

# Daniel Mirman

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## Interests

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### Research

- Spoken language comprehension and production
- Semantic memory
- Learning and recovery in aphasia
- Computational models of brain and cognition
- Analysis of time course data
- Individual differences in language processing

### Teaching

- Cognitive Neuroscience
- Cognitive Science
- Computational Modeling
- Psychology of Language
- Brain and Language
- Statistics and Research Methods

## Employment

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- Associate Professor** **2016–Present**  
*Department of Psychology, University of Alabama at Birmingham, Birmingham, AL*
- Assistant Professor** **2013–2016**  
*Department of Psychology, Drexel University, Philadelphia, PA*
- Affiliated Scientist** **2014–Present**  
*Moss Rehabilitation Research Institute, Elkins Park, PA*
- Institute Scientist** **2009–2013**  
*Moss Rehabilitation Research Institute, Elkins Park, PA*
- Postdoctoral Fellow** **2005–2008**  
*University of Connecticut, Storrs, CT and Haskins Laboratories, New Haven, CT*

## Education

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- Ph.D., Psychology (Cognitive Neuroscience)** **2000–2005**  
*Carnegie Mellon University and Center for the Neural Basis of Cognition, Pittsburgh, PA*
- B.A., Magna Cum Laude** **1996–2000**  
*Cornell University, Ithaca, NY*  
Majors: Psychology, Chemistry. Concentration: Cognitive Science

## Teaching and Mentoring Experience

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**Courses:** Cognitive Neuroscience, Cognitive Psychology, Computational Modeling, Multilevel Regression, Perception, Psychology of Language, Statistical Programming, Independent Study for Undergraduates.

**Tutorials:** Growth Curve Analysis, R, Matlab for Behavioral Sciences, Computational Modeling of Spoken Language Processing.

**Mentoring and Co-Mentoring:** 5 post-doctoral fellows, 4 graduate students, 3 post-baccalaureate research assistants, 9 undergraduate students.

## Funding

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### Current.....

**The efficacy of a visualizing reading intervention in children with ASD** 07/2018 – 06/2023  
*NIDCD (R01DC016303)*

Role: Co-Investigator (PI: Rajesh Kana)

**An informatics approach to distracted driving** 09/2017 – 08/2019  
*CDC (R44CE002753)*

Role: Co-Investigator (PI: Sara Seifert)

### Consulting.....

**Early Detection and Treatment of Emerging Cognitive-Linguistic Impairment in Minority Cognitive Aging and Primary Progressive Aphasia (R01DC013063):** PI: Jamie Reilly (2019 – 2024)

**Retrieval Practice Principles: A Theory of Learning for Aphasia Rehabilitation (R01DC015516):** PI: Erica Middleton (2017 – 2022)

**Conceptual Combination (R01DC015359):** PI: Sharon Thompson-Schill (2016 – 2021)

### Completed.....

**TMS as a biomarker of plasticity in aphasia recovery** 09/2013 – 08/2018  
*NIDCD (R01DC012780)*

Role: Consultant/Co-Investigator (PI: Roy Hamilton)

**Dynamics of spoken word comprehension in aphasia** 06/2010 – 11/2016  
*NIDCD (R01DC010805)*

Role: Principal Investigator

**Effect of brain damage on oculomotor and cognitive dynamics** 01/2010 – 07/2011  
*Albert Einstein Society (Research Grant #09-13)*

Role: Principal Investigator

**Access of semantic knowledge during speech perception** 2006–2008  
*National Institute of Child Health and Human Development*  
Postdoctoral NRSA Fellowship (F32HD052364)

**Interactive processing in speech perception** 2004–2005  
*National Institute on Deafness and Other Communication Disorders*  
Predoctoral NRSA Fellowship (F31DC006791)

## Publications

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‡ co-author was a post-doctoral fellow working in my laboratory

§ co-author was a student or research assistant working in my laboratory

### Books.....

Papafragou, A., Grodner, D., Mirman, D., and Trueswell, J. (Eds.) (2016). *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society. Available at <https://mindmodeling.org/cogsci2016/>.

Mirman, D. (2014). *Growth Curve Analysis and Visualization Using R*. Chapman & Hall/CRC Press.

### Peer-Reviewed Journal Articles.....

Mirman, D. and Thye<sup>§</sup>, M. (in press). Uncovering the Neuroanatomy of Core Language Systems Using Lesion-Symptom Mapping. *Current Directions in Psychological Science*.

Botezatu<sup>‡</sup>, M.R., and Mirman, D. (in press). Impaired Lexical Selection and Fluency in Post-Stroke Aphasia. *Aphasiology*.

Chen<sup>‡</sup>, Q., Middleton, E., and Mirman, D. (in press). Words fail: Lesion-symptom mapping of errors of omission in post-stroke aphasia. *Journal of Neuropsychology*. DOI: 10.1111/jnp.12148.

Mirman, D., Landrigan<sup>§</sup>, J.-F., Kokolis, S.<sup>§</sup>, Verillo, S.<sup>§</sup>, Ferrara, C.<sup>§</sup>, and Pustina, D. (2018). Corrections for multiple comparisons in voxel-based lesion-symptom mapping. *Neuropsychologia*, 115, 112-123. DOI: 10.1016/j.neuropsychologia.2017.08.025.

Magnuson, J., Mirman, D., Luthra, S., Strauss, T., and Harris, H. (2018). Interaction in spoken word recognition models: Feedback helps. *Frontiers in Psychology*, 9(369), 1-18. DOI: 10.3389/fpsyg.2018.00369.

Landrigan<sup>§</sup>, J.-F. and Mirman, D. (2018). The Cost of Switching Between Taxonomic and Thematic Semantics. *Memory & Cognition*, 46(2), 191-203. DOI: 10.3758/s13421-017-0757-5.

Mirman, D., Landrigan<sup>§</sup>, J.-F., and Britt<sup>§</sup>, A.E. (2017). Taxonomic and Thematic Semantic Systems. *Psychological Bulletin*, 143(5), 499-520. DOI: 10.1037/bul0000092.

Peñalosa, C., Mirman, D., Cardona, P., Juncadella, M., Martin, N., Laine, M., and Rodríguez-Fornells, A. (2017). Cross-situational word learning in aphasia. *Cortex*, 93, 12-27. DOI: 10.1016/j.cortex.2017.04.020.

Rosen, D.S., Kim, Y.E., Mirman, D., and Kounios, J. (2017). All you need to do is ask?: The exhortation to be creative improves creative performance more for non-expert than expert jazz musicians. *Psychology of Aesthetics, Creativity, and the Arts*, 11(4), 420-427. DOI: 10.1037/aca0000087.

Schuh, J.M., Eigsti, I.-M., and Mirman, D. (2016). Discourse comprehension in autism spectrum disorder: Effects of working memory load and common ground. *Autism Research*, 9(12), 1340-1352. DOI: 10.1002/aur.1632.

Rosen, D. S., Erickson, B., Kim, Y.E., Mirman, D., Hamilton, R. H., and Kounios, J. (2016). Anodal tDCS to right dorsolateral prefrontal cortex facilitates performance for novice jazz improvisers but hinders experts. *Frontiers in Human Neuroscience*, 10(579), 1-12. DOI: 10.3389/fnhum.2016.00579.

Britt<sup>§</sup>, A.E., Ferrara<sup>§</sup>, C., and Mirman, D. (2016). Distinct effects of lexical and semantic competition during picture naming in younger adults, older adults, and people with aphasia. *Frontiers in Psychology*, 7(813), 1-17. DOI: 10.3389/fpsyg.2016.00813.

- Nozari, N., Mirman, D., and Thompson-Schill, S.L. (2016). The ventrolateral prefrontal cortex facilitates processing of sentential context to locate referents. *Brain and Language*, 157-158, 1-13. DOI: 10.1016/j.bandl.2016.04.006.
- Peñalosa, C., Mirman, D., Tuomiranta, D., Benetello, A., Heikius, I.-M., Järvinen, S., Cardona, P., Juncadella, M., Laine, M., Martin, N., and Rodríguez-Fornells, A. (2016). Novel word acquisition in aphasia: Facing the word-referent ambiguity of natural language learning contexts. *Cortex*, 79, 14-31. DOI: 10.1016/j.cortex.2016.03.009.
- Landrigan<sup>§</sup>, J.-F. and Mirman, D. (2016). Taxonomic and thematic relatedness ratings for 659 word pairs. *Journal of Open Psychology Data*, 4, e2. DOI: <http://doi.org/10.5334/jopd.24>. Data available at <http://dx.doi.org/10.7910/DVN/FKTQ4C>.
- Mirman, D., Zhang, Y., Wang, Z., Coslett, H.B., and Schwartz, M.F. (2015). The ins and outs of meaning: Behavioral and neuroanatomical dissociation of semantically-driven word retrieval and multimodal semantic recognition in aphasia. *Neuropsychologia*, 76, 208-219. DOI: 10.1016/j.neuropsychologia.2015.02.014
- Skipper-Kallal<sup>§</sup>, L.M., Mirman, D., and Olson, I.R. (2015). Converging evidence from fMRI and aphasia that the left temporoparietal cortex has an essential role in representing abstract semantic knowledge. *Cortex*, 69, 104-120. DOI: 10.1016/j.cortex.2015.04.021
- Mirman, D., Chen<sup>‡</sup>, Q., Zhang, Y., Wang, Z., Faseyitan, O.K., Coslett, H.B., and Schwartz, M.F. (2015). Neural organization of spoken language revealed by lesion-symptom mapping. *Nature Communications*, 6(6762), 1-9. DOI: 10.1038/ncomms7762.
- Chen<sup>‡</sup>, Q., and Mirman, D. (2015). Interaction between phonological and semantic representations: Time matters. *Cognitive Science*, 39(3), 538-558. DOI: 10.1111/cogs.12156.
- McClelland, J.L., Mirman, D., Bolger, D.J., and Khaitan, P. (2014). Interactive activation and mutual constraint satisfaction in perception and cognition. *Cognitive Science*, 38(6), 1139-1189. DOI: 10.1111/cogs.12146.
- Lee<sup>‡</sup>, C.-L., Mirman, D., and Buxbaum, L.J. (2014). Abnormal dynamics of activation of object use information in apraxia: Evidence from eyetracking. *Neuropsychologia*, 59, 13-26. DOI: 10.1016/j.neuropsychologia.2014.04.004.
- Britt<sup>§</sup>, A.E., Mirman, D., Kornilov, S.A., and Magnuson, J.S. (2014). Effect of repetition proportion on language-driven anticipatory eye movements. *Acta Psychologica*, 145(1), 128-138. DOI: 10.1016/j.actpsy.2013.10.004.
- Mirman, D., and Britt<sup>§</sup>, A.E. (2014). What we talk about when we talk about access deficits. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 369(1634). DOI: 10.1098/rstb.2012.0388.
- Mirman, D. and Graziano<sup>§</sup>, K.M. (2013). The neural basis of inhibitory effects of semantic and phonological neighbors in spoken word production. *Journal of Cognitive Neuroscience*, 25(9), 1504-1516. DOI: 10.1162/jocn\_a\_00408.
- Mirman, D., Britt<sup>§</sup>, A.E., and Chen<sup>‡</sup>, Q. (2013). Effects of phonological and semantic deficits on facilitative and inhibitory consequences of item repetition in spoken word comprehension. *Neuropsychologia*, 51(10), 1848-1856. DOI: 10.1016/j.neuropsychologia.2013.06.005.
- Lupyan, G. and Mirman, D. (2013). Linking language and categorization: Evidence from aphasia. *Cortex*, 49(5), 1187-1194. DOI: 10.1016/j.cortex.2012.06.006.
- Lee<sup>‡</sup>, C.-L., Middleton, E. L., Mirman, D., Kalénine<sup>‡</sup>, S., and Buxbaum, L. J. (2013). Incidental and context-responsive activation of structure- and function-based action features during object

- identification. *Journal of Experimental Psychology: Human Perception and Performance*, 39(1), 257-270. DOI: 10.1037/a0027533.
- Mirman, D. and Graziano<sup>S</sup>, K.M. (2012). Individual differences in strength of taxonomic versus thematic relations. *Journal of Experimental Psychology: General*, 141(4), 601-609. DOI: 10.1037/a0026451.
- Mirman, D. and Graziano<sup>S</sup>, K.M. (2012). Damage to temporo-parietal cortex decreases incidental activation of thematic relations during spoken word comprehension. *Neuropsychologia*, 50(8), 1990-1997. DOI: 10.1016/j.neuropsychologia.2012.04.024.
- Lupyan, G., Mirman, D., Hamilton, R., and Thompson-Schill, S.L. (2012). Categorization is modulated by transcranial direct current stimulation over left prefrontal cortex. *Cognition*, 124(1), 36-49. DOI: 10.1016/j.cognition.2012.04.002
- Kalénine<sup>‡</sup>, S., Mirman, D., Middleton, E. L., and Buxbaum, L. J. (2012). Temporal dynamics of activation of thematic and functional knowledge during conceptual processing of manipulable artifacts. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 38(5), 1274-1295. DOI: 10.1037/a0027626.
- Kalénine<sup>‡</sup>, S., Mirman, D., and Buxbaum, L. J. (2012). A combination of thematic and similarity-based semantic processes confers resistance to deficit following left hemisphere stroke. *Frontiers in Human Neuroscience*, 6(106), 1-12. DOI: 10.3389/fnhum.2012.00106
- Chen<sup>‡</sup>, Q. and Mirman, D. (2012). Competition and cooperation among similar representations: Toward a unified account of facilitative and inhibitory effects of lexical neighbors. *Psychological Review*, 119(2), 417-430. DOI: 10.1037/a0027175.
- Dixon, J.A., Holden, J.G., Mirman, D., and Stephen, D.G. (2012). Development of cognition from the multifractality of perception-action. *Topics in Cognitive Science*, 4(1), 51-62. DOI: 10.1111/j.1756-8765.2011.01162.x.
- Mirman, D., Irwin, J.R., and Stephen, D.G. (2012). Eye movement dynamics and cognitive self-organization in typical and atypical development. *Cognitive Neurodynamics*, 6(1), 61-73. DOI 10.1007/s11571-011-9180-y.
- Schwartz, M.F., Kimberg, D.Y., Walker, G.M., Brecher, A., Faseyitan, O., Dell, G.S., Mirman, D., and Coslett, H.B. (2011). A neuroanatomical dissociation for taxonomic and thematic knowledge in the human brain. *Proceedings of the National Academy of Sciences*, 108(20), 8520-8524. DOI: 10.1073/pnas.1014935108.
- Mirman, D.\*, Yee, E.\*, Blumstein, S., and Magnuson, J.S. (2011). Theories of spoken word recognition deficits in aphasia: Evidence from eye-tracking and computational modeling. *Brain & Language*, 117(2), 53-68. DOI: 10.1016/j.bandl.2011.01.004. (\* The two first authors contributed equally.)
- Mirman, D. (2011). Effects of near and distant semantic neighbors on word production. *Cognitive, Affective, and Behavioral Neuroscience*, 11(1), 32-43. DOI: 10.3758/s13415-010-0009-7.
- Mirman, D., Strauss, T.J., Brecher, A., Walker, G.M., Sobel, P., Dell, G.S., and Schwartz, M.F. (2010). A large, searchable, web-based database of aphasic performance on picture naming and other tests of cognitive function. *Cognitive Neuropsychology*, 27(6), 495-504. DOI: 10.1080/02643294.2011.574112.
- Mirman, D., Graf Estes, K., and Magnuson, J.S. (2010). Computational modeling of statistical learning: Effects of transitional probability vs. frequency and links to word learning. *Infancy*, 15(5), 471-486. DOI: 10.1111/j.1532-7078.2009.00023.x.

- Stephen, D. G. and Mirman, D. (2010). Interactions dominate the dynamics of visual cognition. *Cognition*, 115(1), 154-165. DOI: 10.1016/j.cognition.2009.12.010.
- Mirman, D., Strauss, T.J., Dixon, J.A., and Magnuson, J.S. (2010). Effect of representational distance between meanings on recognition of ambiguous spoken words. *Cognitive Science*, 34(1), 161-173. DOI: 10.1111/j.1551-6709.2009.01069.x.
- Mirman, D. and Magnuson, J.S. (2009). Dynamics of activation of semantically similar concepts during spoken word recognition. *Memory & Cognition*, 37(7), 1026-1039. DOI: 10.3758/MC.37.7.1026.
- Mirman, D. and Magnuson, J.S. (2009). The effect of frequency of shared features on judgments of semantic similarity. *Psychonomic Bulletin & Review*, 16(4), 671-677. DOI: 10.3758/PBR.16.4.671.
- Stephen, D. G., Mirman, D., Magnuson, J. S., and Dixon, J. A. (2009). Lévy-like diffusion in spoken-language comprehension. *Physical Review E*, 79, 056114. DOI: 10.1103/PhysRevE.79.056114.
- Mirman, D. (2008). Mechanisms of semantic ambiguity resolution: Insights from speech perception. *Research on Language and Computation*, 6(3-4), 293-309. DOI: 10.1007/s11168-008-9055-5.
- Mirman, D., Dixon, J.A., and Magnuson, J.S. (2008). Statistical and computational models of the visual world paradigm: Growth curves and individual differences. *Journal of Memory and Language*, 59(4), 475-494. DOI: 10.1016/j.jml.2007.11.006.
- Mirman, D., Magnuson, J.S., Graf Estes, K., and Dixon, J.A. (2008). The link between statistical segmentation and word learning in adults. *Cognition*, 108(1), 271-280. DOI: 10.1016/j.cognition.2008.02.003.
- Mirman, D., McClelland, J.L., Holt, L.L., and Magnuson, J.S. (2008). Effects of attention on the strength of lexical influences on speech perception: Behavioral experiments and computational mechanisms. *Cognitive Science*, 32(2), 398-417. DOI: 10.1080/03640210701864063.
- Mirman, D. and Magnuson, J.S. (2008). Attractor dynamics and semantic neighborhood density: Processing is slowed by near neighbors and speeded by distant neighbors. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 34(1), 65-79. DOI: 10.1037/0278-7393.34.1.65.
- Mirman, D., McClelland, J.L., and Holt, L.L. (2006). An interactive Hebbian account of lexically guided tuning of speech perception. *Psychonomic Bulletin & Review*, 13(6), 958-965. DOI: 10.3758/BF03213909.
- McClelland, J.L., Mirman, D., and Holt, L.L. (2006). Are there interactive processes in speech perception? *Trends in Cognitive Sciences*, 10(8), 363-369. DOI: 10.1016/j.tics.2006.06.007.
- Mirman, D., McClelland, J.L., and Holt, L.L. (2005). Computational and behavioral investigations of lexically induced delays in phoneme recognition. *Journal of Memory and Language*, 52(3), 424-443. DOI: 10.1016/j.jml.2005.01.006.
- Mirman, D., Holt, L.L., and McClelland, J.L. (2004). Categorization and discrimination of non-speech sounds: Differences between steady-state and rapidly-changing acoustic cues. *Journal of the Acoustical Society of America*, 116(2), 1198-1207. DOI: 10.1121/1.1766020.
- Mirman, D. and Spivey, M. (2001). Retroactive interference in neural networks and in humans: The effect of pattern-based learning. *Connection Science*, 13(3), 257-275. DOI: 10.1080/09540090110091830.

## Peer-Reviewed Conference Proceedings.....

- Landrigan<sup>§</sup>, J.-F. and Mirman, D. (2017). Reassessing Aphasic Classifications with Community Detection Analysis. In *Proceedings of the Academy of Aphasia 55th Annual Meeting*. DOI: 10.3389/conf.fnhum.2017.223.00032
- Nozari, N. and Mirman, D. (2016). Using determiners as contextual cues in sentence comprehension: A comparison between younger and older adults. In A. Papafragou, D. Grodner, D. Mirman, & J. Trueswell (Eds.) *Proceedings of the 38th Annual Cognitive Science Society Meeting* (pp. 1193-1198). Austin, TX: Cognitive Science Society.
- Botezatu<sup>‡</sup>, M.R., Landrigan<sup>§</sup>, J.-F., Chen<sup>‡</sup>, Q., and Mirman, D. (2015). Phonological Neighborhood Density Modulates Errors In Spoken Word Recognition. In Noelle, D. C., Dale, R., Warlaumont, A. S., Yoshimi, J., Matlock, T., Jennings, C. D., & Maglio, P. P. (Eds.) *Proceedings of the 37th Annual Cognitive Science Society Meeting* (pp. 250-255). Austin, TX: Cognitive Science Society.
- Botezatu<sup>‡</sup>, M.R., and Mirman, D. (2014). A Link Between Lexical Competition and Fluency in Aphasia. *Proceedings of the Academy of Aphasia 52nd Annual Meeting*. DOI: 10.3389/conf.fpsyg.2014.64.00022.
- Nozari, N., Mirman, D., and Thompson-Schill, S.L. (2014). The Role of the Left Ventrolateral Prefrontal Cortex in Online Sentence Processing. *Proceedings of the Academy of Aphasia 52nd Annual Meeting*. DOI: 10.3389/conf.fpsyg.2014.64.00012.
- Chen<sup>‡</sup>, Q., Mirman, D., Coslett, H., and Schwartz, M. (2013). Neurocognitive Components of Word Processing: Evidence from Factor Analysis and Voxelwise Lesion Mapping. *Procedia - Social and Behavioral Sciences*, 94, 147-148.
- Britt<sup>§</sup>, A.E. and Mirman, D. (2012). Mechanisms driving item repetition effects. *Procedia - Social and Behavioral Sciences*, 61, 102-103.
- Mirman, D., Walker, G.M., and Graziano<sup>§</sup>, K.M. (2011). A tale of two semantic systems: Taxonomic and thematic knowledge. In L. Carlson, C. Hoelscher, & T.F. Shipley (Eds), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*, (pp. 2211-2216). Austin, TX: Cognitive Science Society.
- Schwartz, M.F., Kimberg, D.Y., Walker, G.M., Brecher, A., Faseyitan, O., Dell, G.S., Mirman, D., and Coslett, H.B. (2010). A behavioral and anatomical analysis of associative semantic errors in picture naming. *Procedia - Social and Behavioral Sciences*, 6, 134-136.
- Mirman, D., Strauss, T.J., Brecher, A., Walker, G.M., Sobel, P., Dell, G.S., and Schwartz, M.F. (2010). A large, searchable, web-based database of aphasic performance on picture naming and other tests of cognitive function. *Procedia - Social and Behavioral Sciences*, 6, 132-133.
- Mirman, D., Kittredge, A.K., and Dell, G.S. (2010). Effects of near and distant phonological neighbors on picture naming. In S. Ohlsson & R. Catrambone (Eds), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*, (pp. 1447-1452). Austin, TX: Cognitive Science Society.
- Kubat, R., Mirman, D., and Roy, D.K. (2009). Semantic context effects on color categorization. In N.A. Taatgen & H. Van Rijn (Eds) *Proceedings of the 31st Annual Conference of the Cognitive Science Society* (pp. 491-495). Austin, TX: Cognitive Science Society.
- Mirman, D., Magnuson, J.S , Strauss, T.J., and Dixon, J.A. (2008). Effect of global context on homophone ambiguity resolution. In B.C. Love, K. McRae, & V.M. Sloutsky (Eds.), *Proceedings*

of the 30th Annual Conference of the Cognitive Science Society (pp. 663-668). Austin, TX: Cognitive Science Society.

Mirman, D. and Magnuson, J.S. (2006). The impact of semantic neighborhood density on semantic access. In R. Sun & N. Miyake (Eds) *Proceedings of the 28th Annual Conference of the Cognitive Science Society* (pp. 1823-1828), Mahwah, NJ: Lawrence Erlbaum Associates.

Mirman, D., McClelland, J.L., and Holt, L.L. (2006). Attentional modulation of lexical effects on speech perception: Computational and behavioral experiments. In R. Sun & N. Miyake (Eds) *Proceedings of the 28th Annual Conference of the Cognitive Science Society* (pp. 591-596), Mahwah, NJ: Lawrence Erlbaum Associates.

### **Book Chapters**

Mirman, D. (2016). Zones of proximal development for models of spoken word recognition. In T. Harley (Series Ed.) & G.M. Gaskell & J. Mirković (Vol. Eds.), *Current Issues in the Psychology of Language: Speech Perception and Spoken Word Recognition* (pp. 97-115). New York, USA: Routledge, Psychology Press.

Magnuson, J.S., Mirman, D., and Myers, E. (2013). Spoken word recognition. In D. Reisberg (Ed), *The Oxford Handbook of Cognitive Psychology* (pp. 412-441). New York, USA: Oxford University Press.

Magnuson, J.S., Mirman, D., and Harris, H.D. (2012). Computational models of spoken word recognition. In M. Spivey, M. Joanisse, & K. McRae (Eds), *The Cambridge Handbook of Psycholinguistics* (pp. 76-103). Cambridge: Cambridge University Press.

### **Comments, Replies, and Technical Reports**

Mirman, D., Landrigan, J.-F., Kokolis, S., Verillo, S., Ferrara, C., and Pustina, D. (2016, Dec. 14). Corrections for multiple comparisons in voxel-based lesion-symptom mapping. arXiv:1612.04345 [stat.AP]. Available at <http://arxiv.org/abs/1612.04345>.

Mirman, D., Landrigan, J.-F., Kokolis, S., Verillo, S., and Ferrara, C. (2016, June 1). Permutation-based cluster size correction for voxel-based lesion-symptom mapping. arXiv:1606.00475 [stat.AP]. Available at <http://arxiv.org/abs/1606.00475>.

Kelty-Stephen, D. G. and Mirman, D. (2013). Gaze fluctuations are not additively decomposable: Reply to Bogartz and Staub. *Cognition*, 126(1), 128-134. DOI: 10.1016/j.cognition.2012.09.002.

Mirman, D., McClelland, J.L., and Holt, L.L. (2006). Reply to McQueen et al.: Theoretical and empirical arguments support interactive processing. *Trends in Cognitive Sciences*, 10(12), 534.

## **Presentations**

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### **Invited**

Mirman, D. (April, 2018). *Neuroanatomy of Core Language Systems: A Data-Driven Journey*. Invited colloquium, Cognitive Science Program, University of Arizona, Tucson, AZ.

Mirman, D. (December, 2017). *Neuroanatomy of Core Language Systems*. Invited colloquium, Department of Psychology and Center for Cognitive and Psycholinguistic Sciences, Binghamton University - State University of New York, Binghamton, NY.

Mirman, D. (February, 2017). *Complementary Semantic Systems*. Invited colloquium presented at the Institute of Cognitive and Brain Sciences, University of California - Berkeley, Berkeley, CA.

- Mirman, D. (November, 2016). *Mapping spoken language impairments following left hemisphere stroke*. Invited research presentation at the 2016 American Speech-Language-Hearing Association (ASHA) Convention, Philadelphia, PA.
- Mirman, D. (May, 2016). Word selection in aphasia. Invited paper presented in C. Tomkins & S. Kiran (Chairs), *2016 Research Symposium in Clinical Aphasiology*. Symposium at the 2016 Clinical Aphasiology Conference, Charlottesville, VA.
- Mirman, D. (March, 2016). *Spoken Language Deficits and Systems*. Invited colloquium presented at Tufts University, Medford, MA.
- Mirman, D. (September, 2015). *Organization of Spoken Language*. Invited colloquium presented at the Department of Psychology, Rutgers University, Newark, NJ.
- Mirman, D. (January, 2015). Mapping Word Recognition and Production in Aphasia. *Topics in Rehabilitation Science*, Moss Rehabilitation Research Institute, Elkins Park, PA.
- Mirman, D. (October, 2014). The Ins and Outs of Spoken Language: Functional and neural organization of word processing. Invited talk in *Brain and Cognitive Sciences Seminar*, Department of Psychology, Temple University, Philadelphia, PA.
- Mirman, D. (January, 2014). Functional and neural organization of word processing. Invited talk in *Neuropsychology and Neuroscience Seminar*, University of Pennsylvania Medical Center, Philadelphia, PA.
- Mirman, D. (October, 2013). Angular gyrus involvement in thematic semantics: Evidence and a computational proposal. Invited paper presented in M. Rugg & S. Thompson-Schill (Chairs), *The roles of the angular gyrus in semantic and episodic memory*. Symposium at the Memory Disorders Research Society Meeting, Toronto, Canada.
- Mirman, D. and Britt, A.E. (June, 2013). What we talk about when we talk about lexical access deficits. Invited paper presented in D. Bishop, K. Nation, & K. Patterson (Chairs), *Language in developmental and acquired disorders: Converging evidence for models of language representation in the brain*. Scientific Discussion Meeting at The Royal Society, London, UK.
- Mirman, D. (October, 2012). *The functional and neuroanatomical dissociation between taxonomic and thematic semantics*. Invited colloquium at University of California - Merced.
- Mirman, D. (April, 2010). *Interactive processing in speech perception: The facts of feedback*. Invited paper presented at the 159th meeting of the Acoustical Society of America, Baltimore, MD.
- Mirman, D. (November, 2009). *Contrasting effects of near and distant semantic neighbors on word processing in aphasia*. Invited paper presented at the 39th Annual Meeting of the Society for Computers in Psychology, Boston, MA.
- Mirman, D. (June, 2008). *Attractor dynamics account for contrasting effects of near and distant semantic neighbors*. Invited paper presented at the 18th Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario, Canada.
- Mirman, D., Magnuson, J.S., Graf Estes, K., and Dixon, J.A. (June, 2007). *Linking statistical learning to language processing*. Invited paper presented at the Workshop on Current Issues in Language Acquisition: Artificial Languages and Statistical Learning, Calgary, Alberta, Canada.
- McClelland, J.L., Mirman, D., and Holt L.L. (April, 2003). *Is there still a trace of TRACE?* Invited paper presented at the 145th meeting of the Acoustical Society of America, Nashville, TN.

## Submitted (Selected, Recent).....

- Nair, S., Allendorfer, J.B., Nenert, R., Martin, A.N., Mirman, D., Vannest, J., Szaflarski, J.P. (March, 2018). *Neural correlates of self-generation and verbal memory performance during paired-associate learning*. Poster presented at the American Academy of Neurology 70th Annual Meeting. Los Angeles, CA, USA.
- Nair, S., Allendorfer, J.B., Nenert, R., Martin, A.N., Mirman, D., Vannest, J., Szaflarski, J.P. (March, 2018). *Neural correlates of self-generation and verbal memory performance during paired-associate learning*. Poster presented at the Cognitive Neuroscience Society 2018 Annual Meeting. Boston, MA, USA.
- Landrigan<sup>§</sup>, J.-F. and Mirman, D. (November, 2017). *Reassessing Aphasic Classifications with Community Detection Analysis*. Poster presented at the Academy of Aphasia 55th Annual Meeting. Baltimore, MD, USA.
- Botezatu<sup>‡</sup>, M.R., and Mirman, D. (June, 2017). *Converging Evidence from Bilingualism and Aphasia Reveals a Link Between Lexical Selection in Comprehension and Production*. Poster presented at the 11th International Symposium on Bilingualism. Limerick, Ireland.
- Rosen, D.S., Kim, Y.E., Mirman, D., and Kounios, J. (July, 2016). *All You Need to Do is Ask? The Exhortation to Be Creative Improves Creative Performance More for Non-Expert than Expert Jazz Musicians*. Poster presented at the 14th International Conference on Music Perception and Cognition. San Francisco, CA, USA.
- Landrigan<sup>§</sup>, J.-F. and Mirman, D. (November, 2015). *Switching Between Taxonomic and Thematic Processing Carries a Cost*. Poster presented at the Annual Meeting of the Psychonomic Society. Chicago, IL, USA.
- Schwartz, M.F., Brown, D.A., Britt, A., Gilmore, N., Ferrara, C., Mirman, D., and Middleton, E. (May, 2015). *The 'Verbal Stroop Task': A New Paradigm for Assessing Executive Control in Word Retrieval*. Poster presented at the 45th Annual Clinical Aphasiology Conference. Monterey, CA, USA.

## Professional Activities

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**Psychonomic Society Review Committee:** (2018-2020)

**Research Topic Editor, *Frontiers in Psychology*:** *Contemporary Neural Network Modeling in Cognitive Science* (2017)

**Editorial Board Member:** *Journal of Memory & Language* (2012-2017)

**Program Committee:** Annual Meeting of the Cognitive Science Society (2017-2018)

**Organizing Committee:** 38th Annual Meeting of the Cognitive Science Society (2016)

**Organizing Committee:** 15th Neural Computation and Psychology Workshop (2016)

### Reviewing.....

**Manuscripts:** *Cortex*; *Cognition*; *Frontiers in Psychology*; *Journal of Experimental Psychology: General*; *Journal of Experimental Psychology: Learning, Memory, and Cognition*; *Language, Cognition, and Neuroscience*; *Nature Human Behaviour*; *Neurology*; *Neuropsychologia*; *Proceedings of the National Academy of Sciences*; *Psychonomic Bulletin & Review*. (15-20 manuscripts/year)

**Conference proceedings:** Proceedings of the Cognitive Science Society Meeting (2005-2017); Neuro-

biology of Language Conference (2011-2014)

**Grant proposals:** National Institutes of Health (NIDCD: 2012-Present; NINDS: 2016); National Science Foundation (2015); Medical Research Council (2009, 2017); Agence Nationale de la Recherche (2016); Wellcome Trust (2015); Canada Foundation for Innovation (2014); Netherlands Organisation for Scientific Research (2011)

**Book proposals:** Cambridge University Press; Routledge

**Other service**.....

**IRB Member:** Albert Einstein Healthcare Network (2009-2013)

**Invited Panel Participant:** *Methods for Parsing Sound Size Effects*. The Ohio State University (June, 2012).

**Symposium Organizer and Chair:** *Theoretical perspectives on impairments in spoken language processing*, 31st Annual Cognitive Science Society Meeting (2009).

**Graduate Student Member:** CNBC Education Committee (2003).

**Organizer:** 20th Annual CMU-Pitt Graduate Student Psychology Conference (2002).

**Coordinator:** CNBC Methods Workshop Series (2001-2003).

## Professional Memberships

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- o Academy of Aphasia
- o Cognitive Science Society
- o Psychonomic Society
- o Society for the Neurobiology of Language