CURRICULUM VITAE

Brian A. Allen

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EDUCATION

2012-2017 **Doctor of Philosophy, Psychology**
University of Wisconsin - Madison

2011-2012 **Master of Science, Psychology**
University of Wisconsin - Madison

2007-2011 **Bachelor of Science, Biopsychology**
University of California - Santa Barbara

RESEARCH EXPERIENCE

2017-present **Research Associate**
Vision + Cognition Group, University of Washington

2011-2017 **Graduate Research Assistant**
Rokers Vision Lab, University of Wisconsin - Madison

2009-2011 **Research Assistant** to Dr. Barry Giesbrecht
Attention Lab, University of California - Santa Barbara

2008-2009 **Research Assistant** to Dr. John Foley
Research Center for Virtual Environments and Behavior, University of California - Santa Barbara

RESEARCH INTERESTS

The biological basis of vision and the neural development of the sensory systems, specifically plasticity following early or late life insults, and the neural consequences of common visual disorders such as amblyopia, cataracts, and congenital blindness. I'm also interested in advanced methods in psychophysics and biological imaging, particularly functional and diffusion-MRI.

PUBLICATIONS

Allen, B., Schmitt, M.A., Kushner, B.J. & Rokers, B. (2017). Retino-thalamic white matter abnormalities in amblyopia. *Investigative Ophthalmology & Visual Science (in review).*

Allen, B. (2017). *Insights into the plasticity of human visual system white matter from diffusion magnetic resonance imaging.* (Doctoral dissertation)

Allen, B., Hanley, T., Rokers, B., & Green, C.S. (2016). Visual 3D motion acuity predicts discomfort in 3D stereoscopic environments. *Entertainment Computing*, 13, 1-9. doi:10.1016/j.entcom.2016.01.001.

Allen, B., Haun, A. M., Hanley, T., Green, C. S., & Rokers, B. (2015). Optimal combination of the binocular cues to 3D motion. *Investigative Ophthalmology & Visual Science*, 56(12), 7589-7596. doi:10.1167/iovs.15-17696.

Allen, B., Spiegel, D., Thompson, B., Pestilli, F., & Rokers, B. (2015). Altered white matter in early visual pathways of humans with amblyopia. *Vision Research*, 114, 48-55. doi:10.1016/j.visres.2014.12.021.

PRESENTATIONS & CONFERENCES

Allen, B., Haun, A.M., Hanley, T., Green, C.S., & Rokers, B. (2015). Optimal combination of the binocular cues to 3D motion. Nanosymposium talk at *Society for Neuroscience 2015*. Chicago, IL.

Allen, B.,, Spiegel, D., Thompson, B., Pestilli, F., & Rokers, B. (2015). Altered white matter in early visual pathways of humans with amblyopia. Poster presented at *Wisconsin Alumni Research Foundation 90th Anniversary Celebration.* Madison, WI.

Allen, B., Spiegel, D., Thompson, B., Pestilli, F. & Rokers, B. (2014). Altered white matter in early visual pathways as a result of amblyopia. Nanosymposium talk at *Society for Neuroscience 2014*. Washington, D.C.

Allen, B., Spiegel, D., Thompson, B., Pestilli, F., Wandell, B.A., & Rokers, B. (2013). Identifying visual motion pathways in humans with probabilistic diffusion weighted tractography. Poster presented at *Society for Neuroscience 2013*. San Diego, CA.

Allen, B. & Rokers, B. (2012). Two visual pathways may underlie visual motion perception. Poster presented at the *McPherson ERI Vision Science & Visual Art Poster Session*. Madison, WI.

TEACHING

2015	Teaching Assistant for Psych 501, Cognitive Neuroscience
2014	Teaching Assistant for Psych 406, Psychology of Perception
2013	Teaching Assistant for Psych 210, Basic Statistics in Psychology
2012	Teaching Assistant for Psych 406, Literacy, Brain, & Behavior
2011	Teaching Assistant for Psych 225, Experimental Psychology

AWARDS & GRANTS

2017	Fight For Sight – American Macular Degeneration Foundation Postdoctoral Award
2015	Hertz Travel Award
2014	McPherson Eye Research Institute David G. Walsh Research Travel Award
2013	Hertz Travel Award

NOTABLE OUTREACH

2015	Winner & exhibitor, *Cool Science Image Competition*, McPherson Eye Research Institute's Mandelbaum & Albert Family Vision Gallery, Wisconsin Institutes for Medical Research.
2012	Collaborator & exhibitor, *About Seeing* exhibition, Watrous Gallery, Overture Center for the Arts/Wisconsin Academy of Sciences, Arts & Letters.
2012	Mentor, Madison Middle School Science Symposium.

RESEARCH SKILLS & QUALIFICATIONS:

Programming:
MATLAB, Python, R

Operating systems:
Linux, Windows, Mac, UNIX

Software:
FSL, FreeSurfer, VistaSoft, SPM, LiFE, ITK-SNAP, MRIcron, Office, SPSS, Photoshop, Illustrator

Statistics:
General Linear Models, Structural Equation Modeling, and Bayesian approaches to data analysis.

Methods:
fMRI (including simultaneous EEG/fMRI), diffusion-MRI, tractography (deterministic & probabilistic), EEG, virtual reality, stereoscope displays (mirror, shutter, & HMD), psychophysics, eye-tracking, ophthalmic equipment, 3D digitization and source localization for ERP.