

Adam C. Riggall

Curriculum Vitae

Education

- 2009-2014 **University of Wisconsin-Madison.**
PhD, Psychology (Cognitive Neuroscience)
Advisor: Bradley R. Postle
Dissertation: The neural underpinnings of short-term memory for visual motion
- 2001-2006 **Dartmouth College.**
BA, Psychology

Professional Experience

- 2012 **Teaching Assistant** (PSYC 414: Cognitive Psychology)
Department of Psychology, University of Madison-Wisconsin

Awards

- 2011 **Graduate Students Present (GSP) Award**
Presented by the Cognitive Neuroscience Society at their annual meeting

Publications

- 2017 LaRocque, J.J., **Riggall, A.C.**, Emrich, S.M., Postle, B.R. (2017). Within-category decoding of information in different attentional states in short-term memory. *Cerebral Cortex*, 27(10): 4881-4890.
- 2016 Rose, N.S., LaRocque, J.J., **Riggall, A.C.**, Gosseries, O., Starrett, M.J., Meyering, E.E., Postle, B.R. (2016). Reactivation of latent working memories with transcranial magnetic stimulation. *Science*, 354(6316): 1136-1139.
- 2013 Emrich, S.M.*, **Riggall, A.C.***, LaRocque, J.J, Postle, B.R. (2013). Distributed patterns of activity in sensory cortex reflect the precision of multiple items maintained in visual short-term memory. *Journal of Neuroscience*, 33(15): 6516-6523.
* *The first two authors contributed equally*
- 2012 Jerde, T.A., Merriam, E.P., **Riggall, A.C.**, Hedges, J.H., Curtis, C.E. (2012). Prioritized maps of space in human frontoparietal cortex. *Journal of Neuroscience*, 32(48): 17382-17390.

Riggall, A.C., Postle, B.R. (2012). The relationship between working memory storage and elevated activity as measured with functional magnetic resonance imaging. *Journal of Neuroscience*, 32(38): 12990-12998.

- 2010 Putnam, M.C., Steven, M.S., Doron, K.W., **Riggall, A.C.**, Gazzaniga, M.S. (2010). Cortical projection topography of the human splenium: Hemispheric asymmetry and individual differences. *Journal of Cognitive Neuroscience*, 22(8): 1662-1669.

Conference Talks

- 2014 **Riggall, A.C.**, Rose, N.S., Starrett, M.J., Postle, B.R. (2014). Frontoparietal contributions to the short-term retention of motion and color. (Nanosymposium talk). *Society for Neuroscience Annual Meeting*, November 2014, Washington DC.

Rose, N.S., LaRocque, J.J, **Riggall, A.C.**, Gosseries, O., Postle, B.R. (2014). What are the neurophysiological bases of attended and unattended items in short-term memory? (Nanosymposium talk). *Society for Neuroscience Annual Meeting*, November 2014, Washington DC.

- 2013 **Riggall, A.C.**, Postle, B.R. (2013). Understanding the representation and precision of transparent motion information during visual short-term memory with fMRI pattern classification (Nanosymposium talk). *Society for Neuroscience Annual Meeting*, November 2013, San Diego, CA.

LaRocque, J.J, **Riggall, A.C.**, Emrich, S.M., Postle, B.R. (2013). Active representations of individual items in short-term memory: A matter of attention, not retention (Nanosymposium talk). *Society for Neuroscience Annual Meeting*, November 2013, San Diego, CA.

- 2012 **Riggall, A.C.**, Postle, B.R. (2012). Searching for stimulus identity in load-sensitive delay activity with fMRI classification (Nanosymposium talk). *Society for Neuroscience Annual Meeting*, October 2012, New Orleans, LA.

- 2011 **Riggall, A.C.***, Postle, B.R. (2011). Working memory storage relies on neither sustained nor elevated activity (Slide session talk). *Cognitive Neuroscience Society Annual Meeting*, April 2011, San Francisco, CA.

* *Winner of the Graduate Students Present (GSP) Award*

Conference Posters

- 2016 Rose, N.S., LaRocque, J.J., **Riggall, A.C.**, Gosseries, O., Starrett, M.J., Postle, B.R. (2016). Can transcranial magnetic stimulation bring passively retained items in short-term memory back into focal attention? *Cognitive Neuroscience Society Annual Meeting*, April 2016, New York, NY.

- 2015 LaRocque, J.J., **Riggall, A.C.**, Emrich, S.M., Postle, B.R. (2015). Within-category decoding of attended vs. unattended items in short-term memory. *Neuroimaging, Computational Neuroscience, and Neuroengineering Workshop*, April 2015, Madison, WI.

- Starrett, M.J., Rose, N.S., **Riggall, A.C.**, Samaha, J., Postle, B.R. (2015). EEG and behavioral effects of delay-period rTMS. *Cognitive Neuroscience Society Annual Meeting*, March 2015, San Francisco, CA.
- 2014 Rose, N.S., LaRocque, J.J., **Riggall, A.C.**, Gosseries, O., Postle, B.R. (2014). Evidence for a synaptic theory of working memory: An fMRI/EEG/TMS study. *Psychonomic Society Annual Meeting*, November 2014, Washington DC.
- Gosseries, O., LaRocque, J.J., **Riggall, A.C.**, Starrett, M.J., Postle, B.R. (2014). Theta burst stimulation to MT+ versus IPS: effect on behavioral and neural fidelity in short-term memory. *Society for Neuroscience Annual Meeting*, November 2014, Washington DC.
- Starrett, M.J., Rose, N.S., **Riggall, A.C.**, Postle, B.R. (2014). Behavioral and EEG effects of rTMS on recall of items inside versus outside the focus of attention. *Society for Neuroscience Annual Meeting*, November 2014, Washington DC.
- Sheldon, A.D., Samaha, J., Rose, N.S., **Riggall, A.C.**, Huang, X., Postle, B.R. (2014). rTMS/EEG of MT+ during STM for transparent motion. *Society for Neuroscience Annual Meeting*, November 2014, Washington DC.
- LaRocque, J.J., **Riggall, A.C.**, Turner, R., Gosseries, O., Samaha, J., Tononi, G., Postle, B.R. (2014). Neural correlates of spontaneous fluctuations of visual awareness: A simultaneous EEG/fMRI study. *Organization for Human Brain Mapping Annual Meeting*, June 2014, Hamburg, Germany.
- Riggall, A.C.**, Postle, B.R. (2014). Mapping the spatial distribution of short-term memory representations for visual motion *Vision Sciences Society Annual Meeting*, May 2014, St Pete Beach, FL.
- Gosseries, O., LaRocque, J.J., **Riggall, A.C.**, Starrett, M.J., Postle, B.R. (2014). Effect of theta burst stimulation on visual representation during a short-term memory task *Cognitive Neuroscience Society Annual Meeting*, April 2014, Boston, MA.
- Rose, N.S., LaRocque, J.J., **Riggall, A.C.**, Gosseries, O. Postle, B.R. (2014). How are attended and unattended items in short-term memory represented? An fMRI/EEG/TMS study *Cognitive Neuroscience Society Annual Meeting*, April 2014, Boston, MA.
- 2013 **Riggall, A.C.**, Postle, B.R. (2013). How distributed are short-term memory representations of visual motion? *Cognitive Neuroscience Society Annual Meeting*, April 2013, San Francisco, CA.
- LaRocque, J.J., **Riggall, A.C.**, Emrich, S.M., Postle, B.R. (2013). Within-category decoding of attended vs. unattended items in short-term memory. *Cognitive Neuroscience Society Annual Meeting*, April 2013, San Francisco, CA.
- 2012 Emrich, S.M., **Riggall, A.C.**, LaRocque, J.J., Postle, B.R. (2012). The representation of stimulus identity for multiple items in short-term memory revealed using fMRI classification. *Vision Sciences Society Annual Meeting*, May 2012, Naples, FL.

- 2011 Shackman, A.J, Guller, Y., **Riggall, A.C.**, Johnson, J.S., Postle, B.R. (2011). The role of frontal eye fields in spatial working memory and attention: a concurrent TMS-fMRI approach. *Cognitive Neuroscience Society Annual Meeting*, April 2011, San Francisco, CA.
- 2010 Guller, Y., Feredoes, E., Shackman, A.J., Acheson, D.J., **Riggall, A.C.**, Ferrarelli, F., Tononi, G., Meyerand, B.E., Postle, B.R. (2010). Using simultaneous TMS-fMRI to probe the integrity of the thalamic reticular nucleus*. *Human Brain Mapping Annual Meeting*, June 2010, Barcelona, Spain.
* *Designed a "top-ranked" abstract by the conference selection committee*
- Riggall, A.C.**, Postle, B.R. (2010). Tracking the evolution of the memory trace for visual motion. *Cognitive Neuroscience Society Annual Meeting*, April 2010, Montréal, Québec, Canada.
- 2009 Jerde, T.A., **Riggall, A.C.**, Curtis, C.E. (2009). Functional characteristics of spatially topographic regions in human prefrontal and parietal cortices. *Society for Neuroscience Annual Meeting*, October 2009, Chicago, IL, USA.
- Curtis, C.E., **Riggall, A.C.** (2009). A single classifier predicts the direction of spatial attention, working memory, and motor intentions. *Cognitive Neuroscience Society Annual Meeting*, March 2009, San Francisco, CA, USA.
- Jerde, T.A., **Riggall, A.C.**, Curtis, C.E.. (2009). Spatial topography of human prefrontal and parietal cortices. *Cognitive Neuroscience Society Annual Meeting*, March 2009, San Francisco, CA, USA.
- 2008 **Riggall, A.C.**, Ikkai, A., Srimal, R., Curtis, C.E.. (2008). Predicting the direction of spatial attention, working memory, and motor intentions using multivoxel pattern classification. *Society for Neuroscience Annual Meeting*, November 2008, Washington DC, USA.
- 2006 Steven, M.S., Doron, K.W., **Riggall, A.C.**, Gazzaniga, M.S., Colvin, M.K. (2006). Sub-region parcellation and topographic connectivity mapping of the human corpus callosum using diffusion tensor imaging. *Cognitive Neuroscience Society Annual Meeting*, April 2006, San Francisco, CA, USA.

Professional Service

Ad hoc reviewer Cerebral Cortex, Journal of Cognitive Neuroscience

Professional Memberships

- 2006-2014 Cognitive Neuroscience Society (CNS)
- 2009-2014 Society for Neuroscience (SFN)
- 2013-2014 Vision Sciences Society (VSS)