inc. (second) for the purpose of studying electronically-delivered parenting interventions. 3/1/18. $80,000.

Contract from Kinedu, Inc. for the purpose of studying electronically-delivered parenting interventions. 3/1/18 – 2/28/20. $160,000.

Stanford Data Science Institute. 9/1/18 – 8/31/19. "Lexical networks in children's early language." $50,000.

Stanford Center at Peking University Faculty Fellowship. 9/1/18. Funding for collaborative meetings in Beijing. $12,000.

Jacobs Foundation. 10/1/18 – 9/30/20. "A roadmap towards integrating African labs into international collaborative research on early cognitive/language development." $148,733.

Zhou Gift for Research on Language Development. 11/1/17 – 10/31/22. $1,000,000.

NSF Research Experience for Undergraduates (Co-PI: Chris Potts, Linguistics). 5/1/17 – 4/30/20. "REU Site: Language, Cognition, and Computation." $283,231.

Jacobs Foundation Advanced Research Fellowship. 1/1/17 – 12/31/20. 400,000 CHF.

Berkeley Institute for Transparency in the Social Sciences (Co-Investigators: Christina Bergmann, Sho Tsuji, Alex Cristia). 12/1/16 - 11/31/17. "MetaLab: Paving the way for easy to use, dynamic, crowdsourced meta-analyses." $29,100.

Association for Psychological Science Grant to support ManyBabies 1 Data Collection. Regranted to participating labs. 9/15/16 – 9/15/17. $52,000.

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. $160,000.

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.

NIH 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)

International Congress on Infant Studies invited symposium, June 2020.

Keynote at Cross-linguistic Perspectives on Processing and Learning, October 2019.

Keynote at paEpsy (German Psychological Association Developmental Subsection), September 2019.

Bing Nursery School Distinguished Speaker Lecture. May 2019.

Invited keynote at Royal Society meeting, "Big data for better science: technologies for measuring behaviour," February 2019.

University of Oregon Psychology Colloquium, October 2018.

National Institutes of Health Behavioral and Social Sciences Research Coordinating Committee, October 2018.

Tsinghua University Linguistics Colloquium, September 2018.

Keynote at Uncertainty in Artificial Intelligence, July 2018.

Legrain Conference at Ecole Normale Superieure, July 2018.

Northwestern Cognitive Science Colloquium, May 2018.

Association for Psychological Science Invited Address, May 2018.

UC Merced Cognitive Science Colloquium, April 2018.

Ewha and Yonsei University Colloquia, March 2018.

UCSD Psychology Colloquium, November 2017.

University of Maryland Cognitive Science Colloquium, September 2017.

Chegg, Inc. Data Science for Education Speaker Series, September 2017.

Keynote at Basque Center Stat Learning Conference, June 2017.

UBC Gold Medal Language Sciences Speaker Series, Feb 2017.

Keynote at XPRAG.de Satellite Symposium, May 2016.

Princeton Cognitive Science Colloquium, March 2016.

Harvard Psychology Colloquium, February 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.

UMD Linguistics Colloquium, October 2010.

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

Yang Wu – current postdoc, co-advised Hyowon Gweon

George Kachergis – current research scientist

Alexandra Carstensen – current postdoc

Pooja Paul – current postdoc, CSLI Fellow

Judy Fan – former postdoc, co-advised Daniel Yamins – Assistant Professor, UCSD

Angeline Tsui – current postdoc

Tom Hardwicke – former postdoc, co-supervised with METRICS meta-research center – Charité Berlin

Manuel Bohn – former postdoc (Marie Curie Fellowship) – University of Leipzig

Bria Long – current postdoc (NSF SBE Postdoc Fellowship)

Abdellah Fourtassi - former postdoc (Fyssen Fellowship) – Assistant Professor, University of Marseilles

Emily Hembacher – former postdoc (Stanford Child Health Research Initiative grantee)

Gabriel Doyle – former postdoc – Assistant Professor, San Diego State University

Daniel Yurovsky – former postdoc (NIH NRSA award through NICHD, Anne Fernald, co-mentor) – Assistant Professor, Carnegie Mellon University

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

Anjie Cao – current graduate student

Veronica Boyce – current graduate student

Eva Portelance (Linguistics) – current graduate student

Rondeline Williams, NSF Honorable Mention – current graduate student

Ben Peloquin – current graduate student – on leave, Apple

Erica Yoon – former graduate student, NSERC (Canadian NSF-equivalent) Fellow – Stanford Symbolic Systems Course Coordinator

Masoud Jasbi – former graduate student (co-advised, Eve Clark, Linguistics) – postdoc Harvard – Assistant Professor, UC Davis

Kyle MacDonald – former graduate student, NSF Graduate Fellowship – postdoc UCLA

Molly L. Lewis – former graduate student, NSF Honorable Mention – Special Faculty, Carnegie Mellon

Ann E. Nordmeyer – former graduate student, NSF Graduate Fellowship – Assistant Professor, Southern New Hampshire University

Alexandra Horowitz – former graduate student, Stanford Weiland Fellow – Facebook

Marissa Casillas (Linguistics) – former graduate student (co-advised, Eve Clark, Linguistics) – Assistant Professor, University of Chicago

Ph.D Committee Memberships

(Psychology Department except where noted.)

Michael Hahn (Linguistics), Ben Stenhaug (Education), Natalia Vélez, Arianna Yuan, Sophie Bridgers, Erin Bennett, Cai Guo, Mika Asaba, Robert Hawkins, Michael Henry Tessler, Robin Melnick (Linguistics), Phil Crone (Linguistics), 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

Jessica Mankewitz – current RA

Samaher Radwan – current RA

Benjamin deMayo – former RA, now Psychology PhD student, Princeton

Megan Merrick – former RA, now Psychology PhD student, University of Indiana

Vivian Zhang – former RA, now Psychology PhD student, Cornell

Jacqueline Quirke – former RA

Alessandro Sanchez – former RA

Danielle Kellier – former RA, UPenn medical school

Veronica Cristiano – former RA, now SLP student, Gallaudet

Rose Schneider – former RA, now Psychology PhD student, UCSD

Mika Braginsky – former RA, now Psychology PhD student, MIT

Andrew Weaver – former RA

Sarah James – former RA

Janelle Klaas – former RA

Allison Kraus – former RA

Stephan Meylan – former RA, PhD Berkeley, Postdoc MIT

Theresa Hennings – former RA

Selected Masters, Undergraduate, and High School Students

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

Stanford:

Isabella Duan (2021) – HumBio BS, honors thesis
Elizabeth Swanson (2021) – HumBio BS, honors thesis
Claire Baker (2021) – HumBio BS, honors thesis
Hannah Marshall (2021)– Psych BS, honors thesis

Gloria Yi (2021) – Symbolic Systems BS, honors thesis

Khuyen Le (2021) – Symbolic Systems BS, honors thesis

Tania Dhaliwal (2020) – SSP BS, honors thesis

Sophie Regan (2020) – SSP BS, honors thesis, SSP MS

Hang Jiang (2020) – SSP MS, PhD MIT Media Lab

Benjamin deMayo (2018) – psych BA, honors thesis

Tamara Mekler (2017) – HumBio BA, honors thesis

Allison Dods (2016) – Symbolic Systems BS, honors thesis

Benjamin Peloquin (2016) – Symbolic Systems MS

Sarah Case (2016) – HumBio BA, honors thesis

Rachel Chung (2015) – Science, Technology, & Society BS, honors thesis, Haas Fellow

Nicholas Moores (2015) – Ling BA, Psych MA, honors thesis, UAR Major Grant

Elise Sugarman (2014) – Symbolic Systems BS, honors thesis, UAR Major Grant

Laura Soriano (2014) – HumBio BA, honors thesis, UAR Major Grant

Stephanie Muscat (2013) – HumBio BA, honors thesis (Dornbusch award), UAR Major Grant

Kaia Simmons (2013) – HumBio BA, honors thesis (Dornbusch award), UAR Major Grant

Stephanie Nicholson (2013) – Psych BA, UAR Major Grant (declined), Beinecke Scholar

Rebecca Chung (2013) – SymSys BS, honors thesis

Monchette Gonda (2013) – HumBio BA, reading on Cog Neuro of Language (with Sam McClure)

Binna Kim (2012) – Psych BA, Psych co-term

Maya Mathur (2012) – Psych BA, Statistics co-term, Harvard PhD, Assistant Professor, Stanford QSU

Cybelle Smith (2012) – Ling BA, now PhD student University of Illinois, NSF GRFP

Alex Stiller (2012) – Symbolic Systems MS, now Linguistics PhD student UCSD, Adjunct, San Diego Community College

Adrienne Gispen (2011) – SymSys BS, DAAD fellow in Germany

Other Institutions:

Naiti Bhatt – CSLI intern (Scripps)

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

Service

Editorial Service

Special section editor for Registered Reports, Child Development (2020–present)

Special issue editor, "Replication, Collaboration, and Best Practices in Infancy Research," Infant Behavior and Development (2019)

Ad-hoc editor, Proceedings of the National Academy of Sciences (5 articles, 2016–2020)

Associate Editor: Cognition (2016–2017)

Editorial Board: Cognitive Science Journal (2010–present), Journal of Experimental Psychology: General (2016–present), Advances in Methods and Practices in Psychological Science (AMPPS) (2017–present)

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.

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

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)

Governance

Founder and governing board member, ManyBabies Consortium (2015–Present)

Governing Board: Cognitive Science Society (2015–2021), elected position; Chair of the Governing Board (2018–2019)

Founding Member and Interim Executive Committee: Society for the Improvement of Psychological Science (2016–2018)

Advisory Board: MacArthur-Bates Communicative Development Inventory (2014–present), Databrary (2016–present)

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

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

Departmental and University Service

Director, Center for the Study of Language and Information (2020 – 2022)

Director, Symbolic Systems Program (2020 – 2022)

Chair, Stanford Psychology Statistics Committee (2017–present)

Stanford Psychology Diversity Committee (2017–2020)

Acting Director, Center for the Study of Language and Information (2016–2017)

Organizer, Center for the Study of Language and Information (CSLI) Summer Program for undergraduate research experiences (2014–present)

Bing Nursery School Scientific Advisory Board (2012–present)

Other Service

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

APS Search Committee for Editor in Chief for new Advances in Methodologies and Practices in Psychological Science (AMPPS) journal

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

Parent Board Member, Children's Center of the Stanford Community (2017-2018, 2020–present).

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

Media Coverage and Outreach

Outreach using the social web to promote cognitive science and developmental psychology:

Twitter: @mcxfrank (>8000 followers)

Blogging at Babies Learning Language ($\sim$ 100 posts over 7 years)

Frank et al. (2020). "Variability and Consistency in Children's Early Language: The Wordbank Project"

The Atlantic "The Mystery of Babies' First Words." (Spring 2019).

Stanford Magazine. (March 2020).

ManyBabies Consortium (2020). "Quantifying sources of variability in infancy research using the infant-directed speech preference."

Stanford Report, Psychology Today.

Meylan et al. (2017). "The emergence of an abstract grammatical category in children's early speech"

Reported in Stanford Report, Science Daily

Anderson et al. (2016): Response to comment on "Estimating the reproducibility of psychological science"

Reported in many major media outlets, including Slate, The Atlantic, etc.

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).