

Curriculum Vitae

Bob McMurray

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Educational and Professional History

Education

- Ph.D. University of Rochester, Brain and Cognitive Sciences, 2004
Dissertation: *Within-Category Variation is Used in Spoken Word Recognition: Temporal Integration at Two Time Scales.*
Supervisors: Richard N. Aslin and Michael K. Tanenhaus.
- M.S. University of Rochester, Brain and Cognitive Sciences, 2003
- B.A., Magna Cum Laude Cornell University, Psychology with Cognitive Studies Concentration, 1998

Professional and Academic Positions

- 2019- F. Wendell Miller Professor of Psychological and Brain Sciences
- 2018- Associate Research Scientist, Haskins Laboratories
- 2017- Secondary Appointment, Department of Otolaryngology, University of Iowa
- 2015-2019 Professor and Collegiate Scholar, Department of Psychology, University of Iowa
- 2010-2015 Associate Professor, Department of Psychology, University of Iowa.
Secondary Appointment, Department of Communication Sciences and Disorders
Secondary Appointment, Department of Linguistics
Member, Interdisciplinary Neuroscience Program
Member, Delta Center
- 2004-2010 Assistant Professor, Department of Psychology, University of Iowa
- 1998-2004 Research Assistant, Infant Development Laboratory, University of Rochester
(Supervisor Richard N. Aslin, Ph.D.)
- 1998-2004 Research Assistant, Language Processing Laboratory, University of Rochester
(Supervisor Michael Tanenhaus, Ph.D.)
- 1996-1998 Research Assistant, Human Information Integration Laboratory, Cornell University
(Supervisor: Michael Spivey, Ph.D.)

Professional Development

- 2015 Visiting Scholar, Max Planck Institute for Psycholinguistics, Nijmegen, NL

2014 Visiting Scholar, Dept. of Experimental Psychology, Oxford, UK.
2003 Categorization Summer School, University of Quebec at Montreal.

Honors and Awards

2019 Scholar of the Year. University of Iowa
2016 European Society for Cognitive Psychology (ESCoP) Early Career Publication Award
awarded to Ph.D. student, Efthymia Kapnoula for Kapnoula & McMurray (2016, Journal of Experimental Psychology: General).
2015 Meritorious Poster Submission, Meeting of the American Speech Language Hearing Association (Rigler, Farris-Trimble & McMurray, 2015)
2015 Collegiate Scholar (University of Iowa, College of Liberal Arts and Sciences)
2013 Recognition of Excellence Prize, *Learning to Attend, Attending to Learn Workshop*, for Kucker, Samuelson & McMurray (2013)
2013 Psychonomic Society Outstanding Young Investigator Award
2012 International Society on Infant Studies Graduate Student Paper Award. For paper co-authored with graduate student Gwyneth Rost (Rost & McMurray, 2010)
2012 Distinguished Scientific Award for Early Career Contribution to Psychology, Developmental Psychology (American Psychological Association).
2011 Boyd McCandless Award (American Psychological Association, Division 7).
2010 Deans Scholar (University of Iowa, College of Liberal Arts and Sciences).
2009-2010 NIH loan repayment program renewal: *The interaction of online competition and statistical learning: Word recognition and development in normal and impaired listeners.*
2008 Junior Faculty Travel Award (International Conference on Infant Studies)
2008 Best Perception and Action Model (2008 Meeting of the Cognitive Science Society) (see Toscano & McMurray, 2008)
2007-2008 NIH loan repayment program: *Lexical and Statistical Processes in Speech Perception and Development: Normal and Impaired Listeners.*
1998 TA Ryan Undergraduate Research Award (Cornell University Dept. of Psychology).
1998 Honorable Mention, NSF Graduate Research Fellowship.

Professional Organizations

University of British Columbia, Language Sciences Initiative (2020-)
Member, Society for Neurobiology of Language (2021-)
Fellow, Psychonomic Society (2018-, Member since 2012)
Iowa Neuroscience Institute (2017-)
American Academy for the Advancement of Science (2017-)
DeLTA (DEvelopment, Learning, Theory and Application) Center, University of Iowa (2014-)
MidPhon (Mid-Continental Phonetics and Phonology) (2004-)

Research

Refereed Publications

*	senior author, major contribution	+	undergraduate author
**	secondary contribution	++	graduate student author
***	equal contribution	+++	post-doctoral author
****	minor contribution		

107. * Geller⁺⁺⁺, J., Holmes, A., Schwalje⁺⁺⁺, A., Berger⁺⁺⁺, J., Gander, P., Choi, I., and McMurray, B. (in press) Validating the Iowa Test of Consonant Perception. *Journal of the Acoustical Society of America*.
106. * Kapnoula, E., & McMurray, B. (accept with minor revisions) On the locus of individual differences in perceptual flexibility: ERP evidence for perceptual warping of speech sounds. *Brain & Language*. <https://psyarxiv.com/q9stn>
105. * Apfelbaum, K., Klein-Packard, J., and McMurray, B. (in press) The pictures who shall not be named: Empirical support for preview in the Visual World Paradigm. *Journal of Memory and Language*.
104. * Sarrett, M.S.⁺⁺, Shea, C., and McMurray, B. (in press) Within- and between-language lexical competition in adult second language learners: implications for language proficiency. *Language, Cognition and Neuroscience*.
103. *Colby, S.⁺, and McMurray, B. (in press) Cognitive and physiological measures of listening effort during degraded speech perception: A comparison of dual-task and pupillometry paradigms. *Journal of Speech, Language, Hearing Research*
102. * Roembke, T.⁺⁺, and McMurray, B. (in press) Interactions of explicit and implicit learning mechanisms in cross-situational word learning. *Memory and Cognition*.
101. Kim, S., Schwalje, A., Liu, A., Gander, P., McMurray, B., Griffiths, T., and Choi, I. (in press) Pre- and post-target cortical processes predict speech-in-noise performance. *Neuroimage*.
100. * Kapnoula⁺⁺, E., Edwards, J., and McMurray, B. (in press) Gradient activation of speech categories facilitates listeners' recovery from lexical garden paths, but not perception of speech-in-noise. *Journal of Experimental Psychology: Human Perception and Performance*.
99. * Roembke, T.⁺⁺, Hazeltine, E., Reed, D., and McMurray, B. (2021) Automaticity as an Independent Trait in Predicting Reading Outcomes in Middle-School. *Developmental Psychology*, 57(3), 361-375.
98. * Sarrett, M⁺⁺, McMurray, B., and Kapnoula, E⁺⁺. (2020) Dynamic EEG analysis during language comprehension reveals interactive cascades between perceptual processing and semantic expectations. *Brain and Language*, 211, 104875.
97. **** Griffiths, T., Lad, M., Kumar, S., Holmes, E., McMurray, B., Maguire, E., Billig, A., and Sedley, W. (2020) How can hearing loss cause dementia? *Neuron*, 3(11), 401-412.
96. *** Redmon, C.⁺⁺, Leung, K.⁺⁺, Wang, Y., McMurray, B., Jongman, A., and Sereno, J. (2020). Cross-linguistic perception of clearly spoken English tense and lax vowels based on auditory, visual, and auditory-visual information. *Journal of Phonetics*, 81, 100980.

95. ** Sokoloff, G., Hickerson, M., Wen, R., Tobias, M., McMurray, B., and Blumberg, M. (2020) Spatiotemporal organization of myoclonic twitching in sleeping human infants. *Developmental Psychobiology*, 62(6), 697-710.
94. ** Warren, D., Roembke, T., Covington, N., McMurray B., and Duff, M. (2020) Cross-situational statistical learning of new words despite bilateral hippocampal damage and severe amnesia. *Frontiers in human neuroscience*, 13, 448.
93. * Roembke⁺⁺, T., Freedberg⁺⁺, M., Hazeltine, R., and McMurray, B. (2020) Simultaneous Training on Overlapping Grapheme Phoneme Correspondences Augments Learning and Retention. *Journal of Experimental Child Psychology*. 191, 104731.
92. ** Treat, T. A., McMurray, B., Betty, J. R., & Viken, R. J. (2020). Tracking Men's Perceptions of Women's Sexual Interest. *Current Directions in Psychological Science*, 29(1), 71-79.
91. ** Kucker⁺⁺, S.C., McMurray, B. and Samuelson, L.S. (2020) Sometimes it is better to know less: How known words influence referent selection and retention in 18- to 24-month-old children. *Journal of Experimental Child Psychology*, 189, 104705
90. ** Reed, D., Martin, E., Hazeltine, E., and McMurray, B. (2019) Students' Perceptions of a Gamified Reading Assessment. *Journal of Special Education Technology*, 35(4), 191-203.
89. * McMurray, B., Klein-Packard, J., and Tomblin, J.B. (2019) A real-time mechanism underlying lexical deficits in developmental language disorder: Between-word inhibition. *Cognition*, 19, 10400
88. ** Dial⁺⁺, H., McMurray, B., and Martin, R. (2019) Lexical Processing Depends on Sublexical processing: Evidence from the Visual World Paradigm and Aphasia. *Attention, Perception & Psychophysics*, 81(4), 1047-1064
87. * Schreiber⁺⁺, K. and McMurray, B. (2019) Listeners can anticipate future segments before they identify the current one. *Attention Perception and Psychophysics*, 81(4), 1147-1166
86. ** Zhao, L., Packard, S., McMurray, B., and Gupta, P. (2019) Similarity of referents influences the learning of phonological word forms: Evidence from concurrent word learning. *Cognition*, 190, 42-60
85. * Galle⁺⁺, M.E., Klein-Packard, J., Schreiber⁺⁺, K., and McMurray, B. (2019) What are you waiting for? Real-time integration of cues for fricatives suggests encapsulated auditory memory. *Cognitive Science*, 43(1), e12700
84. * McMurray, B., Ellis⁺⁺, T.E., and Apfelbaum⁺⁺, K.S. (2019) How do you deal with uncertainty? Cochlear Implant users differ in the dynamics of lexical processing of non-canonical inputs. *Ear and Hearing*, 40(4), 961-980
83. * Roembke⁺⁺, T., Reed, D., Hazeltine, E., and McMurray, B. (2019) Automaticity of word recognition is a unique predictor of reading fluency in middle-school students. *Journal of Educational Psychology*, 111(2), 314-330
82. * McMurray, Roembke, T., and Hazeltine, R. (2018) Field tests of learning principles learning can support pedagogy: Overlap and variability jointly affect sound/letter acquisition in first graders. Invited submission to special issue of *Journal of Cognition and Development*, 20(2), 222-252
81. * Roembke, T., Wiggs⁺, K., and McMurray, B. (2018) Symbolic Flexibility during Unsupervised Word Learning in Children and Adults. *Journal of Experimental Child Psychology*, 175, 17-36

80. *** Seedorff, M., J., and McMurray, B. (2018) Detecting when timeseries differ: Using the Bootstrapped Differences of Timeseries (BDOTs) to analyze visual world paradigm data (and more). *Journal of Memory and Language*, 102, 55-67
79. ** Kucker, S., McMurray, B., and Samuelson, L.S. (2018) Too much of a good thing: How novelty biases and vocabulary influence familiar and novel referent selection in 18-month-old children and associative models. *Cognitive Science*, 42(S2), 463-493
78. * McMurray, B., Danelz⁺, A., Rigler, H., and Seedorff⁺⁺, M. (2018) Speech categorization develops slowly through adolescence. *Developmental Psychology*, 54(8), 1472-1491. PMC6062449
77. ** Smith⁺⁺, J. Treat, T., Farmer, T., and McMurray, B. (2018) Dynamic competition account of men's perceptions of women's sexual interest. *Cognition*, 174, 43-54.
76. ** Smith, N., and McMurray, B. (2018) Temporal responsiveness in Mother-Child Dialogue: A Longitudinal Analysis of Children with Normal Hearing and Hearing Loss. *Infancy*, 23(3), 410-431.
75. * Farris-Trimble, A. and McMurray, B. (2018) Morpho-phonological regularities influence the dynamics of real-time word recognition: Evidence from artificial language learning. *Laboratory Phonology*, 9(1), 2
74. * McMurray, B., Farris-Trimble, A., and Rigler, H. (2017) Waiting for lexical access: Cochlear implants or severely degraded input lead listeners to process speech less incrementally. *Cognition*, 169, 147-164. PMC5612912
73. ** Oleson, J., Cavanaugh, J., McMurray, B., and Brown⁺⁺, G. (2017) Detecting time-specific differences between temporal nonlinear curves: Analyzing data from the visual word paradigm. *Statistical Methods in Medical Research*, 26(6), 2708-2725. PMC4805515
72. * Kapnoula⁺⁺, E., Winn⁺⁺⁺, M., Kong, E., Edwards, J., and McMurray, B. (2017) Evaluating the sources and functions of gradiency in phoneme categorization: An individual differences approach. *Journal of Experimental Psychology: Human Perception and Performance*, 43(9), 1594-1611. PMC5561468
71. ** Samuelson, L., and McMurray, B. (2017) What does it take to learn a word? *WIREs Cognitive Science*, 8(1-2).
70. * Apfelbaum⁺⁺, K., and McMurray, B. (2017) Learning During Processing: Word Learning Doesn't Wait for Word Recognition to Finish. *Cognitive Science*, 41(S4), 706-747. PMC5344795.
69. * McMurray, B. (2016) Nature, Nurture or Interacting Developmental Systems? Endophenotypes for learning systems bridge genes, language and development. *Language, Cognition and Neuroscience*, 31(9), 1093-1097. PMC5234470
68. ***Roembke⁺⁺, T., Wasserman, E., and McMurray, B. (2016) Learning in rich associative networks involves both building and pruning connections. *Journal of Experimental Psychology: General*, 145(8), 1062-1074. PMC4742346
67. * McMurray, B. (2016) Language at three timescales: The role of real-time processes in language development and evolution. Invited submission to K. Oller, R. Dale and U. Griebel (Eds). *New Frontiers in Language Evolution and Development*. Special issue of *Topics in Cognitive Science*, 8, 393-407. PMC4802391
66. * Kapnoula⁺⁺, E. and McMurray, B. (2016) Newly learned word-forms are abstract and integrated immediately after acquisition. *Psychonomic Bulletin and Review*, 23(2), 491-499. PMC4724335

65. * McMurray, B., Farris-Trimble⁺⁺⁺, A., Seedorff⁺⁺, M., and Rigler, H. (2016) The effect of residual acoustic hearing and adaptation to uncertainty in Cochlear Implant users. *Ear and Hearing*, 37(1), 37-51. PMC4717908
64. * Kapnoula⁺⁺, E. and McMurray, B. (2016) Training alters the resolution of lexical interference: Evidence for plasticity of competition and inhibition. *Journal of Experimental Psychology: General*, 145(1), 8-30. PMC4888904
63. * Roembke⁺⁺, T.C. and McMurray, B. (2016) Observational Word Learning: Beyond Propose-but-Verify and Associative Bean Counting. *Journal of Memory and Language*, 87, 105-127. PMC4742346
62. * Rhone⁺⁺⁺, Nourski, K., Oya, H., Kawasaki, H., Howard, M., and McMurray, B. (2016) Can you hear me yet? An intracranial investigation of speech and non-speech audiovisual interactions in human cortex. *Language, Cognition and Neuroscience*, 31(2), 284-302. PMC4865257
61. *** McMurray, B. and Jongman, A. (2016) What comes after [f]? Prediction in speech Derives From Data-Explanatory Processes. *Psychological Science*, 27(1), 43-52. PMC4713269
60. * Rigler, H., Farris-Trimble⁺⁺⁺, A., Greiner⁺, L., Walker⁺, J., Tomblin, J.B., and McMurray, B. (2015) The slow developmental timecourse of real-time spoken word recognition. *Developmental Psychology*, 51(12), 1690-1703. PMC4648636
59. *** Nourski, K.N., Steinschneider, M.S., Rhone⁺⁺⁺, A.R., Oya, H., Kawasaki, H., Howard, M.A., and McMurray, B. (2015) Sound identification in human auditory cortex: Differential contribution of local field potentials and high gamma power as revealed by direct intracranial recordings. *Brain and Language*, 148, 37-50. PMC4556541
58. * Apfelbaum⁺⁺, K. and McMurray, B. (2015) Relative cue encoding in the context of sophisticated models of categorization: Separating information from categorization. *Psychonomic Bulletin and Review*, 22, 916-943. PMC4621273
57. *** Kucker⁺⁺, S.C., Samuelson, L.S., and McMurray, B. (2015) Slowing down fast-mapping: Redefining the dynamics of word learning. *Child Development Perspectives*, 9(2), 74-78.
56. ** Blumberg, M., Coleman, C., Sokoloff, G., Weiner, J., Fritzch, B., and McMurray, B. (2015) Development of twitching in sleeping infant mice depends on sensory experience. *Current Biology*, 25(5), 656-662.
55. *** Wasserman, E., Brooks, D. and McMurray, B. (2015) Pigeons acquire multiple categories in parallel via associative learning: A parallel to human word learning? *Cognition*, 136, 99-122.
54. * Kapnoula⁺⁺, E., Gupta, P., Packard⁺⁺, S., and McMurray, B. (2015) Immediate lexical integration of novel word forms. *Cognition*, 134, 85-99. PMC4255136
53. * Toscano⁺⁺, J.C., & McMurray, B. (2015). The time-course of speaking rate compensation: Effects of sentential rate and vowel length on voicing judgments. *Language, Cognition, and Neuroscience*, 30, 529-543. PMC4358767
52. ** Nourski, K., Steinschneider, McMurray, B., Kovach, C., Oya, H., Kawasaki, H., and Howard, M. (2014) Functional organization of human auditory cortex: Investigation of response latencies through direct recordings. *Neuroimage*, 101, 598-609. PMC4556541
51. * Galle⁺⁺, M., and McMurray, B. (2014) The development of voicing categories: A meta-analysis of 40 years of infant research. *Psychonomic Bulletin and Review*, 21, 884-906

50. * Galle⁺⁺, M., Apfelbaum⁺⁺, K. & McMurray, B. (2015) The Role of Single Talker Acoustic Variation in Early Word Learning. *Language Learning and Development*, 11(1), 66-79
49. * McMurray, B., Munson⁺⁺, C. and Tomblin, J.B. (2014). Individual Differences in Language Ability Are Related to Variation in Word Recognition, Not Speech Perception: Evidence From Eye Movements. *Journal of Speech Language Hearing Research*, 57, 1344-1362. PMC4126886
48. * Apfelbaum⁺⁺, K., Bullock-Rest⁺, N., Rhone⁺⁺⁺, A., Jongman, K., and McMurray, B. (2014) Contingent categorization in speech perception. *Language, Cognition and Neuroscience* (formerly *Language and Cognitive Processes*), 29(9), 1070-1082. PMC4141128
47. * Farris-Trimble⁺⁺⁺, A., McMurray, B., Cigrand⁺, N. and Tomblin, J.B. (2014) The process of spoken word recognition in the face of signal degradation: Cochlear implant users and normal-hearing listeners. *Journal of Experimental Psychology: Human Perception and Performance*, 40(1), 308-327. PMC3946825
46. **** Dunn, C., Walker, E., Kenworthy, M., Van Voorst, T., Tomblin, J.B., Oleson, J., Haihong, J., Kirk, K.I., McMurray, B., Hanson, M., and Gantz, B. (2014) Longitudinal development of speech perception and language performance in pediatric cochlear implant users: the effect of age at implantation and long term outcomes. *Ear and Hearing*, 35(2), 148-160. PMC3944377
45. ** Kovack-Lesh⁺⁺, K.L., McMurray, B., Oakes, L.M. (2014) Four-month-old infants' visual investigation of pairs of cats and dogs: Relations with pet experience and attentional strategy. *Developmental Psychology*. 50(2), 402-413.
44. *** Wiffal⁺⁺, T., McMurray, B., and Hazeltine, R. (2014) Perceptual similarity affects the learning curve (but not necessarily learning). *Journal of Experimental Psychology: General*. 143(1), 312-331.
43. * McMurray, B., Kovack-Lesh, K., Goodwin⁺, D., and McEchron, W. (2013) Infant directed speech and the development of speech perception: Enhancing development or an unintended consequence? *Cognition*, 129(2), 362-378. PMC3874452
42. * Toscano, J. C., Anderson⁺, N. D., & McMurray, B. (2013). Reconsidering the role of temporal order in spoken word recognition. *Psychonomic Bulletin & Review*, 20, 1-7. PMC3812303
41. ** Blumberg, M. S., Coleman, C., Gerth, A. I., & McMurray, B. (2013). Spatiotemporal structure of REM sleep twitching reveals developmental origins of motor synergies. *Current Biology*, 23(21), 2100-2109
40. * Farris-Trimble⁺⁺⁺, A., and McMurray, B. (2013) Test-retest reliability of eye tracking in the visual world paradigm for the study of real-time spoken word recognition. *Journal of Speech Language and Hearing Research*, 56, 1328-1345. PMC3875834
39. * Apfelbaum⁺⁺, K., Hazeltine, E., & McMurray, B. (2013) Statistical learning in reading: Variability in irrelevant letters helps children learn phonics rules. *Developmental Psychology*, 49(7), 1348-1365.
38. ** Schlesinger, M., and McMurray, B. (2012) The past, present, and future of computational models of cognitive development. *Journal of Cognitive Development*, 27(4), 326-348.
37. * McMurray, B., Horst⁺⁺, J., and Samuelson, L. (2012) Word learning emerges from the interaction of online referent selection and slow associative learning. *Psychological Review*, 119(4), 831-877. PMC3632668

36. * Toscano⁺⁺, J., and McMurray, B. (2012) Cue-integration and context effects in speech: Evidence against speaking-rate normalization, *Attention, Perception & Psychophysics*, 74(6), 1284-1301. PMC3544203
35. **** Kovack-Lesh⁺⁺, K., Oakes, L., and McMurray, B. (2011) Contributions of attentional style and previous experience to 4-month-old infants' categorization. *Infancy*, 17(3), 324-338.
34. * Apfelbaum⁺⁺, K., & McMurray, B. (2011). Using Variability to Guide Dimensional Weighting: Associative Mechanisms in Early Word Learning. *Cognitive Science*, 35(6), 1105-1138.
33. * McMurray, B. & Jongman, A. (2011) What information is necessary for speech categorization? Harnessing variability in the speech signal by integrating cues computed relative to expectations. *Psychological Review*, 118(2), 219-246. PMC3523696
32. *** Apfelbaum⁺⁺, K., Blumstein, S., and McMurray, B. (2011) Semantic priming is affected by real-time phonological competition: Evidence for continuous cascading systems. *Psychonomic Bulletin & Review*, 18(1), 141-149. PMC3480205
31. *** Beckman, J., Helgason, P., McMurray, B. and Ringen, C. (2011) Rate Effects on Swedish VOT: Evidence for Phonological Overspecification. *Journal of Phonetics*, 39, 39-49
30. *** Horst, J.S., Samuelson, L.K., Kucker⁺⁺, S. & McMurray, B. (2011) What's new? Children prefer novelty in referent selection. *Cognition*, 118(2), 234-244.
29. * Toscano⁺⁺, J., McMurray, B., Dennhardt⁺, J., & Luck, S. (2010) Continuous perception and graded categorization: Electrophysiological evidence for a linear relationship between the acoustic signal and perceptual encoding of speech. *Psychological Science*, 21(10), 1532-1540.
28. * Rost⁺⁺, G.C., and McMurray, B. (2010) Finding the signal by adding noise: The role of non-contrastive phonetic variability in early word learning. *Infancy*, 15(6), 608-635.
27. * Huette⁺, S., and McMurray, B. (2010) Continuous dynamics of color categorization. *Psychonomic Bulletin & Review*, 17(3), 348-354.
26. *** Cole, J.S., Linebaugh⁺⁺, G., Munson⁺⁺, C., and McMurray, B. (2010) Unmasking the acoustic effects of vowel-to-vowel coarticulation: A statistical modeling approach. *Journal of Phonetics*, 38(2), 167-184.
25. * Toscano⁺⁺, J., and McMurray, B. (2010) Cue integration with categories: Weighting acoustic cues in speech using unsupervised learning and distributional statistics. *Cognitive Science*, 34(3), 436-464.
24. * McMurray, B., Samelson⁺⁺, V., Lee⁺⁺, S., and Tomblin, J.B. (2010) Individual differences in online spoken word recognition: Implications for SLI. *Cognitive Psychology*, 60(1), 1-39.
23. *** Mitchell, C., and McMurray, B. (2009) On leveraged learning in lexical acquisition and its relationship to acceleration. *Cognitive Science*, 33(8), 1503-1523.
22. *** McMurray, B., and Wasserman, E. (2009) Variability in languages, variability in learning? *Behavioral and Brain Sciences*, 32, 459-460.
22. * Rost⁺⁺, G., and McMurray, B. (2009) Speaker variability augments phonological processing in early word learning. *Developmental Science*, 12(2), 339-349.
21. * McMurray, B., Tanenhaus, M.K., and Aslin, R.N. (2009) Within-category VOT affects recovery from "lexical" garden paths: Evidence against phoneme-level inhibition. *Journal of Memory and Language*, 60(1), 65-91. PMCID: PMC2630474

20. *** McMurray, B., and Hollich, G. (2009) Core computational principles of language acquisition: can statistical learning do the job? Introduction to Special Section. *Developmental Science*, 12(3), 365-368.
19. * McMurray, B., Aslin, R.N., and Toscano, J. (2009) Statistical learning of phonetic categories: Computational insights and limitations. *Developmental Science*, 12(3), 369-379.
18. *** Spencer, J., Blumberg, M., McMurray, B., Robinson, S., Samuelson, L., and Tomblin, J.B. (2009) Short arms and talking eggs: Why we should no longer abide the nativist-empiricist debate. *Child Development Perspectives*, 3(2), 79-87.
17. *** Spencer, J., Samuelson, L., Blumberg, M., McMurray, B., Robinson, S., and Tomblin, J.B. (2009) Seeing the World Through a Third Eye: Developmental Systems Theory Looks Beyond the Nativist–Empiricist Debate. *Child Development Perspectives*, 3(2), 103-105.
16. * McMurray, B., Dennhardt⁺, J., and Struck-Marcell⁺, A. (2008) Context effects on musical chord categorization: Different forms of top-down feedback in speech and music? *Cognitive Science*, 32(5), 893 – 920.
15. * McMurray, B., Aslin, R., Tanenhaus, M., Spivey, M., and Subik, D. (2008). Gradient sensitivity to within-category variation in words and syllables. *Journal of Experimental Psychology, Human Perception and Performance*, 34(6), 1609-1631.
14. * McMurray, B., Clayards, M., Tanenhaus, M., and Aslin, R. (2008) Tracking the timecourse of phonetic cue integration during spoken word recognition. *Psychonomic Bulletin and Review*, 15(6), 1064-1071. PMID: PMC2621311
13. * McMurray, B. (2007) Defusing the childhood vocabulary explosion. *Science*, 317(5838), 631.
12. *** Gow, D.,W., and McMurray, B. (2007) Word recognition and phonology: The case of English coronal place assimilation. J.S. Cole & J. Hualdo (Eds.) *Papers in Laboratory Phonology 9*. (pp 173-200). New York: Mouton de Gruyter.
11. * McMurray, B., and Aslin, R.N. (2005) Infants are sensitive to within-category variation in speech perception. *Cognition*, 95(2), B15-B26.
10. *** McMurray, B. and Gow, D.W. (2005) It's not how many dimensions you have, it's what you do with them. *Behavioral and Brain Sciences*, 28(1), 31.
9. * McMurray, B. and Aslin, R.N. (2004). Anticipatory eye movements reveal infants' auditory and visual categories. *Infancy*, 6(2), 203-229.
8. ** Aslin, R.N., and McMurray, B. (2004). Where babies look: An overview of methods for assessing visual fixations and eye movements in young infants. *Infancy*, 6(2), 155-163.
7. **** Jordan, K., Weiss, D., Hauser, M. and McMurray, B. (2004). Antiphonal responses to loud contact calls produced by cotton-top tamarins (*Saguinus oedipus*). *International Journal of Primatology*, 25(2), 465-475.
6. * McMurray, B., Tanenhaus, M., Aslin, R. and Spivey, M. (2003). Probabilistic constraint satisfaction at the lexical/phonetic interface: Evidence for gradient effects of within-category VOT on lexical access. *Journal of Psycholinguistic Research*, 32(1), 77-97.
5. ** Magnuson, J., McMurray, B., Tanenhaus, M. and Aslin, R. (2003). Lexical effects on compensation for coarticulation: A tale of two systems? *Cognitive Science*, 27(5), 801-805.

4. ** Magnuson, J., McMurray, B., Tanenhaus, M. and Aslin, R. (2003). Lexical effects on compensation for coarticulation: The ghost of Christmash past. *Cognitive Science*, 27(2), 285-298.
3. * McMurray, B., Tanenhaus, M., and Aslin, R. (2002). Gradient effects of within-category phonetic variation on lexical access, *Cognition*, 86(2), B33-B42. PMID: PMC2630474.
2. ** Tanenhaus, M., Magnuson, J., McMurray, B., and Aslin, R. (2000). No compelling evidence against feedback in spoken word recognition. *Behavioral and Brain Sciences*. 23(3), 348-349.
1. * McMurray, B., and Spivey, M. (2000). The categorical perception of consonants: the interaction of learning and processing. *Proceedings of the Chicago Linguistics Society*, 34(2), 205-220.

Book Chapters

9. ** Jongman, A., & McMurray, B. (2017). On invariance: Acoustic input meets listener expectations. In A. Lahiri and S. Kotzor (Eds) *The Speech Processing Lexicon: Neurocognitive and Behavioural Approaches* (pp. 21-52). Berlin: Walter de Gruyter GmbH & Co.
8. * McMurray, B., Kapnoula⁺⁺, E., & Gaskell, M. G. (2016). Learning and integration of new word-forms: Consolidation, pruning and the emergence of automaticity. In M. G. Gaskell & J. Mirković (Eds.), *Speech Perception and Spoken Word Recognition* (pp. 116-142). London: Taylor & Francis.
7. * McMurray, B., Rhone⁺⁺⁺, A.E. and Hannaway⁺⁺, K. (2016) Relativity in speech perception: From locus equations to predictive coding. In A. Agwuele and A. Lotto (Eds.) *Essays in Speech Processes: Language Production and Perception* (pp. 30-67). Sheffield, UK: Equinox Publishing
6. * McMurray, B. (2014) The Vocabulary Spurt. In P. Brook and V. Kempe (Eds). *Encyclopedia of Language Development* (pp. 660-662), New York: Sage.
5. * McMurray, B. and Benders, T. (2014) Speech perception and categorization (development of). P. Brook and V. Kempe (Eds). *Encyclopedia of Language Development*, (pp. 576-580). New York: Sage.
4. * McMurray, B., Zhao⁺⁺, L., Kucker⁺⁺, S., and Samuelson, L. (2013). Pushing the envelope of associative learning: Internal representations and dynamic competition transform association into development. In G. Hollich and L. Gogate (Eds) *Theoretical and Computational Models of Word Learning: Trends in Psychology and Artificial Intelligence* (pp. 49-80). Hershey, PA: IGI Global
3. * McMurray, B., and Farris-Trimble⁺⁺⁺, A. (2012) Emergent information-level coupling between perception and production. In A. C. Cohn, C. Fougerson, and M. Huffman (eds) *The Oxford Handbook of Laboratory Phonology* (pp. 369-395). Oxford, UK: The Oxford University Press.
2. *** McMurray, B., Cole, J.S., and Munson⁺⁺, C. (2011) Features as an emergent product of computing perceptual cues relative to expectations. In R.Ridouane and N. Clement (Eds) *Where do Features Come From?* (pp. 197-236). Amsterdam: John Benjamins Publishing
1. * McMurray, B., Horst⁺⁺, J., Toscano⁺⁺, J., and Samuelson, L. (2009) Towards an integration of connectionist learning and dynamical systems processing: case studies in speech and lexical development. In Spencer, J., Thomas, M., and McClelland, J. (Eds) *Toward a Unified Theory of*

Development: Connectionism and Dynamic Systems Theory Re-Considered (pp. 218-252).
London: Oxford University Press

Manuscripts under review

- Berger⁺, J., Gander, P., Kim, S., Schwalke, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., and Choi, I. (submitted) Neural correlates of individual differences in speech-in-noise performance in a large cohort of cochlear implant users. *Ear and Hearing*.
- ** Kucker, S.C., McMurray, B., and Samuelson, L.S. (submitted) Examining the incremental process of word learning: Wordform exposure supports retention of new word-referent mappings. *Journal of Cognition and Development*.
- * McMurray, B. (submitted) I'm not sure that curve means what you think it means: Toward a [more] realistic understanding of the role of eye-movement generation in the Visual World Paradigm. *Psychonomic Bulletin and Review*. <https://psyarxiv.com/pb2c6/edit>
- * Hendrickson, K., and McMurray, B. (submitted) The timecourse of lexical competition in both spoken and written word recognition. *Quarterly Journal of Experimental Psychology*
- Smith⁺⁺, F.X., and McMurray, B. (revision submitted) Lexical Access Changes Based on Listener Needs: Effects of Sentence Context on Real-Time Word Recognition in Cochlear Implant Users. *Ear and Hearing*.
- **** Reed, D., Reeger, A., Zimmermann, L., Hazeltine, E., and McMurray, B. (submitted) Teachers' Prediction of Middle School Students' Reading Abilities. *Elementary School Journal*
- * Seedorff⁺⁺, M., Oleson, J. and McMurray, B. (submitted) Maybe maximal: Good enough mixed models optimize power while controlling Type I error. *Advances in Methods and Practices in Psychology*. <https://psyarxiv.com/xmhfr/edit>
- * Smith, F.X and McMurray, B. (submitted) Lexical Access in the Face of Degraded Speech: Adapting to Moment by Moment Uncertainty. *Attention, Perception and Psychophysics*. <https://psyarxiv.com/kpv2d/>

Manuscripts in revision

- * McMurray, B., Apfelbaum, K., and Tomblin, J.B. (accepted with minor revisions) The slow development of real-time processing: Spoken Word Recognition as a crucible for new about thinking about language acquisition and disorders. Invited submission to *Current Directions in Psychological Science*. <https://psyarxiv.com/uebfc/>
- * Apfelbaum⁺⁺, K., Rhone⁺⁺⁺, A. and McMurray, B. (in revision) Taming data overload in laboratory phonology: Combining phonetic cues for highly multi-dimensional analyses. *Journal of Phonetics*
- * McMurray, B., and Chiu⁺⁺, S.L. (in revision) Reinforced statistical learning of auditory categories. *Language, Cognition and Neuroscience*
- * Kulikov, V., and McMurray, B. (submitted) Gradiency and discreteness in Russian devoicing and voicing assimilation: An instrumental analysis. *Laboratory Phonology*
- * McMurray, B., Sarrett, M., Chiu, S., Black, A., and Aslin, R.N. (submitted) A paradigm for decoding the neural time-course of spoken word recognition from EEG. *Nature Methods*

Manuscripts in Preparation

- * Rhone, A.E., Farris-Trimble, A., Nourski, K., Kawasaki, H., Howard, M.A., and McMurray, B. (in preparation) Decoding the neural dynamics of word recognition.
- * McMurray, B. (in preparation). KlattWorks: a [somewhat] new systematic approach to formant-based speech synthesis for empirical research.
- *** McMurray, B., and Mitchell, C. (in preparation) The mathematical underpinnings of acceleration in early word learning: The Vocabulary Explosion is a by product of parallel learning.
- * Schreiber⁺⁺, K., and McMurray, B. (in preparation) Talker gender influences auditory encoding of speech: Evidence from event-related potentials.

Assessments

Brown, C., McMurray, B., Hazeltine, R.E., Reed, D., and Zimmerman, J. (2018) *The Iowa Assessment of Skills and Knowledge for Reading*. Foundations in Learning, Inc., Coralville, IA

Computer Software

- McMurray, B. (2018) Nonlinear curvefitting for Psycholinguistics. Available from: <https://osf.io/4atgv/>.
- *** Seedorff, M., Oleson, J., Cavanaugh, J., Brown, G. and McMurray, B., (2015) BDOTs: Bootstrapped difference of time series. R package.
- McMurray, B. (2014) ECOGANAL: Matlab toolbox for data visualization and analysis of of electro-corticography data (4 users)
- McMurray, B. (2005) EyelinkAnal: Software for analysis of eye-movement data for the visual world paradigm (approx 20 users)
- McMurray B. (2002) KlattWorks speech synthesis application (>150 users)

Musical Recordings

Falk, M. (songwriting, music, guitar and vocals), McMurray, B. (music writing, Fender Rhodes and organ), Petchers, S. (music writing, bass and backing vocals), and Looney A. (music writing, drums, recording) (2021) G.O.Y.P (*Get Off Your Phone*). Available on iTunes, Spotify, YouTube Music. Credits: Music writing and arrangement, Fender Rhodes Piano and Organ playing.

Published Conference Proceedings, Technical Reports and Other Manuscripts

- * McMurray, B., Chiu, S., and Freeman, J. (in press) Reinforced statistical learning of auditory categories: A preliminary report of cognitive, cortical and computational mechanisms. *Proceedings of the 23rd International Congress on Acoustics*
- * McMurray, B., and Seedorff, M. (in press) Integration of speech information (or not) across electric and acoustic modes in hearing impaired listeners. *Proceedings of the 23rd International Congress on Acoustics*

- * Apfelbaum, K., Brown, C., Zimmermann, J., and McMurray, B. (2018) Validation and Reliability Testing of the WordFlight Diagnostic Assessment Tool for Secondary School Readers. *Foundations in Learning, Inc.* Coralville, IA.
- * McMurray, B. (2016) Veracity vs. Value: Can developmental systems thinking address core human abilities. *CDS Newsletter: The Newsletter of the Technical Committee on Cognitive and Developmental Systems (IEEE)*, 13(1), 5
- * McMurray, B. (2014) *The cognitive origins of Michelle Obama's "Bruce Braley" gaffe*. Guest opinion on Z. Goldfarb (Ed) *Washington Post Wonk Blog*. 1/13/2014
<http://www.washingtonpost.com/blogs/wonkblog/wp/2014/10/13/inside-the-brain-of-michelle-obama-as-she-repeatedly-mixes-up-a-senate-candidates-name/>
- * McMurray, B., Brown, C., and Zimmermann, J. (2014) *Preliminary Results of the Access Code Decoding Intervention, Revised*. Technical report prepared for Foundations in Learning, Inc. Available: www.foundations-learning.org.
- * McMurray, B., Brown, C., and Zimmermann, J. (2010) *Preliminary Results on the Access Code Decoding Intervention*. Technical report prepared for Foundations in Learning, Inc. Available: www.foundations-learning.org.
- ****Toscano, J., Mueller, K., McMurray, B., and Tomblin, J.B. (2010) Simulating individual differences in language ability and genetic differences in FOXP2 using a neural network model of the SRT task. In S. Ohlsson & R. Catrambone (Eds.) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 2230-2235). Austin, TX: Cognitive Science Society.
- *** Mitchell, C., and McMurray, B. (2008) A stochastic model of the vocabulary explosion. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 1919-1926). Austin, TX: Cognitive Science Society.
- * Toscano, J., and McMurray, B. (2008) Using the distributional statistics of speech sounds for learning and combining multiple acoustic cues. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 433-439). Austin, TX: Cognitive Science Society.
- * McMurray, B. (2007) Moo-cow! Mummy! More! How do children learn so many words? *Significance: The Magazine of the Royal Statistical Society*, 4.
- * Horst, J.S., McMurray, B., and Samuelson, L.K. (2006) Online processing is essential for learning: Understanding fast mapping and word learning in a dynamic connectionist architecture. In R. Sun (Ed) *The proceedings of the 28th meeting of the Cognitive Science Society* (pp. 339-343), Austin, TX: Cognitive Science Society.
- *** Gow, D., and McMurray, B., (2004) From sound to sense and back again: the integration of lexical and speech processes. *The proceedings of From Sound to Sense: 50+ years of discoveries in Speech Communication*.
- ** Tanenhaus, M., Magnuson, J., McMurray, B., and Aslin, R. (2000). Does lexical knowledge mediate perceptual effects of compensatory coarticulation? Evidence from research with an artificial lexicon. *Proceedings of the Workshop on Spoken Word Access Processes*.
- * McMurray, B. (2000). Connectionism for ...er... linguists. In Crosswhite, K., and McDonough, J., eds., *The University of Rochester Working Papers in the Language Sciences*, 2000(1), 72-96.

- * McMurray, B., Spivey, M., and Aslin, R. (2000). The Perception of Consonants by Adults and Infants: Categorical or Categorized? Preliminary Results. In Crosswhite, K., and Magnuson, J., eds., *The University of Rochester Working Papers in the Language Sciences, 2000(2)*, 215-256.
- * McMurray, B. (1998). The Hebbian Acoustic/Phonetic Category Acquisition Model (HAPCAM): a neurologically plausible connectionist account of the development of speech perception abilities. Senior Honors Thesis, Cornell University, Department of Psychology.

Published Abstracts

- ** Dial, H. R., McMurray, B., & Martin, R. (2016) Lexical processing depends on sublexical processing: Evidence from the visual world paradigm with aphasia. Abstract for 54th Annual Academy of Aphasia Meeting, Llandudno, United Kingdom. *Frontiers in Psychology*. .

Invited Addresses and Colloquia

- McMurray, B. (2021, June) Categorical perception: Lesson from an enduring myth. Invited presentation to the *Meeting of the Acoustical Society of America*
- McMurray, B. (2021, March) Decoding the neural dynamics of spoken word recognition. Invited address to University of Wisconsin 'Brain and Bagels' (aka 'Hearing and Donuts') seminar, Madison WI.
- McMurray, B. (2020, October) Decoding the neural dynamics of spoken word recognition. Invited address to Haskins Laboratories, New Haven, CT.
- McMurray, B. (2019, December) The real-time dynamics of word recognition in prelingually deaf cochlear implant users (and other populations): New thinking about the development of speech perception and language. Keynote address at the *CLaS Workshop on Language Acquisition in Children with Hearing Loss*. Macquarie University, Sydney, Australia
- McMurray, B. (2019, July) The dynamics of word recognition in people with communicative impairments: Pushing the boundaries of basic theory. Invited colloquium to the Basque Center for Brain and Language, Donostia-San Sebastian, Spain
- McMurray, B. (2019, July) Slow learning and Even Slower Evolution. Invited presentation to KLI Focus Group on Language Evolution. Konrad Lorenz Institute, Vienna, Austria
- McMurray, B. (2019, June) Language acquisition as skill learning: The development of real-time processing. Keynote address to LuCiD, Manchester, UK.
- McMurray, B. (2019, March) The dynamics of recognizing words in people with language and hearing impairments: Revealing mechanisms of disordered language; pushing the boundaries of basic theory. Plenary address to the CUNY Sentence Processing Conference, Boulder, CO.
- McMurray, B., Klein-Packard, J., Sarrett, M., Chiu, S., Freeman, J., and Curtu, R. (2018, December) *Reinforced Statistical Learning*. Invited address to Statistical Learning Workshop #3. The Haskins Laboratories, New Haven, CT.
- McMurray, B., Galle⁺⁺, M., Farris-Trimble, A., Seedorff⁺⁺, M. (2018, November) What the /f/? We're not done with fricatives yet. Integrating across time and frequency bands. Invited address to the *176th Meeting of the Acoustical Society of America*, Victoria, BC, Canada.

- McMurray, B., Klein-Packard, J., Sarrett, M., Freeman, J., and Curtu, R. (2018, November) *Reinforced Statistical Learning (Preliminary Ideas)*. Invited Colloquium to Dept. of Linguistics, Simon Fraser University, Vancouver, BC.
- Choi, I., Kim, S., Schawlje, A., Gander, P., Liu, A., Ponto, L., McMurray, B. and Griffiths, T. (2018, May) Cortical Dynamics of Speech-in-Noise Perception. Invited address to University of Iowa Auditory Neuroscience Symposium
- McMurray, B., Kapnoura, E., Sarrett, M. and Schreiber, K. (2018, May) The timecourse of speech perception: How and when the brain combines literally everything to understand spoken language. Invited address to University of Iowa Auditory Neuroscience Symposium
- McMurray, B. (2018, April) Who knows where the time went? Invited address to *Diehlapalooza: A Festschrift in Honor of Randy Diehl*. Austin, TX.
- McMurray, B. (2018, March) Signal + Knowledge \neq Performance: Real-time lexical processing over development and in language and hearing impairment. Invited colloquia to Dept. of Speech and Hearing Sciences, University of Washington, Seattle, WA.
- McMurray, B. (2018, January) It's not what you know, It's how you use it: The slow development of real-time lexical processing. Invited colloquium to Dept. of Psychology, University of Wisconsin, Madison, WI
- McMurray, B. (2018, January) Long-term adaptation to uncertainty in lexical processing by Cochlear Implant Users: Beyond perceptual retuning. Invited colloquium to Waisman Center, University of Wisconsin, Madison, WI
- McMurray, B. (2018, January) It's not what you know, It's how you use it: The slow development of real-time lexical processing. Invited colloquium to Dept. of Psychology, Goettingen University, Goettingen, Germany
- McMurray, B. (2018, January) How do you achieve abstraction from an associative system? Invited colloquium to Dept. of Psychology, Goettingen University, Goettingen, Germany
- McMurray, B. (2017, November) It's not what you know, It's how you use it: The slow development of real-time lexical processing for oral and written language. Invited Colloquium to the Haskins Laboratories, New Haven Connecticut.
- McMurray, B. (2017, April) It's not what you know, It's how you use it: The slow development of real-time lexical processing for oral and written language. Keynote address to *The Developing Lexicon: Representations and Processing*. Sydney, Australia
- McMurray, B. (2017, April). Long-term adaptation to uncertainty in lexical processing by Cochlear Implant Users: Beyond perceptual retuning. Invited Colloquium to Dept. of Speech and Hearing Sciences, Macquarie University, Sydney Australia
- McMurray, B. (2017, February) Managing ambiguity: Changes in real-time lexical competition with development, individual differences and degraded input. Invited Colloquium to Dept. of Psychology, The Ohio State University, Columbus, OH.
- McMurray, B. (2017, February) A data explanatory account of speech perception (and its limits). Invited address to the *Center for Brain, Mind and Machines Workshop on Speech Perception*. Massachusetts Institute of Technology, Boston, MA.
- McMurray, B. (2017, January) Competition. What is it good for? Invited address to The Language Group, Dept. of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Boston,

MA.

- McMurray, B. (2016, October) Long-term adaptation to uncertainty in lexical processing by Cochlear Implant Users: Beyond perceptual retuning. Invited address to *Psycholinguistic Approaches to Speech Recognition in Adverse Conditions (PASRAC)*, Nijmegen, The Netherlands.
- McMurray, B. (2016, October) It's not what you know, its how you get there: Real-time lexical processing, and its importance for understanding language and hearing impairments. Invited address to *8th National Audiology and Speech Disorders Conference*, Ankara, Turkey
- McMurray, B. (2016, October) Learning the speech categories of your language: It's not what you know, it's what you do with it. Invited Colloquium to Dept. of Audiology and Speech Pathology, Hacettepe University, Ankara, Turkey.
- McMurray, B. (2016, April) Learning a phonology: It's not what you know, It's what you do with it. Keynote address at *Sound to Word in Bilingual and Second Language Speech Perception*, Iowa City, IA.
- McMurray, B. (2016, February) *It takes a team. Multiple mechanisms for real-time speech processing: Evidence from computational modeling, eye-tracking, electro-corticography, event related potentials.* Invited Colloquia to Western University (Ontario), Dept. of Psychology
- McMurray, B. (2015, November) *Mechanisms of learning and processing in speech perception and reading: application to cochlear implants, SLI, and teaching.* Invited seminar to 2015 Meeting of the American Speech-Language-Hearing Association, Denver CO.
- McMurray, B. (2015, October) *How people understand spoken language. It's about time.* Invited colloquium to University of Iowa Dept. of Biology, Iowa City, IA.
- McMurray, B. (2015, July) The slow development of real-time language processing: Interactions across timescales in lexical development. Keynote address to *Symposium on Child Language*, Coventry, UK.
- McMurray, B. (2015, October) *The role of computational modeling in developmental systems theory: Revealing emergence and highlighting principles of development.* Invited colloquium to Dept. of Mathematics, Simon Fraser University, Vancouver, BC.
- McMurray, B. (2015, October) *What information is in the speech signal? Not quite enough. Real-time processes and demands on development.* Invited colloquium to Dept. of Linguistics, Simon Fraser University, Vancouver, BC.
- McMurray, B. (2015, September) *Lexical Development at two timescales. Slow associative learning, real-time inhibition and the development of automaticity.* Invited colloquium to Dept. of Psychology, Washington University in St. Louis, St. Louis, MO.
- McMurray, B. (2015, April) *Building abstraction from simple developmental mechanisms: Case studies in speech perception, word learning, reading and communicative disorders.* Invited colloquium to Dept. of Psychology, University of Tennessee, Knoxville, TN.
- McMurray, B. (2015, April) *What information is in the speech signal? Not quite enough. Real-time processes and demands on development.* Keynote address at Illinois Language and Linguistics Society, Champaign, IL.
- McMurray, B. (2015, March) What information is in the speech signal? Not quite enough. Real-time processes and demands on development. Invited colloquium to Max Planck Institute of Psycholinguistics, Nijmegen, The Netherlands.

- McMurray, B. (2015, March) Language processing in real-time: Using ECoG to investigate the dynamics of spoken word recognition. Invited address to Neurobiology of Language Division, Max Planck Institute of Psycholinguistics, Nijmegen, The Netherlands
- McMurray, B. (2015, March) The immediate plasticity of intra-lexical inhibition: New data and new thoughts on lexical integration and consolidation. Invited address to *Workshop on Memory consolidation & word learning*, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands
- McMurray, B. (2015, February) Does irrelevant variability help children learn early reading skills? Field testing principles of associative learning in the classroom. Invited address to *Workshop on Translating Language Science Research to Practice*, Arlington, VA.
- McMurray, B. (2015, February) *Vocabulary acquisition in an Evo-Devo Framework*. Invited address to the University of Memphis Cognitive Science Program, Memphis, TN
- McMurray, B. (2015, January) *Principles of learning and processing in reading and oral language: Implications for assessment and remediation*. Invited address to the Florida Center for Reading Research, Florida State University, Tallahassee, FL.
- McMurray, B. (2014, November) *Speech processing in real-time: Neural underpinnings and implications for hearing disorders*. Keynote address to Iowa Center for Molecular Auditory Neuroscience Symposium. Iowa City, IA.
- McMurray, B. (2014, October) *Building abstraction from simple developmental mechanisms: Case studies in speech perception, word learning, reading and communicative disorders*. Invited address in Perspectives on Language Development, Symposium at Max Planck Institute for Psycholinguistics, Nijmegen, NL.
- McMurray, B. (2014, August) *The role of computational modeling in developmental systems theory: Revealing emergence and highlighting principles of development*. Keynote address to the *Neural Computation and Psychology Workshop*, Lancaster, UK
- McMurray, B. (2014, June) *Language processing in real-time: Neural underpinnings and implications for communication disorders*. Invited colloquium to the Mind Brain Research Network, Albuquerque New Mexico.
- McMurray, B. (2014, May) *What information is in the speech signal? Not quite enough. The implications of phonetic analysis for theories of the development of speech perception*. Invited address to the *Workshop on Influences of Input on Child Language Development*, Boys Town National Research Hospital, Omaha, NE.
- McMurray, B. (2014, February) *The Emergent Power of Simple Principles: Accounting for language and individual differences at multiple time-scales*. Invited colloquium to the Warwick University, Dept. of Psychology.
- McMurray, B. (2014, February) *What information is in the speech signal? Not quite enough. The implications of phonetic analysis for psychological theories of perception and development*. Invited colloquium to the York University, Dept. of Psychology
- McMurray, B. (2014, February) *Speech perception: Hard alone but easy with a team. The graded, incremental, lexical, and interactive nature of speech processing*. Invited Colloquium to the University College London Ear Institute

- McMurray, B. (2014, February) *The Emergent Power of Simple Principles: Accounting for language, speech and individual differences at multiple time-scales*. Invited colloquium to the Oxford University, Dept. of Psychology.
- McMurray, B. (2013, October) *What information is in the speech signal? Not quite enough. The implications of phonetic analysis for psychological theories of perception and development*. Invited colloquium to the University of Arizona, Dept. of Linguistics
- McMurray, B. (2013, May) *A real-time view of individual differences in cognition: Language processing and language disorders*. Invited address to The Midwest Psychological Association, Chicago, IL.
- McMurray, B. (2013, March) *Speech perception: Hard alone but easy with a team. The graded, incremental, lexical, interactive and developmental nature of speech*. Master Class taught at Radboud University Nijmegen, The Netherlands
- McMurray, B. (2013, February) *The Emergent Power of Simple Principles: Accounting for language, speech and individual differences*. Invited talk to University of Wisconsin, Dept. of Psychology.
- McMurray, B. (2013, February) *The Emergent Power of Simple Principles: Accounting for language, speech and individual differences*. Invited talk to University of Psychology, Dept. of Psychology.
- McMurray, B. (2012, November) *The Emergent Power of Simple Principles: Accounting for language, speech and individual differences*. Invited talk to University of Rochester, Dept. of Brain and Cognitive Sciences.
- McMurray, B. (2012, September) *Speech perception: Hard alone but easy with a team. The graded, incremental, lexical, interactive and developmental nature of speech*. Invited talk to Indiana University, Cognitive Science Program
- McMurray, B. (2012, July) *Evo/Devo in the 3rd Dimension: The role of real-time processes in language development and evolution*. Invited talk to the *Workshop on Language Evolution*, Konrad Lorenz Institute, Vienna, Austria
- McMurray, B. (2012, April) *Speech perception, hard alone but easy with a team: The graded, incremental, lexical, interactive and developmental nature of speech*. Invited colloquium to the University of Kansas, Dept. of Linguistics
- McMurray, B. (2012, February) *Speech perception, hard alone but easy with a team: The graded, incremental, lexical, interactive and developmental nature of speech*. Invited colloquium to the University of Chicago, Workshop on Language, Cognition, and Computation.
- McMurray, B. (2011, December) *Two timescales are better than one: The interaction of online and developmental processes in auditory word recognition and learning*. Invited colloquium to the University of Las Vegas, Nevada, Department of Psychology.
- Samuelson, L. and McMurray, B. (2011, October) *How do you learn to learn words? A computational perspective*. Invited paper for *Cognitive Development Society Pre-Conference: Creating Development: Integrating Processes over Multiple Time Scales*. Philadelphia, PA.
- McMurray, B. (2011, June) *Speech perception as a window on language: evidence from online processing in normal listeners, listeners with language impairment, and cochlear implant users*. Plenary address to Society for Research on Child Language Disorders.

- McMurray, B. (2011, February) *Two timescales are better than one: The interaction of online and developmental processes in word recognition and learning*. Invited colloquium to The Ohio State University, Department of Psychology
- McMurray, B. (2010, October) *Embracing Variability: real-time speech perception as a graded, interactive process. Evidence from eye-movements, ERPs, and computational models*. Invited address to University of Iowa Hospitals and Clinics, Department of Neurosurgery.
- McMurray, B. (2009, September) *Two timescales are better than one: The interaction of online and developmental processes in word recognition and learning*. Invited address to Northwestern University, Language and Cognition Interdepartmental Group
- McMurray, B. (2009, May) σ^2 . Invited address to *The Future of Cognitive Science*, Merced, CA.
- McMurray, B. (2009, March) *Language use at two timescales: Word recognition and learning as the interaction of online processes and developmental history*. Invited colloquium to the University of Illinois, Language Processing Brown Bag.
- McMurray, B. (2009, March) *What do phonemes do all day? Seeking the computational reality of sub-lexical processes*. Invited colloquium to the University of Illinois, Dept. of Linguistics..
- McMurray, B. (2008, October) *Language use at two timescales: Word recognition and word learning as the interaction of online processes and developmental history*. Invited colloquium to University of California at Merced, Dept. of Cognitive Science.
- McMurray, B. (2008, September) *Language use at two timescales: Word recognition and word learning as the interaction of online processes and developmental history*. Invited colloquium to Johns Hopkins University, Dept. of Cognitive Science.
- McMurray, B. (2008, May) *Continuing a tradition of Big Red subversion: The radical role of simple mechanisms in speech perception and development*. Invited presentation to the 20th Anniversary of the Cornell University Cognitive Science Program.
- McMurray, B. (2007, September) *The power of parallelism, the grace of gradiency: Core computations in word recognition, and development*. Invited presentation to Duke University, Department of Psychology, Developmental Area.
- McMurray, B. (2007, September) *The power of parallelism, the grace of gradiency: Core computations in word recognition, and development*. Invited presentation to University of Memphis, Department of Psychology.
- McMurray, B. (2007, July) *Word learning is more than learning and words: Computational Investigations*. Invited tutorial presented at Council on Academic Programs in Communication Sciences and Disorders, Summer Workshop. University of Iowa.
- McMurray, B. (2007, March) *Spoken language comprehension at two time scales: developmental, and momentary*. Invited colloquium presented at the Grinnell University Department of Psychology.
- McMurray, B. (2006, February) *Back to the future: Where we're going, we don't need phonemes. Implications of a gradient lexicon*. Invited colloquium presented at the Rice University Department of Linguistics.
- McMurray, B. (2006, February) *Back to the future: Where we're going, we don't need phonemes. Implications of a gradient lexicon*. Invited colloquium presented at the University of Iowa Department of Linguistics.

- McMurray, B. (2006, January) *Continuous detail is used in language comprehension and language learning: Temporal Integration at two time scales*. Invited colloquium presented at the University of Illinois Department of Psychology.
- McMurray, B. (2006, January) *Perceptual Categories: Old and gradient, young and sparse*. Invited colloquium presented at the Texas A&M Department of Psychology
- McMurray, B. (2005, September) *Continuous acoustic detail affects spoken word recognition Implications for cognition, development and language disorders*. Invited colloquium presented at the Indiana University School of Medicine.
- McMurray, B. (2005, February) *Perception & Cognition: One at last in spoken word recognition*. Invited talk presented at the University of Iowa Dept. of Otolaryngology and Cochlear Implant Group
- McMurray, B. (2005, March) *Within-category information is used in language processing: Temporal Integration at two timescales*. Invited talk presented at the Purdue University Dept. of Psychology
- Gow, D. and McMurray, B. (2004, June) *From sound to sense and back again: the integration of lexical and speech processes*. Invited paper for From Sound to Sense: 50+ Years of Discoveries in Speech Communication, Boston, Massachusetts.
- McMurray, B. (2003, September). *Within-category acoustic variation is signal, not noise: A new look at Categorical Perception and the problem of covariance*. Invited talk presented at the Massachusetts Institute of Technology, Speech Communication Group.
- McMurray, B. (2002, April). *Two B or not two B: categorical perception in lexical and non-lexical tasks*. Invited talk presented at the Brown University Department of Cognitive and Linguistic Sciences
- McMurray, B. (2001, July). *The eyes betray the ears. Speech perception: categorical or categorized?* Invited talk presented at the University of Calgary, Department of Psychology

Uninvited Addresses

- McMurray, B. (2019, January). Behavior and the P-Word: I'm talking to you, Cognitive Neuroscience. Rant presented the *Auditory Cognitive Neuroscience Society*, Gainesville, FL.

Conference Symposia

- McMurray, B. (2016, November) Knowing your language is not enough. Real-time lexical processing and speech perception develops through adolescence. In Creel, S. (chair) Beyond brilliant babies and rapid learning in lexical development: The long and short of language acquisition. Symposium presented at the *Boston University Conference on Child Language*, Boston, MA.
- Kucker, S., McMurray, B., and Samuelson, L. (2015, March) Word learning from uncertainty in vocabulary knowledge. Presentation in Kucker, S. (chair) From Initial Exposure to Retention: The Impact of Non-Linguistic and Linguistic Factors on Word Learning. Symposium presented at the *Society for Research in Child Development*, Philadelphia, PA.
- McMurray, B. (2013) Individual differences in real-time language processing: Language Impairment and Cochlear Implants. Invited presentation in Van Horne, A. (chair) Expanding the Horizons of Research on Developmental Language Disorders: A Seminar Illustrating Bruce Tomblin's Work.

Symposium presented at the *Meeting of the Association of Speech-Language Hearing Association*, Chicago, IL.

- Kucker, S., Samuelson, L.S., and McMurray, B. (2013, March) The Role of Novelty in Categorization and Word Learning. In S. Kucker (chair) *The Role of Novelty in Categorization and Word Learning*. Symposium presented at the *Society for Research in Child Development*, Seattle, WA.
- McMurray, B. and Toscano, J. (2012, November) The consequences of lexical sensitivity to fine grained detail: solving the problems of integrating cues, and processing speech in time. In A. Jongman and J. Sereno (chairs) *The Nature of Lexical Representations in the Perception and Production of Speech*. Symposium presented at the *164th Meeting of the Acoustical Society of America*, Kansas City, MO.
- McMurray, B., Kovack-Lesh, K., Goodwin, D., and McEchron, W. (2012, June) Statistical learning of phonetic categories in infancy and infant directed speech: Is phonetic enhancement consistent, intentional and helpful? In S. Curtin (chair) *Mapping the acoustic landscape of IDS: What are its implications for learning?* Symposium presented at the *International Conference on Infant Studies*, Minneapolis, MN.
- McMurray, B., Apfelbaum, S. and Samuelson, L. (2012, May) Throwing out Lucienne and Laurent with the bathwater: How the development of abstraction via perception and action can emerge from associative systems. In J. Spencer (chair) *From complex insights to complex systems: Rethinking how development happens*. Invited Symposium presented at the *Meeting of the Jean Piaget Society*, Toronto, ON, Canada.
- Van Dam, M., McMurray, B., Ambrose, S., Moeller, M.P., and Tomblin, J.B. (2011, April) Auditory Ability and Language Development: Quantitative Assessments of Input, Output, and Outcomes in Hard-Of-Hearing Children. In J. Gilkerson (chair) *What we can learn from counting words: Applications and implications of the automatic measurement of natural environments*. Symposium presented at the *Society for Research on Child Development*, Montreal, QC, Canada.
- McMurray, B. (2011, April) Lexical Processes at two Timescales: The Circular Relationship Between Learning and Processing. In A. Fernald & R. Bion (chairs) *Constraints on 'Lexical Constraints': How Robust Is Fast Mapping, and What Do Children Actually Learn?* Symposium presented at the *Society for Research on Child Development*, Montreal, QC, Canada.
- McMurray, B., and Samuelson, L., (2010, March) Associations: A Foundation for Lexical Development? In L. Samuelson & S. Kucker (chairs) *The Interaction of Auditory and Visual Information in Early Word and Category Learning*. Symposium presented at the *International Conference on Infant Studies*, Baltimore, MD.
- Apfelbaum, K., Galle, M., and McMurray, B. (2010, March) The Development of Speech Perception is Continuous and Slow, but Multifaceted. In K. Graf Estes (chair) *Infants' Processing of Variation in Speech*. Symposium presented at the *International Conference on Infant Studies*, Baltimore, MD.
- McMurray, B., Apfelbaum, K., Toscano, J., and Samuelson, L. (2010, March) Something old and something new: Word learning as the interaction of statistical association and dynamic competition. In C. Yu (Chair) *Modeling Statistical Word Learning*. Symposium presented at the *International Conference on Infant Studies*, Baltimore, MD.
- McMurray, B., and Mitchell, C. (2009, April) Word Frequency, Difficulty, and the Form of Vocabulary Growth. In M. Frank (chair) *From Input to Uptake: Word Frequency Effects as a*

- Window Into the Mechanisms of Early Language Learning*. Symposium presented at the Biennial Meeting of the Society for Research on Child Development, Denver, CO.
- Horst, J., Samuelson, L., and McMurray (2009, April) When Word Learning is Not About Words: Referent Selection and Visual Familiarity. In S. Grassmann & J. Horst (Chairs) *New Perspectives on Mutual Exclusivity*. Symposium presented at the Biennial Meeting of the Society for Research on Child Development, Denver, CO.
- Rost, G., and McMurray, B. (2008, March) Phonetic variability and early word learning. In McMurray, B. (Chair) *The emergence of phonological contrast from lexical and perceptual processes*. Symposium presented at the International Conference on Infant Studies, Vancouver, BC.
- Galle, M., and McMurray, B. (2008, March) Early discrimination of positional variants of consonants: Acquiring subphonemic sensitivity. In K. Onishi, and A. Seidl (Chairs) *Processing and learning of allophonic contrasts in infancy*. Symposium presented at the International Conference on Infant Studies, Vancouver, BC.
- Rost, G., and McMurray, B. (2008, July) Phonological variability and word learning: Infants can learn lexical neighbors. In A. Owen (Chair), *The role of input variability on language acquisition and use*. Symposium presented at the XI International Congress for the study of child language (IASCL): Edinburgh, Scotland.
- Spencer, J. (chair) and McMurray, B. (organizer) (2007, April) *An(other) Inconvenient Truth? Why Substantive Interactionism Should Move Us Beyond the Nature/Nurture Debate*. Roundtable discussion presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.
- McMurray, B., Horst, J., and Samuelson, L. (2007, April) The interdependence of long-term learning and real-time behavior: computational investigations with a word learning model. In L. Samuelson & L. Smith (chairs) *It's About Time: New Approaches to Timescales, Computation and Processes in Early Word Learning*. Symposium presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.
- McMurray, B., and Aslin, R.N. (2005, April) Statistical learning of phonetic categories: Computational insights and limitations. In B. McMurray & G. Hollich (chairs) *Core Computational Principles of Language Acquisition*. Symposium presented at the Biennial Meeting of the Society for Research in Child Development, Atlanta, GA.
- McMurray, B., and Aslin, R.N. (2004, May) Stop-consonant perception in 7.5-month-olds: evidence for gradient categories. In R. Aslin (Chair) *The lexical/phonetic interface in infancy: Coping with multiple sources of variability*. Symposium presented at the International Conference on Infant Studies, Chicago, IL.

Conference Presentations

- Fell, A., Klein-Packard, J., Jhaveri, S., Tomblin, J.B., McMurray, B., and Apfelbaum, K.S. (2021, June) The slow development of fine-grained speech perception skills: Implications for language and reading. Poster presented at the *Society for Research on Child Language Disorders*, Madison, WI.
- Jeppsen, C., Apfelbaum, K., Klein, K., Fell, A., Klein-Packard, J., Jhaveri, S., Tomblin, J. B., and McMurray, B. (2021, June) The development of real-time lexical processing: phonological

- competition and semantic activation. Poster presented at the *Society for Research on Child Language Disorders*, Madison, WI.
- Berger, J. Gander, P., Kim, S., Schwalje, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., and Choi, I. (2021, January) Neural Correlates of Speech-In-Noise Variance in Cochlear Implant Users. Poster presented at the Association for Research in Otolaryngology.
- Gander, P., Berger, J., Kim, S., Schwalje, A., Woo, J., Na, Y., Holmes, A., Hong, J., Dunn, C., Hansen, M., Gantz, B., McMurray, B., Griffiths, T., Choi, I. (2021, January) Evidence for Neuroplasticity in EEG Responses to Speech-In-Noise Within the First Year After Cochlear Implant Activation.
- McMurray, B., Chiu, S., Sarrett, M., Black, A., and Aslin, R.N. (2020, November) Evidence for Neuroplasticity in EEG Responses to Speech-In-Noise Within the First Year After Cochlear Implant Activation. Paper presented at the *Meeting of the Psychonomic Society*.
- Colby, S., Smith, F., Roof, K., and McMurray, B. (2020, October) Evidence for Neuroplasticity in EEG Responses to Speech-In-Noise Within the First Year After Cochlear Implant Activation. Poster presented at the *Meeting of the Psychonomic Society*.
- Apfelbaum, K.S., Goodwin, C., and McMurray, B. (2020, October) The Development of Lexical Competition in Spoken and Written Word Recognition. Poster presented at the *Meeting of the Psychonomic Society*.
- Ziaka, L., Zelihic, D., Nordli, C., McMurray, B., and Protopapas, A. (2020, October) Interference in Automatic Word Recognition: An Eye Tracking Study. Poster presented at the *Meeting of the Psychonomic Society*.
- Chiu, S., Freeman, J., and McMurray, B. (2020, October) It takes two [mechanisms]: Unsupervised and supervised learning of auditory categories. Poster presented at the *Meeting of the Psychonomic Society*.
- Klein, K., Walker, E., and McMurray, B. (2020, March) Real-Time Lexical and Semantic Processing in Children with Hearing Loss. Poster presented at the American Academy of Audiology. New Orleans, LA.
- Holmes, A., Geller, J., Schwalje, A., Choi, I., and McMurray, B. (2020, January) Assessing the Reliability and Validity of the Iowa Test of Consonant Confusion. Poster presented at the Association for Research in Otolaryngology.
- Sarrett, M.E., Schreiber, K., Kawasaki, H., Howard, M.A., and McMurray, B. (2019, October) The effect of lexical status on acoustic encoding in human auditory and perisylvian language cortices: Preliminary results from intracranial recordings. Poster presented at the Society for Neuroscience, Chicago, IL.
- Kocsis, Z., Jenison, R.L., McMurray, B., Rhone, A.E., Sarrett, M.E., Gander, P.E., Nourski, K.V., Steinschneider, M., Calmus, R.M., Kawasaki, H., Greenlee, J.D., Kovach, C.K., Griffiths, T.D., Howard, M. A., and Petkov, C.I. (2019, October) Anterior temporal lobe disconnection disrupts cortical oscillatory neural responses to speech in the human brain. Poster presented at Society for Neuroscience, Chicago, IL.
- Kocsis, Z., Jenison, R.L., McMurray, B., Rhone, A.E., Sarrett, M.E., Gander, P.E., Nourski, K.V., Steinschneider, M., Calmus, R.M., Kawasaki, H., Greenlee, J.D., Kovach, C.K., Griffiths, T.D., Howard, M. A., and Petkov, C.I. (2019, October) Anterior Temporal Lobe Disconnection

- Disrupts Neural Responses to speech along the human auditory cortical neural network. Poster presented at Advances and Perspectives in Auditory Neuroscience, Chicago, IL.
- Sarrett, M.E., Schreiber, K., Kawasaki, H., Howard, M.A., and McMurray, B. (2019, October) The effect of lexical status on acoustic encoding in human auditory cortex: preliminary results from intracranial recordings. Poster presented at Advances and Perspectives in Auditory Neuroscience, Chicago, IL.
- Kim, S., Geller, J., Holmes, A., McMurray, B., and Choi, I. (2019, October) Cortical dynamics of word-in-noise recognition in cochlear implant users. Poster presented at Advances and Perspectives in Auditory Neuroscience, Chicago, IL.
- Simon⁺, A., and McMurray, B., (2019, October) Sensitivity to fine-grained phonetic variation in children who use cochlear implants. Poster presented at the Iowa Speech and Hearing Association. Des Moines, IA.
- Plock⁺, S., and McMurray, B. (2019, October) The Role of Cognitive Control in Understanding Speech in Noise. Poster presented at the Iowa Speech and Hearing Association. Des Moines, IA.
- Colby, S., and McMurray, B., (2019, December) The role of listening effort during degraded speech recognition: A comparison of the dual-task and pupillometry paradigms. Poster presented at the Meeting of the Acoustical Society of America. San Diego, CA.
- Smith, N., Hammans, C., Vallier, T., and McMurray, B. (2019, March). Child-directed speech in noise: Listener- and environment-related changes in speech acoustics. Paper presented at the 177th Meeting of the Acoustical Society of America. Louisville, KY
- Smith, N., Hammans, C., Vallier, T., and McMurray, B. (2019, March). Child-directed speech enhances preschoolers' speech perception in noise. Poster presented at the 177th Meeting of the Acoustical Society of America. Louisville, KY
- McMurray, B. (2019, February) Integration of Speech Information (or not) across Multiple Cochlear Implants and/or Acoustic Modes of Hearing. Poster presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- Smith, F., and McMurray, B. (2019, February) Lexical Access in the Face of Degraded Speech: Dealing with Uncertainty Through Cognitive Adaptation. Poster presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- Isaac, H., Liu, A.S., Dunn, C., Gantz, B., McMurray, B., and Hansen, M. (2019, February) Patient Specific Factors that Influence Hearing Preservation Following Cochlear Implantation. Poster presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- Choi, I., Holmes, A., Kim, S., Schwalje, A., Liu, A.S., Gander, P., Na, Y., Woo, J., McMurray, B., and Griffiths, T. (2019, February) Neural Correlates of Speech-in-Noise Variance in Cochlear Implant Users. Poster presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- Gander, P., Ponto, L., Choi, I., McMurray, B., and Griffiths, T. (2019, February) O-15 Water PET Study of Speech in Noise Processing in Cochlear Implant Patients. Poster presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- Smith, F., and McMurray, B. (2019, February) The Dynamics of Lexical Access Change Depending on Listener Needs in Cochlear Implant Users: The Effect of Sentence Context.

- Talk presented at the *Midwinter Meeting of the Association for Research in Otolaryngology*, Baltimore, MD
- McMurray, B., Freeman, J., Curtu, R., Sarrett, M., Klein-Packard, J., and Chiu, S. (2019, January) Reinforced Statistical Learning (half baked results). Talk presented at the *13th Meeting of the Auditory Cognitive Neuroscience Society*. Gainesville, FL.
- Hendrickson⁺⁺⁺, K., and McMurray, B. (2018, November) The dynamics of spoken and visual word recognition in school-aged children. Paper presented at the *Boston University Conference on Language Development*. Boston, MA.
- Blomquist⁺, C., and McMurray, B. (2018, November) The development of inter-lexical inhibition from 1st grade to adulthood. Paper presented at the *Boston University Conference on Language Development*. Boston, MA.
- Hendrickson⁺⁺⁺, K., and McMurray, B. (2018, November) Long-term maintenance of activation for phonological competitors by CI users. Paper presented at the *2018 Convention of the American Speech-Language-Hearing Association*. Boston, MA.
- Sarrett⁺⁺, M., Kapnoula⁺⁺, E. & McMurray, B. (2018, November) Realtime integration of acoustic input and semantic expectations in speech processing: evidence from electro-encephalography. Poster presented at the *176th Meeting of the Acoustical Society of America*. Victoria, BC, Canada.
- Sereno, J., Jongman, A., Wang, Y., Hamarneh, G., Tang, L., Garg, Saurabh, Tupper, P., McMurray, B., Redmon, C., Zeng, Y., Hannah, B., Leung, K., and Cho, S. (2018, November) Linking production and perception of clear speech. Poster presented at the *176th Meeting of the Acoustical Society of America*. Victoria, BC, Canada.
- Smith⁺⁺, F., and McMurray, B. (2018, November) Lexical access in the face of degraded speech: The effects of cognitive adaptation. Poster presented at the *176th Meeting of the Acoustical Society of America*. Victoria, BC, Canada.
- Seedorff⁺⁺, M., and McMurray, B. (2018, November) Integration of speech information (or not) across electric and acoustic modes in hearing impaired listeners. Poster presented at the *176th Meeting of the Acoustical Society of America*. Victoria, BC, Canada.
- Sarrett⁺⁺, M., Kapnoula⁺⁺, E. & McMurray, B. (2018, August) Realtime integration of acoustic cues and semantic expectations in speech processing: Evidence from EEG. Poster presented at the *2018 Meeting of the Cognitive Science Society*. Madison, Wisconsin
- McMurray, B., Roembke⁺⁺, T., and Hazeltine, E., (2018, August) Irrelevant variability and interleaved/blocked training in an artificial orthography task and connectionist models. Poster presented at the *2018 Meeting of the Cognitive Science Society*. Madison, Wisconsin
- Roembke⁺⁺, T., and McMurray, B. (2018, August) Pruning incorrect associations in word learning. Poster presented at the *2018 Meeting of the Cognitive Science Society*. Madison, Wisconsin
- Smith⁺⁺, F., and McMurray, B. (2018, August) Lexical access in the face of degraded speech: The effects of cognitive adaptation. Poster presented at the *2018 Meeting of the Cognitive Science Society*. Madison, Wisconsin
- Klein, K.E., Farris-Trimble, A., & McMurray, B. (2018, March). Real-time spoken word recognition in sentences by cochlear implant users. Poster session presented at the *45th Annual Scientific and Technology Conference of the American Auditory Society*, Scottsdale, Arizona.

- Liu, A. S., Kovach, C., Kawasaki, H., Howard, M. A., McMurray, B. (2018, February) Predictive coding in auditory cortex for degraded speech recognition. Poster presented at the *Meeting of the Association for Research in Otolaryngology*, San Diego, CA.
- Goodwin, C., Blomquist⁺, C., and McMurray, B. (2017, March) The development of real-time lexical processing for spoken and written inputs: Implications for reading outcomes. Poster presented at the *2017 Meeting of the Society for Research on Child Development*, Austin, TX.
- Roembke⁺⁺, T., McMurray, B., Freedberg, M., and Hazeltine, E. (2017, March) Basic learning mechanisms for acquiring reading skills: effects of irrelevant variability, vowel overlap and blocking. Poster presented at the *2017 Meeting of the Society for Research on Child Development*, Austin, TX.
- Roembke⁺⁺, T., Hazeltine, E., Reed, D., and Hazeltine, E. (2017, March) The importance of automaticity for fluent reading in middle-school students. Poster presented at the *2017 Meeting of the Society for Research on Child Development*, Austin, TX.
- McMurray, B., Seedorff⁺⁺, M., Danelz⁺, A., and Rigler, H. (2017, March) Speech categorization develops slowly through adolescence... but you have to look fast to see it. Poster presented at the *2017 Meeting of the Society for Research on Child Development*, Austin, TX.
- Toscano, J., McMurray, B., Myers, E., and Goldrick, M. (2016, November) Unifying principles and individual differences: What should we focus on to understand speech? Panel discussion at *Auditory Perception, Action and Cognition Meeting*, Boston, MA
- Schreiber⁺⁺, K., and McMurray, B. (2016, November) Unstuck in time: Listeners anticipate future segments before they identify the current one. Poster presented at *Auditory Perception, Action and Cognition Meeting*, Boston, MA
- Dial⁺⁺, H., McMurray, B., and Martin, R. (2016, November) Evaluating the Relationship Between Sublexical and Lexical Processing: Evidence From the Visual World Paradigm. Poster presented at the *Meeting of the Psychonomic Society*, Boston, MA.
- Saltzman, D., Rhone, A., McMurray, B., and Toscano, J. (2016, November) Listeners Use Sentential Rate, but not Envelope Information, to Compensate for Speaking Rate During Spoken Word Recognition. Poster presented at the *Meeting of the Psychonomic Society*, Boston, MA.
- Schreiber, K., and McMurray, B. (2016, November) Gender Affects Early Perceptual Processes During Speech Perception: Evidence From ERPs and Eye-Movements. Poster presented at the *Meeting of the Psychonomic Society*, Boston, MA.
- Roembke, T., and McMurray, B. (2016, November) The Role of In-the-Moment Processing in Cross-Situational Word Learning. Poster presented at the *Meeting of the Psychonomic Society*, Boston, MA.
- McMurray, B., Roembke, T., Freedberg, M., and Hazeltine, E. (2016, November) Applying Principles of Learning to Reading: How Principles of Variability, Blocking and Overlap Influence Children's Acquisition of Sound/Spelling Correspondence. Paper presented at the *Meeting of the Psychonomic Society*, Boston, MA.
- Dial, H., McMurray, B., and Martin, R. (2016, October) Lexical processing depends on sublexical processing: Evidence from the visual world paradigm. Poster presented at the *Academy of Aphasia*, Llandudno, Wales, UK.

- Navarro, V., Wasserman, E., McMurray, B., and Roembke, T. (2016, September) The role of negative associations in learning rich associative networks. Poster presented at the Annual Meeting of the Pavlovian Society, Jersey City, NJ.
- McMurray, B., and Jongman, A. (2016, July) Layers of variance in the speech onion: Why cry over the problem of variability? Evidence from perceptually motivated analyses of fricatives. Paper presented at *Higher-order structure in speech variability: phonetic/phonological covariation and talker adaptation*. Ithaca, NY.
- Castellucio, B., Kapnoula, E., Edwards, J., McMurray, B., and Eigsti, I. (2016, May) Are there phonological consequences of auditory processing differences in autism spectrum disorder? Evidence from phonological categorization tasks. Poster presented at the *2016 International Meeting for Autism Research*. Baltimore, MD.
- Garrick, J. A., Hammans, C. A., Vallier, T. J. McMurray, B. & Smith, N. A. (2016, March). Prosodic contrast for target words in child-directed speech in noise. Poster presented at the *Meeting of the American Auditory Society*, Scottsdale, AZ.
- McMurray, B. (2016, January) Why are those @\$%&%!! kids so slow? [at speech perception]. Oral presentation at the Auditory Cognitive Neuroscience Society, Tucson, AZ.
- Brown, C., Zimmermann, J., Hazeltine, J., Reed, D., and McMurray, B. (2015, December) Assessing automaticity of word level reading skills in struggling middle school readers. Poster presented at *NCER/NCSE 2015 Principal investigators meeting: Collaborations to bridge high quality education research and practice*. Washington, DC.
- Ellis, T. Apfelbaum, K.S., Rigler, H., Sedorff, M., and McMurray, B. (2015, November) Effects of Mispronunciation on Spoken Word Recognition in Cochlear Implant Users & Typically Hearing Listeners. Poster presented at the 2015 Meeting of the American Speech-Language-Hearing Association, Denver, CO.
- Rigler, H., Farris-Timble, A., and McMurray, B. (2015, November) Spoken word recognition in pediatric cochlear implant users. Poster presented at the 2015 Meeting of the American Speech-Language-Hearing Association, Denver, CO.
- Saltzman, D., Rhone, A., McMurray, B., and Toscano, J. (2015, November) Artificially natural: Creating carefully-controlled acoustic cue continua from natural speech. Poster presented at the *14th Annual Auditory Perception, Cognition and Action Meeting*, Chicago, IL.
- Kapnoula, E., Edwards, J. & McMurray, B. (2015, November) Gradient categorization of speech sounds helps listeners recover from lexical garden paths. Poster presented at the *14th Annual Auditory Perception, Cognition and Action Meeting*, Chicago, IL.
- Smith, J., Treat, T., McMurray, B., and Farmer, T. (2015, October) Generalization of Dynamic Models of Basic Decision Making to Complex Judgments of Women's Sexual Interest. Poster presented at the *2015 Annual Meeting of the Psychonomic Society*, Chicago, IL
- Smith, N. A., Vallier, T. J., McMurray, B., Hammans, C. A., & Garrick, J. A. (2015, June). Environmental, linguistic and developmental influences on mothers' speech to children: An examination of audible and visible properties. Poster presented at the Joint Conference on Facial Analysis, Animation and Audio-Visual Speech Processing, Vienna, Austria.
- Kucker, S.C., McMurray, B., & Samuelson, L.K. (2015, June). Optimizing ambiguity: Word learning from uncertainty in vocabulary knowledge. Poster session to be presented at the *45th Annual Meeting of the Jean Piaget Society*, Toronto, Ontario, Canada.

- Marino, A., Apfelbaum, K., and McMurray, B. (2015, March) Take it From the Top: Top-Down Speech Learning in Children Using Lexical Information. Poster presented at the *Society for Research in Child Development*, Philadelphia, PA.
- Roembke, T., Wiggs, K., and McMurray, B. (2015, March) Special role of words may emerge over time – no evidence for advantage of linguistic stimuli over non-linguistic ones in children. Poster presented at the *Society for Research in Child Development*, Philadelphia, PA.
- Smith, N., and McMurray, B. (2015, March) Temporal Responsiveness in Mother-Child Dialogue: A Longitudinal Study of Normal-Hearing and Hearing-Impaired Children. Poster presented at the *Society for Research in Child Development*, Philadelphia, PA.
- McMurray, B., and Galle, M. (2014, November) Delayed Integration of Acoustic Cues in Spoken Word Recognition. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Kapnoula, E., and McMurray, B., (2014, November) Evidence for Experience-Based Changes in Inter-Lexical Inhibition. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Apfelbaum, K.S. and McMurray, B., (2014, November) When Will You Learn? Evidence of Continuous Associative Learning During Lexical Processing. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Kapnoula, E., Winn, M., Kong, E., Edwards, J., and McMurray, B. (2014, November) Listeners Differ in Whether They Perceive Speech Gradiently or Categorically: Consequences for Cue Integration. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Roembke, T., Freedberg, M., McMurray, B., and Hazeltine, E. (2014, November) Variability in Irrelevant Elements Helps Learning in Motor Analog for Reading. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Wasserman, E., Roembke, T., Casler, D., and McMurray, B. (2014, November) Many to Many Category Learning: Building or Pruning? Implications for Human Word Learning. Poster presented at the *55th Meeting of the Psychonomics Society*, Long Beach, CA.
- Kucker, S.C., McMurray, B. and Samuelson, L.K. (2014, November) Optimizing ambiguity: Word learning from uncertainty in vocabulary knowledge. Poster presented at *The Science of Learning* pre-conference for the 2014 International Mind Brain and Education Society Conference, Fort Worth, TX.
- Kapnoula, E., and McMurray, B. (2014, September) Individual differences in phoneme categorization. Paper presented at the *Mid-Continental Workshop on Phonetics and Phonology*, Madison, WI.
- Hannaway, K., and McMurray, B. (2014, September) Lexical effects on early sensory processing reveals the role of top-down feedback on speech perception: Evidence from event-related potentials. Poster presented at the *Mid-Continental Workshop on Phonetics and Phonology*, Madison, WI.
- McMurray, B. (2014, January) *Spoken word recognition in the brain and the problem of time: Speculating out loud*. Paper presented at the Auditory Cognitive Neuroscience Society. Tucson, AZ.
- Blumberg, M.S., Coleman, C.M, McMurray, B., Gerth, A.I., Weiner, J., and Fritsch, B. (2013, November) Spatiotemporal patterning of limb twitching during active sleep in newborn rats and

- ErbB2 knockout mice lacking muscle spindles. Poster presented at the *Meeting of the Society of Neuroscience*. San Diego, CA
- Rhone, A., McMurray, B., Oya, H., Nourski, K., Kawasaki, H., and Howard, M. (2013, November) Intracranial recordings reveal spatial and temporal differences in the processing and categorization of speech. Poster presented at *Meeting of the Tucker-Davis Symposium on Advances and Perspectives in Auditory Neurophysiology*. San Diego, CA
- Rhone, A., McMurray, B., Oya, H., Nourski, K., Kawasaki, H., and Howard, M. (2013, November) Intracranial recordings reveal spatial and temporal differences in the processing and categorization of speech. Poster presented at *Meeting of the Society of Neuroscience*. San Diego, CA
- Rhone, A., McMurray, B., Oya, H., Nourski, K., Kawasaki, H., and Howard, M. (2013, November) Temporally dynamic cortical processing of spoken words: evidence from intracranial recordings. Poster presented at the *Meeting of the Society for the Neurobiology of Language*. San Diego, CA.
- Warren, D., Duff, M., and McMurray, B. (2013, November) A computational model of distinct hippocampal and cortical contributions to word learning under referential ambiguity. Poster presented at the *Meeting of the Society for the Neurobiology of Language*. San Diego, CA.
- Kucker, S., Samuelson, L., and McMurray, B. (2013, November) When attending is not learning: The role of novelty in word learning in both 18-month-old children and computational models. Poster Presented at *Learning to Attend, Attending to Learn workshop*, San Diego, CA
- Belfi, A., McMurray, B., Rhone, A., Oya, H., Kawasaki, H. and Howard, M. (2013, May) Context Effects of Musical Chord Perception: Intracranial Responses. Paper presented *The Midwestern Music Cognition Symposium*, Columbus, OH
- McMurray, B. (2013, May) The Varied Practice Model (Counter-intuitive to Traditional Approaches) Incorporates “Desirable Difficulties” to Improve Automaticity for Struggling Readers. Paper presented at *The International Reading Association*, San Antonio, TX
- Ryan, D., and McMurray, B. (2013, May) Marietta City Schools’ New Approaches to Intervention Students with Special Needs. Paper presented at *The International Reading Association*, San Antonio, TX
- Munson, C., and McMurray, B. (2013, April) Evidence for talker-specificity and generalization in perceptual learning. Poster presented at *The Workshop on Current Issues and Methods in Speaker Adaptation (CIMSAs)*, Columbus, OH.
- Apfelbaum, K., and McMurray, B. (2012, November) When Will You Learn? Interactions of Real-Time Lexical Processing and Word Learning. Poster presented at *The 53rd Meeting of the Psychonomic Society*, Minneapolis, MN.
- Galle, M., and McMurray, B. (2012, November) Real-Time Integration of Asynchronous Cues to Fricative Voicing and Place of Articulation. Poster presented at *The 53rd Meeting of the Psychonomic Society*, Minneapolis, MN.
- Kapnoula, E., Packard, S., Apfelbaum, K., McMurray, B. and Gupta, P. (2012, November) Lexical Integration Without Meaning or Sleep. Poster presented at *The 53rd Meeting of the Psychonomic Society*, Minneapolis, MN.
- Toscano, J., and McMurray, B. (2012, November) Combining Cues to Recognize Speech: Acoustic Measurements of Phonetic Cues to Word-Medial Voicing. Poster presented at *The 53rd Meeting of the Psychonomic Society*, Minneapolis, MN.

- Rhone, A., Apfelbaum, K and McMurray, B. (2012, October) Understanding speech acoustics in an era of extreme cue-integration: Multi-dimensional phonetics reveals individual differences in fricative production. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Galle, M. and McMurray, B. (2012, October) The waiting is the hardest part: How asynchronous acoustic cues are integrated for fricative voicing and place of articulation. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Apfelbaum, K., and McMurray, B. (2012, October) Context matters: Analyzing the necessity of context-dependent speech perception in complex models. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Toscano, J., and McMurray, B. (2012, October) Voicing in English revisited: Measurement of acoustic features signaling word-medial voicing in trochees. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Farris-Trimble, A. and McMurray, B. (2012, October) The contribution of high-frequency information to fine-grained speech perception in cochlear-implant-simulated speech. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Kapnoula, E., and McMurray, B. (2012, October) The young and the meaningless: Novel-word learning without meaning or sleep. Poster presented at *The 164th Meeting of the Acoustical Society of America*.
- Rhone, A., Oya, H., McMurray, B., Reale, R., Nourski, K., Kawasaki, H., and Howard, M. (2012, October) Auditory, visual, and audiovisual responses to speech and non-speech recorded directly from the temporal lobe. Paper presented at the *Meeting of the Society for Neuroscience*, New Orleans, LA.
- Belfi, A., Rhone, A., McMurray, B., Oya, H., Kawasaki, H., and Howard, M. (2012, October) The effect of expectancy on musical chord perception: Behavioral and intracranial responses. Paper presented at the *Meeting of the Society for Neuroscience*, New Orleans, LA.
- Kucker, S., Samuelson, L.S., and McMurray, B. (2012, June) Word Knowledge and Vocabulary Experience: Referent Selection and Retention in Fast-Mapping. Paper presented at the *International Conference on Infant Studies*, Minneapolis, MN.
- McMurray, B. (2011, January) Learning, it's not just for kids any more: Implications for cochlear implants and neural architectures for speech perception. Paper presented at the *Meeting of the Auditory Cognitive Neuroscience Society*. Tucson, AZ.
- Toscano, J. and McMurray (2011, January) Measuring perceptual encoding and categorization of speech sounds using an ERP approach. Poster presented at the *Meeting of the Auditory Cognitive Neuroscience Society*. Tucson, AZ.
- Toscano, J. and McMurray, B. (2011, November) Measuring acoustic cue encoding and categorization during speech processing using the auditory N1 and P3 ERP components. Paper presented at the *Auditory Perception, Cognition and Action Meeting*. Seattle WA.
- Toscano, J., Anderson, N. and McMurray, D. (2011, November) The role of time in spoken word recognition: Evidence against temporal order in lexical representations. Poster presented at the *52nd Meeting of the Psychonomics Society*. Seattle, WA.
- Apfelbaum, K. and McMurray, B. (2011, November) Flipping the word upside down: Top-down effects during word learning. Poster presented at the *52nd Meeting of the Psychonomics Society*. Seattle, WA.

- McMurray, B., Apfelbaum, K., and Hazeltine, R.E. (2011, November) Statistical learning and phonics in a laboratory/classroom paradigm: Variability helps. Paper presented at the 52nd Meeting of the Psychonomics Society. Seattle, WA.
- Trimble, A.F. and McMurray, B. (2011, November) Online spoken word recognition is sensitive to phonological rules. Poster presented at the 52nd Meeting of the Psychonomics Society. Seattle, WA.
- Trimble, A.F., and McMurray, B. (2011, October) Phonological alternations in spoken word recognition. Paper presented at the 17th Mid-Continental Phonetics and Phonology Conference. Champaign, IL.
- Galle, M. and McMurray, B. (2011, October) Real-time integration of asynchronous cues to fricative voicing: Evidence for continuous cascades of information. Paper presented at the 17th Mid-Continental Phonetics and Phonology Conference. Champaign, IL.
- Rhone, A., Apfelbaum, K., and McMurray, B. (2011, October) Dynamic articulatory control during fricative production: Implications for perception. Poster presented at the 17th Mid-Continental Phonetics and Phonology Conference. Champaign, IL.
- Apfelbaum, K., and McMurray, B. (2011, October) On the necessity of perceptual normalization in speech perception. Poster presented at the 17th Mid-Continental Phonetics and Phonology Conference. Champaign, IL.
- Toscano, J., Anderson, N. & McMurray, B. (2011, October) The role of phoneme order and phonetic detail in spoken word recognition. Paper presented at the 17th Mid-Continental Phonetics and Phonology Conference. Champaign, IL.
- Trimble, A.F. (2011, July) Online spoken word recognition in pediatric cochlear implant users. 13th Symposium on Cochlear Implants in Children. Chicago, IL.
- Apfelbaum, K., Fassett, M., and McMurray, B. (2011, April) The Chicken Helps Build the Egg: Learning Words Facilitates the Acquisition of Speech Categories. Poster presented at the Society for Research on Child Development, Montreal, QC, Canada.
- Apfelbaum, K., Galle, M., and McMurray, B. (2011, April) The Role of Single Speaker Acoustic Variation in Early Word Learning. Poster presented at the Society for Research on Child Development, Montreal, QC, Canada.
- Wu, Q., Panneton, R. & McMurray, B. (2011, April) Hyperarticulation is Beneficial to but Not Perceptible by Older Infants. Poster presented at the Society for Research on Child Development, Montreal, QC, Canada.
- Galle, M., and McMurray, B. (2010, March) A Meta-Analysis of 40 Years of Speech Perception Research in Infancy. Poster presented at the International Conference on Infant Studies, Baltimore, MD.
- Wu, J., Panneton, R., and McMurray, B. (2010, March) Hyperarticulation is Beneficial but Not Perceptible by Older Infants. Poster presented at the International Conference on Infant Studies, Baltimore, MD.
- Apfelbaum, K., and McMurray, B. (2010, February) When discrimination is not enough: An associative model of the development of phonological cue weighting. Poster presented at Computational Modeling of Sound Pattern Acquisition Workshop. Edmonton, AB.

- McMurray, B., and Jongman, A. (2010, February) Statistical and exemplar approaches to speech perception: What abilities must also develop? Poster presented at *Computational Modelling of Sound Pattern Acquisition Workshop*. Edmonton, AB.
- Toscano, J., McMurray, B., Dennhardt, J., and Luck, S. (2009, April) Listeners' sensitivity to acoustic detail in speech at the level of both early encoding and categorization. Poster presented at the *15th International Conference on Event-Related Potentials of the Brain*, Bloomington, IN.
- McMurray, B. and Samuelson, L. (2009, April) Understanding Word Learning in the Context of Processing: A Computational Approach. Poster presented at the *Meeting of the Society for Research in Child Development*, Denver, CO.
- Kovack-Lesh & McMurray, (2009, April) Separating Phonetic Categories in Infant Directed Speech: Intentional Enhancement or Hyperarticulation? Poster presented at the *Meeting of the Society for Research in Child Development*, Denver, CO.
- Galle, M., McMurray, B., Walker, B., Barker, B., and Tomblin, J.B. (2009, April) Preference for Modified Adult Directed and Infant Directed Speech. Poster presented at the *Meeting of the Society for Research in Child Development*, Denver, CO.
- Munson, C., McEchron, W.D., McMurray, B. & Tomblin, J.B. (2008, November) Perceptual sensitivity to within-category acoustic variation by language impaired and typically developing adolescents. Poster presented at the *156th Meeting of the Acoustical Society of America*, Miami, FL.
- Toscano, J. & McMurray, B. (2008, November) Online processing of acoustic cues used in speech perception: Comparing statistical and neural network models. Poster presented at the *156th Meeting of the Acoustical Society of America*, Miami, FL.
- Toscano, J. & McMurray, B. (2008) Perception of voicing is graded all the way down: evidence from electrophysiology. Paper presented at the *14th Mid-Continental Workshop on Phonology*, University of Minnesota.
- Beckman, J. Helgason, P., McMurray, B & Ringen, C. (2008) Phonological overspecification: Evidence from rate effects on Swedish VOT. Paper presented at *14th Mid-Continental Workshop on Phonology*, University of Minnesota.
- Apfelbaum, K., McMurray, B. & Blumstein, S. (2008) The interaction of phonological and semantic activation: where does phonology end and semantics begin? Paper presented at *14th Mid-Continental Workshop on Phonology*, University of Minnesota.
- McMurray & Jongman, (2008, November) From production to acoustics to perception: The case of fricatives. Poster presented at the *156th Meeting of the Acoustical Society of America*, Miami, FL.
- Toscano, J., and McMurray, B. (2008, July) Using the distributional statistics of speech sounds for learning and combining multiple acoustic cues. Poster presented at the *Meeting of the Cognitive Science Society*, Washington, DC.
- Mitchell, C., and McMurray, B. (2008, July) A stochastic model of the vocabulary explosion. Poster presented at the *Meeting of the Cognitive Science Society*, Washington, DC.
- Beckman, J. Helgason, P., McMurray, B. & Ringen, C. (2008, June) Effects of speaking rate on voice-onset time in Swedish: Phonological implications. Paper presented at the *16th Manchester Phonology Meeting*, Manchester, UK.

- McMurray, B., McEchron, D., and Tomblin, J.B. (2008, May) The timecourse of frequency effects on word recognition in language impairment: Evidence for impaired inhibition. Poster presented at the *Society for Research in Language Disorders*, Madison, WI.
- Munson, C., McEchron, D., McMurray, B., and Tomblin, J.B. (2008, May) Gradient perception of within-category acoustic detail by normal and language impaired listeners. Poster presented at the *Society for Research in Child Language Disorders*, Madison, WI.
- Horst, J. S., Samuelson, L.K. & McMurray, B. (2008, April) The Dynamics of Referent Selection. Poster presented at *New Directions in Word Learning*. York, UK.
- Kovack-Lesh, K., Oakes, L., and McMurray, B. (2008, March) Multiple Influences on Infants Category Learning. Poster presented at the *International Conference on Infant Studies*, Vancouver, BC.
- Kovack-Lesh, K., McMurray, B., and Oakes, L. (2008, March) Comparing Cats and Dogs: Infants' and Adults' Eye-Movements During Online Comparison. Poster presented at the *International Conference on Infant Studies*, Vancouver, BC.
- McMurray, B., Tanenhaus, M., and Aslin, R. (2007, November) Gradient sensitivity to continuous acoustic detail: avoiding the lexical garden-path. Poster presented at the *48th Meeting of the Psychonomic Society*, Long Beach, CA.
- Robinson, M. and McMurray, B. (2007, November) The timecourse and nature of listeners' sensitivity to indexical information during word recognition. Poster presented at the *48th Meeting of the Psychonomic Society*, Long Beach, CA.
- Munson, C., Cole, J., McMurray, B., and Linebaugh, G. (2007, October) Vowel-to-vowel coarticulation across words in English: Acoustic evidence. Paper presented at the *13th Mid-Continental Workshop on Phonology*, Columbus, OH.
- Toscano, J., Galle, M., and McMurray, B. (2007, October) Learning positional variation and place of articulation in stop consonants from the distributional statistics of acoustic cues. Poster presented at the *13th Mid-Continental Workshop on Phonology*, Columbus, OH.
- Cole, J., McMurray, B., Munson, C., and Linebaugh, G. (2007, October) Parsing acoustic variability as a mechanism for feature abstraction. Paper presented at *Where do Features Come From? Phonological Primitives in the Brain, the Mouth, and the Ear*, Paris.
- Munson, C., and McMurray, B. (2007, October) Perceptual features of place assimilation are continuous and contextually. Poster presented at *Where do Features Come From? Phonological Primitives in the Brain, the Mouth, and the Ear*, Paris.
- Galle, M., and McMurray, B. (2007, October) Infant representations of positional variants of stop consonants. Poster presented at *Where do Features Come From? Phonological Primitives in the Brain, the Mouth, and the Ear*, Paris.
- Toscano, J., and McMurray, B. (2007, October) Integrating acoustic cues to phonetic features: a computational approach to cue weighting. Poster presented at *Where do Features Come From? Phonological Primitives in the Brain, the Mouth, and the Ear*, Paris.
- Samelson, V., McMurray, B., Lee, S., and Tomblin, J.B. (2007, April) Eye Movement During Spoken Word Recognition in Normal and Language-Impaired Adolescents: Activation and Inhibition Effects. Poster presented at the *Biennial Meeting of the Society for Research in Child Development*, Boston, MA.

- Toscano, J., and McMurray, B. (2007, April) Taking Statistical Learning to the Next Level: A Computational Approach to the Acquisition of Multi-Dimensional Categories. Poster presented at the *Biennial Meeting of the Society for Research in Child Development*, Boston, MA.
- Horst, J.S., McMurray, B., and Samuelson, L.K. (2006, July) Online processing is essential for learning: Understanding fast mapping and word learning in a dynamic connectionist architecture. Paper presented at the *28th meeting of the Cognitive Science Society*. Vancouver, British Columbia.
- McMurray, B., Tanenhaus, M., and Aslin, R.N. (2006, June) Garden-path phenomena in spoken word recognition: Gradient sensitivity to continuous acoustic detail facilitates ambiguity resolution. Paper presented at the *151st meeting of the Acoustical Society of America*. Providence, RI.
- Munson, C., McMurray, B., and Gow, D.W. (2006, June) Lexical influences on the progressive facilitation during perception of assimilated speech. Paper presented at the *151st meeting of the Acoustical Society of America*. Providence, RI.
- Toscano, J., and McMurray, B. (2006, June) A lexical locus for the integration of asynchronous cues to voicing: An investigation with natural stimuli. Poster presented at the *151st meeting of the Acoustical Society of America*. Providence, RI.
- Dennhardt, J., McMurray, B., Luck, S., and Toscano, J. (2006, June) Gradient effects of continuous acoustic detail revealed by event-related potentials. Poster presented at the *151st meeting of the Acoustical Society of America*. Providence, RI.
- McMurray, B., Samuelson, V., Lee, S.H., and Tomblin, J.B. (2006, June) Eye-movements reveal the timecourse of spoken word recognition in normal and language-impaired adolescents. Poster presented at the *Meeting of the Society for Research on Child Language Disorders*, Madison, WI.
- Horst, J.S., Samuelson, L.K., and McMurray, B. (2005, October) Real-Time Dynamics of Language Acquisition in Two-Year-Old Children and Connectionist Models. Poster presented at the *3rd Meeting of the Cognitive Development Society*. San Diego, CA.
- McMurray, B. (2005, June) Connectionism from Connectionists, Dynamical Systems Theory from Connectionists, and some other stuff... (from Connectionists). Invited commentary and workgroup facilitation presented at *Connectionist and Dynamic Systems Approaches to Development: On the Cusp of a New Grand Theory or Still Too Distributed?* Iowa City, IA.
- Horst, J. S., McMurray, B., and Samuelson, L.K., (2005, June) Connectionist Time and Dynamic Systems Time in One Architecture? Modeling Word Learning at Two Time Scales. Poster presented at *Connectionist and Dynamic Systems Approaches to Development: On the Cusp of a New Grand Theory or Still Too Distributed?* Iowa City, IA.
- Toscano, J., and McMurray, B. (2005, November) Statistical learning cross-constraints and the acquisition of speech categories: a computational approach. Paper presented at the *11th Meeting of the Midcontinental Workshop on Phonology*. Ann Arbor Michigan.
- Clayards, M. and McMurray, B. (2005, November) Can the temporal unfolding of gradient lexical activation reveal the grain of phonological units? Paper presented at the *11th Meeting of the Midcontinental Workshop on Phonology*. Ann Arbor Michigan.

- McMurray, B., Gow, D.W., and Tanenhaus, M.K. (2004, June) Tracking the timecourse of multiple context effects in assimilated speech. Paper presented at the *Ninth Conference on Laboratory Phonology*, Urbana-Champaign, IL.
- McMurray, B., Clayards, M.A., Aslin, R.N., and Tanenhaus, M.K. (2004, May) Gradient sensitivity to acoustic detail and temporal integration of phonetic cues. Poster presented at the *147th meeting of the Acoustical Society of America*, New York.
- McMurray, B., Maye, J., Lathrop, A., and Aslin, R.N. (2003, November) Categorical Perception of Speech: Task Variations in Infants and Adults. Paper presented at *Auditory Perception, Cognition, and Action Meeting*, Vancouver, Canada.
- Gow, D., McMurray, B., and Tanenhaus (2003, November) Eye Movements Reveal the Time Course of Multiple Context Effects in the Perception of Assimilated Speech. Poster presented at the *44th Annual Meeting of the Psychonomics Society*, Vancouver, Canada.
- McMurray, B., and Aslin, R. (2003, July) Anticipatory eye movements reveal infants' auditory and visual categories. Poster presented at *UQAM Summer Institute in Cognitive Sciences*, Montreal, Canada.
- McMurray, B. (2002, October) Object Comprehension: it's more than it looks. Commentary given at the *University of Rochester Graduate Conference in Epistemology*, Rochester, NY.
- McMurray, B., and Aslin, R. (2002, April) Anticipatory eye movements (AntiEM): A new method for assessing multi-dimensional categorization in 6-month-olds. Poster presented at *International Conference on Infant Studies*. Toronto, Canada.
- McMurray, B., Tanenhaus, M.K., Aslin, R.N., and Spivey, M.J. (2002, April) Gradient effects of within-category VOT differences on lexical activation as measured by eye fixations. Poster presented at *Temporal Integration in the Perception of Speech*, Aix-en-Provence, France.
- McMurray, B., Tanenhaus, M.K., and Aslin, R.N. (2002, March) The lexical/phonetic interface: Evidence for gradient effects of within-category VOT on lexical access. Paper presented at the *CUNY Sentence Processing Conference*, New York, NY.
- McMurray, B., Magnuson, J.S., Tanenhaus, M.K. and Aslin, R.N. (2001, March) Transitional Probabilities and Lexical Status in Spoken Word Recognition. Poster presented at *CUNY Sentence Processing Conference*, Philadelphia, PA.
- McMurray, B., and Aslin, R.N. (2000, July) Anticipatory eye movements: a technique for assessing auditory categorization in 5-month-old infants. Poster presented at the *International Conference on Infant Studies*, Brighton, England.
- Tanenhaus, M.K., Magnuson, J.S., McMurray, B., and Aslin, R.N. (2000, May) Does lexical knowledge mediate perceptual effects of compensatory coarticulation? Evidence from research with an artificial lexicon. Paper presented at the *Workshop on Spoken Word Access Processes*, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands.
- McMurray, B. and Spivey, M.J. (1999, July) The categorical perception of consonants: the interaction of learning and processing. Paper presented at the *Empire State Speech Research Conference*, Binghamton, NY.
- McMurray, B. and Spivey, M.J. (1999, May) The categorical perception of consonants: the interaction of learning and processing. Paper presented at the *34th Meeting of the Chicago Linguistics Society*, Chicago, IL.

McMurray, B., and Spivey M.J. (1999, April) The categorical perception of consonants: the interaction of learning and processing. Paper presented at the *Second Meeting of the Northeast Cognitive Science Society*, Philadelphia, PA.

Media & Outreach

Growing Brains project featured in local media (Fall, 2020), including articles in the Cedar Rapids Gazette, and television coverage on KCRG.

Growing Words project featured in local media (Fall, 2019) including KCRG, KGAN, The Cedar Rapids Gazette, and the Little Village.

Presentation to Senator Joni Ernst's Regional Director (8/26/2019) on Growing Words project at laboratory in Cedar Rapids

Featured article in Iowa City Press-Citizen (3/22/2019) *Down to the millisecond: University of Iowa study how long it takes kids to recognize a word* (by Aimee Breax).

McMurray, B. (2019, February) Words (are very important). Presentation to the Old Capital Kiwanis Club, Iowa City, IA

Organizer, Developmental Science Day for Clinton High School Psychology Students (2018, May)

McMurray, B. (2018, April) Bridging cognitive science to real world issues in spoken language processing. Invited discussion to University of Iowa Psy Chi.

Organizer, Developmental Science Day for Clinton High School Psychology Students (2017, May)

Presentation in Psychology class at Clear Creek Amana High School (2015, December)

McMurray, B. (2015, April) From the pristine lab to the noisy classroom and back again: How the cognitive science of learning can impact teaching, and how the classroom can impact cognitive science. Presentation at University of Iowa, Lunch and Learn Series. Des Moines, IA.

Research on pigeon categorization as a model system for human word learning (Wasserman, Brooks & McMurray, 2014) was covered in *The Daily Mail*, and *Science Daily*.

Presentation in Psychology class at Clear Creek Amana High School (2014, April)

McMurray, B., Brown, C., Hazeltine, E., and Zimmermann, J. (2013, December) The Science of Learning, The Art of Teaching. Evening workshop for Teachers, Administrators and Community Members on incorporating the science of learning into teaching. Iowa City, IA.

McMurray, B. (2013, April) The Varied Practice Model (Counter-intuitive to Traditional Approaches) Incorporates "Desirable Difficulties" to Improve Automaticity for Struggling Readers. Talk Given at the *International Reading Association* (professional development conference for reading teachers), Atlanta, GA.

Ryan, D., and McMurray, B. (2013, April) Marietta City Schools' New Approaches to Intervention: Students with Special Needs. Talk Given at the *International Reading Association* (professional development conference for reading teachers), Atlanta, GA.

Presentation on Speech Communication at Hoover Elementary Family Enrichment Night (Jan, 2013). ~45 participants

Participation as Panelist in Webinar: *Reading Intervention: When the traditional mastery model doesn't work for English Language Learners*. Sponsor: Foundations in Learning, Inc. (Jan., 2013). ~560 participants

Participation as Panelist in Webinar: *Reading Intervention: When the traditional mastery model doesn't work for middle school students*. Sponsor: Foundations in Learning, Inc. (Dec, 2012)

Participation as Panelist in Webinar: *Reading Intervention: When the traditional mastery model doesn't work for middle school students*. Sponsor: Foundations in Learning, Inc. ~328 participants (Nov, 2012)

Work on variability in reading was publicized on livescience.com, patch.com (Nov, 2012)

Participation as Panelist in Webinar: *Reading Intervention: When the traditional mastery model doesn't work*. Sponsor: Foundations in Learning, Inc. ~88 participants (Oct., 2012)

Participation as Panelist in Webinar: *Reading Intervention: When the traditional mastery model doesn't work*. Sponsor: Foundations in Learning, Inc. ~100 participants (Sept, 2012)

Quoted in Associated Press article “Babies try lip-reading in learning to talk” (Jan. 2012)

SaavyDaddy.com, expert panelist (March, 2009 – present)

Quoted in Parent Magazine (Dec, 2008)

Quoted in Associated Press article “Baby birds babble just like human babies learning to talk” May, 2008

Presentation at Unitarian Universalist Community of Davenport (Oct, 2007)

Work on vocabulary explosion received significant attention including articles by
 Associated Press: “Toddler Word Spurts are Guaranteed”
 Scientific American: “What Explains Toddlers' Linguistic Leap? Math” (Aug 7, 2007)
 Daily Telegraph of London: “Toddler jabbering easy to explain” (Aug 8, 2007)
 Science News: “Calculating the Word Spurt” (Aug 18, 2007)
 New Scientist: “Computer model may explain toddlers' chattering” (Aug 2, 2007)
 Interview on CBC Radio (“and sometimes Y”)
 Why Files: “Toddler’s “vocabulary explosion,” explained”

Quoted in NY Times article on infant eye-tracking: “A Baby-Proof Method Tracks Just Where Little Ones Look” (July 31, 2007)

Research Support: External (Current), PI

Development of Real Time Spoken & Written Word Recognition: Neural Bases. R01 DC008089S1. \$2,422,727 (total). Role: PI. 2020 – 2023. Score: 13, 1st percentile.

The Development of Real Time Spoken and Written Word Recognition: Cognitive Bases of Language and Educational Outcomes. R01 DC008089 National Institute of Deafness and Other Communication Disorders. \$3,800,000. Role: PI. 2018-2022. 12/1/2018 – 11/30/2023

Decoding the neural time-course of spoken word recognition. R21DC017596. National Institute of Deafness and Other Communication Disorders. \$275,000. Role: Multi-PI. 2018-2020. 12/1/2018 – 11/30/2020.

Iowa Cochlear Implant Center VII. Project 3: Central Processing Integration and Plasticity.

P50DC000242. National Institute of Deafness and other Communication Disorders. \$2,256,240 (total for this subproject; total for P50 is \$12,321,100). Role: Co-PI. 2017-2022.

Iowa Cochlear Implant Center VII. Project 4: Cognitive Dynamics of Language Processing.

P50DC000242. National Institute of Deafness and other Communication Disorders. \$1,792,485 (total for this subproject; total for P50 is \$12,321,100). Role: PI. 2017-2022.

Research Support: External (Current), Other Roles

Cognitive Control in the Development of School readiness in Early Childhood. National Institutes of Child Health and Development. AMT??? HD 098235. Role: Co-Investigator (PI: Isaac Petersen). 2020 -2025

Human Auditory Cortex Physiology, R01 DC 004290. National Institutes of Deafness and other Communication Disorders \$666,827 / year (total). Role: Co-Investigator, 10% time (PI: Matt Howard). 2020 – 2025.

Cerebellar Interactions with the Amygdala and Prefrontal Cortex during Learning. R01 NS-0088567. National Institute of Neurological Disorders and Stroke. (\$3,497,503). Role: Co-Investigator (PI: John Freeman). 2019-2023

Beyond Segments: Towards a lexical model for tonal bilinguals. DP210102789 Australian Research Council. \$222,078 (AUD). Role: Partner Investigator (Chief Investigator: Xin Wang, Macquarie University). 2021 – 2023.

Research Support: Pending

Effects of School Disruption on Language and Reading: Real-time processes and outcomes. National Institutes of Health. \$ 2,167,789 (Direct). Role: Multiple-PI, 2022 – 2026.

Effects of School Disruption on Language and Reading: Real-time processes and outcomes. National Science Foundation. \$798,844. Role: Multiple-PI, 2022 – 2024.

The timing of dialogue: Mothers and children in poverty. National Institutes of Health. \$76,684 (direct, Iowa Sub-contract; total amount is not available). Role: Co-Investigator, 2022 – 2026

The Listening Brain – an ARC Center for Excellence. Australian Research Council. Role: international collaborator

Grant consulting

ESRC International Centre for Language and Communicative Development (LuCiD). Consultant. 2018-

Grant Consulting (Completed)

Center for Perception and Communication in Children. NIDCD. Role: Mentor for Subproject 3 (PI: Nicholas Smith; Project Director: Walt Jesteadt, Boys Town National Research Hospital). 2012 - 2015.

Seeing Speech: Building a Community. NSF. Role: Board of Advisors (PI: Diana Archangeli, University of Arizona). 2008

Research Support: External (completed)

Support for Middle School Reading Assessment (Contract). DSP# J028900-C. Foundations in Learning, Inc. \$3131 (total), Role: PI. 2019

Speech perception, acoustic variability and time: normal and impaired listeners. R01DC008089. National Institutes of Deafness and other Communication Disorders. \$1,570,000 (total). Role PI. 2011-2016 (no cost extension)

The Iowa Assessment of Skills and Knowledge for Automatic Word Recognition and Decoding (iASK): Phase II. FIL050115 (subcontract, primary grant: EDIES15C0023). Institute for Education Sciences SBIR program. \$900,000 (total) / UI subcontract: \$100,000. Role: Co-I and lead grant writer (PI: Carolyn Brown, Foundations in Learning, Inc.)

Iowa Cochlear Implant Center VI. P50DC000242 National Institutes of Deafness and other Communication Disorders. \$14,076,191 (total). Role: PI (Project Director: Bruce Gantz). 2012-2016

Common Principles in Reading and Skill Learning. 1330318 National Science Foundation. \$493,000 (total). Role: Co-PI (PI: Eliot Hazeltine). 2013 – 2016

The Iowa Assessment of Skills and Knowledge for Automatic Word Recognition and Decoding (iASK): Phase I. Institute for Education Sciences SBIR program. \$150,000 (total). Role: Co-I and lead grant writer (PI: Carolyn Brown and Jerry Zimmermann, Foundations in Learning, Inc.)

Scaling learning theory to multiple pathways: Early reading as a model system. BCS 1026794. National Science Foundation, Brain and Cognitive Sciences. \$105,000 (total). Role Co-PI.. 2010-2011

Iowa Cochlear Implant Clinical Research Center Project 5, P50DC000242. National Institutes of Deafness and other Communication Disorders. \$11,849,169 (total) Role: Investigator. -2006-2011

Lexical Integration of Acoustic Detail in Word Recognition: Cochlear Implants, ARRA supplement to DC008089. National Institutes of Deafness and other Communication Disorders. \$201,686 (total). Role: PI 2009-2010

Lexical Integration of Acoustic Detail in Word Recognition: Normal and Disordered Speech, R01DC008089. National Institutes of Deafness and other Communication Disorders. \$751,336 (total). Role PI 2007-2010

Temporal Integration of Acoustic Detail in Speech, Ruth L. Kirchstein Predoctoral National Research Service Award. (31DC006537-01). Role: PI. 2003-2004.

Research Support Internal (completed)

Pruning the associative thicket: Word learning in pigeons, people, and individuals with language learning disabilities. Vice President for Research, Major Project Grant. \$55,000 (total). Role: PI (co-investigators: Ed Wasserman and Karla McGregor)

The microstructure of word recognition in language impairment: Different deficits in inhibition and excitation? Center for Advanced Studies, Spellman-Rockefeller Awards. \$9000 Role: PI. 2006-2007

Acoustic Detail Facilitates Word Recognition, Old Gold Summer Fellowship, University of Iowa. 2005.

Research Support: Students

Spoken and Written Word Recognition in Prelingually Deaf Cochlear Implant Users. Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Evita Woolsey, 2021.

Cortical Mechanisms of Expectation Driven Modulation of Speech Perception in Normal Hearing Listeners and Cochlear Implant Users. Ruth Kirchstein Post-doctoral NRSA. National Institutes of Deafness and other Communication Disorders. Student: Andrew Liu. 2017

The development of speech categorization in late child hood. Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Ani Danelz, 2013

Early word learning in Infancy: Associative Engines, or Language-Specific Learners. Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Kelsey Wiggs, 2013

Online speech processing in pediatric and adult cochlear implant users. Ruth L. Kirchstein National Research Service Award: National Institute of Deafness and Other Communication Disorders. Student: Ashley Farris-Trimble (Post-Doc), 2011.

Examining neural processing during speech perception. Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Lisa Vangsness, 2010.

Perfecting the visual world paradigm. Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Meredith England, 2009.

Spoken word recognition: the relationship between lexical structure and acoustic detail Iowa Center for Research by Undergraduates (ICRU) Scholar Assistant. Student: Jennifer Merickel, 2007.

Exploring joint influences on infant categorization: Previous experience and how infants compare on-line between stimuli. University of Iowa Student Government Research Grant. \$1000. Student: Kristine Kovack-Lesh (graduate), 2006

Spoken word recognition in Specific Language Impairment Old Capitol Kiwanis Club. \$200. Student: Brooke Overgard (undergraduate), 2006

Acoustic Cues for Anticipation in Speech Perception. Sigma Xi: Grants in Aid of Research Program. \$400. Student: Cheyenne Munson (graduate), 2006

The Phonetic Garden Path: Infinite Sounds on a Three Lane Road. University of Iowa Honors Program, Senior Honors Thesis Grant. \$500. Student: Stephanie Huetter (undergraduate), 2006

Spoken word recognition: normalized or exemplar-based? University of Iowa, Dewey Stuit Fund. \$300. Student: Molly Robinson (undergraduate), 2006

Spoken word recognition: normalized or exemplar-based? University of Iowa Student Government / University Honors Program. \$500. Student: Molly Robinson (undergraduate), 2006

The Interplay of Continuous and Categorical Information in Speech Perception, Iowa Research Experiences for Undergraduates Award, University of Iowa. Student: Scott Spilger (undergraduate), 2005

Teaching and Student Supervision

Courses Taught (University of Iowa)

Semester	Advisees		Courses Taught	
	Undergrad	Graduate	Course number and Title	Students
Fall, 2004	2	0	31:121 Experimental Psychology II	28
Spring, 2005	5	0	31:121 Experimental Psychology II	21
			31:118 Infant Development	40
Fall, 2005	8	2	31:280 Developmental Science Proseminar	3
			31:118 Infant Development	31
Spring, 2006	9	2	31:121 Experimental Psychology II	23
Fall, 2006	7	4	31:121 Lab in Psychology	14
			31:210 Developmental Science Proseminar	14
Spring, 2007	10	4	31:118 Infant Development	34
Fall, 2007	5	4	31:210 Developmental Science Proseminar	7
Spring, 2008	7	3	<i>-- Developmental Leave --</i>	
Fall, 2008	4	4	31:210 Developmental Science Proseminar	8
Spring, 2009	8	4	31:118 Infant Development	41
Fall, 2009	7	4	31:210 Developmental Science Proseminar	8
			31:118 Infant Development	28
Spring, 2010	8	4	31:137 Language Processes	18
Fall, 2010	6	4	31:210 Developmental Science Proseminar	8
			31:330 Seminar on Speech Perception, Word Recognition and Development	20
Spring, 2011	5	4	31:137 Language Processes	14
			003:186 Problems in speech and hearing sciences (overload)	8
Fall, 2011	5	3	31:210 Developmental Science Proseminar	8
Spring, 2012	4	3	<i>-- No courses taught due to service commitments --</i>	
Fall, 2012	7	5	31:210 Developmental Science Proseminar	9
Spring, 2013	5	5	31:330 Seminar on Speech Perception	8
Fall, 2013	5	5	31:291 Auditory Cognitive Neuroscience	3
Spring, 2014	6	4	<i>-- No courses taught due to career development award --</i>	
Fall, 2014	6	4	31:210 Developmental Science Proseminar	7
			31:273 Cognitive Science of Language Proseminar	16
Spring, 2015	9	4	<i>-- No courses taught due to grant release --</i>	
Fall, 2015	7	4	PSY:6102 Cognitive Science of Language Proseminar II	12
			PSY:3670 Language Processes	20
Spring, 2016	6	4	<i>-- No courses due to grant / service release --</i>	

Fall, 2016	7	4	PSY: 5610 Proseminar in Cognition and Perception (co-taught with A. Hollingworth)	14
Spring, 2017	11	4	PSY: 6102 Cognitive Science of Language Proseminar	6
Fall, 2017	7	4	NSCI: 7301 Directed Study in Neuroscience PSY: 3670 Language Processes	7 8
Spring, 2018	11	5	PSY: 4090 Senior Seminar. The Science of Learning: From the Laboratory to Real Life	16
Fall, 2018	10	4	PSY: 5610 Proseminar in Cognition and Perception PSY: 3998 Special Section of Laboratory in Psychology	17 4
Spring, 2019	8	3	PSY 5410: Proseminar in Developmental Science	10
Fall, 2019	12	3	PSY 6101: Cognitive Science of Language Proseminar	7
Spring, 2020	9+4 (@Coe)	3	-- No courses taught due to grant release --	
Fall, 2020	9+2 (@Coe)	5	PSY: 5610 Proseminar in Cognition and Perception PSY: 7610 Seminar: Cognitive Psychology	12 16
Spring, 2020	7+1 (@Coe)	4	CDA: No teaching	
Fall, 2021	4+1 (@Coe)	4	PSY: 3670: Language Processes	16

Students Supervised (University of Iowa)

Degree	Student	Years	Outcome (and what they left to do)
Ph.D.	Kristine Kovack-Lesh	2	Ph.D. Jan, 2008 (Prof., Ripon College)
	Joseph Toscano	6	Ph.D., July, 2011 (Assistant Professor of Psychology, Villanova University)
	Cheyenne Munson	6	Ph.D., Nov., 2011 (Lecturer, Dept. of Psychology, Villanova University)
	Keith Apfelbaum	5	Ph.D., July, 2013 (Research Scientist, University of Iowa)
	Linsey Quinn-Wreidt (Linguistics)	1	Ph.D., July, 2013 (Lecturer, Dept. of English as a Second Language, U. of Iowa)
	Sarah Kucker	4	Ph.D., May, 2013 (Assistant Prof., Oklahoma State University)
	Marcus Galle	6	Ph.D., May, 2014 (Lecturer, Dept. of Psychology, University of Texas, Rio Grande Valley and Galle Farms, Inc.)
	Efthymia Kapnoula	6	Ph.D., March, 2016 (Ikerbasque Research Fellow [equivalent to US Assistant Professor], Basque Center for Brain and Language, San Sebastian / Donostia, Spain)
	Kayleen Schreiber (Neuroscience)	5	Ph.D., April, 2017 (Science Communicator, Medpace, Inc).
	Michelle Quinn (Comm. Sci & Disorders)	5	Left program

	Michael Seedorff	5	Ph.D., Biostatistics, May, 2018 (Data Scientist, Google)
	Dana Urbanski	0.5	Left Program
	Tanja Roembke	5	Ph.D., March, 2019 (Post-doc, Aachen Technical Institute, Germany)
	Kelsey Klein (Audiology)	2	Ph.D., July, 2020 (Assistant Professor, Dept. of Communication Sciences and Disorders, University of Tennessee)
	McCall Sarrett (Neuroscience)	5	Ph.D., December, 2020 (Post-Doc, Dept. of Psychological and Brain Sciences, Villanova University)
	Francis X. Smith	4	Ph.D., December, 2020 (Post-Doc, Dept. of Communication Sciences and Disorders, University of Iowa)
	Samantha Chiu	1	Ongoing
	Charlotte Jeppsen	1	Ongoing
	John Muegge	1	Ongoing
	Leah Zimmermann (Special Education)	1	Ongoing
Significant Doctoral Mentoring	Jessica Horst	2	Ph.D., May, 2008 (Assistant Prof, U. of Sussex)
	Gwyneth Rost (Comm. Sci & Disorders)	3	Ph.D., Oct. 2011 (Assistant Prof., U. of Massachusetts, Amherst)
	Vladimir Kulikov (Linguistics)	2	Ph.D. May, 2012, (now assistant professor, University of Qatar)
	Paige Nelson	1	Ongoing
Post-Doc	Shannon Ross-Sheehy	1	Left to join Spencer Lab (UI Psychology)
	Ashley Farris-Trimble	2.5	Left May, 2013; Now, Assistant Professor, Dept. of Linguistics Fraser University,
	Ariane Rhone	4	Left 2016 to become assistant research scientist, Dept. of Neurosurgery.
	Kristi Hendrickson	1	2017-2018 Assistant Professor, Dept. of Communication Sciences and Disorders, University of Iowa
	Andrew Liu	1.5	2017-2018 Otolaryngology residency at UI
	Sarah Colby	2	2018-present
	Ethan Kutlu		
Visiting Graduate Student	Tanja Roembke (Fullbright)	1	2013-2014; Ph.D., in progress (University of Iowa)
Honors Students	Stephanie Huette	1.5	BS May, 2007 (Ph.D., 2013 UC Merced; Assistant Professor, Dept. of Psychology U of Memphis)
	Molly Robinson	1.5	BS May, 2007 (Teach for America)
	Megan Mathews ⁴	1	BS May, 2008 (RA in Plumert lab)
	Mary Gannon	1	BS May, 2008
	Lea Greiner ¹	1.5	BS May, 2008 (M.S., Comm. Disorders, Iowa)
	Natasha Bullock-Rest ³	2	BA May, 2010 (RA, Dr. Sheila Blumstein, Brown)
	Jessica Walker ¹	2	BS May, 2011 (M.S., Comm. Disorders, Iowa)
	Lisa Vangsness	2	BA May, 2012
	Aimee Marino	1	BA Dec., 2012
	Kelsey Wiggs	2	BA May, 2014

	Kathryn Hiolski	2	BA Dec, 2014 (MPH, Minnesota)
	Ani Danelz ¹	2	BS, May, 2015 (M.S., Comm. Disorders, Iowa)
	Christina Blomquist	3	BA May, 2017 (Ph.D., Comm Disorders, Maryland)
	Victoria Shihadah	1	BS May, 2018 (AudD., Washington University)
	Kathleen Peters	2	BA May, 2018 (PhD., Clinical, W. Illinois)
	Abigail Simon	3	BS Dec, 2019
	Sarah Plock	2	BS Dec, 2019
	Evita Woolsey	0.5	In progress
	Camila Morales	0.5	In progress
Significant	Joel Dennhardt	1	BS May, 2005 (Residency, Radiology, U of Iowa)
Undergrad	Andrew Struck-Marcel ⁵	1	BS/BM May, 2005 (M.A., Royal College of Music)
Projects ²	Leslee Kellogg	1	BS, Dec, 2005 (Ph.D., Psych, U. Chicago)
	William McEchron	1	BA, May 2007 (SR Research)
	Scott Spilger ³	1	BA, May, 2006 (M.S., Linguistics, Wisconsin)
	Jennifer Merickel ³	1.5	BA, May, 2008 (Ph.D., U. Rochester)
	Ashley Walleth	1	BA, May, 2009 (MSW, Iowa)
	Brooke Overgard	2.25	BA, May, 2007
	Nathaniel Anderson ³	1	BS, May, 2011 (Ph.D., U. Illinois)
	Kelsey Wiggs	1.5	BS, May, 2013 (Ph.D., Indiana University)
	Max Keysar ⁵	2	BS, May, 2018 (Ph.D., University of Nevada, Las Vegas)

¹ In Dept. of Communication Sciences and Disorders

² Student did the equivalent of an honors thesis, without being part of the formal program

³ Dept of Linguistics

⁴ Dual major, psychology and art

⁵ Dual major, psychology and music

Graduate Courses Taught (University of Rochester)

CSP 502 Cognitive Foundations: Spring, 2002 (20)

Other Teaching

Iowa Summer Workshop on Connectionism: Summer, 2006 (8)

Undergraduate Research Practica (Psychology: 31:185 / PSY 2690; Communication Sciences in Disorders: 03:096 / CSD 1096; Linguistics: 103:095 / LING 2010)

Fall, 2004 (2); Spring, 2005 (4); Summer, 2005 (2); Fall, 2005 (6); Spring, 2006 (7); Summer, 2006 (2); Fall, 2006 (6); Spring, 2007 (8); Summer, 2007 (1); Fall, 2007 (3); Spring, 2008 (4); Fall, 2008 (5); Spring, 2009 (6); Fall, 2009 (7); Spring, 2010 (8); Fall, 2010 (4); Spring, 2010 (4); Fall, 2010 (4); Spring, 2011 (3); Fall, 2011(4); Spring, 2012 (2); Fall, 2012 (6); Spring, 2013 (4); Fall, 2013 (5); Spring, 2014 (5); Fall, 2014 (4); Spring, 2015 (6); Fall, 2015 (4); Spring, 2016 (3); Fall, 2016 (5); Spring, 2017 (6); Fall, 2017 (8), Spring, 2018 (9), Fall, 2018 (13), Spring, 2019 (6), Fall 2019 (9), Spring, 2020 (8); Fall, 2020 (8)

Advanced Undergraduate Research Practicum in Psychology (31:188)

Fall, 2005 (1); Spring, 2006 (1); Summer, 2006 (1), Spring, 2007 (1); Spring, 2008 (1); Spring, 2009 (1); Fall, 2009 (1); Fall, 2010 (2); Spring, 2011 (2); Fall, 2014 (2); Spring, 2014 (1); Spring, 2016 (2); Fall, 2016 (1)

Honors Research Practicum (143:100, 003:098; 31:199; HONR:3994)

Spring, 2005 (1); Fall, 2005 (1); Spring, 2006 (1); Summer, 2006 (1); Fall, 2006 (1); Spring, 2006 (1); Fall, 2007 (1); Spring, 2008 (1); Spring, 2010 (1); Spring, 2011 (1); Fall, 2011 (1); Spring, 2012 (2); Fall, 2012 (2); Fall, 2014 (1); Spring, 2015 (1); Fall, 2015 (1); Fall, 2016 (1); Spring, 2017 (1); Fall, 2017 (2); Spring, 2018 (2); Fall, 2018 (1); Spring, 2019 (2); Fall, 2019 (2); Fall, 2020 (2)

Undergraduate Honors Thesis Supervision (31:199)

Abigail Simon (CSD, 2019) Sarah Plock (CSD, 2019)
 Kathleen Peters (2018) Victoria Shihadah (CSD, 2017)
 Christina Blomquist (CSD, 2016)
 Kathryn Hiolski (2015) Ani Danelz (CSD: 2015)
 Aimee Marino (2012) Lisa Vangsness (2012) Kelsey Wiggs (2014)
 Jessica Walker (CSD: 2011) Natasha Bullock-Rest (Ling, 2010)
 Lea Greiner (CSD, 2008) Mary Gannon (2008)
 Megan Mathews (2008) Molly Robinson (2007) Stephanie Huette (2007)
 Joseph Toscano (U. of Rochester, supervised from Iowa, 2004).

Research Advisory Committee Service

Jennifer Lee	Valerie Mendez-Gallardo	Gwyneth Rost (Speech Pathology)
Stephanie Packard	Libo Zhao	Sarah Kucker
Andrew Austin	Michelle Quinn (Speech Pathology)	
Catie Hilliard	Marwa Abdalla	Francis Smith
Jodi Smith	Megan Galligan	Todd Pruner
Natalie Coventry	Tobin Dykstra	Victor Navarro
Jonathan Schacherer	Mary Adugom	Todd Pruner
Dana Urbanski	Ellen O'Donoghue	

Comprehensive Exam Committee Service

2004	Kristine Kovack	Vanessa Simmering	Kara Kosun	Jennifer Lee
2005	Brandon Abbs	Hyunkyoo Lee	Wendy Troob	
2006	Sammy Perone			
2007	Christine Ziemer	Gwyneth Rost (Speech Pathology)		
	Sasa Tomosasa (Linguistics)			
2008	Fabian Soto (chair)	Stephanie Packard	Libo Zhao	Lynn Perry
	Valerie Mendez-Gallardo			
2009	Tim Wifal (chair)	Stephanie Packard	Aaron Buss	Katherine Hagerty
2010	Michelle Quinn (Comm Dis.)		Sarah Kucker	Caglar Tas
	Fang Chi Chou (Comm Dis.)		Vladimir Kulikov (Linguistics)	
	Katy Mueller (Comm Dis.)			
2011	Lynn Perry		Shan-Ju Lin (Comm Dis.)	
2012	Shan-Ju Lin (Comm Dis.)		Mouna Attarha	
	Bryan Brown (Comm Dis.)		Dan Vatterott	
2013	Nicole Jardine		Caitlin Hilliard	
	Kelly Cole (Linguistics)		Elizabeth O'Neal	
2014	Sojeong Yoon (Comm Dis.)		Eli Asikin-Garmager (linguistics)	
	Paul Morris (Linguistics)		Francis Smith	
2015	Shaorong Yan			
2016	Todd Pruner			
2017	Jonathan Schacherer		Victor Navarro	

2019 Andy Mistak
2020 Ellen O'Donoghue

Completed Ph.D.s

Kristine Kovack (DS, 2008), now Associate Professor at Ripon College.
Jessica Horst (DS; Primary Mentor: Larissa Samuelson, 2008), now Associate Professor, University of Sussex.
Joseph Toscano (C&P, 2011), now Assistant Professor, Villanova University
Gwyneth Rost (Comm. Dis; Primary mentor: Karla McGregor, 2011), now Assistant Professor, University of Massachusetts at Amherst
Cheyenne Munson (C&P, 2011), now lecturer, University of Illinois, 2011
Vladimir Kulikov (Linguistics, 2012; Primary Mentor: Cathie Ringen), now assistant professor, University of Qatar.
Lindsey Quinn-Wreidt (Linguistics, 2013; Primary Mentor: Cathie Ringen), now visiting assistant professor, University of Iowa.
Keith Apfelbaum (C&P, 2013), Director of Research, Foundations in Learning, Inc., Coralville IA.
Marcus Galle (DS, 2014), Lecturer, University of Texas, Pan American.
Efthymia Kapnoula (C&P, 2016), Ikerbasque fellow (equivalent of assistant professor) at Basque Center for Brain and Language
Kayleen Schreiber (Neuroscience, 2017), Science Communicator, Medpace, Inc.
Michael Sedorff (Biostatistics, 2018), Data Scientist, Google
Tanja Roembke (Psychology, 2019), Post-doc, Aachen Technical Institute, Germany
Kelsey Klein (Communication Sciences and Disorders, 2020), Assistant Professor, Dept. of Communication Sciences and Disorders, University of Tennessee
Francis Smith (C, 2020), Post-doc, Dept. of Communication Sciences and Disorders, University of Iowa
McCall Sarrett (Neuroscience), Post-doc, Dept. of Psychological and Brain Sciences, Villanova University

Current Doctoral Student Supervision

Samantha Chiu	John Muegge
Charlotte Jeppsen	Leah Zimmermann (Special Education)

Completed Doctoral Student Research Projects

Vicki Samelson (Speech Pathology), 2005-2006	Jessica Horst, 2006-2008
Sunghee Lee (Speech Pathology), 2005	John Lipinski, 2005
Gwyneth Rost (Speech Pathology), 2007-2010	Stephanie Packard (C&P), 2008-2010
Tim Wifall (C&P), 2009 – 2012	Dan Brooks (BCN)
Sarah Kucker (DS), 2009 – 2013	Libo Zhao (20011-2013)
Vladimir Kulikov (Ling), 2010 – 2012	Eric Emmons (Neuroscience), 2015
Michael Freedberg (Neuroscience), 2014-2015	
Jodi Smith (Clinical), 2015-2016	Jessica Hall (CSD), 2016-2017

M.A. Committee Service

Marwa Abdulla, 2012 (DS)	Melinda Grieb, 2010 (Comm Dis)
Vicki Klein, 2005 (Speech Pathology)	

M.A. Research Supervision

Hannah Rigler (Comm Sci & Disorders)

Ph.D. Committee Service

Yu-Hisang Wu (Speech Pathology, 2006-2007)
Brandon Abbes (2007)
Hyunkyu Lee (2007-2008)
Vanessa Simmering (2008)
Hsin-Jen Hsu (Communication Disorders, 2008)
Fabian Soto (2010)
Gwyn Rost (Communication Disorders, 2010)
Valerie Mendez-Gallardo (2010-2011)
Lynn Perry (2011)
Sarah Kucker (2011-2013)
Michael Freedberg (Neuroscience, 2013-2016)
Nate Klooster (Neuroscience, 2014-2016)
Edmarie Guzman-Valez (Neuroscience, 2014-2015)
Kelly Carden (Linguistics, 2014-2016)
Naomi Hertsberg (CSD, 2016 -2019)
Sampurna Biswas (Electrical Engineering, 2017-)
Megan Lorenz (2018-2019)
Ben Rangel (2019-)

Jessica Horst (2007)
Kara Recker (2008)
Jeff Johnson (2008)
Tomosasa Sasa (Linguistics, 2008)
Damon Ng (2009)
Sammy Perone (2010)
Vladimir Kulikov (Linguistics, 2010)
Lindsey Quinn-Wriedt (Linguistics, 2011)
Aaron Buss (2012-2014)
Tim Wifall (2013-2014)
Amy Belfi (2013-2015)
Melissa Pugh (Biostatistics, 2014-2016)
Caitlin Hilliard (2014-2016)
Nicole Jardine (2017-2019)
Shuyi Yang (FLARE, 2017)
Mengtian Chen (FLARE, 2019-)
Todd Pruner (2019-)
Mary Aldugom (2021-)

External Ph.D. Committee Service

Rebecca Holt, Macquarie University (2020)
Felix Desmeules-Trudel, University of Ottawa (2018)
Titia Bender, University of Amsterdam (2013)

Mentoring / Consulting of External Students, Post-docs and Faculty

2020- Xin Wang (Assistant Professor, Dept. of Linguistics, Macquarie University)
2018- Alexis Black (Post-doctoral Scholar, Haskins Laboratories). NRSA.
2017- Tina Grieco Calub (Assistant Professor, Dept. of Communication Sciences and Disorders, Northwestern, University). R20.
2017-2018 Anne Michelle Tessier (Assistant Research Scientist, University of Michigan). K99
2015-2017 Nicholas Smith (Research Scientist, Boys Town National Research Hospital)
2015-2017 Viridiana Benitez (Post-Doc, University of Wisconsin): Mentor on grant to support careers of scholars from underrepresented groups.
2015 Heather Dial (Doctoral Student, Rice University): Mentor on application of eye-tracking / visual world methods to understand language processing in brain damaged individuals.
2015 Keith Leung (Doctoral Student, Simon Fraser University) and Charles Redmon (Doctoral Student, Kansas University): Three day intensive work shop on application of logistic regression to phonetic data.

Post-Doctoral Supervision

Ethan Kutlu (2021-)
Sarah Colby (2018-)
Kristi Hendrickson (2017-2018)

Andrew Liu (2017-present; Dept. of Otolaryngology, Dept. of Neurosurgery)
 Ariane Rhone (2012-2016; Dept. of Neurosurgery)
 Ashley Farris-Trimble (2008-2013)
 Shannon Ross-Sheehy (2007)

Service

Departmental Service

2020 Member, Promotion Committee for Clinical Professor (Anu Subramanian), Dept. of Communication Sciences and Disorders
 2019 Member, Promotion Committee (Jan Wessel), Dept. of Psychological and Brain Sciences
 2019 Member, Promotion Committee for Associate Professor of Instruction (Julie Gros-Louis), Dept. of Psychological and Brain Sciences
 2019 Member, Promotion Committee (Emilie Destruel Johnson), Dept. of French and Italian,
 2018 Search Committee, Experimental Approaches to Syntax, Dept. of Linguistics
 2018 Chair, Promotion Committee for Instructional Track Faculty member (Alicia Ambler), Dept. of English as a Second Language
 2018 Chair, Promotion Committee for Instructional Track Faculty member (Molly Kelley), Dept. of English as a Second Language
 2017- Faculty Review Committee, Dept. of Psychological and Brain Sciences, Fall, 2017-present
 2017-2018 Search Committee, Cognitive and Neural Substrates of Communication, Dept. of Communication Sciences and Disorders
 2017-2018 Search Committee, Language Development and Disorders, Dept. of Communication Sciences and Disorders
 2017-2018 Search Committee, Learning and Neuroplasticity Dept. of Psychological and Brain Sciences, Fall
 2017 Member, Promotion Committee (Christine Shea), Dept. of Spanish and Portuguese,
 2016-2017 Faculty Search Committee, Developmental Science, Dept. of Psychological and Brain Sciences
 2015-2018 Committee on Graduate Studies, 2015-2018
 2015-2017 Developmental Science Area Coordinator
 2011-2014 Building Committee
 2010-2013 Coordinator for Undergraduate Studies
 2011 Cognition Faculty Search Committee
 2010 Acting Area Coordinator, Developmental Science
 2010 Acting Director, CHILDS Facility
 2008 Redesigned Developmental Science Website
 2007-2010 Faculty Advisory Committee
 2007-2008 Developmental Science Search Committee
 2006-2007 Committee for Facilities and Security
 2006-2007 Clinical Faculty Search Committee
 2005-2007 Committee for Undergraduate Studies
 2005 Redesigned Developmental Science Website
 2004 Designed graduate student recruitment poster for Language Group
 2004 Drafted Developmental Area mission statement, Fall 2004

Teaching Service

Proseminar in Cognition and Perception (Co-Instructor with A. Hollingworth), Dept. of Psychological and Brain Sciences, Fall, 2020
Cognitive Science of Language Proseminar, Cognitive Science of Language Program, Fall, 2019
Developmental Proseminar, Dept. of Psychological and Brain Science, Spring, 2019
Proseminar in Cognition and Perception (Co-Instructor with A. Hollingworth), Dept. of Psychological and Brain Sciences, Fall, 2018.
Cognitive Science Language Proseminar II. Cognitive Science of Language Program, Spring, 2017
Proseminar in Cognition and Perception (Co-Instructor with A. Hollingworth), Dept. of Psychological and Brain Sciences, Fall, 2016.
Cognitive Science of Language Proseminar, Cognitive Science of Language Program, Spring, 2016
Cognitive Science of Language Proseminar II, Cognitive Science of Language Program, Fall, 2015
Developmental Proseminar, Developmental Science Area, Fall, 2014
Cognitive Science of Language Proseminar, Cognitive Science of Language Program, Fall, 2014
Developmental Proseminar, Developmental Science Area, Fall, 2012
Developmental Proseminar, Developmental Science Area, Fall, 2011
Developmental Proseminar, Developmental Science Area, Fall, 2010
Developmental Proseminar, Developmental Science Area, Fall, 2009
Developmental Proseminar, Developmental Science Area, Fall, 2008
Developmental Proseminar, Developmental Science Area, Fall, 2007
Experimental Psychology II, Cognition and Perception Area, Fall, 2006
Developmental Proseminar, Developmental Science Area, Fall, 2006
Experimental Psychology II, Cognition and Perception Area, Spring 2006
Developmental Proseminar, Developmental Science Area, Fall, 2005
Experimental Psychology II, Cognition and Perception Area, Spring, 2005
Experimental Psychology II, Cognition and Perception Area, Fall, 2004

University Service

2020 - Member, Search Committee, Associate Dean for Research. College of Liberal Arts and Sciences
2017 – Director, DeLTA Center, Spring, 2017 - present
2013 – Director, Cognitive Science of Language Interdisciplinary Graduate Certificate,
2017-2018 CLAS envisioning committee for Linguistics and Language sciences
2016 Chair, Search Committee, Associate Dean for Graduate Education and Outreach, College of Liberal Arts and Sciences
2015 – 2016 Secretary, Executive Committee, College of Liberal Arts and Sciences
2016 – 2017 Associate Director, DeLTA Center, Spring
2015 UI Presidential Search: co-led AAUP group to query faculty opinion on candidates
2015 Acting Director, DeLTA Center
2014 – 2015 Process Streamlining Committee, College of Liberal Arts and Science
2014 – 2017 Executive Committee, College of Liberal Arts and Sciences
2012 – 2015 Committee on premedical training, College of Liberal Arts and Sciences
2013 – 2017 Faculty Assembly, College of Liberal Arts and Sciences
2013 – 2015 Comprehensive Examination Committee, Interdisciplinary Program in Neuroscience
2011 – 2015 Treasurer, DeLTA Center
2012 – 2013 Organizing Committee: the Cognitive Science of Language Interdisciplinary Graduate Certificate

2011	Selection Committee, Michael J. Brody Award for Faculty Excellence in Service to the University and the State of Iowa
2011 – 2013	Faculty Council
2009 – 2013	Faculty Senate
2006 – 2007	Faculty Assembly, College of Liberal Arts and Sciences

Professional Service

Associate Editor

2014 – 2015	<i>Language, Cognition and Neuroscience</i>
2014 – 2015	<i>Journal of Experimental Psychology: General</i>
2011 – 2013	<i>Psychonomic Bulletin and Review</i>

Guest Associate Editor

2014	<i>Psychonomic Bulletin and Review</i> (3 papers)
2013	<i>Journal of Speech, Language, Hearing Research</i> (1 paper)

Editor, Special Section/Issue

McMurray, B., and Hollich, G. (2009) Core Computational Principles of Language Acquisition. Special Section in *Developmental Science*, 12(3)

Editorial Boards

2013-2016	<i>Infancy</i>
2008-2011	<i>Child Development</i>

Ad Hoc Review service: Journal

2021	11 total <i>Cognition</i> (1), <i>Cognitive Science</i> (1), <i>Current Directions in Psychological Science</i> (2), <i>Ear and Hearing</i> (1), <i>Journal of the Acoustical Society of America</i> (1), <i>Journal of Experimental Psychology: General</i> (1), <i>Journal of Experimental Psychology: Learning, Memory and Cognition</i> (1), <i>Language & Speech</i> (1), <i>Open Mind: Discoveries in Cognitive Science</i> (1), <i>Quarterly Journal of Experimental Psychology</i> (1).
2020	18 total <i>Cognition</i> (1), <i>Current Directions in Psychological Science</i> (1), <i>Journal of the Acoustical Society of America</i> (3), <i>Journal of Experimental Psychology: General</i> (1), <i>Journal of Experimental Psychology: Human Perception and Performance</i> (1), <i>Journal of General Psychology</i> (1), <i>Journal of Memory and Language</i> (2), <i>Journal of Speech Language Hearing Research</i> (2), <i>Neuropsychologia</i> (1), <i>Open Mind: Discoveries in Cognitive Science</i> (1), <i>Psychological Science</i> (2)
2019	8 total <i>Cognition</i> (1), <i>Cognitive Science</i> (1), <i>Developmental Science</i> (1), <i>eLife</i> (1), <i>Journal of Experimental Child Psychology</i> (2), <i>Journal of Experimental Psychology: Human Perception and Performance</i> (1), <i>Nature Communications</i> (1), <i>TopiCS</i> (1)
2018	18 total <i>Journal of the Acoustical Society of America</i> (1), <i>Cognition</i> (2), <i>Cognitive Science</i> (2), <i>eLife</i> (1), <i>Journal of Experimental Child Psychology</i> (1), <i>Journal of Speech, Language, Hearing Research</i> (3), <i>Language, Learning and</i>

- Development (1), Neuroimage (1), Open Mind: Discoveries in Cognitive Science (3), Quarterly Journal of Experimental Psychology (1), Trends in Hearing (2)*
- 2017 12 total
Cognition (1), Cognitive Science (1), Ear and Hearing (2), Journal of Experimental Psychology: Learning, Memory and Cognition (1), Journal of Memory and Language (1), Journal of Speech, Language, Hearing Research (2), Laboratory Phonology (1), Language Learning & Development (1), Open Mind: Discoveries in Cognitive Science (1), Proceedings of the National Academy of Sciences (1), Quarterly Journal of Experimental Psychology (1)
- 2016 9 total
Cognition (1), Cognitive Psychology (1), Cognitive Science (1), Ear and Hearing (1), Language, Cognition and Neuroscience (1), Memory and Cognition (1), Psychological Review (1), Psychological Science (2)
- 2015 8 total (not including associate editing at two journals)
Infancy (1), Journal of Clinical and Experimental Neuropsychology (1), Journal of Speech Language, Hearing Research (1), Proceedings of the National Academy of Sciences (2), Psychological Review (2), TopiCS (1)
- 2014 18 total (not including associate editing at two journals)
Behavioral Research Methods (1), Child Development Perspectives (1), Child Development (1), Cognition (2), Cognitive Science (1), Infancy (3), Journal of Clinical and Experimental Neuropsychology (1), Proceedings of the National Academy of Sciences (3), Psychonomic Bulletin and Review (1), Psychological Review (1), TopiCS (3)
- 2013 21 Total (not including editing at *Psychonomic Bulletin and Review*)
Behavioral Neuroscience (1), Child Development (3), Cognition (1), Developmental Psychobiology (2), Developmental Science (1), Journal of the Acoustical Society of America (1), Journal of Memory and Language (1), Journal of Speech Language Hearing Research (1), Language Learning and Development (4), Philosophical Transactions B (1), Psychonomic Bulletin and Review (2 ad-hoc), Psychological Review (2), Psychological Science (1)
- 2012 14 Total (not including editing at *Psychonomic Bulletin and Review*)
Child Development (1), Cognition (2), Cognitive Science (1), Journal of Experimental Child Psychology (2), Journal of Experimental Psychology: General (1), Journal of Experimental Psychology: Learning Memory and Cognition (1), Journal of Memory and Language (2), Journal of Speech Language Hearing Research (1), Language and Speech (1), Language, Learning and Development (1), Psychological Review (1)
- 2011 16 Total (not including editing at *Psychonomic Bulletin and Review*)
Attention, Perception and Psychophysics (1); Child Development (1); Cognitive Science (2); Frontiers in Language Sciences (2); Infancy (1); Journal of Experimental Child Psychology (3); Journal of Experimental Psychology: Learning, Memory and Cognition (1); Journal of Memory and Language (3); Journal of Phonetics (1); Journal of Speech Language and Hearing Research (1)
- 2010 36 Total

Animal Cognition (2), Attention, Perception & Psychophysics (1), Behavioral and Brain Sciences (1), Behavior Research Methods (1), Child Development (3), Cognition (3), Cognitive Science (1), Infancy (1), Journal of the Acoustical Society of America (3), Journal of Cognition and Development (1), Journal of Experimental Child Psychology (2), Journal of Experimental Psychology: Learning, Memory and Cognition (2), Journal of the International Phonetic Association (1), Journal of Memory and Language (3), Journal of Phonetics (2), Journal of Speech Language and Hearing Research (2), Language and Speech (1), Language Learning and Development (2), Psychonomic Bulletin and Review (3), Psychological Science (1)

2009

23 Total

Autonomous Mental Development (1), Attention, Perception and Psychophysics (3), Child Development (1), Cognition (1), Cognitive Science (3), Cognitive Systems Research (1), Developmental Science (1), Infancy (1), Journal of the Acoustical Society of America (5), Journal of Experimental Child Psychology (1), Journal of Memory and Language (1), Language and Cognitive Processes (1), Language and Speech (1), Language Learning and Development (1), Psychological Science (1)

2008

17 Total

Child Development (3), Cognition (2), Cognitive Science (2), Infancy (1), Journal of the Acoustical Society of America (1), Journal of Experimental Child Psychology (2), Journal of Experimental Psychology: Learning, Memory and Cognition (1), Journal of Memory and Language (1), Language and Cognitive Processes (1), Psychonomic Bulletin and Review (1), Psychological Science (2)

2007

8 Total

Cognition (1), Developmental Science (1), Journal of the Acoustical Society of America (1), Journal of Experimental Child Psychology (1), Journal of Experimental Psychology: Learning, Memory and Cognition (1), Memory and Cognition (1), Psychonomic Bulletin and Review (1), University of Santa Cruz Working Papers in Linguistics (1)

2006

4 Total

Infancy (1), Journal of the Acoustical Society of America (3)

2005

8 Total

Cognition (1), Cognitive Science (3), Current Directions in Psychological Science (1), Infancy (1), Journal of Experimental Psychology: Learning, Memory and Cognition (1), Perception and Psychophysics (1)

2004

3 Total

Infancy (2), Cognitive Science (1)

Grant Reviews, Ad-Hoc

2021 Leverhulme Trust (1)

2020 NSF, Developmental and Learning Sciences

2019 The Ohio State University, Presidential Fellowships, External Evaluator (1)

Swiss Science Foundation (1)

Leverhulme Trust (1)

- NSF Developmental and Learning Sciences (2)
- NSF Perception, Action and Cognition (1)
- 2018 NSF Linguistics (1)
- NSF Perception, Action and Cognition (3)
- Austrian Science Fund (1)
- 2017 Prince Sultan University, Saudi Arabia (1)
- NSF Perception, Action & Cognition(1)
- NSF Developmental and Learning Science (2)
- NSF Linguistics (1)
- Austrian Science Fund (1)
- 2016 Prince Sultan University, Saudi Arabia (1)
- NSF Perception, Action & Cognition (2)
- Israel Science Foundation (1)
- 2013 NSF Perception Action & Cognition (2)
- 2012 NSF Learning Sciences
- 2010 NSF Perception Action & Cognition
- NSF Developmental and Learning Sciences
- 2009 NSF BCS/Linguistics
- UK Biotechnology and Biological Sciences Research Council
- 2007 Dutch Science Ministry
- Dutch Humanities Council
- 2006 UK Engineering and Physical Sciences Research Council (EPSRC)
- 2005 NSF BCS/Linguistics
- 2001 UK Biotechnology and Biological Sciences Research Council, Joint Equipment Initiative Committee

Grant Review Boards

- 2016- National Science Foundation, Developmental and Learning Sciences, College of Reviewers
- 2013-2015 National Science Foundation, Perception, Action and Cognition Program, College of Reviewers

Grant Review Panels

- 2021 NSF, Cognitive Neuroscience Panel
- 2021 National Institutes of Health, Special Emphasis Panel: P50
- 2020 National Institutes of Health, Special Emphasis Panel: K99s
- 2019 National Institutes of Health, Special Emphasis Panel
- 2018 National Institutes of Health, Special Emphasis Panel
- 2015 National Institutes of Health, LCOM Study Section, Temporary Member
- 2013 National Institutes of Health, BBBP-J (03) Special emphasis Panel
- 2007 National Science Foundation, Human and Social Dynamics Panel

Grant Site Visit

- 2013 National Science Foundation; University of California San Diego, Temporal Dynamics of Learning Center

Board of Advisors

2019 James S. McDonnell Foundation, Understanding Human Cognition, Ad-Hoc advisor

Review Service: Books and Book Proposals

2015 Essays in Speech Processes: Language Production and Perception. (1 chapter)

2013 APA book proposal review for series on language development (1 proposal)

2013 Taylor and Francis (five chapters of a psycholinguistics textbook)

2013 Board of advisors: *Theoretical and Computational Models of Word Learning* (G. Hollich & L. Gogate, Eds.), 2013

2006 Oxford University Press (1 Book, 1 Proposal)

Other Book Chapters (2)

Conference Board of Advisors

2011-present *Auditory Cognitive Neuroscience Conference*

Conference Panels

2020 Cognitive Science Society

2020 Building Linguistic Systems Workshop, York, UK

2013 European Association of Computational Linguistics

2009 Meeting of the Cognitive Science Society

2008 Meeting of the Cognitive Science Society

2008 Experimental and Theoretical Advances in Prosody

2006 Meeting of the Cognitive Science Society

2004 Meeting of the Cognitive Science Society

National Committees

2021 Member, Selection Committee, Grawemeyer Award

2019 Member, Selection Committee, Boyd McCandless Award. APA Division 7.

2015 Member, Selection Committee, Early Career Award. APA

2013 Member, Selection Committee, Early Career Outstanding Paper Award. APA Division 7

2011 – 2012 Chair, Selection Committee, Boyd McCandless Award. APA Division 7.

Conference Organization

Member of the 2006 Mid-Continental Workshop on Phonology organizing committee (sponsored by the University of Iowa, Dept. of Linguistics).

Other

2021 Turku University, Dept. of Psychology and Speech Pathology, external reviewer for associate professor search (7 candidates)

2021 Aachen Technical Institute, Dept. of Psychology, External Grant Evaluator for pre-proposal.