

BRENDAN T. JOHNS

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EMPLOYMENT

MCGILL UNIVERSITY, Montreal, Quebec, January 2020-Present
Assistant Professor, Department of Psychology

UNIVERSITY AT BUFFALO, Buffalo, New York, August 2015-December 2019
Assistant Professor, Department of Communicative Disorders and Sciences, Cognitive Science, and Computational Linguistics

QUEEN'S UNIVERSITY, Kingston, Ontario, August 2013-August 2015
NSERC Post-Doctoral Fellow, Department of Psychology
~Advisor: Dr. Douglas J. K. Mewhort

INDIANA UNIVERSITY, Bloomington, Indiana, September 2012-August 2013
Post-Doctoral Fellow, Department of Psychological and Brain Sciences, Cognitive Science
~Advisor: Dr. Richard M. Shiffrin

EDUCATION

INDIANA UNIVERSITY, Bloomington, Indiana
Ph.D., Majors: Cognitive Science, Psychological and Brain Sciences, Received August 2012
~Advisor: Dr. Michael N. Jones

QUEEN'S UNIVERSITY, Kingston, Ontario
Bachelor of Computing, Major: Cognitive Science, Received 2007
~Advisor: Dr. Douglas J. K. Mewhort

AWARDS & HONORS

- ~Early Career Alumni Award 2023, Department of Psychological and Brain Sciences, Indiana University
- ~Early Career Award 2022, *Psychonomic Society*
- ~Vincent Di Lollo Early-Career Award 2022, *Canadian Society for Brain, Behaviour, and Cognitive Science*
- ~Early Career Impact Award 2022, *Federation of Associations in Behavioral and Brain Sciences (FABBS)*
- ~CPA/CSBBS 2021 Best Article of the Year Award
- ~Member-Select Speaker Award 2017, *Psychonomic Society*
- ~CPA/CSBBS 2015 Best Article of the Year Award
- ~NSERC Post-Doctoral Fellowship, 2-years/\$80,000
- ~Marr Prize for Best Student Paper, CogSci 2011
- ~Robert J. Glushko and Pamela Samuelson Foundation Travel Award, CogSci 2011
- ~Robert J. Glushko and Pamela Samuelson Foundation Travel Award, CogSci 2010
- ~Castellan Award for Best Student Paper, SCiP 2009
- ~NSF Travel Award, CogSci 2009

- ~NSERC Postgraduate Scholarship – Doctoral, 3-years/\$63,000
- ~NSERC Undergraduate Research Award, 1-year/\$6000

PROFESSIONAL AFFILIATIONS

- ~Associate Editor, *Behavior Research Methods*
- ~Editorial Board, *Canadian Journal of Experimental Psychology*
- ~Scientific Advisory Committee, *Mental Lexicon Conference*
- ~Steering Committee, *Society for Computation in Psychology*
- ~Ad hoc reviewer for Cognitive Psychology, Psychological Review, Journal of Memory and Language, Cognition, Cognitive Science, Cognitive Processes, Quarterly Journal of Experimental Psychology, Behavior Research Methods, Canadian Journal of Experimental Psychology, Psychonomic Bulletin and Review, Psychological Science, Philosophical Transactions B, Frontiers in Psychology, and Neural Networks
- ~Fellow, *The Psychonomic Society*
- ~*The Cognitive Science Society*
- ~*Society for Computers in Psychology*
- ~*Canadian Society for Brain, Behavior and Cognitive Science*

FUNDING

- ~2023-2025: Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, “Repetitions are not created equal: Examining the role of contextual diversity in the repetition-based truth effect”. (PI; 2-year/\$72,692)
- ~2022-2024: Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant, “How do collectively experienced large-scale social events drive language dynamics at the societal and individual levels?” (PI; 2-year/\$56,950)
- ~2020-2025: Natural Sciences and Engineering Research Council (NSERC) Discovery Grant, “Optimizing Language Learning through Content-Driven Machine Learning” (PI; 5-year/\$225,000).
- ~2020-2021: Natural Sciences and Engineering Research Council (NSERC) Discovery Launch Supplement for Early Career Researchers (PI; 1-year/\$12,500)
- ~2020-2021: Centre for Research on Brain, Language and Music Incubator Award (Co-PI, PI: Dr. Debra Titone; 1-year/\$10,000)
- ~2020-2022: Health Care Access for Linguistic Minorities Research Competition (Collaborator, PI: Dr. Debra Titone; 2-year/\$30,000)

PEER-REVIEWED PUBLICATIONS

- Qiu, M., Castro, N., & Johns, B. T. (2024). Estimating type of print exposure across aging through author production. *Proceedings of the 46th Annual Meeting of the Cognitive Science Society*.
- Johns, B. T. (2024). Determining the relativity of word meanings through the construction of individualized models of semantic memory. *Cognitive Science*, 48, e13413 (50 pages).
- Lundin, N. B., Brown, J. W., Johns, B. T., Jones, M. N., Purcell, J. R., Hetrick, W. P., O'Donnell, B. F., & Todd, P. M. (2023). Neural evidence of switch processes during

- semantic and phonetic foraging in human memory. *Proceedings of the National Academy of Sciences*, 120, e2312462120 (12 pages).
- Chang, M., Jones, M. N., & Johns, B. T. (2023). Comparing word frequency, semantic diversity, and semantic distinctiveness in lexical organization. *Journal of Experimental Psychology: General*, 152, 1814–1823.
- Johns, B. T., Jamieson, R. K., & Jones, M. N. (2023). Scalable cognitive modeling: Putting Simon's (1969) ant back on the beach. *Canadian Journal of Experimental Psychology*, 77, 185–201.
- Johns, B. T., Taler, V., & Jones, M. N. (2023). Contextual dynamics in lexical encoding across aging: A simulation study. *Quarterly Journal of Experimental Psychology*, 76, 2164–2182.
- Johns, B. T. (2023). Computing word meanings by aggregating individualized distributional models: Wisdom of the crowds in lexical semantic memory. *Cognitive Systems Research*, 80, 90-102.
- Chang, M. & Johns, B. T. (2023). Integrating distributed semantic models with an instance memory model to explain false recognition. Proceedings of the 45th Annual Conference of the Cognitive Science Society. Taler, V. & **Johns, B. T.** (2022). Using big data to understand bilingual performance in semantic fluency: Findings from the Canadian Longitudinal Study on Aging. *PLoS One*, 17, e0277660.
- Jamieson, R. K., **Johns, B. T.**, Vokey, J. R., & Jones, M. N. (2022). Instance theory provides a domain-general framework for cognition. *Nature Reviews Psychology*, 1, 174-183.
- Senaldi, M., Titone, D., & **Johns, B. T.** (2022). Determining the importance of word frequency and contextual diversity in the lexical organization of multiword expressions. *Canadian Journal of Experimental Psychology*, 76, 87–98
- Johns, B. T.** (2022). Accounting for item-level variance in recognition memory: Comparing word frequency and contextual diversity. *Memory & Cognition*, 50, 1013–1032.
- Jamieson, R. K., **Johns, B. T.**, Taler, V., & Jones, M. N. (2022). The importance of formal modelling for the development of cognitive theory. *Bilingualism: Language and Cognition*, 25, 218-219.
- Johns, B. T.** & Jones, M. N. (2022). Content matters: Measures of contextual diversity must consider semantic content. *Journal of Memory and Language*, 123, 104313 (13 pages).
- Antal., C., de Almeida, R. G., & Johns, B. T. (2022). Which semantic properties of a feature affect access to an object concept? In J. Culbertson, A. Perfors, H. Rabagliati, & V. Ramenzoni (Eds.), *Proceedings of the 44th Annual Conference of the Cognitive Science Society*. Toronto, ON: Cognitive Science Society.
- Johns, B. T.** (2021). Distributional social semantics: Inferring word meanings from communication patterns. *Cognitive Psychology*, 131, 101441 (20 pages).
- Johns, B. T.** (2021). Disentangling contextual diversity: Communicative need as a lexical organizer. *Psychological Review*, 128, 525–557

- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2021). A continuous source reinstatement model of true and false recollection. *Canadian Journal of Experimental Psychology*, 75, 1–18.
- Qiu, M. & **Johns, B. T.** (2021). A distributional and sensorimotor analysis of noun and verb fluency. *PsyArXiv*.
- Qiu, M., Castro, N., & **Johns, B. T.** (2021). Structural comparisons of noun and verb networks in the mental lexicon. In *Proceedings of the 43rd Annual Conference of the Cognitive Science Society* (pp. 1649-1655).
- Johns, B. T.**, Jamieson, R. K., Crump, M. J. C., Jones, M. N., & Mewhort, D. J. K. (2020). Production without rules: Using an instance memory model to exploit structure in natural language. *Journal of Memory and Language*, 115, 104165 (20 pages).
- Taler, V., **Johns, B. T.**, & Jones, M. N. (2020). A large-scale semantic analysis of verbal fluency performance across the aging spectrum: Data from the Canadian longitudinal study of aging. *Journal of Gerontology: Psychological Sciences*, 75, e221–e230.
- Johns, B. T.**, Jamieson, R. K., & Jones, M. N. (2020). The continued importance of theory: Lessons from big data approaches to language and cognition. In Woo, S. E., Proctor, R., and Tay, L. (Eds.) *Big Data in Psychological Research*, APA Books.
- Johns, B. T.**, Dye, M., & Jones, M. N. (2020). Estimating the prevalence and diversity of words in written language. *Quarterly Journal of Experimental Psychology*, 73, 841-855.
- Crump, M. J. C., Jamieson, R. K., **Johns, B. T.**, & Jones, M. N. (2020). Controlling the retrieval of general versus specific semantic knowledge in the instance theory of semantic memory. *Proceedings of the 42nd Annual Cognitive Science Society*.
- Qiu, M. & **Johns, B. T.** (2020). Semantic diversity in paired-associate learning: Further evidence for the information accumulation perspective of cognitive aging. *Psychonomic Bulletin & Review*, 27, 114–121.
- Johns, B. T.**, Mewhort, D. J. K., & Jones, M. N. (2019). The role of negative information in distributional semantic learning. *Cognitive Science*, 43, e12730.
- Johns, B. T.** & Jamieson, R. K. (2019). The influence of time and place on lexical behavior: A distributional analysis. *Behavior Research Methods*, 51, 2438-2453.
- Johns, B. T.** & Dye, M. (2019). Gender bias at scale: Evidence from the usage of personal names. *Behavior Research Methods*, 51, 1601-1618.
- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2019). Using experiential optimization to build lexical representations. *Psychonomic Bulletin & Review*, 26, 103-126.
- Johns, B. T.** (2019). Mining a crowdsourced dictionary to understand consistency and preference in word meanings. *Frontiers in Psychology*, 10, 268 (14 pages).
- Johns, B. T.** & Jamieson, R. K. (2018). A large-scale analysis of variance in written language. *Cognitive Science*, 42, 1360-1374.
- Jamieson, R.K., Avery, J. F., **Johns, B. T.**, & Jones, M. N. (2018). An instance theory of distributional semantics. *Computational Brain & Behavior*, 1, 119–136.
- Johns, B. T.**, Taler, V., Pisoni, D. B., Farlow, M. R., Hake, A. M., Kareken, D. A., Unverzagt, F. W., & Jones, M. N. (2018). Cognitive modeling as an interface between brain and

- behavior: Measuring the semantic decline in mild cognitive impairment. *Canadian Journal of Experimental Psychology*, 72, 117-126.
- Jamieson, R. K., Avery, J. E., **Johns, B. T.**, & Jones, M. N. (2018). An instance theory of distributional semantics. In C. Kalish, M. Rau, J. Zhu, & T. T. Rogers (Eds.), *Proceedings of the 39th Conference of the Cognitive Science Society*. Austin TX: Cognitive Science Society.
- Jones, M. N., Dye, M., & **Johns, B. T.** (2017). Context as an organizational principle of the lexicon. In B. Ross (Ed.), *The Psychology of Learning and Motivation*.
- Johns, B. T.**, Mewhort, D. J. K., & Jones, M. N. (2017). Small worlds and big data: Examining the simplification assumption in cognitive modeling. In Jones, M. N. (Ed.) *Big Data in Cognitive Science: From Methods to Insights*, Taylor & Francis.
- Johns, B. T.**, Dye, M. W., & Jones, M. N. (2016). The influence of contextual diversity on word learning. *Psychonomic Bulletin & Review*, 4, 1214-1220.
- Johns, B. T.**, Sheppard, C. L., Jones, M. N., & Taler, V. (2016). The role of semantic diversity in word recognition across aging and bilingualism. *Frontiers in Psychology*, 7, 703 (11 pages).
- Chubala, C. M., **Johns, B. T.**, Jamieson, R. K., & Mewhort, D. J. K. (2016). Applying an exemplar model to the implicit rule-learning task: Implicit learning of semantic structure. *Quarterly Journal of Experimental Psychology*, 69, 1049-1055.
- 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 Annual Conference of the Cognitive Science Society*.
- Dye, M., **Johns, B. T.**, & Ramscar, M. (2016). The structure of names in memory: Deviations from uniform entropy impair memory for linguistic sequences. *Proceedings of the 38th Annual Conference of the Cognitive Science Society*.
- 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 Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, & Jones, M. N. (2015). Generating structure from experience: A retrieval-based model of sentence processing. *Canadian Journal of Experimental Psychology*, 69, 233-251. **[Winner of 2015 CPA/CSBBCS Best Article Award]**
- Johns, B. T.**, Dye, M., Jones, M. N. (2014). The influence of contextual variability on word learning. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2014). A continuous source reinstatement model of true and illusory recollection. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, & Jones, M. N. (2014). Generating structure from experience: The role of memory in language. *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Taler, V., **Johns, B. T.**, Young, K., Sheppard, C., & Jones, M. N. (2013). A computational analysis of semantic structure in bilingual fluency. *Journal of Memory and Language*, 69, 607-618..
- 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)*.

- Johns, B. T.,** Jones, M. N., & Mewhort, D. J. K. (2012). A synchronization account of false recognition. *Cognitive Psychology*, 65, 486-518.
- 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, 74-80.
- Johns, B. T.,** & Jones, M. N. (2012). Perceptual inference through global lexical similarity. *Topics in Cognitive Science*, 4, 103-120.
- Jones, M. N., **Johns, B. T.,** & Recchia, G. (2012). The role of semantic diversity in lexical organization. *Canadian Journal of Experimental Psychology*, 66, 115-124.
- 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*. Austin, TX: Cognitive Science Society. [**Marr Prize Winner**]
- Johns, B. T.,** & Jones, M. N. (2010). Evaluating the random representation assumption of lexical semantics in cognitive models. *Psychonomic Bulletin & Review*, 17, 662-672.
- Mewhort, D. J. K., **Johns, B. T.,** & Kelly, M. (2010). Applying the permutation test to factorial designs. *Behavior Research Methods*, 42, 366-372.
- Johns, B. T.,** & Jones, M. N. (2010). Are random representations accurate approximations of lexical semantics? In S. Ohisson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Cognitive Science Society*. Austin TX: CSS.
- Mewhort, D. J. K., Kelly, M., & **Johns, B. T.** (2009). Randomization tests and the unequal-N/unequal-variance problem. *Behavior Research Methods*, 41, 664-667.
- 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.
- 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.
- Johns, B. T.,** & Jones, M. N. (2008). Predicting word-naming and lexical decision times from a semantic space model. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (p. 279-285). Austin, TX: Cognitive Science Society.
- Recchia, G., **Johns, B. T.,** & Jones, M. N. (2008). Context repetition benefits are dependent on context redundancy. In B. C. Love, K. McRae, & V. M. Sloutsky (Eds.), *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (p. 267-273). Austin, TX: Cognitive Science Society.

CONFERENCE PRESENTATIONS AND POSTERS

- Johns, B. T. (2023). Socially grounded computational models of language: A new direction for formal models of language processing. Invited Keynote Talk at *CARLA 2023: Concepts in Action: Representation, Learning, and Applications*.
- Chang, M. & Johns, B. T. (2023). Integrating distributed semantic models with an instance memory model to explain false recognition. Paper presented at *The 33rd Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science*.
- Antal, C., de Almeida, R., & Johns, B. T. (2023). The effect of contextual and semantic diversity in word recognition: evidence from a dichoptic lexical decision task with anaglyphs. Paper presented at *The 33rd Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science*.
- Johns, B. T. (2023). Computing word meanings by aggregating individualized distributional models: wisdom of the crowds in lexical semantic memory. Paper presented at *The 33rd Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science*.
- Chang, M., Johns, B. T., & Brainerd, C. J. (2023). True and false recognition in MINERVA2: A computational implementation of fuzzy-trace theory. Paper presented at *The 64th Annual Meeting of the Psychonomic Society*.
- Chang, M. & Johns, B. T. (2023). Integrating neural embedding models with an instance memory model to explain false recognition. Paper presented *the 45th Annual Conference of the Cognitive Science Society*.
- Johns, B. T. (2022). Socially grounded computational models of language: A new direction for formal models of language processing. Paper presented at the *International Conference on the Mental Lexicon 2022*.
- Senaldi, M., Titone, D., & Johns, B. T. (2022). Exploring the role of socially-based contextual diversity in idiom processing. Paper presented at the *International Conference on the Mental Lexicon 2022*.
- Yang, M., Senaldi, M., Wei, J., Johns, B. T., & Titone, D. (2022). Validity of Corpus-Based Measures of Idiom Processing in English and Mandarin Chinese. Paper presented at the *Conference of the Canadian Society of Brain, Behavior, and Cognitive Sciences*.
- Antal, C., de Almeida, R., & Johns, B. T. (2022). Access to object concepts is modulated by usage-based properties of feature labels. Paper presented at the *Conference of the Canadian Society of Brain, Behavior, and Cognitive Sciences*.
- Senaldi, M., Titone, D., & Johns, B. T. (2022). Contextual diversity as a lexical organizer of multiword expressions. Paper presented at the *Conference of the Canadian Society of Brain, Behavior, and Cognitive Sciences*.
- Johns, B. T.** (2022). The continued importance of theory: Lessons from machine learning approaches to cognition. Vincent Di Lillo Early Career Award Lecture to be presented at the *Conference of the Canadian Society of Brain, Behavior, and Cognitive Sciences*.
- Qiu, M., Castro, N., & **Johns, B. T.** (2021). Structural comparisons of noun and verb networks in the mental lexicon. Paper presented at the *43rd Annual Conference of the Cognitive Science Society*.

- Johns, B. T.** (2021). A communicative account of lexical organization. Paper presented at the *Conference of the Canadian Society of Brain, Behavior, and Cognitive Sciences*.
- Senaldi, M., Titone, D., & **Johns, B.T.** (2021). Contextual diversity and the lexical organization of multiword expressions. Poster presented at the *42nd Annual Conference of the Cognitive Science Society*.
- Crump, M. J. C., Jamieson, R. K., **Johns, B. T.**, & Jones, M. N. (2020). Controlling the retrieval of general versus specific semantic knowledge in the instance theory of semantic memory. Paper presented at the *42nd Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, & Dye, M. (2019). Gender bias at scale: Evidence from the usage of personal names. Paper presented at the *Conference of the Canadian Society for Brain, Behavior, and Cognitive Science*
- Johns, B. T.** (2018). The continued importance of theory: Lessons from big data approaches to cognition. Invited talk at the *6th Purdue Symposium on Psychological Sciences*.
- Jamieson, R.K., **Johns, B. T.**, Avery, J. F., & Jones, M. N. (2018). An instance theory of distributional semantics. Paper presented at the *41st Annual Conference of the Cognitive Science Society*.
- Dye, M., **Johns, B. T.**, Jones, M. N., & Ramscar, M. (2018). Sensitivity to linguistic structure emerges as a function of expertise. Poster presented at the *40th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.** & Jamieson, R. K. (2017). A large scale analysis of variance in written language. Paper presented at the *58th Annual Conference of the Psychonomics Society*.
- Johns, B. T.** (2017). Estimating the prevalence and diversity of words in written language. Paper presented at the *High Performance Computing Symposium*. Kingston, Ontario, Canada.
- Johns, B. T.** (2016). Cognitive technologies and text mining. Invited talk in the President's symposium at the *48th Conference of the Society for Computers in Psychology*.
- 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 *Conference of the Canadian Society for Brain, Behavior, and Cognitive Science*. Ottawa, Canada.
- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2016). Experience as a free parameter in the cognitive modeling of language. Paper to be presented at the *38th Annual Conference of the Cognitive Science Society*.
- Dye, M., **Johns, B. T.**, & Ramscar, M. (2016). The structure of names in memory: Deviations from uniform entropy impair memory for linguistic sequences. Poster to be presented at the *38th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, Jamieson, R. K., Crump, M. J. C., Jones, M. N., & Mewhort, D. J. K. (2016). The combinatorial power of experience. Paper to be presented at the *38th Annual Conference of the Cognitive Science Society*.
- 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 the *Conference of the Canadian Society for Brain, Behavior, and Cognitive Science*. Ottawa, Canada.
- Chubala, C., **Johns, B. T.**, Jamieson, R. K., & Mewhort, D. J. K. (2015). Applying an Exemplar Model to Implicit Learning of Conjunctive Rule Sets: Structure Emerges from Encoding

- Representations. Paper presented at the *Conference of the Canadian Society for Brain, Behavior, and Cognitive Science*. Ottawa, Canada.
- Taler, V., **Johns, B. T.**, Sheppard, C., & Jones, M. N. (2015). Determining the Linguistic Information Sources Underlying Verbal Fluency Performance across Aging and Cognitive Impairment. Paper presented at the *Conference of the Canadian Society for Brain, Behavior, and Cognitive Science*. Ottawa, Canada.
- Johns, B. T.**, Sheppard, C., Jones, M. N., & Taler, V. (2014). Semantic diversity and lexical organization in aging and bilingualism. Paper presented at the *Mental Lexicon Conference*. Niagra, Canada.
- Johns, B. T.**, Dye, M., Jones, M. N. (2014). The influence of contextual variability on word learning. Paper to be presented at *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2014). A continuous source reinstatement model of true and illusory recollection. Paper to be presented at *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.**, & Jones, M. N. (2014). Generating structure from experience: The role of memory in language. Paper to be presented at *Proceedings of the 36th Annual Conference of the Cognitive Science Society*.
- Johns, B. T.** (2013). Linking brain and behaviour using large scale computational models of knowledge. Invited talk at *Complex Data and Analytics in Medical Research Symposium*, Toronto, Ontario.
- Johns, B. T.**, & Shiffrin, R. M. (2013). Orthographic and semantic visual priming. *Society for Mathematical Psychology*, Potsdam, Germany.
- 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 *Proceedings of the 12th International Conference on Cognitive Modeling (ICCM)*.
- Dye, M., Cao, R., **Johns, B. T.** & Dennis, S. (2013). The dynamics of intrusion in cued recall. *Society for Mathematical Psychology*, Potsdam, Germany.
- Dye, M., **Johns, B. T.** & Ramscar, M. (2013). What's in a name? Engineering memorable names with the tools of information theory. *Society for Mathematical Psychology*, Potsdam, Germany.
- Johns, B. T.**, & Jones, M. N. (2012). Generating structure from experience: The role of memory in language. *Paper presented at the 22nd Meeting of CSBBCS*
- Johns, B. T.**, & Jones, M. N. (2012). A synchronization model of recognition and source memory. *Poster presented at Context and Episodic Memory Symposium 2012*.
- Johns, B. T.**, Jones, M. N., & Mewhort, D. J. K. (2012). A synchronization account of false recognition. *Paper presented at the 2nd Annual Midwestern Cognitive Science Conference*.
- Johns, B. T.**, & Jones, M. N. (2011). Grounding the lexicon: Inferring perceptual representations from global lexical similarity. *Paper presented at the 41st Meeting of the Society for Computers in Psychology*.

- Johns, B. T.,** Taler, V., Young, K., Sheppard, C., & Jones, M. N. (2011). A computational analysis of semantic structure in bilingual fluency. *Poster presented at the 41st Meeting of the Society for Computers in Psychology.*
- Johns, B. T.,** & Jones, M. N. (2011). Construction in semantic memory: Generating perceptual representations with global lexical similarity. *Paper presented at 33rd Meeting of the Cognitive Science Society.*
- 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.*
- Johns, B. T.,** Jones, M. N., & Mewhort, D. J. K. (2010). A synchronization account of false recognition. *Poster presented at the 40th Meeting of the Society for Computers in Psychology.*
- Johns, B. T.,** & Jones, M. N. (2010). Are random representations accurate approximations of lexical semantics? *Poster presented at the 32nd Meeting of the Cognitive Science Society.*
- 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.*
- 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 39th Meeting of the Society for Computers in Psychology.* **Winner of Castellan Award for best student paper**
- 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.*
- Johns, B. T.,** & Jones, M. N. (2009). False recognition through semantic amplification. *Poster presented at the 31st Cognitive Science Society Meeting.*
- Johns, B. T.,** & Jones, M. N. (2008). Predicting word-naming and lexical decision times from a semantic space model. *Paper presented at 30th Annual Conference of the Cognitive Science Society.*
- Recchia, G., **Johns, B. T.,** & Jones, M. N. (2008). Context repetition benefits are dependent on context redundancy. *Paper presented at 30th Annual Conference of the Cognitive Science Society.*
- 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 38th Meeting of the Society for Computers in Psychology.*
- Johns, B. T.,** & Jones, M. N. (2008). Using a Contextual Co-occurrence Learning Model to Predict Item-Specific Retrieval and Recognition Effects. Paper presented at the *18th Meeting of CSBBCS.*
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