

Daniel Mirman

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Interests

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

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

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

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, 5 graduate students, 3 post-baccalaureate research assistants, 10 undergraduate students.

Funding

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

‡ 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.....

Geller‡, J., Landrigan§, J.-F., and Mirman, D. (in press). A Pupillometric Examination of Cognitive Control in Taxonomic and Thematic Semantic Memory. *Journal of Cognition*.

Landrigan§, J.-F., Bell, T., Crowe, M., Clay, O.J., and Mirman, D. (in press). Lifting Cognition: A meta-analysis of effects of resistance exercise on cognition. *Psychological Research*. DOI: 10.1007/s00426-019-01145-x.

Botezatu‡, M.R., and Mirman, D. (in press). Impaired Lexical Selection and Fluency in Post-Stroke Aphasia. *Aphasiology*. DOI: 10.1080/02687038.2018.1508637.

Chen‡, 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.

Geller‡, J., Thyè§, M., and Mirman, D. (2019). Estimating effects of graded white matter damage and binary tract disconnection on post-stroke language impairment. *NeuroImage*, 189, 248-257. DOI: 10.1016/j.neuroimage.2019.01.020.

Mirman, J.H., Curry, A., and Mirman, D. (2019). Learning-to-drive: A reconceptualization. *Transportation Research Part F: Psychology and Behaviour*, 62, 316-326. DOI: 10.1016/j.trf.2019.01.010.

Mirman, D. and Thyè§, M. (2018). Uncovering the Neuroanatomy of Core Language Systems Using Lesion-Symptom Mapping. *Current Directions in Psychological Science*, 27(6), 455-461. DOI: 10.1177/0963721418787486.

Thyè§, M. and Mirman, D. (2018). Relative contributions of lesion location and lesion size to predictions of varied language deficits in post-stroke aphasia. *NeuroImage: Clinical*, 20, 1129-1138. DOI: 10.1016/j.nicl.2018.10.017.

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

Peñaloza, 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[§], A.E., Ferrara[§], 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[§], 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-Kalla[§], 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[‡], 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[‡], 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[‡], 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[§], 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[§], 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[§], 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[§], A.E., and Chen[‡], 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[‡], C.-L., Middleton, E. L., Mirman, D., Kalénine[‡], 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[§], 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[§], 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[‡], 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[‡], 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[‡], 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[§], 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[‡], M.R., Landrigan[§], J.-F., Chen[‡], 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[‡], 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[‡], 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[§], 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[§], 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

- Invited**.....
- Mirman, D. (January, 2019). *Data-driven mapping of the cognitive and neural basis of language deficits in post-stroke aphasia*. Invited colloquium, San Diego State University, San Diego, CA.
- Mirman, D. (September, 2018). *Competition and Cooperation in Lexical Neighborhoods*. Invited presentation in *Parallel Distributed Processing and the Emergence of an Understanding of Mind: A Symposium in honor of James L. McClelland*. Princeton University, Princeton, NJ.
- 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).....

- Thye[§], M., Geller[‡], J., Pizarro, D., Szaflarski, J.P., and Mirman, D. (November, 2018). *An intracranial EEG Study of Semantic Cognition*. Poster presented at the 59th Psychonomic Society Annual Meeting. New Orleans, LA, USA.
- Geller[‡], J., Landrigan[§], J.-F., and Mirman, D. (November, 2018). *A Pupillometric Examination of Cognitive Control in Taxonomic and Thematic Semantic Memory*. Poster presented at the 59th Psychonomic Society Annual Meeting. New Orleans, LA, USA.
- Geller[‡], J., Winn, M., Mahr, T.J., and Mirman, D. (November, 2018). *GazeR: A package to analyze gaze position and pupil size data*. Poster presented at the 2018 Annual Meeting of the Society for Computers in Psychology. New Orleans, LA, USA.
- Landrigan[§], J.-F. and Mirman, D. (August, 2018). *Data-driven Aphasia Sub-Typing using Lesion-Symptom Mapping and Community Detection Analysis*. Poster presented at the Tenth Annual Meeting of the Society for the Neurobiology of Language. Quebec City, Canada.
- Geller[‡], J., Thye[§], M. and Mirman, D. (August, 2018). *Rethinking Effects of White Matter Tract Disconnection on Post-Stroke Language Impairment*. Poster presented at the Tenth Annual Meeting of the Society for the Neurobiology of Language. Quebec City, Canada.
- Thye[§], M. and Mirman, D. (August, 2018). *Relative Contributions of Lesion Location and Lesion Size to Predictions of Varied Language Deficits in Post-Stroke Aphasia*. Poster presented at the Tenth Annual Meeting of the Society for the Neurobiology of Language. Quebec City, Canada.
- 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[§], 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[‡], 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.

Professional Activities

Psychonomic Society Review Committee: (2018-2020)

Academic Editor: *PLOS ONE* (2018-Present)

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*. (approx. 20 manuscripts/year)

Conference proceedings: Proceedings of the Cognitive Science Society Meeting (2005-2018); Neurobiology 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; Oxford University Press; Routledge; Taylor & Francis

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

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