

Michael N. Jones

Department of Psychological and Brain Sciences
Indiana University
Bloomington, IN, 47405
Phone: (812) 856-1490 Fax: (812) 855-4691
Email: jonesmn@indiana.edu

William and Katherine Estes Chair

Editor-in-Chief, *Behavior Research Methods*

Director, IU Cognitive Computing Laboratory: <http://compcog.com>

1. Education

2004: Ph.D. Psychology (Queen's University; Advisor: Doug Mewhort)
2001/2004: Levels I and II Certification in Scientific Computing (Centre for Advanced Computing)
2001: M.A. Psychology (Queen's University)
1999: B.A. (Hon) Psychology (Nipissing University)

2. Research Interests

Computational models of memory and language
Big data approaches to cognitive science
Knowledge-based intelligent systems
Computational synthesis of neuroimaging data
Statistical methodology for analyzing large-scale data
Automated learning and training technologies

3. Professional Experience

Current Titles:

William and Katherine Estes Endowed Chair
Professor of Cognitive Science
Professor of Psychological and Brain Sciences
Adjunct Professor of Informatics
Affiliated Faculty, Program in Neuroscience
Affiliated Faculty, Network Science Institute

Rank Trajectory:

2017-Present: Full Professor
2015-Present: Endowed Chair
2013-2017: Associate Professor [parental leave, fall 2014]
2006-2013: Assistant Professor [parental leave, spring 2010]

2005-2006:

NSERC Postdoctoral Research Fellow at the Institute of Cognitive Science, University of Colorado, Boulder
(Advisors: Tom Landauer and Walter Kintsch)

4. Funding and Awards

4.1 Research Funding

- 2016-2019: “Learning: Brains, Machines and Children” (Co-I; PI Linda Smith) IU Emerging Areas of Research (EAR) Inaugural Grant, \$3,000,000.
- 2015-2018: “Developing Computer-Based Guided Retrieval Practice Systems for Elementary Children” (collaborative grant w/ Jeff Karpicke, Purdue), Institute of Education Sciences, \$1,500,000.
- 2014-2015: “Building Statistical Language Processing Algorithms for the Automated Coding of Semi-Structured Interview Data in Clinical Schizophrenia (PI), IU Collaborative Research Grant, \$65,434 direct costs.
- 2014-2015: “Statistical segmentation of child learning outcomes using guidance of a semantic model” (PI), IU Faculty Research Support Program, \$46,895 direct costs.
- 2013-2014: “Comparing mechanisms of memory search and spatial search in young and old adults” (Co-PI; PI: Josh Brown), Indiana Imaging Research Facility Pilot Grant: \$12,000 direct costs.
- 2012-2016: NIH-R01: “Large-Scale Automated Synthesis of Human Functional Neuroimaging Data” (Co-PI; PI: Yarkoni), NIMH Neurotechnology program, \$2,754,805.
- 2011-2016: NSF-CAREER: “Integrating Perceptual and Linguistic Information in Models of Semantic Representation” (PI), \$453,674 (BCS-1056744).
- 2012-2013: IU Outstanding Junior Faculty Award: “Integrating Human and Machine Intelligence for Information Retrieval Applications” (PI), \$14,500 direct costs.
- 2010-2012: Google Research Award: “Exploring Perceptually Grounded Vector Space Models of Semantic Representation” (PI), \$50,000 direct costs.
- 2009-2010: NIH-CTSI: “Network Models of Semantic Degradation” (PI). \$65,178 direct costs (NIH-RR025761)
- 2008-2009: “Developing Cognitive Models for Early Identification of Alzheimer’s Disease from Semantic Data” (PI). IU FRSP grant, \$65,615 direct costs.
- 2006-2007: IU FRSP: “Mechanisms of Cognitive Search in Humans” (Co-PI), \$67,746 direct costs.

4.2 Academic Awards

- 2016: Best Paper of Year Award: *Canadian Journal of Experimental Psychology*
- 2014: Psychonomic Society Outstanding Early Career Award
- 2012: FABBS Early Career Investigator Award
- 2012: Indiana University Outstanding Junior Faculty Award
- 2011: National Science Foundation CAREER Award
- 2008: Honorable Mention: Microsoft Early Faculty Fellowship (after being selected as single candidate put forward at the university level by IU)
- 2005-2007: Natural Sciences and Engineering Research Canada Postdoctoral Research Fellowship
- 2003-2004: Sun Microsystems/HPCVL Scholarship in Computational Science
- 2002-2004: Natural Sciences and Engineering Research Canada Post-Graduate Scholarship
- 2002-2003: Sun Microsystems/HPCVL Scholarship in Computational Science
- 2003: Castellan Award for Best Student Paper; *Society for Computers in Psychology*
- 2003: Donald O. Hebb Award for Best Student Paper; *CSBBCS*
- 2002-2003: Queen’s University Graduate Award
- 2002-2003: Ontario Graduate Scholarship
- 2000-2002: Natural Sciences and Engineering Research Canada Julie Payette Research Scholarship
- 2001: Canadian Psychological Association Certificate of Academic Excellence for best Master’s thesis
- 2000-2001: Ontario Graduate Scholarship
- 2000: Christopher Knapper Award for Excellence in Teaching
- 1999-2000: Queen’s University Graduate Award
- 1999-2000: OGS Science and Technology Top Up Award

- 1999-2000: Ontario Graduate Scholarship
 1999 President's Gold Medal Award (highest GPA in graduating class; undergraduate)

5. Research Dissemination

I am **bold**, graduate students/postdocs working under my mentorship are *italicized*.

5.1 Books

1. **Jones, M. N.** (Ed.) (2017). *Big Data in Cognitive Science*. Psychology Press: Taylor & Francis.

5.2 Papers Under Review or Revision

1. Vinson, D. W., Dale, R., & **Jones, M. N.** (R&R). Decision contamination in the wild: Sequential dependencies in online review ratings.
2. Johns, B. T., **Jones, M. N.**, & Mewhort, D. J. K. (under review). Experience as a Free Parameter in the Cognitive Modeling of Language.
3. *Dye, M.*, Johns, B. T., Ramscar, M., & **Jones, M. N.** (under review). The structure of names in memory: Deviations from uniform entropy impair memory for linguistic sequences.
4. Johns, B. T., **Jones, M. N.**, & Mewhort, D. J. K. (under review). A Continuous Source Reinstatement Model of True and Illusory Recollection.
5. Johns, B. T., Sheppard, C., **Jones, M. N.**, & Taler, V. (under review). Determining the Linguistic Information Sources Underlying Verbal Fluency Performance across Aging and Cognitive Impairment.
6. Minor, K. S., *Willits, J. A.*, Marggraf, M. P., **Jones, M. N.**, & Lysaker, P. H. (under review). Automated analysis of speech in schizophrenia: Dysregulated cohesion predicts cognitive deficits.

5.3 Refereed Publications

1. Minor, K. S., *Willits, J. A.*, Marggraf, M. P., **Jones, M. N.**, & Lysaker, P. H. (in press). Measuring disorganized speech in schizophrenia: automated analysis explains variance in cognitive deficits beyond clinician-rated scales. *Psychological Medicine*.
2. *Montag, J. L.*, **Jones, M. N.**, & Smith, L. B. (in press). Quantity, quality and contexts of talk to children: How distributions of words may vary across early word learning environments. *Cognitive Science*.
3. *Willits, J. A.*, *Rubin, T.*, **Jones, M. N.**, Minor, K. S., & Lysaker, P. H. (in press). Evidence of disturbances of deep levels of semantic cohesion within personal narratives in schizophrenia. *Schizophrenia Research*.
4. Jamieson, R. K., Johns, B. T., Avery, J. E., & **Jones, M. N.** (2018). An instance theory of distributional semantics. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.
5. *Avery, J. E.*, & **Jones, M. N.** (2018). Comparing models of semantic fluency: Do humans forage optimally or walk randomly? *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.
6. *Dachapally, P. R.*, & **Jones, M. N.** (2018). Catastrophic interference in neural embedding models. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.
7. *Asr, F. T.*, Zinkov, R., & **Jones, M. N.** (2018). Querying word embeddings for similarity and relatedness. In H. Ji and A. Stent (Eds.) *Proceedings of the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*.
8. **Jones, M. N.** (2018). When does abstraction occur in semantic memory: Insights from distributional models. *Language, Cognition, and Neuroscience*.
9. **Jones, M. N.**, Gruenenfelder, T. M., & *Recchia, G.* (2018). In defense of spatial models of semantic representation. *New Ideas in Psychology*.

10. **Jones, M. N., & Dye, M. W.** (2018). Big data methods for discourse analysis. In Schober, M. F., Rapp, D. N., & Britt, M. A. (Eds.) *Handbook of discourse processes, 2nd Edition*. New York, NY: Routledge. pp. 117-124.
11. *Rubin, T. N., Koyejo, O., Gorgolewski, K. J., Jones, M. N., Poldrack, R. A., & Yarkoni, T.* (2017). Decoding brain activity using a large-scale probabilistic functional-anatomical atlas of human cognition. *PLOS Computational Biology*.
12. Johns, B. T., Taler, V., Pisoni, D. B., Farlow, M. R., Hake, A. M., Kareken, D. A., Unverzagt, F. W., & **Jones, M. N.** (2017). Cognitive Modeling as an Interface between Brain and Behavior: Measuring the Semantic Decline in Mild Cognitive Impairment. *Canadian Journal of Experimental Psychology*.
13. **Jones, M. N.** (2017). Modeling human learning to inform machine learning. In *Lecture Notes in Computer Science: High Performance Computing Systems and Applications*. Springer Berlin Heidelberg.
14. **Jones, M. N., Dye, M., & Johns, B. T.** (2017). Context as an organizing principle of the lexicon. In B. Ross (Ed.), *The Psychology of Learning and Motivation*.
15. *Asr, F. T., & Jones, M. N.* (2017). An Artificial Language Evaluation of Distributional Semantic Models. *Proceedings of the ACL Conference on Natural Language Learning (CoNLL)*.
16. *Dye, M., Jones, M. N., Yarlett, D., & Ramscar, M.* (2017). Refining the distributional hypothesis: A role for time and context in semantic representation. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.
17. *Dye, M., Jones, M. N., & Shiffrin, R. M.* (2017). Vanishing the mirror effect: The influence of prior history & list composition on recognition memory. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.
18. *Dye, M., Ramscar, M., & Jones, M. N.* (2017) Representing the richness of linguistic structure in models of episodic memory. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.
19. *Dye, M., Jones, M. N., & Ramscar, M.* (2017). Sensitivity to linguistic structure emerges as a function of expertise. *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.
20. *Yee, E., Jones, M. N., & McRae, K.,* (2017). Semantic memory. *The Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience, Fourth Edition*. J. Wixted & S. Thompson-Schill (Eds). Wiley, UK.
21. Johns, B. T., Mewhort, D. J. K., & **Jones, M. N.** (2017). Small worlds and big data: Examining the simplification assumption in cognitive modeling. In M. Jones (Ed.), *Big Data in Cognitive Science*. Taylor & Francis: Psychology Press.
22. **Jones, M. N.** (2017). Mining large-scale naturalistic data to inform cognitive theory. In M. N. Jones (Ed.), *Big Data in Cognitive Science*. New York: Taylor & Francis.
23. *Rubin, T., Koyejo, O., Jones, M. N., & Yarkoni, T.* (2016). Generalized correspondence LDA-models (GC-LDA) for identifying functional regions in the brain. *Advances in Neural Information Processing Systems*
24. Johns, B. T., Sheppard, C., **Jones, M. N., & Taler, V.** (2016). The Role of Semantic Diversity in Lexical Organization across Aging and Bilingualism. *Frontiers in Psychology*, 7, 703 (11 pages). doi: 10.3389/fpsyg.2016.00703
25. *Asr, F. T., Willits, J. A., & Jones, M. N.* (2016). Comparing predictive and co-occurrence based models of lexical semantics trained on child-directed speech. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
26. *Szary, J. K., & Jones, M. N.* (2016). Semantic, lexical, and geographic cues are used in geographic fluency. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
27. Johns, B. T., **Jones, M. N., & Mewhort, D. J. K.** (2016). Experience as a free parameter in the cognitive modeling of language. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
28. *Willits, J. A., Jones, M. N., & Landy, D.* (2016). Learning that numbers are the same, while learning that they are different. *Proceedings of the 38th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

29. Johns, B. T., Jamieson, R. K., Crump, M. J. C., **Jones, M. N.**, & Mewhort, D. J. K. (2016). The combinatorial power of experience. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
30. Szary, J. K., & **Jones, M. N.** (2016). Semantic, lexical, and geographic cues are used in geographic fluency. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
31. Vinson, D. W., Dale, R., & **Jones, M. N.** (2016). Decision contamination in the wild: Sequential dependencies in Yelp review ratings. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
32. Dye, M. W., Johns, B. T., Ramscar, M., & Jones, M. N. (2016). An information-theoretic approach to quantifying change in proper name entropy. *Proceedings of the 38th Meeting of the Cognitive Science Society*.
33. Johns, B. T., Dye, M. W., & **Jones, M. N.** (2015). The influence of contextual variability in word learning. *Psychonomic Bulletin & Review*. DOI 10.3758/s13423-015-0980-7
34. Montag, J. L., **Jones, M. N.**, & Smith, L. B. (2015). The words children hear: Picture books and the statistics for language learning. *Psychological Science* 26(9), 1489-1496. doi:10.1177/0956797615594361
35. Gruenenfelder, T. M., Recchia, G., Rubin, T., & **Jones, M. N.** (2015). Graph-theoretic properties of networks based on word association norms: Implications for models of lexical semantic memory. *Cognitive Science*.40, 1460–1495. DOI: 10.1111/cogs.12299
36. Hills, T. T., Todd, P. M., & **Jones, M. N.** (2015). Foraging in semantic fields: How we search through memory. *Topics in Cognitive Science*, 7, 513-534. DOI: 10.1111/tops.12151
37. Johns, B. T., & **Jones, M. N.** (2015). Generating structure from experience: A retrieval-based model of language processing. *Canadian Journal of Experimental Psychology*, 69, 233-251. <http://dx.doi.org/10.1037/cep0000053>
Winner of 2015 CPA/CSBBCS CJEP Best Article Award.
38. **Jones, M. N.**, Hills, T. T., & Todd, P. M. (2015). Hidden processes in structural representations: A reply to Abbott, Austerweil, & Griffiths. *Psychological Review*, 122, 570-574. <http://dx.doi.org/10.1037/a0039248>
39. **Jones, M. N.**, Willits, J., & Dennis, S. (2015). Models of semantic memory. In Busemeyer, Wang, Townsend, & Eidels (Eds.) *Oxford Handbook of Mathematical and Computational Psychology*. Oxford University Press. 232-254.
40. Riordan, B., Dye, M., & **Jones, M. N.** (2015). Grammatical number processing and anticipatory eye movements are not tightly coordinated in English spoken language comprehension. *Frontiers in Psychology*, 6, 590. (11 pages). <http://dx.doi.org/10.3389/fpsyg.2015.00590>
41. Recchia, G. L., Sahlgren, M., Kanerva, P., & **Jones, M. N.** (2015). Encoding sequential information in vector space models of semantics: Comparing holographic reduced representation and random permutation. *Computational Intelligence & Neuroscience*. (18 pages). <http://dx.doi.org/10.1155/2015/986574>
42. Johns, B. T., Dye, M. W., & **Jones, M. N.** (2014). The influence of contextual variability on word learning. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. pp. 242-247.
43. Rubin, T. N., Willits, J. A., Kievit-Kylar, B. & **Jones, M. N.** (2014). Organizing the space and behavior of semantic models. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. pp. 1329-1334.
44. Johns, B. T., **Jones, M. N.**, & Mewhort, D. J. K. (2014). A continuous source reinstatement model of true and illusory recollection. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. pp. 248-253.
45. Johns, B. T., & **Jones, M. N.** (2014). Generating structure from experience: The role of memory in language. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. pp. 254-259.

46. Taler, V., Johns, B. T., Young, K., Sheppard, C., & Jones, M. N. (2013). A computational analysis of semantic structure in bilingual verbal fluency performance. *Journal of Memory and Language*, 69(4), 607-618.
47. Johns, B. T., Taler, V., Pisoni, D. B., Farlow, M. R., Hake, A. M., Kareken, D. A., Unverzagt, F. W., & Jones, M. N. (2013). Using cognitive models to investigate the temporal dynamics of semantic memory impairments in the development of Alzheimer's disease. In the *Proceedings of the 12th International Conference on Cognitive Modeling (ICCM)*, pp. 23-28.
48. Kievit-Kylar, B., Kachergis, G., & Jones, M. N. (2013). Naturalistic word-concept pair learning with semantic spaces. In M. Knauff et al. (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. pp. 2716-2721.
49. McRae, K., & Jones, M. N. (2013). Semantic memory. In D. Reisberg (Ed.) *The Oxford Handbook of Cognitive Psychology*. Oxford University Press. pp. 206-219.
50. Recchia, G. L., & Jones, M. N. (2012). Semantic richness in abstract word representation. *Frontiers in Human Neuroscience*, 6, A315: 1-16. <http://dx.doi.org/10.3389/fnhum.2012.00315>
51. Johns, B. T., Jones, M. N., & Mewhort, D. J. K. (2012). A synchronization account of false recognition. *Cognitive Psychology*, 65, 486-518.
52. Kievit-Kylar, B., & Jones, M. N. (2012). Visualizing multiple word similarity measures. *Behavior Research Methods*, 44, 656-674.
53. Johns, B. T., Gruenenfelder, T. M., Pisoni, D. B., & Jones, M. N. (2012). Effects of word frequency, contextual diversity, and semantic distinctiveness on spoken word recognition. *Journal of the Acoustical Society of America*, 132:2, EL74-EL80.
54. Hills, T. T., Jones, M. N., & Todd, P. T. (2012). Optimal foraging in semantic memory. *Psychological Review*, 119, 431-440.
55. Johns, B. T., & Jones, M. N. (2012). Perceptual inference from global lexical similarity. *Topics in Cognitive Science*, 4:1, 103-120.
56. Jones, M. N., Johns, B. T., Recchia, G. L. (2012). The role of semantic diversity in lexical organization. *Canadian Journal of Experimental Psychology*, 66, 121-132.
57. Cox, G., Kachergis, G., Recchia, G., & Jones, M. N. (2011). Towards a scalable holographic representation of word form. *Behavior Research Methods*, 43, 602-615.
58. Holtzman, N. S., Schott, J. P., Jones, M. N., Balota, D. A., & Yarkoni, T. (2011). Exploring media bias with semantic space models. *Behavior Research Methods*, 43, 193-200.
59. Jones, M. N., Gruenenfelder, T. M., & Recchia, G. (2011). In defense of spatial models of lexical semantics. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 3444-3449). Austin, TX: Cognitive Science Society.
60. Kievit-Kylar, B., & Jones, M. N. (2011). The semantic Pictionary project. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 2229-2234). Austin, TX: Cognitive Science Society.
61. Johns, B. T., & Jones, M. N. (2011). Construction in semantic memory: Generating perceptual representations with global lexical similarity. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 767-772). Austin, TX: Cognitive Science Society. **Winner of Marr Award for Best Student Paper.**
62. Kachergis, G., Cox, G. E., & Jones, M. N. (2011). OrBEAGLE: Integrating orthography into a holographic model of the lexicon. *Artificial Neural Networks and Machine Learning*, 6971, 307-314.

63. Zotov, V., **Jones, M. N.**, & Mewhort, D. J. K. (2011). Contrast and assimilation in categorization and exemplar production. *Attention, Perception, & Psychophysics*, *73*, 621-639.
64. *Johns, B. T.*, & **Jones, M. N.** (2010). Evaluating the random representation assumption of lexical semantics in cognitive models. *Psychonomic Bulletin & Review*, *17*, 662-672.
65. *Riordan, B.*, & **Jones, M. N.** (2010). Redundancy in linguistic and perceptual experience: Comparing distributional and feature-based models of semantic representation. *Topics in Cognitive Science*, *3:2*, 303-345.
66. Mozer, M. C., Pashler, H., Wilder, M., Lindsey, R., Jones, M. C., & **Jones, M. N.** (2010). Decontaminating human judgments by removing sequential dependencies. In J. Lafferty, C. K. I. Williams, J. Shawe-Taylor, R. S. Zemel, & A. Culota (Eds.), *Advances in Neural Information Processing Systems 23* (pp. 1705-1713). Cambridge, MA: MIT Press.
67. **Jones, M. N.**, & *Recchia, G. L.* (2010). You can't wear a coat rack: A binding framework to avoid illusory feature migrations in perceptually grounded semantic models. In S. Ohlsson and R. Catrambone (Eds.) *Proceedings of the 32nd Annual Cognitive Science Society*, (pp. 877-882). Austin TX: CSS.
68. *Recchia, G. L.*, **Jones, M. N.**, Sahlgren, M., & Kanerva, P. (2010). Encoding sequential information in vector space models of semantics: Comparing holographic reduced representation and random permutation. In S. Ohlsson and R. Catrambone (Eds.) *Proceedings of the 32nd Annual Cognitive Science Society*, (pp. 865-870). Austin TX: CSS.
69. *Johns, B. T.*, & **Jones, M. N.** (2010). Are random representations accurate approximations of lexical semantics? In S. Ohlsson and R. Catrambone (Eds.) *Proceedings of the 32nd Annual Cognitive Science Society*, (pp. 55-60). Austin TX: CSS.
70. Hare, M., **Jones, M. N.**, Thomson, C., Kelly, S., & McRae, K. (2009). Activating event knowledge. *Cognition*, *111* (2), 151-167.
71. *Recchia, G. L.*, & **Jones, M. N.** (2009). More data trumps smarter algorithms: Comparing pointwise mutual information with latent semantic analysis. *Behavior Research Methods*, *41*, 657-663.
72. *Johns, B. T.* & **Jones, M. N.** (2009). False recognition through semantic amplification. In N. A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31st Annual Cognitive Science Society*, (pp. 2795-2800). Austin TX: CSS.
73. *Hills, T. T.*, Todd, P. M., & **Jones, M. N.** (2009). Optimal foraging in semantic memory. In N. A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31st Annual Cognitive Science Society*, (pp. 66-72). Austin TX: CSS.
74. *Johns, B. T.*, & **Jones, M. N.** (2009). Simulating false recall as an integration of semantic search and recognition. In N. A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31st Annual Cognitive Science Society*, (pp. 2511-2516). Austin TX: CSS.
75. *Johns, B. T.*, & **Jones, M. N.** (2008). Predicting word-naming and lexical decision times from a semantic space model. In V. Sloutsky, K. McRae, & B. Love (Eds.), *Proceedings of the 30th Cognitive Science Society Meeting*, 279-284.
76. *Recchia, G.*, *Johns, B. T.*, & **Jones, M. N.** (2008). Context repetition benefits are dependent on context redundancy. In V. Sloutsky, K. McRae, & B. Love (Eds.), *Proceedings of the 30th Cognitive Science Society Meeting*, 267-272.
77. *Landy, D. L.*, **Jones, M. N.**, & Goldstone, R. L. (2008). How the appearance of an operator affects its formal precedence. In V. Sloutsky, K. McRae, & B. Love (Eds.), *Proceedings of the 30th Cognitive Science Society Meeting*, 2109-2114.
78. **Jones, M. N.** & Mewhort, D. J. K. (2007). Representing word meaning and order information in a composite holographic lexicon. *Psychological Review*, *114*, 1-37. **Lead article.**
79. *Riordan, B.*, & **Jones, M. N.** (2007). Comparing semantic space models using child-directed speech. In D. S. MacNamara & J. G. Trafton (Eds.), *Proceedings of the 29th Cognitive Science Society Meeting*, 599-604.

80. Mozer, M. C., **Jones, M. N.**, & Shettel, M. (2006). Context effects in category learning: An investigation of four probabilistic models. *Advances in Neural Information Processing Systems, 19*. Cambridge, MA: MIT Press.
81. **Jones, M. N.**, Kintsch, W., & Mewhort, D. J. K. (2006). High-dimensional semantic space accounts of priming. *Journal of Memory and Language, 55*, 534-552. (Special issue on computational models of memory)
82. **Jones, M. N.** (2005). *Learning semantics and word order from statistical redundancies in language: A computational approach*. Doctoral Dissertation, Queen's University.
83. Mills, J. F., **Jones, M. N.**, & Kroner, D. G. (2005). An examination of the generalizability of the LSI-R and VRAG probability bins. *Criminal Justice and Behavior, 32*, 565-585.
84. **Jones, M. N.**, & Mewhort, D. J. K. (2004). Case-sensitive letter and bigram frequency counts from large-scale English corpora. *Behavior Research Methods, Instruments, and Computers, 36*, 388-396.
85. **Jones, M. N.**, & Mewhort, D. J. K. (2004). Tracking attention with the focus-window technique: The information filter must be calibrated. *Behavior Research Methods, Instruments, and Computers, 36*, 270-276.
86. Chow, P., **Jones, M. N.**, & Loerke, D. R. B. (2002). The psychometric benefits of soft-linked items: A reply to Pope and Harley. *Journal of Instructional Psychology, 29*, 222-225.
87. **Jones, M. N.**, Thorn, C. R., Chow, P., Thompson, I. S., & Wilde, C. (2002). Equifinality: Parents' and students' attitudes towards a student-centered approach to integration. *Education, 122*, 624-635.
88. Loerke, D. R. B., **Jones, M. N.**, & Chow, P. (1999). Psychometric benefits of soft linked scoring algorithms in achievement testing. *Education, 120*, 273-280.

5.4 Other Publications

1. Jamieson, R. K., & **Jones, M. N.** (2012). Introduction: Essays in honour of Douglas Mewhort. *Canadian Journal of Experimental Psychology, 66*, 81-82.

5.5 Papers in Progress

1. **Jones, M. N.** (in prep). What does 'Big Data' mean for the future of psychological science? Invited contribution.
2. **Jones, M. N.** (in prep). Mining big data with cognitive models. Invited contribution to special issue. *Current Opinion in Behavioral Sciences*.
3. *Willits, J. A.*, & **Jones, M. N.**, (in prep). What can children learn from 6 million words?
4. *Rubin, T.*, *Willits, J. A.*, *Lysaker, P.*, & **Jones, M. N.** (in prep). Automated coding of semi-structured interview data in clinical Schizophrenia with NLP algorithms.
5. *Rubin, T. N.*, *Kievit-Kylar, B.*, *Willits, J. A.*, & **Jones, M. N.** (in prep). Organizing the space and behavior of semantic models.
6. **Jones, M. N.**, & *Recchia, G. L.* (in prep). Illusory feature migrations in perceptually grounded semantic space models.
7. **Jones, M. N.**, *Jakobsson, M.*, *Kievit-Kylar, B.*, *Tamir, D.*, *Siadati, H.*, & *Akavipat, R.* (in prep). Using cognitive models to identify efficient, secure, and memorable passwords.
8. *Willits, J. A.*, & **Jones, M. N.** (in prep). What units do statistical learners track? Evidence from children's learning of nouns and verbs.
9. *Willits, J. A.*, *Rammel, S.*, *Kronenberger, W.*, *Pisoni, D. B.*, & **Jones, M. N.** (in prep). Individual differences in semantic memory differences in prelingually deaf children with cochlear implants.
10. *Johns, B. T.*, *Taler, V.*, & **Jones, M. N.** (in prep) Determining the linguistic information sources underlying verbal fluency performance across aging and cognitive impairment.

11. Recchia, G. L., & **Jones, M. N.** (in prep). Qualitatively different representations for abstract and concrete words? An investigation of the QDR hypothesis.

5.6 Invited Colloquia

1. **Jones, M. N.** (2018). Advancing Psychological Theory by Mining Big Data. Leading Edge Keynote, International Congress of Applied Psychology (ICAPS), Montreal, QC.
2. **Jones, M. N.** (2018). Searching Semantic Memory: Do Humans Forage Optimally or Walk Randomly? Keynote address, Biannual Show-Me conference, Washington University, St. Louis.
3. **Jones, M. N.** (2018). Modeling Exploration and Exploitation in Search of Semantic Memory. Invited Colloquium: Center for Behavioral and Decision Research, Carnegie Mellon University.
4. **Jones, M. N.** (2017). Growing Semantic Representations: The Emergence of Semantic Structure in Vector Accumulation Models. Invited Colloquium: Department of Psychology, Notre Dame.
5. **Jones, M. N.** (2017). Modeling Human Learning to Inform Machine Learning. Keynote Address: High Performance Computing Symposium, Queen's University.
6. **Jones, M. N.** (2016). Growing Semantic Representations: The Emergence of Semantic Structure in Continuous Vector Space Models. Invited Address: Emergent Meaning: Neural, Social, and Computational Perspectives. Lehigh University.
7. **Jones, M. N.** (2016). Scaling Models of Human Knowledge Representation. Sir Francis Crick Interdisciplinary Lecture: University of Evansville.
8. **Jones, M. N.** (2015). Scaling Models of Human Semantic Abstraction. Invited Colloquium: Institute of Cognitive Science, University of Colorado.
9. **Jones, M. N.** (2014). Mining data with human models of semantic memory: Text, images, baby speech, and the entire neuroimaging literature. Invited talk at "Data on the Mind" NSF workshop on big data in psychology. University of California, Berkeley
10. **Jones, M. N.** (2014). Scaling Models of Human Semantic Abstraction. Invited Colloquium: University of Rochester.
11. **Jones, M. N.** (2014). Big Data and Models of Human Semantic Learning. Invited Colloquium: Purdue University.
12. **Jones, M. N.** (2014). Big Data: Understanding Patterns of Human Behavior. Cross-cutting Symposium at Association for Psychological Science Convention, San Francisco.
13. **Jones, M. N.** (2013). Big Data and the Future of Theorizing in Psychological Science. Presidential Symposium at the 43rd Annual Meeting of the Society for Computers in Psychology, Toronto, Canada.
14. **Jones, M. N.** (2013). Big Data and the Science of Learning: Cognitive Models for Individualized Student Learning. Advanced Technology & Projects Division, Google/Motorola Research.
15. **Jones, M. N.** (2013). Enfolding Multiple Information Sources in Vector Space Models of Lexical Semantics Keynote address at the 12th International Conference on Cognitive Modeling (ICCM), Ottawa, Canada.
16. **Jones, M. N.** (2013). Spherical cow tipping: Why industry should care about modeling your brain and how it works. Invited talk: Ottawa Cognitive Science Meetup Group.
17. **Jones, M. N.** (2012). Integrating models from computational linguistics and computational psycholinguistics for practical tasks. Invited colloquium: School of Informatics, University of Edinburgh.
18. **Jones, M. N.** (2012). Modeling search in semantic memory. Invited colloquium: Department of Psychology, Purdue University.

19. **Jones, M. N.** (2011). Crowdsourcing perceptual features at multiple levels: The Semantic Pictionary Project. Invited colloquium: University of Memphis and the Institute for Intelligent Systems.
20. **Jones, M. N.** (2011). Modeling search in semantic memory. Invited colloquium: Department of Psychology, Vanderbilt University.
21. **Jones, M. N.** (2010). Translating cognitive modeling into the Alzheimer's clinic. Invited talk: NIH Clinical Translational Sciences Initiative Retreat.
22. **Jones, M. N.** (2009). The myth of semantic features. Invited talk at President's Symposium. Joint meeting of the Canadian BBBS and British EPS, York, UK.
23. **Jones, M. N.** (2009). Putting the blood, sweat, and tears back into cognitive modeling. Invited panel talk at the NSF Future of Cognitive Science Workshop, UC Merced.
24. **Jones, M. N.** (2009). Integrating process and structure in models of semantic cognition. Invited colloquium: The Ohio State University.
25. **Jones, M. N.** (2008). Computational models of semantic learning and representation. Invited colloquium: University of Miami at Ohio.

5.7 Conference Presentations

1. Jamieson, R. K., Johns, B. T., Avery, J. E., & **Jones, M. N.** (2018). An instance theory of distributional semantics. Paper presented at the 40th Meeting of the Cognitive Science Society, Madison, WI.
2. Avery, J. E., & **Jones, M. N.** (2018). Comparing models of semantic fluency: Do humans forage optimally or walk randomly? Paper presented at the 40th Meeting of the Cognitive Science Society, Madison, WI.
3. *Dachapally, P. R., & Jones, M. N.* (2018). Catastrophic interference in neural embedding models. Poster presented at the 40th Meeting of the Cognitive Science Society, Madison, WI.
4. Avery, J. E. & Jones, M. N. (2018). A comparison of retrieval mechanisms in semantic memory. Poster presented at the Midwest Cognitive Science Conference, Bloomington, Indiana.
5. *Cooper, K. W., Dachapally, P. R., & Jones, M. N.* (2018). Consequences of Catastrophic Forgetting on Semantic Representations Learned by Deep Neural Embedding Models. Poster presented at the Midwest Cognitive Science Conference, Bloomington, Indiana.
6. Lundin, N., Jones, M. N., Todd, P. M., Moravec, L. O'Donnell, B. F., Hetrick, W. P. (2018). Investigation of semantic networks in the verbal fluency task in psychosis. Poster presented at the Society for Research in Psychopathology.
7. Jamieson, R. K., Avery, J. E., Johns, B. T., & **Jones, M. N.** (2018). An instance theory of semantics. Paper delivered at the Joint Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science and the Experimental Psychology Society, St. John's, Newfoundland, Canada.
8. Taler, V., Johns, B. T., & **Jones, M. N.** (2018). A Big Data Analysis of Verbal Fluency Performance across the Aging Spectrum. *Cognitive Aging*.
9. Taler, V., Johns, B. T., & **Jones, M. N.** (2017). How do statistical learning and language learning related to language impairment in aging? Paper presented at Interdisciplinary Advances in Statistical Learning, Bilabo, Spain.
10. *Dye, M. W., Jones, M. N., & Hearst, M.* (2017). Integrating Language Modeling and Psycholinguistics. Paper presented at the 47th Meeting of the Society for Computers in Psychology, Vancouver, Canada.
11. *Asr, F. T., & Jones, M. N.* (2017). Different layers of distributional semantics. Paper presented at the 47th Meeting of the Society for Computers in Psychology, Vancouver, Canada.

12. *Dachapally, P. R., Asr, F. T., Aue, W. R., Karpicke, J. D., & Jones, M. N.* (2017). Automated keyword extraction from short passages using pre-trained neural embeddings. Poster presented at the 47th Meeting of the Society for Computers in Psychology, Vancouver, Canada.
13. *Jayamoorthy, S., Asr, F. T., Aue, W. R., Karpicke, J. D., & Jones, M. N.* (2017). Automatic question and answer generation from texts for retrieval-based learning. Paper presented at the 47th Meeting of the Society for Computers in Psychology, Vancouver, Canada.
14. *Szary, J. K., O'Donnell, B. F., & Jones, M. N.* (2016). Modeling semantic search for healthy adults and patients with schizophrenia and bipolar disorder shows differential reliance on global versus local recall cues. Poster presented at the 57th Meeting of the Psychonomic Society, Boston, MA.
15. *Jones, M. N., Vinson, D. W., Dale, R.* (2016). Decision contamination in the wild: Sequential dependencies in Yelp review ratings. Paper presented at the 26th Meeting of the Canadian Society for Brain, Behavior, and Cognitive Science, Ottawa, Canada.
16. *Asr, F. T., Karpicke, J. D., & Jones, M. N.* (2016). Experimenting with keyword matching approaches to automated short answer scoring. Paper presented at the Midwest Computational Linguistics Conference (MCLC), Bloomington, IN.
17. *Szary, J. K., & Jones, M. N.* (2016). Can distributional fitting of short semantic fluency results predict ADHD? Poster presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
18. *Szary, J. K., & Jones, M. N.* (2016). Semantic, lexical, and geographic cues are used in geographic fluency. Poster presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
19. *Asr, F. T., Willits, J. A., & Jones, M. N.* (2016). Comparing predictive and co-occurrence based models of lexical semantics trained on child-directed speech. Poster presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
20. *Johns, B. T., Jones, M. N., & Mewhort, D. J. K.* (2016). Experience as a free parameter in the cognitive modeling of language. Paper presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
21. *Willits, J. A., Jones, M. N., & Landy, D.* (2016). Learning that numbers are the same, while learning that they are different. Paper presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
22. *Johns, B. T., Jamieson, R. K., Crump, M. J. C., Jones, M. N., & Mewhort, D. J. K.* (2016). The combinatorial power of experience. Paper presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
23. *Szary, J. K., & Jones, M. N.* (2016). Semantic, lexical, and geographic cues are used in geographic fluency. Poster presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
24. *Vinson, D. W., Dale, R., & Jones, M. N.* (2016). Decision contamination in the wild: Sequential dependencies in Yelp review ratings. Poster presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
25. *Dye, M. W., Johns, B. T., Ramscar, M., & Jones, M. N.* (2016). An information-theoretic approach to quantifying change in proper name entropy. Paper presented at the 37th Meeting of the Cognitive Science Society, Philadelphia, PA.
26. *Rubin, T., Koyejo, S., Yarkoni, T., & Jones, M. N.* (2015). Neurotopics: Unsupervised learning for discovering function regions of the brain. Paper presented at the Meeting of the Society for Computers in Psychology, Chicago, IL.
27. *Willits, T., Rubin, T., & Jones, M. N.* (2015). If you want to know which semantic model is best, don't compare semantic models. Paper presented at the Meeting of the Society for Computers in Psychology, Chicago, IL.
28. *Dye, M. W., Yarlett, D., Ramscar, M., & Jones, M. N.* (2015). The temporal dynamics of distributional semantics. Poster presented at the Meeting of the Society for Computers in Psychology, Chicago, IL.

29. Szary, J., Jones, M. N., & Dale, R., (2015). Model selection using multi-model inference: An example showing interactive dominance in collaborative foraging. Poster presented at the Meeting of the Society for Computers in Psychology, Chicago, IL.
30. Montag, J. L., Jones, M. N., & Smith, L. B. (2015). Important Differences Between Child-Directed Speech and the Text of Children's Picture Books. Poster presented at the Annual Conference of the Cognitive Development Society, Columbus, OH.
31. Rubin, T., Koyejo, S., Jones, M. N., & Yarkoni, T. (2015). Large-scale functional mapping of brain activity using a joint spatial and semantic topic model. Paper presented at *Human Brain Mapping*, Honolulu Hawaii.
32. Montag, J. L., Jones, M. N., & Smith, L. B. (2015). Some Important Distributional Differences Between Child-Directed Speech and Children's Picture Books. Poster presented at the 36th Annual Conference of the Cognitive Science Society, Pasadena, CA.
33. Willits, J. A., Jones, M. N., & Landy, D. (2015). Learning that numbers are the same, while learning that they are different. Paper presented at the 36th Annual Conference of the Cognitive Science Society, Pasadena, CA.
34. Johns, B. T., Jones, M. N., & Mewhort, D. J. K. (2015) Experience as a Free Parameter in the Cognitive Modeling of Language. Paper presented at CSBBCS, Ottawa, Canada.
35. Johns, B. T., Taler, V., & Jones, M. N. (2015) Determining the Linguistic Information Sources Underlying Verbal Fluency Performance across Aging and Cognitive Impairment. Paper presented at CSBBCS, Ottawa, Canada.
36. Willits, J. A., & Jones, M. N. (2014). What can children learn from 6 million words? Poster presented at the 55th Meeting of the Psychonomic Society. Long Beach, CA.
37. Dye, M. W., Ramscar, M., & Jones, M. N. (2014). Refining the distributional hypothesis: A role for time and context in semantic representation. Paper presented at the 44th Meeting of the Society for Computers in Psychology. Long Beach, CA.
38. Willits, J. A., & Jones, M. N. (2014). What can children learn from 6 million words? Paper presented at the 38th Boston University Conference on Language Development.
39. Johns, B. T., Shepard, C., Jones, M. N., & Taler, V. (2014). Analyzing the role of semantic diversity across aging and bilingualism. Paper presented at the annual *Mental Lexicon Conference*.
40. Karpicke, J. D., Grimaldi, P. J., Kievit-Kylar, B., & Jones, M. N. (2014). Retrieval-based learning: The promise of guided retrieval practice. *Paper presented at the 2nd Annual Connexions Conference Personalized Learning Workshop*, Houston TX.
41. Johns, B. T., Dye, M. W., & Jones, M. N. (2014). The influence of contextual variability on word learning. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
42. Rubin, T. N., Willits, J. A., Kievit-Kylar, B. & Jones, M. N. (2014). Organizing the space and behavior of semantic models. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
43. Johns, B. T., Jones, M. N., & Mewhort, D. J. K. (2014). A continuous source reinstatement model of true and illusory recollection. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
44. Johns, B. T., & Jones, M. N. (2014). Generating structure from experience: The role of memory in language. *Proceedings of the 35th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.
45. Willits, J., & Jones, M. N. (2013). What words do children say first? Factoring inflectional morphology into word statistic-based predictions of age of acquisition. Paper presented at the International Conference on Infant Studies, Berlin.

46. *Willits, J., & Jones, M. N.* (2013). What are the units in statistical learning? The importance of inflectional morphology for learning about verb meaning and verb semantics. Poster presented at the Boston University Conference on Language Development.
47. *Willits, J., & Jones, M. N.* (2013). Children's verb acquisition: What are the units over which statistical learning operates? Paper presented at the 54th meeting of the Psychonomic Society.
48. *Johns, B. T., Dye, M. W., & Jones, M. N.* (2013). The importance of contextual variability in word learning. Poster presented at the 54th meeting of the Psychonomic Society.
49. *Willits, J., Jones, M. N., Seidenberg, M. S., & Saffran, J.* (2013). What are the units? Factoring morphology into the statistical learning of verbs. Poster presented at the Workshop on Infant Language Development, The Basque Center on Cognition, San Sebastian, Spain.
50. *Rubin, T. N., Molnick, J., Wilcox-O'Hearn, L. A., Yarkoni, T., & Jones, M. N.* (2013). Neurotopics: A toolbox for learning the associations between linguistic features and regions of brain activation from a corpus of neuroimaging publications. Paper presented at the Society for Computers in Psychology.
51. *Rubin, T. N., & Jones, M. N.* (2013). Accounting for the nature of human response selection in evaluating semantic models. Poster presented at the Society for Computers in Psychology.
52. *Willits, J., Kievit-Kylar, B., Rubin, T. N., & Jones, M. N.* (2013). Semanticore.org: A web-based portal for semantic models and psycholinguistic data. Paper presented at the Society for Computers in Psychology.
53. *Kievit-Kylar, B., Grimaldi, P. J., Karpicke, J., & Jones, M. N.* (2013). A Semantic Model Supported Memory Retrieval Based Infrastructure for Education. Paper presented at the Society for Computers in Psychology.
54. *Kievit-Kylar, B., Ahn, Y. Y., Todd, P. M., & Jones, M. N.* (2013) Typicality and age-of-acquisition across multiple sensory information streams. Poster presented at the Society for Computers in Psychology.
55. *Kievit-Kylar, B., Kachergis, G., & Jones, M. N.* (2013). Naturalistic word-concept pair learning with semantic spaces. In M. Knauff et al. (Eds.), Paper presented at the 34th Annual Conference of the Cognitive Science Society, Berlin.
56. *Johns, B. T., Taler, V., Pisoni, D. B., Farlow, M. R., Hake, A. M., Kareken, D. A., Unverzagt, F. W., & Jones, M. N.* (2013). Using cognitive models to investigate the temporal dynamics of semantic memory impairments in the development of Alzheimer's disease. Paper presented at the 12th *International Conference on Cognitive Modeling (ICCM)*.
57. *Kent, J., Matthews, S., Kim, D., Howell, J., Bolbecker, A., Jones, M. N., O'Donnell, B., & Hetrick, W.* (2013). Cerebellar Correlates of Semantic Fluency. Poster presented at the 27th Annual Meeting of the Society for Research in Psychopathology.
58. *Kievit-Kylar, B. & Jones, M. N.* (2013). Learning object labels with semantic space models. Paper presented at the 3rd annual Midwest Cognitive Science Conference, Columbus, OH.
59. *Kievit-Kylar, B. & Jones, M. N.* (2013). A random permutation model over fuzzy objects. Poster presented at the 3rd annual Midwest Cognitive Science Conference, Columbus, OH.
60. *Jones, M. N., Kievit-Kylar, B., Jacobsson, M., Tamir, D., & Siadati, H.,* (2012). Using cognitive models to identify efficient, secure, and memorable passwords. Paper presented at the Society for Computers in Psychology.
61. *Jones, M. N., Hills, T. T., & Todd, P. M.* (2012). Optimal foraging in semantic memory. Paper presented at the Society for Mathematical Psychology, Columbus, OH.
62. *Kievit-Kylar, B., & Jones, M. N.* (2012). Generalizing BEAGLE to continuous holographic spaces using cyclic functions. Paper presented at the Society for Mathematical Psychology, Columbus, OH.

63. Taler, V., *Johns, B. T.*, Young, K., Sheppard, C., & **Jones, M. N.** (2012). A computational analysis of semantic structure in bilingual verbal fluency performance. Paper presented at the 8th Annual Mental Lexicon Conference, Montreal, PQ.
64. **Jones, M. N.**, Hills, T. T., & Todd, P. M. (2012). Modeling semantic search patterns. Paper presented at the 22nd Meeting of the Canadian Society for Brain, Behavior, & Cognitive Science, Kingston, ON.
65. *Kievit-Kylar, B.*, & **Jones, M. N.** (2012). Cross modal inference in distributional models of semantics. Paper presented at the 22nd Meeting of the Canadian Society for Brain, Behavior, & Cognitive Science, Kingston, ON.
66. *Johns, B. T.*, & **Jones, M. N.** (2012). Simulating language evolution from shared memory structure. Paper presented at the 22nd Meeting of the Canadian Society for Brain, Behavior, & Cognitive Science, Kingston, ON.
67. *Recchia, G. L.*, & **Jones, M. N.** (2012). The role of context in abstract concept representation. Poster presented at the Context and Episodic Memory Symposium. Bloomington, IN.
68. *Johns, B. T.*, & **Jones, M. N.** (2012). Source memory in a synchronization model of false memory. Poster presented at the Context and Episodic Memory Symposium. Bloomington, IN.
69. Kent, J., *Matthews, S. C.*, **Jones, M. N.**, Bolbecker, M., Rass, O., O'Donnell, B. F., & Hetrick, W. P. (2012). Possible cerebellar contributions to semantic fluency. Poster presented at the Cognitive Neuroscience Society Annual Meeting. Chicago, IL.
70. *Matthews, S. C.*, **Jones, M. N.**, Rass, O., Hetrick, W. P., & O'Donnell, B. F. (2012). Semantic effects in letter fluency in individuals with schizophrenia and healthy controls. Poster presented at the 2nd Annual Midwest Cognitive Science Conference, Bloomington, IN.
71. *Recchia, G. L.*, & **Jones, M. N.** (2012). Investigating the semantics of abstract words: A computational approach. Paper presented at the 2nd Annual Midwest Cognitive Science Conference, Bloomington, IN.
72. *Johns, B. T.*, & **Jones, M. N.** (2012). A synchronization account of false recognition and recall. Paper presented at the 2nd Annual Midwest Cognitive Science Conference, Bloomington, IN.
73. *Kievit-Kylar, B.*, & **Jones, M. N.** (2012). Disembodying the effect of handedness on orientation generation. Poster presented at the 2nd Annual Midwest Cognitive Science Conference, Bloomington, IN.
74. **Jones, M. N.**, & *Kievit-Kylar, B.* (2011). The semantic Pictionary project. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA.
75. *Matthews, S. C.*, **Jones, M. N.**, Rass, O., Hetrick, W. P., & O'Donnell, B. F. (2011). Semantic effects in letter fluency. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA.
76. *Johns, B. T.*, & **Jones, M. N.** (2011). Grounding the lexicon: Inferring perceptual representations from global lexical similarity. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA.
77. *Recchia, G.*, *Kievit-Kylar, B.*, **Jones, M. N.**, & McRae, K. (2011). Using web games to elicit associative and feature-based conceptual representations. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA.
78. *Johns, B. T.*, Taler, V., Young, K., Sheppard, C., & **Jones, M. N.** (2011). A computational analysis of semantic structure in bilingual verbal fluency tasks. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA.
79. *Kievit-Kylar, B.*, & **Jones, M. N.** (2011). Word2Word: A visualization tool for high-dimensional semantic data. Poster presented at the 41st Meeting of the Society for Computers in Psychology. Seattle, WA. **Winner of Castellan Award for Best Student Paper.**
80. **Jones, M. N.**, *Johns, B. T.*, & *Recchia, G. L.* (2011). The role of semantic diversity in lexical organization. Paper presented at the meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science. Winnipeg: Canada.

81. Kent, J., *Matthews, S. C., Jones, M. N.,* Bolbecker, M., Rass, O., O'Donnell, B. F., & Hetrick, W. P. (2011). Possible cerebellar contributions to semantic memory. Poster presented at the 17th meeting of the European Society for Cognitive Psychology. San Sebastian, Spain.
82. **Jones, M. N.,** Gruenenfelder, T. M., & *Recchia, G.* (2011). In defense of spatial models of lexical semantics. Poster presented at the 33rd Annual Conference of the Cognitive Science Society. Boston, MA.
83. *Kievit-Kylar, B., & Jones, M. N.* (2011). The semantic Pictionary project. Poster presented at the 33rd Annual Conference of the Cognitive Science Society. Boston, MA.
84. *Johns, B. T., & Jones, M. N.* (2011). Construction in semantic memory: Generating perceptual representations with global lexical similarity. Paper presented at *the 33rd Annual Conference of the Cognitive Science Society.* Boston, MA. **Won Best Student Paper Award.**
85. *Kachergis, G., Cox, G. E., & Jones, M. N.* (2011). OrBEAGLE: Integrating orthography into a holographic model of the lexicon. In E. Oja (Ed.), Paper presented at the International Conference on Artificial Neural Networks. Espoo, Finland.
86. *Recchia, G., & Jones, M. N.* (2011). Crowdsourcing a large database of semantic features. Paper presented at the Midwest Cognitive Science Conference. Michigan State University.
87. Mozer, M. C., Pashler, H., Wilder, M., Lindsey, R. O., Jones, M., & **Jones, M. N.** (2010). Decontaminating human judgments by removing sequential dependencies. Paper presented at *NIPS:* Vancouver, Canada.
88. Holtzman, N. S., Schott, J. P., **Jones, M. N.,** Balota, D. A., & Yarkoni, T. (2010). Exploring media bias with semantic space models. Poster presented at the 51st Meeting of the Psychonomic Society. St. Louis, MO.
89. *Johns, B. T., & Jones, M. N.* (2010). Exploring the use of feedback in models of semantic acquisition. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
90. *Cox, G. E., Kachergis, G., Recchia, G. L., & Jones, M. N.* (2010). Towards a scalable holographic word-form representation. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
91. *Carter, A., Matthews, S., Riordan, B., & Jones, M. N.* (2010). Measuring grammatical number prediction using a visual world paradigm. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
92. *Recchia, G. L., & Jones, M. N.* (2010). Modeling semantic feature effects without features. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
93. *Matthews, S., & Jones, M. N.,* Rass, O., Hetrick, W. P., & O'Donnell, B. F. (2010). Semantic organization in schizophrenia: A discriminant analysis. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
94. *Johns, B. T., Jones, M. N., & Mewhort, D. J. K.* (2010). A synchronization account of false recognition. Paper presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
95. *Kievit-Kylar, B., & Jones, M. N.* (2010). 3-D geon encoding: A platform to explore shape semantics. Poster presented at the 40th Meeting of the Society for Computers in Psychology. St. Louis, MO.
96. *Cox, G. E., Shiffrin, R. M., Jones, M. N., & Johns, B. T.* (2010). Developing knowledge from incidental associations. Paper presented at the Society for Mathematical Psychology. Portland, OR.
97. **Jones, M. N., & Recchia, G. L.** (2010). You can't wear a coat rack: A binding framework to avoid illusory feature migrations in perceptually grounded semantic models. Paper presented at the 32nd Meeting of the Cognitive Science Society. Portland, OR.
98. *Recchia, G. L., Jones, M. N., Sahlgren, M., & Kanerva, P.* (2010). Encoding sequential information in vector space models of semantics: Comparing holographic reduced representation and random permutation. Paper presented at the 32nd Meeting of the Cognitive Science Society. Portland, OR.

99. *Johns, B. T., & Jones, M. N.* (2010). Are random representations accurate approximations of lexical semantics? Paper presented at the 32nd Meeting of the Cognitive Science Society. Portland, OR.
100. **Jones, M. N.**, McRae, K., & Hare, M. (2009). Activating event knowledge in semantic vector spaces. Paper presented at the Society for Computers in Psychology. Boston, MA.
101. *Matthews, S., Jones, M. N.*, Rass, O., Hetreck, W. P., & O'Donnell, B. F. (2009). Modeling semantic fluency deficiencies in schizophrenia. Poster presented at the Society for Computers in Psychology. Boston, MA.
102. Riordan, B., & **Jones, M. N.** (2009). Redundancy in perceptual and linguistic experience: Exploring feature-based and distributional models of semantic representation. Paper presented at the Society for Computers in Psychology. Boston, MA.
103. *Johns, B. T., & Jones, M. N.* (2009). Using automated semantic measures to test the assumptions of memory models: Do random representations reflect the organization of semantic memory? Paper presented at the Society for Computers in Psychology. Boston, MA. **Won Best Student Paper Award.**
104. *Recchia, G. L., & Jones, M. N.* (2009). Encoding sequential information in vector space models of semantics: Comparing circular convolution and random permutations. Paper presented at the Society for Computers in Psychology. Boston, MA.
105. *Johns, B. T., & Jones, M. N.* (2009). Simulating false recall as an integration of semantic search and recognition. Paper presented at the 31st Cognitive Science Society Meeting, Amsterdam.
106. Hills, T. T., Todd, P. M., & **Jones, M. N.** (2009). Optimal foraging in semantic memory. Poster presented at the 31st Cognitive Science Society Meeting, Amsterdam.
107. *Johns, B. T., & Jones, M. N.* (2009). False recognition through semantic amplification. Poster presented at the 31st Cognitive Science Society Meeting, Amsterdam.
108. Todd, P. M., Hills, T. T., & **Jones, M. N.** (2009). Optimal foraging in semantic memory. Paper presented at the Human Behavior and Evolution Society. Los Angeles, CA.
109. Sabbagh, M. A., Callanan, M. A., & **Jones, M. N.** (2009). Conversational experience and mutual exclusivity in 2-year-old children. Paper Presented at the Biennial Meeting of the Society for Research in Child Development.
110. *Morrone, E. A., & Jones, M. N.* (2009). Active vs. passive category learning and generalization. Paper presented at the Midwest Undergraduate Cognitive Science Conference. Bloomington, IN.
111. *Wheeler, R. R. & Jones, M. N.* (2009). Evaluating process models of semantic fluency. Paper presented at the Midwest Undergraduate Cognitive Science Conference. Bloomington, IN.
112. *Morrone, E. A., & Jones, M. N.* (2009). Active vs. passive category learning and generalization. Poster presented at the Indiana University Women in Science Conference. Bloomington, IN.
113. *Wheeler, R. R. & Jones, M. N.* (2009). Evaluating process models of semantic fluency. Poster presented at the Indiana University Women in Science Conference. Bloomington, IN.
114. Hare, M., **Jones, M. N.**, & McRae, K. (2008). Activating event knowledge. Paper presented at the 49th Meeting of the Psychonomic Society. Chicago, IL.
115. *Hills, T., Jones, M. N., & Todd, P. M.* (2008). Search in semantic space: Evaluating models of category fluency. Poster presented at the 49th Meeting of the Psychonomic Society. Chicago, IL.
116. *Riordan, B., & Jones, M. N.* (2008). Eye movements and the processing of morphosyntax in the Visual World: Evaluating a linking hypothesis. Poster presented at the 49th Meeting of the Psychonomic Society. Chicago, IL.
117. *Hills, T., Jones, M. N., & Todd, P. M.* (2008). Evaluating the marginal value theorem in category fluency. Poster presented at the Society for Judgment and Decision Making, Chicago, IL.

118. *Recchia, G., & Jones, M. N.* (2008). More data trumps smarter algorithms: Training computational models of semantics on very large corpora. Paper presented at the Society for Computers in Psychology. Chicago, IL. **Won Best Student Paper Award.**
119. *Johns, B. T., & Jones, M. N.* (2008). Using a semantic distinctiveness count to calibrate retrieval times: A large-scale corpus analysis. Paper presented at the Society for Computers in Psychology. Chicago, IL.
120. *Riordan, B., & Jones, M. N.* (2008). Modeling the space of children's word meanings: Feature vectors versus distributional models. Paper presented at the Society for Computers in Psychology. Chicago, IL.
121. **Jones, M. N., Hills, T., Recchia, G., Dawson, J. D., & Todd, P. M.** (2008). Modeling transition latency in the semantic fluency task. Paper presented at the Society for Computers in Psychology. Chicago, IL.
122. **Jones, M. N.** (2008). Active vs. passive category learning and retention. Paper presented at 18th Meeting of CSBBCS, McMaster University.
123. *Johns, B. T., Jones, M. N., Johns, E. E., & Mewhort, D. J. K.* (2008). Using a contextual co-occurrence learning model to predict item-specific retrieval and recognition effects. Paper presented at the 18th Meeting of CSBBCS.
124. *Johns, B. T., & Jones, M. N.* (2008). The organization of meaning in memory: evaluating computational mechanisms. Paper presented at the North American Computing and Philosophy Conference (NA-CAP).
125. *Johns, B. T., & Jones, M. N.* (2008). Predicting word-naming and lexical decision times from a semantic space model. Paper Presented at the 30th Cognitive Science Society Meeting. Washington, DC.
126. *Recchia, G., Johns, B. T., & Jones, M. N.* (2008). Context repetition benefits are dependent on context redundancy. Paper Presented at the 30th Cognitive Science Society Meeting. Washington, DC.
127. *Landy, D. L., Jones, M. N., & Goldstone, R. L.* (2008). How the appearance of an operator affects its mathematical precedence. Poster Presented at the 30th Cognitive Science Society Meeting. Washington, DC.
128. *Riordan, B. & Jones, M. N.* (2008). The influence of grammatical number on anticipatory eye-movements in spoken language comprehension. Paper presented at the Redhawk Mental Life Conference.
129. **Jones, M. N.** (2007). Holographic neural networks. Poster presented at the 48th Meeting of the Psychonomic Society. Long Beach, CA
130. **Jones, M. N.** (2007). Compositional semantics from convolution-based encoding of natural language. Paper presented at the Invited Symposium on *Co-occurrence Models of Lexical Semantics*; 37th Meeting of the Society for Computers in Psychology. Long Beach, CA.
131. **Jones, M. N.** (2007). Using holographic backpropagation to improve sequential dependency learning from natural language. Paper presented at the 37th Meeting of the Society for Computers in Psychology. Long Beach, CA.
132. **Jones, M. N.** (2007). Bridging semantic representation and associative memory theory. Paper presented at the Invited Symposium on *Computational Models of Language*; 40th Annual Meeting of the Society for Mathematical Psychology, Irvine, CA.
133. *Riordan, B., & Jones, M. N.* (2007). Comparing semantic space models using child-directed speech. Paper presented at the 29th Annual Cognitive Science Society. Nashville, TN.
134. *Mozer, M. C., Jones, M. N., & Shettel, M.* (2006). Context effects in category learning: An investigation of four probabilistic models. Paper presented at NIPS: Vancouver, Canada.
135. **Jones, M. N., & Kintsch, W.** (2006). Asymmetric similarity in a self-organizing lexicon. Poster presented at the 47th Meeting of the Psychonomic Society: Houston, Texas.

136. Mozer, M. C., **Jones, M. N.**, & Shettel, M. (2006). Context effects in category learning: An exploration of Bayesian models. Paper presented at the 47th Meeting of the Psychonomic Society: Houston, Texas.
137. **Jones, M. N.**, Oliver, W. L., Kintsch, W., & Mewhort, D. J. K. (2006). Exploring the roles of context and algorithm in co-occurrence learning. Paper presented at the 36th Meeting of the Society for Computers in Psychology: Houston, Texas.
138. **Jones, M. N.**, & Kintsch, W. (2005). Expanding on n-grams: Generativity from structured binding. Poster presented at the NSF Symbols, Embodiment, and Meaning Workshop/Debate, Tenerife, Canary Islands.
139. **Jones, M. N.**, Mangalath, P., & Kintsch, W. (2005). Automatic scoring of open-ended inference questions. Paper presented at the 35th Meeting of the Society for Computers in Psychology, Toronto, Ontario.
140. **Jones, M. N.**, Kintsch, W., & Mewhort, D. J. K. (2005). Incorporating syntax into a high-dimensional semantic space model using holographic reduced representation. Paper presented at the 38th Meeting of the Society for Mathematical Psychology, Memphis, Tennessee.
141. Mangalath, P., **Jones, M. N.**, & Kintsch, W. (2005). Identifying meaningful structure in semantic models with independent components analysis. Paper presented at the 38th Meeting of the Society for Mathematical Psychology, Memphis, Tennessee.
142. **Jones, M. N.**, Mewhort, D. J. K., & Kintsch, W. (2005). Modelling grammatical word class from unsupervised learning of natural language. Paper presented at the 15th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Montreal, Quebec.
143. Zotov, V., **Jones, M. N.**, & Mewhort, D. J. K. (2005). Trial-to-trial representation shifts in categorization. Poster presented at the 15th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science, Montreal, Quebec.
144. **Jones, M. N.**, & Mewhort, D. J. K. (2004). Learning syntax and semantics from redundancies in text. Poster presented at the 45th Meeting of the Psychonomic Society: Minneapolis, Minnesota.
145. **Jones, M. N.**, Jamieson, R. K., & Mewhort, D. J. K. (2004). Quantifying word transitions in sentences by coding statistical properties of text corpora. Paper presented at the 34th Meeting of the Society for Computers in Psychology: Minneapolis, Minnesota.
146. **Jones, M. N.**, & Buchan, J. N. (2004). Comparing methods of tracking visual attention. Paper presented at the 34th Meeting of the Society for Computers in Psychology: Minneapolis, Minnesota.
147. **Jones, M. N.**, & Mewhort, D. J. K. (2004). Semantic and syntactic coding in a hyperspace model. Paper presented at the 14th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: St. John's, Newfoundland.
148. **Jones, M. N.**, & Mewhort, D. J. K. (2003). Sequential contrast and assimilation effects in categorization of perceptual stimuli. Poster presented at the 44th Meeting of the Psychonomic Society: Vancouver, B.C.
149. **Jones, M. N.**, & Mewhort, D. J. K. (2003). Calibrating information filters in the focus-window tracking paradigm. Paper presented at the 33rd Meeting of the Society for Computers in Psychology: Vancouver, B.C.
150. **Jones, M. N.**, & Mewhort, D. J. K. (2003). A simple context co-occurrence hyperspace model of semantic memory. Poster presented at the 13th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: Hamilton, Ontario.
151. **Jones, M. N.**, Zotov, V., & Mewhort, D. J. K. (2003). Follow the floating representation: Category sequence effects in an exemplar-production task. Paper presented at the 13th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: Hamilton, Ontario.
152. Zotov, V., **Jones, M. N.**, & Mewhort, D. J. K. (2003). Can an exemplar-based model predict contrast effects in classification tasks? Paper presented at the 13th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: Hamilton, Ontario.

153. DiClemente, M. R., **Jones, M. N.**, Franklin, D. R. J., Zotov, V., & Butler, B. E. (2002). Limiting the flexibility of attention: Location selectivity in non-contiguous regions. Poster presented at the 12th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: Vancouver, B.C.
154. Mills, J. F., Kroner, D. G., & **Jones, M. N.** (2002). Exploring optimal binning procedures and the use of multiple instruments in risk prediction. Paper presented at the 63rd Meeting of the Canadian Psychological Association: Vancouver, B.C.
155. **Jones, M. N.** & Mewhort, D. J. K. (2001). Resurrecting template theory: Modeling single letter recognition with template deblurring. Paper presented at the 34th Meeting of the Society for Mathematical Psychology: Providence, RI.
156. **Jones, M. N.** & Mewhort, D. J. K. (2001). A new approach to letter identification: Learning and deblurring dynamic templates. Paper presented at the 11th Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science: Laval, Quebec.

6. Teaching and Mentorship Activities

6.1 Courses Taught

PSY-K300: Statistical Techniques for Psychology (Undergraduate)
 COG-Q270: Experiments and Models in Cognitive Science (Undergraduate)
 PSY-P553: Advanced Statistical Techniques (Graduate)
 COG-Q550: Computational Models in Cognitive Science (Graduate)
 COG-Q560: Experimental Methods in Cognitive Science (Graduate)
 COG-Q733: Cognitive Science Graduate Colloquium Series (Graduate)

Teaching website: <http://www.jonesmn.com/teaching.html> (includes links to syllabi and lectures)

Faculty Director for IU ACP Statistics Certification Course (training high school math teachers to offer undergraduate statistics to qualified high school students for university credit in Indiana, Michigan, Ohio, and Kentucky)

6.2 Mentorship

Postdoctoral Trainees

Brian Riordan (2007-2009) funded by NIHCD; currently Senior Research Scientist at ETS
 Vanessa Taler (2007-2009) funded by NIH; currently Professor at University of Ottawa
 Thomas Hills (2007-2009) funded by NIHCD/FRSP; currently Professor at University of Warwick
 Jon Willits (2012-2015) funded by NIH; currently Assistant Professor at University of Illinois, Urbana-Champaign
 Jessica Montag (2013-2015) funded by NIH; currently Assistant Professor at University of Illinois, Urbana-Champaign
 Brent Kievit-Kylar (2014-2015) funded by NSF; currently Head of Image Analytics, Google Inc.
 Tim Rubin (2012-2016) funded by NIH; currently Data Scientist at Survey Monkey Inc.
 Janelle Szary (2015-2017) funded by NIH; currently Data Scientist at Pymetrics
 Fatemeh Torabi Asr (2015-2018) funded by IES; currently Research Scientist at Simon Fraeser University

Graduate Students Directly Under My Supervision

Past Students:

Brian Riordan (PhD 2007) Joint PhD in Cognitive Science/Computational Linguistics; currently Senior Res Sci
 Brendan Johns (PhD, 2012) Joint PhD in Psychology/Cognitive Science; currently Assistant Professor, U Buffalo
 Gabriel Recchia (PhD, 2013) PhD in Cognitive Science; currently Research Scientist at University of Cambridge
 Brent Kievit-Kylar (PhD, 2014) PhD in Cognitive Science and Computational Linguistics; currently Google Inc.
 Sean Matthews (PhD, 2015) PhD in Psychology/Cognitive Science; currently at Thompson Reuters
 Melody Dye (PhD 2017) PhD in Cognitive Science; currently Moore/Sloan Data Science Fellow, UC Berkeley

Current Students:

Johnathan Avery (PhD 1) Joint Program in Cognitive Science/Psychology
 Prudhvi Raj Dachapally (year 2) Master's Program in Data Science

Undergraduate Students

R'nld Wheeler (B.Sc. 2010) NIH-funded undergrad in my lab for 3 years; currently PhD student at U Arizona
 Elizabeth Morrone (B.Sc. 2010) Honor's thesis student in my lab for 2 years
 Jordan Thevenow-Harrison (B.Sc. 2009) RA in my lab for one year; currently PhD student at U Wisconsin
 Lawrence Phillips (B.Sc. 2010) RA in my lab for one year; currently PhD student at UC Irvine
 Kelley Gordon (BA, 2010) RA in my lab for one year; currently JD Candidate at The John Marshall Law School
 Abigail Carter (BA 2011) RA in my lab for 3 years; currently clinical PhD student at U Tulsa
 Cotie Morrill-Long (BA 2014) RA in my lab for 3 years; currently software engineer at IBM Cloud
 Keiland Cooper (BSc 2019) RA in lab; current

Awards Won By My Students

Brendan Johns:

NSERC Postdoctoral Research Fellowship (2 years; \$80,000)
 NSERC Postgraduate Research Fellowship (3 years; \$68,000)
 David Marr Award for Best Student Paper (2011); Cognitive Science Society
 Castellan Award for Best Student Paper (2010); Society for Computers in Psychology
 Cognitive Science Society Travel Award (won twice); NSF/Glushko-Samuelson Foundation
 CPA/CSBBCS CJEP Best Article Award (2015)

Gabriel Recchia:

NSF Graduate Research Fellowship (honorable mention)
 Castellan Award for Best Student Paper (2009); Society for Computers in Psychology
 College of Arts and Sciences Travel Award

Greg Cox:

NSF Graduate Research Fellowship (3-years; \$121,500)
 Higher-Level Cognition Modeling Prize (2011); Cognitive Science Society
 Psychology Departmental Research Fellowship (1-year; \$20,000 + fees)

Sean Matthews:

NSF Graduate Research Fellowship (honorable mention)
 PBS Departmental Outstanding Teaching Award

Brent Kievit-Kylar:

Cognitive Science Departmental Research Fellowship (1-year; \$20,000 + fees)
 Castellan Award for Best Student paper (2011); Society for Computers in Psychology

Melody Dye:

NSF Graduate Research Fellowship (3-years; \$121,500)
 NSF IGERT Award (2-years; \$60,000 + fees)
 IES Developmental Modeling Prize (2011); Cognitive Science Society/Institute for Education Sciences
 IU Dissertation Year Fellowship (\$24,000)
 David Marr Award for Best Student Paper (2011); Cognitive Science Society
 Moore/Sloan Fellowship in Data Science (2017-2019)
 IU Outstanding Dissertation Award (2018)

R'nld Wheeler:

NIH Maximizing Student Diversity summer fellowship (won twice)

Grad Student Committee Membership for Students Other than My Own

Dissertation committees: 19 (not including those on which I am chair)
 Qualifying exam committees: 18 (not including those on which I am chair)
 Undergrad thesis committees: 4 (not including those on which I am chair)

7. Service Activities7.1 Professional Affiliations

Fellow of the Psychonomic Society
 Alliance of Distinguished and Titled Professors
 Cognitive Science Society
 American Psychological Society

Society for Mathematical Psychology
 Canadian Society for Brain, Behaviour, and Cognitive Science
 Society for Computers in Psychology

7.2 Editorial Service

Editor-in-Chief (2014-2020), *Behavior Research Methods*

Associate Editor (2012-2014), *Journal of Experimental Psychology: General*

Guest Editor (2011; Vol 66:2), *Canadian Journal of Experimental Psychology*

Ad-Hoc Reviewing: *Psychological Review, Cognitive Science, Topics in Cognitive Science, Cognition, Psychonomic Bulletin & Review, Journal of Experimental Psychology: Learning, Memory, & Cognition, Journal of Experimental Psychology: General, Journal of Memory & Language, Cognitive Psychology, Psychological Science, Proceedings of the National Academy of Sciences, Journal of Mathematical Psychology, Behavior Research Methods, Psychological Methods, PLoS ONE, Canadian Journal of Experimental Psychology, Proceedings of the Cognitive Science Society, Memory & Cognition, Neural Networks, Journal of Artificial Intelligence Research, International Journal of Artificial Intelligence in Education*

7.3 Grant Reviewing

Panelist: *NSF Computational Cognition Program*

Panelist: *NSF Integrative Strategies for Understanding Neural and Cognitive Systems*

National Science Foundation: PAC, Robust Intelligence, Linguistics, PIRE, and Cyber-Human Systems

Air Force Office of Scientific Research

Natural Sciences and Engineering Research Council of Canada

Swiss National Science Foundation

Flanders Research Foundation

7.4 University Service

PBS Policy and Steering Committee (Chair x2)

PBS Chair Selection Committee (Member)

PBS Research Scientist Promotion Committee (Chair)

PBS Computational and Mathematical Modeling Area (Spokesperson)

PBS Cognitive Psychology Area (Spokesperson)

PBS Graduate Program Committee (Member)

PBS Intervention, Implementation, and Dissemination Science Faculty Search Committee (Member)

PBS Neural Circuits and Behavior Faculty Search Committee (Member)

PBS Colloquium Committee (Member)

PBS Human Subjects Committee (Member)

IU Neural Engineering Program Task Force (Member)

Cognitive Science Colloquium Committee (Chair)

Cognitive Psychology Graduate Admissions Committee (Chair, 2 years)

Stone-Aged Institute Evolution of Intelligence Faculty Search Committee (Member)

Indiana Clinical Translational Sciences Initiative Advisory Committee (Member)

IU Faculty Research Support Program Review Panel (Member)

Indiana Maximizing Student Diversity (NIH-funded) Program (Member)

IU Center for Computationally Assisted Textual Analysis, Publication, Links & Training or CATAPuLT (Member)

IU Dynamics of Brain-Body-Environment Systems in Behavior and Cognition (NSF-IGERT; PI Beer) (Core Member)

IU Training Grant in Mathematical Models of Cognition (NIH T32 Award; PI Townsend) (Core Member)

IU Training Grant in Integrative Developmental Processes (NIH T32 Award; PI Smith) (Core Member)

IU Training Grant in Speech, Hearing, and Sensory Communication (NIH T32 Award; PI Pisoni) (Member)

Faculty Advisor: IU Brazilian Jiu Jitsu Club

Queen's University General Research Ethics Board Member

Cognitive Science Graduate Student Representative (Queen's)

Member of VP Research Advisory Board on the establishment of the High Performance Computing Research Centre

7.5 External Field Service

Member of *Computational Brain and Behavior* Editor Search Committee (2017); Society of Mathematical Psychology

Chair of Psychonomic Society Digital Content Editor Search Committee (2014)

Chair of Psychonomic Society Transparency and Openness in Science Review Taskforce (2015)

Member of Computer-Aided Personalized Education (CAPE) Task Force, Computing Community Consortium

Chair of Crosscutting Symposium *What Does Big Data Mean for Psychological Science* at the 2014 Association for Psychological Science Annual Convention

Society for Computers in Psychology:

President (2011-2014)

Secretary-Treasurer (2008-2011)

Steering Committee Member (2007-2010)

Symposium Organizer/Chair (w/ Ken McRae) “Integrating Methods to Explore Semantic Relations: Perspectives from Computer Modeling, Eyetracking, and Neuroimaging” (2009)

Society for Mathematical Psychology:

Symposium Organizer/Chair: “Computational Models of Language” (2007)

Conference Coordinator: Math Psych 2000 (Kingston, Canada)

NSF/UC Merced Workshop on the Future of Cognitive Science: Member on “Theories and Methods” panel (2009)

NSF/PAC College of Reviewers (Cognitive Modeling Panel, 2013-2016), (Integrative Strategies for Understanding Neural and Cognitive Systems Panel, 2016-2019).

Midwest Cognitive Science Conference Chair (IU Bloomington)

External Examiner for T. M. Fountain PhD Thesis: University of Edinburgh School of Informatics

7.6 Past Industrial Experience

Co-Founder and President, Cognomic Technologies LLC

Chief Scientist, Name Insights Inc.