Curriculum Vitae

Martin Wiener, PhD Assistant Professor

George Mason University Department of Psychology Fairfax, VA

Education:

1999 – 2003 Rutgers University

B.A. Psychology

2004 – 2006 Villanova University

M.S. Experimental/Theoretical Psychology

2008 – 2011 University of Pennsylvania

Ph.D. Psychology

Research Interests:

Temporal perception and action
Spatial Navigation
Magnitude Processing
Individual differences in cognition and decision making
Musical and rhythmic processing

Fellowships:

Postdoctoral:

Postdoctoral Fellowship, Office of Naval Research Research Award (N00014-10-1-0198; PI: Thompson), (Mentors: James Thompson, Raja Parasuraman) Department of Psychology, George Mason University. 01/2013 – 08/2014.

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Postdoctoral Fellowship, NIH Training Program in Neuroscience Neuroimaging (T32 NS054575; PI: Detre), Center for Functional Neuroimaging (Mentors: John Detre, H. Branch Coslett), University of Pennsylvania. 01/2012 – 12/2012.

Predoctoral:

Benjamin Franklin Fellowship, University of Pennsylvania, 2008 - 2011

Academic and Professional Honors:

UC Davis ERP Boot Camp, 2011. American Psychological Association Dissertation Research Award, 2010. Norman Anderson Graduate Student Fund Award, 2009 Sigma Xi Scientific Honor Society

Memberships in professional societies:

Society for Neuroscience Cognitive Neuroscience Society Vision Sciences Society Organization for Human Brain Mapping Sigma Xi Scientific Honor Society

Other Professional Activities:

Ad Hoc Reviewer:

Journal of Neuroscience • Cerebral Cortex • Human Brain Mapping • NeuroImage • PLOS Computational Biology • Philosophical Transactions of the Royal Society of London: B • Proceedings of the Royal Society B • Journal of Experimental Psychology: General • Journal of Cognitive Neuroscience • Journal of Neurophysiology • Neuroscience & Biobehavioral Reviews • Neuropsychologia • Frontiers in Integrative Neuroscience • Frontiers in Cognition • European Journal of Neurology• Neuropsychology • Journal of Cognitive Psychology • Brain Imaging and Behavior • Cortex • Cognitive Computation • International Journal of Comparative Psychology • Experimental Brain Research • Timing & Time Perception.

Organizer and Chair: Timing and Temporal Processing, Society for Neuroscience Annual Meeting, Nanosymposium, New Orleans, October 13th-17th, 2012.

Organizer and Chair: Neural Coding of the 4th Dimension: Circuits for Time and Timing, Society for Neuroscience Annual Meeting, Nanosymposium, New Orleans, October 13th-17th, 2012.

Policy Experience:

09-14 – 08-16 AAAS Science & Technology Policy Fellow National Science Foundation

Specialty: Big Data & Analytics

Mentors: Deborah Lockhart & Kenneth Whang

• Advancing the Foundation's vision for the BRAIN initiative.

- Assisting Program Directors in several NSF directorates (CISE, SBE, BIO) on the review of incoming proposals related to Integrative Strategies for Understanding Neural and Cognitive Systems (NCS).
- Assisting in the implementation of the Collaborative Research in Computational Neuroscience (CRCNS) program at NSF.
- Assisting in the implementation of the Cognitive Neuroscience program at NSF (PD: Alumit Ishai).
- o Recommending reviewers for panel assignments
- Assisting in the running of NSF review panels.
- Participating in the implementation of the Big Data Initiative at NSF.
 - Assisting in the planning and organization of the Big Data Regional Innovation Hubs project.
 - o Organizing a series of workshops on regional Big Data challenges.
- Integration of Big Data policies in neuroscience.
 - o Researching policy strategies for increasing data sharing in neuroscience.
 - Organizing a NSF-sponsored workshop on data sharing in neuroscience.
- Outreach: leadership in NeuroPolicy
 - Organized a series of public lectures at AAAS on neuroscience and policy, related to current funding and career challenges in neuroscience.

Teaching Experience:

Psyc 300 – Statistics in Psychology

Psyc 592 – Music and the Brain

Psyc 892 – Human Brain Stimulation

Published Manuscripts:

Total Number of publications: 28

Number of first-author publications: 16 (57%)

Number of Citations: 1285 (H-Index: 17), source: Google Scholar.

Martin, B., Wiener, M., & van Wassenhove, V. (2017). A Bayesian Perspective on Accumulation in the Magnitude

System. Scientific Reports, 7(1): 630.

Kiar, G., Gorgolewski, K. J., Kleissas, D., Roncal, W. G., Litt, B., Wandell, B., Poldrack, R.A., **Wiener, M.**, Vogelstein, R.J., Burns, R., & Vogelstein, J. T. (2017). Science In the Cloud (SIC): A use case in MRI Connectomics. *Gigascience*. doi: 10.1093/gigascience/gix013

Wiener, M., Sommer, F. T., Ives, Z. G., Poldrack, R. A., & Litt, B. (2016). Enabling an Open Data Ecosystem for the Neurosciences. *Neuron*, 92(3), 617-621.

Wiener, M., Michaelis, K., & Thompson J. (2016) Distance Reproduction is Influenced by Prior Stimulus History via the hippocampus and retrosplenial cortex. *Human Brain Mapping*, 37(9), 3172-3187.

Wiener, M., & Thompson, J. The Effect of Background Context on the Size-Time Illusion (2016). *Timing and Time Perception*, 4(2), 167-186.

Wiener, M., & Kanai, R. (2016). Frequency Tuning for Temporal Perception and Prediction. *Current Opinion in Behavioral Science*, 8, 1-6.

Wiener, M., & Thompson, J. (2015). Repetition Enhancement and Memory Effects for Duration. *NeuroImage*, 113, 268-278.

Wiener, M. Transcranial Magnetic Stimulation studies of Human Time Perception: A Primer (2015). *Timing and Time Perception*, 2(3), 233-260.

Wiener, M., Thompson, J., & Coslett, H.B. (2014) Continuous Carryover of Temporal Context dissociates Response Bias from Perceptual Influence for Duration. *PLoS One*, 9(6), e100803.

Michaelis, K., **Wiener, M.**, & Thompson, J. (2014) Passive listening to preferred motor tempo modulates corticospinal excitability. *Frontiers in Human Neuroscience*, 8, 252.

Wiener, M., Lee, Y-S., Lohoff, F., & Coslett, H.B. (2014). Individual differences in the morphometry and activation of time perception networks are influenced by genotype. *NeuroImage*, 89, 10-22.

Hamilton, R., **Wiener, M.**, & Coslett, H.B. (2013). Gone in a flash: manipulation of audiovisual temporal integration using transcranial magnetic stimulation. *Frontiers in Perception Science*.

Berryhill, M., **Wiener**, **M**., Jansen, J.A., Lohoff, F.W., & Coslett, H.B. (2013) COMT and ANKK1-Taq-la genetic polymorphisms influence visual working memory. *PLoS ONE*, e55862.

Balci, F., **Wiener, M.**, Cavdaroglu B. & Coslett, H.B. (2013) Epistasis effects of dopamine genes on interval timing and reward magnitude in humans. *Neuropsychologia*, 51(2), 293-308.

Wiener, M., Kliot, D., Turkeltaub, P.E., Hamilton, R.H., Wolk, D., & Coslett, H.B. (2012). Parietal influence on temporal encoding indexed by simultaneous transcranial magnetic stimulation and electroencephalography. *Journal of Neuroscience*, 32(35), 12258-12267

Turkeltaub, P.E., Eickhoff, S.B., Laird, A.R., Fox, M., **Wiener, M**., Fox, P. (2012). Minimizing within-experiment and within-group effects in activation likelihood estimation meta-analyses. *Human Brain Mapping,* 33 (1), 1-13.

Gooch, C.M., **Wiener, M**., Hamilton, C.A., & Coslett, H.B. (2011) Temporal discrimination of sub- and suprasecond time intervals: a voxel-based lesion mapping analysis. *Frontiers in Integrative Neuroscience*, 5: 59. doi: 10.3389/fnint.2011.00059.

Wiener, M., Lohoff, F.W., & Coslett, H.B. (2011). Double dissociation of dopamine genes and timing in humans. *Journal of Cognitive Neuroscience*, 23(10), 2811-2821.

Wiener, M, Matell, M.S., & Coslett, H.B. (2011). Multiple mechanisms for temporal processing. *Frontiers in Integrative Neuroscience*. **5:**31. doi: 10.3389/fnint.2011.00031

Wiener, M., Turkeltaub, P.E., & Coslett, H.B. (2010) Implicit timing tasks activate the left inferior parietal cortex. *Neuropsychologia*, 48(13), 3967-3971

Coslett, H.B., **Wiener, M**., & Chaterjee, A (2010). Multiple procedures for timing: evidence from basal ganglia lesions in humans. *PLoS One* 5(4), e10324.

Gooch, C.M., **Wiener**, **M**., & Coslett, H.B. (2010). Interval timing disruptions in subjects with cerebellar lesions. *Neuropsychologia*, 48(4), 1022-1031.

Wiener, M., Turkeltaub, P., & Coslett, H.B. (2010). The image of time: a voxel-wise meta-analysis. *NeuroImage*, 49(2), 1728-1740.

Wiener, M., Hamilton, R., Turkeltaub, P., Matell, M.S., & Coslett, H.B. (2010). Fast forward: supramarginal gyrus stimulation alters time measurement. *Journal of Cognitive Neuroscience*, 22(1), 23-31.

Coslett, H.B., Shenton J., Dyer T., & **Wiener**, **M**. (2009). Cognitive timing: neuropsychology and anatomic basis. *Brain Research*, 1254, 38-48.

Wiener M., Magaro, C.M., & Matell, M.S. (2008). Accurate timing but increased impulsivity following excitotoxic lesions of the subthalamic nucleus. *Neuroscience Letters*, 440(2), 176-180.

Wiener M., & Coslett, H.B. (2008). Disruption of temporal processing in a subject with frontotemporal dementia. *Neuropsychologia*, 46(7), 1927-1939.

Gooch, C.M., **Wiener, M**., Portugal, G.S., & Matell, M.S. (2007). Evidence for separate neural mechanisms for the timing of discrete and sustained responses. *Brain Research*, 1156, 139-151.

Masters Thesis (Villanova):

Wiener, M. (2006) Capturing time: How the thalamus checks time and switches behavior. Villanova University, Villanova, PA

Doctoral Thesis (University of Pennsylvania):

Wiener, M (2011) Context dependent and independent mechanisms of time perception in the human brain. <u>University of Pennsylvania</u>, Philadelphia, PA (**Defense Date: 12/15/2011**)

Invited Presentations:

"Neural mechanisms of timing in action", Cognitive Neuroscience Seminar Series, University of Burgundy, Dijon, France, November 6th, 2014.

"Functional neural mechanisms of timing and rhythm", Cognitive Neuroscience Seminar Series, Aix-Marseille University, Marseille, France, November 3rd, 2014.

"Perceptual carryover effects in climbing neural activity", International Conference on Timing and Time Perception, Corfu, Greece, April 2nd, 2014.

"Multiple, overlapping networks involved in temporal task demands", 47th Annual Winter Conference on Brain Research, Steamboat Springs, CO, January 28th, 2014.

"Dissociating neural networks for timing and action", Cognitive Neuroscience Seminar, University of Trento, Trento, Italy, September 30th, 2013.

"Optimal neural networks for time perception", Imaging Time training school, Otto von Guericke University, Magdeburg, Germany, September 25th, 2013.

"All about timing: The psychological and neural correlates of temporal perception and action", Rehabilitation Medicine Grand Rounds, National Rehabilitation Hospital, Washington, DC, April 24th, 2013.

"Continuous Carryover Effects in Temporal Bisection", New England Sequence and Timing, University of Massachusetts, Amherst, March 9th, 2013.

Participant: Play, Attention, and Learning (PAL): How Does Play and Timing Shape the Development of Attention and Facilitate Classroom Learning? New York Academy of Sciences workshop, June 15, 2012.

"Functional and molecular mechanisms of human time perception", Neuropsychology Brown Bag Seminar, Department of Psychiatry, University of Pennsylvania, March 23, 2012.

"Functional mechanisms of human time perception", Center for Cognitive Neuroscience Talk Series. University of Pennsylvania, October 17, 2011.

"Components of the Clock: Dissociating the Neural Mechanisms of Time Perception", University of Pennsylvania 20th Annual Behavioral and Cognitive Neuroscience Student Retreat Day, December 11, 2009.

Popular Press and Outreach

"CCC BRAIN Workshop – A Neuroscientist's Perspective" – CCC Blog, December 1st, 2014.

"Your Brain On: Music" - Shape Magazine, August 13, 2014.

"Get Your Groove On: Beats Tap into Brain" – George Mason News, November 21st, 2014.