5/2/17

Curriculum Vitae

Martin Wiener, PhD
Assistant Professor

George Mason University
Department of Psychology
Fairfax, VA

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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

Policy Interests:

Advancing Neurotechnologies
Big Data and Analytics
Data and Code Sharing
Funding for science and public awareness

Technical Expertise:

Functional Magnetic Resonance Imaging
Transcranial Magnetic Stimulation
Electroencephalography
Psychophysics
Activation Likelihood Estimation meta-analysis
Neurogenetics.

Research Employment History:

5/06 – 8/08 Research Specialist
University of Pennsylvania, Department of Neurology, Cognitive Neurology
Supervisor, Dr. H.B. Coslett

9/04 – 5/06 Research Assistant
Villanova University, Psychology, Behavioral Neuroscience
Supervisor, Dr. Matthew Matell

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.

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, 2009 – Present

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 ● 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.

AAAS Fellowship Experience:

09-14 – 08/16 AAAS Science & Technology Policy Fellow National Science Foundation
Specialty: Big Data & Analytics
Mentors: Deborah Lockhart & Kenneth Whang

Teaching Experience:

07/06-08/06 Teacher
07/07-08/07 University of Pennsylvania Summer Mentorship Program
07/08-08/08
07/09-08/09 Participated in the University of Pennsylvania summer mentorship program. This program is designed to expose disadvantaged high school students from local urban schools to the fields of law, education, and medicine, as well as dentistry, engineering and nursing. I co-taught the medicine program for three years, which focused on neurology, along with a fourth-year medical student. Topics included basic neuroanatomy, disorders of the nervous system, neurophysiology and neurological treatments.

09/09-12/09 Teaching Assistant; Introduction to Brain and Behavior (PSYC-109)
Dr. Javier Medina

01/10-05/10 Teaching Assistant; Visual Neuroscience (PSYC-117)
Dr. Nicole Rust

09/10 – 12/10 Teaching Assistant; Perception (PSYC-111)
Dr. Alan Stocker

01/11 – 05/11 Teaching Assistant; Visual Neuroscience (PSYC-217)
Dr. Nicole Rust

09/11 – 12/11 Teaching Assistant; Introduction to Psychology (PSYC-001)
Dr. Paul Rozin

Published Manuscripts:

Total Number of publications: **28**
Number of first-author publications: **16** (57%)
Number of Citations: 1200 (H-Index: 16), 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-Ia 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 supra-second 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. University of Pennsylvania, 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.

Poster and Conference Presentations:

Thompson, J., Wiener, M., & Michealis, K. (2015). Distinct spatial and temporal discounting during decision making in humans. Vision Science Society Abstracts, 15.

Wiener, M., & Thompson, J. (2014). Perceptual carryover effects in climbing neural activity for duration. Organization for Human Brain Mapping Abstracts, 17.

Wiener, M., & Thompson, J. (2014). Perceived distance and size interact to alter the perception of time. Vision Science Society Abstracts, 14.

Michaelis, K., Wiener, M., & Thompson, J. (2013). Passive listening to preferred motor tempo modulates corticospinal excitability. Society for Neuroscience Abstracts, 39.

Wiener, M., & Thompson, J. (2013). Neural indices of carryover effects for duration. Society for Neuroscience Abstracts, 39.

Kessler, S., Wiener, M., Gorman, C., & Hamilton, R.H. (2013). Modulation of TMS evoked EEG potentials with long intracortical inhibition at the 250 msec interval. Society for Neuroscience Abstracts, 39.

Wiener, M., & Coslett, HB. (2013). Carryover effects in temporal perception. Vision Sciences Society Abstracts, 13.

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. Society for Neuroscience Abstracts, 38.

Wiener, M. Lee, Y.S., Lohoff, F.W., & Coslett, H.B. (2012). Individual differences in activation of time perception networks predicted by genotype. Cognitive Neuroscience Society*,*19.

Wiener, M. Kliot, D., Turkeltaub, P.E., Hamilton, R., Wolk, D., & Coslett, H.B. (2011). TMS-Induced changes in CNV amplitude correlate with temporal perception judgments. Cognitive Neuroscience Society Abstracts*,* 18.

Wiener, M., Lohoff, F.W., & Coslett, H.B. (2010). Genetically determined differences in time perception. Society for Neuroscience Abstracts, 36.

Wiener, M., & Turkeltaub, P. (2010). Study contribution masking of ALE values improves meta-analytic reliability. Organization for Human Brain Mapping Abstracts, 13.

Gooch, C.M., Wiener, M., Hamilton, C.A., & Coslett, H.B. (2009). Temporal discrimination of sub- and supra-second time intervals: a voxel-based lesion mapping analysis. Society for Neuroscience Abstracts, 35.

Hamilton, R.H., Wiener, M., Sanders, L., & Coslett, H.B. (2009). Gone in a flash: manipulation of audiovisual temporal integration using transcranial magnetic stimulation. International Multisensory Research Forum, 10.

Wiener, M., & Turkeltaub, P. (2009). Masking of ALE values: improving the validity of voxel-wise meta-analysis. Organization for Human Brain Mapping Abstracts, 12.

Wiener, M., Turkeltaub, P., & Coslett, H.B. (2009). Neuroimaging of temporal processing: results of a voxel-wise meta-analysis. Cognitive Neuroscience Society Abstracts, 16.

Wiener, M., & Coslett, H.B. (2008). Interval timing disruptions in subjects with cerebellar lesions. Society for Neuroscience Abstracts, 34.

Wiener, M., Hamilton, R.H., Matell, M.S., & Coslett, H.B. (2008). Fast forward: repetitive transcranial magnetic stimulation of parietal cortex disrupts temporal perception. Cognitive Neuroscience Society Abstracts, 15.

Wiener, M., & Coslett, H.B. (2007). Disruption of temporal processing in a subject with frontotemporal dementia. Society for Neuroscience Abstracts, 33.

Wiener, M., & Coslett, H.B. (2007). The Basal Ganglia are not crucial for interval timing: A case report. Cognitive Neuroscience Society Abstracts. 14.

Wiener, M., Wilson, A., & Matell, M.S. (2006). Visual cortex lesions disrupt cross-modal transfer of visual to auditory timing. Society for Neuroscience Abstracts, 32.

Portugal, G.S., Wiener, M., & Matell, M.S. (2005). The effect of signal duration on the firing rate of striatal neurons: temporal modulation or abstract timing? Society for Neuroscience Abstracts, 31

Wiener, M., & Matell, M.S. (2005). Subthalamic nucleus lesions impact the termination of a temporal estimate. Society for Neuroscience Abstracts, 31