Nathan A. Parks, Ph.D.
Curriculum Vitae

Assistant Professor
Psychological Science
University of Arkansas

Office: 311 Memorial Hall
Voice: (479) 575-5813
Fax: (479) 575-3219
Email: naparks@uark.edu

Academic History

2012 - present	**Assistant Professor**, University of Arkansas, Fayetteville, AR
2009 – 2012	**Postdoctoral Research Fellow**, Beckman Institute, University of Illinois
2005 - 2009	**Ph.D.**, *Brain and Cognitive Science*, Georgia Institute of Technology,
2002 - 2005	**M.S.**, *Experimental Psychology*, Georgia Institute of Technology
1998 - 2002	**B.A.**, *Cognitive Science*, University of Virginia

Publications

Parks, N.A., Mazzi, C., Tapia, E., Savazzi, S., Fabiani, M., Gratton, G., & Beck, D. (2015). The Influence of Posterior Parietal Cortex on Extrastriate Visual Activity: A Concurrent TMS and Fast Optical Imaging Study. *Neuropsychologia, 78, 153-158.*

Hilimire, M. R., Mayberg, H. S., Holtzheimer, P. E., Broadway, J. M., **Parks, N. A.**, DeVylder, J. E., & Corballis, P. M. (2015). Effects of subcallosal cingulate brain stimulation on negative self-bias in patients with treatment-resistant depression. *Brain Stimulation, 8,* 185-191.

Parks, N.A. (2013). Concurrent application of TMS and near-infrared optical imaging: methodological considerations and potential artifacts. *Frontiers in Human Neuroscience, 7,* 592.

Parks, N.A., Beck, D.M., & Kramer, A.F. (2013). Enhancement and suppression in the visual field under perceptual load. *Frontiers in Psychology, 4*. 275.

Parks, N.A., Maclin, E.L., Low, K.A., Beck, D.M., Fabiani, M., & Gratton, G. (2012). Examining cortical dynamics and connectivity with simultaneous single-pulse transcranial magnetic stimulation and fast optical imaging. *Neuroimage, 39,* 2504-2510.

Parks, N.A., & Corballis, P.M. (2012). Neural mechanisms of short-term plasticity in the human visual system. *Cerebral Cortex, 22,* 2913-2920.

Broadway, J.M., Holtzheimer, P.E., Hilimire, M.R., **Parks, N.A.**, DeVylder, J.E., Mayberg, H.S., & Corballis, P.M. (2012). Frontal theta cordance predicts 6-month antidepressant response to subcallosal cingulate deep brain stimulation for treatment-resistant depression: a pilot study. *Neuropsychopharmacology, 37,* 2504-2510.

Hilimire, M.R., Mounts, J.R.W., **Parks, N.A.,** & Corballis, P.M. (2011). Dynamics of target and distractor processing in visual search: evidence from event-related brain potentials. *Neuroscience Letters, 495,* 196-200.

Parks, N.A., Hilimire, M.R., & Corballis, P.M. (2011). Steady-state signatures of visual perceptual load, multimodal distractor filtering, and neural competition. *Journal of Cognitive Neuroscience, 23*, 1113-1124.

Mienaltowski, A., Corballis, P.M, Blanchard-Fields, F., **Parks, N.A.,** & Hilimire, M.R. (2011). Anger management: age differences in emotional modulation of visual processing. *Psychology & Aging, 26,* 224-231.

Hilimire, M.R., Mounts, J.R.W., **Parks, N.A.,** & Corballis, P.M. (2010). Event-related potentials dissociate effects of salience and space in biased competition for visual representation. *PLoS ONE, 5,* e12677. doi:10.1371/journal.pone.0012677.

Parks, N.A. & Corballis, P.M. (2010). Human transsaccadic visual processing: presaccadic remapping and postsaccadic updating. *Neuropsychologia,* 3451-3458.

Hilimire, M.R., Mounts, J.R.W., **Parks, N.A.**, & Corballis, P.M. (2009). Competitive interaction degrades target selection: an ERP study. *Psychophysiology, 46,* 1080-1089.

Parks, N.A., Hilimire, M.R., & Corballis, P.M. (2009). Visual perceptual load modulates an auditory microreflex. *Psychophysiology, 46,* 498-501.

Parks, N.A. & Corballis, P.M. (2008). Electrophysiological correlates of presaccadic remapping in humans. *Psychophysiology, 45,* 776-783.

Unsworth, N., Heitz, R.P., & **Parks, N.A.** (2008). The importance of temporal distinctiveness in forgetting from working memory. *Psychological Science, 19,* 1078-1081.

Parks, N.A. & Corballis, P.M. (2006). Attending to depth: electrophysiological evidence for a viewer-centered asymmetry. *Neuroreport, 17,* 643-647.

Grant Support

2014 – 2017 *Short-Term Plasticity in the Human Visual System: The Role of Cortical Feedback,* **Principal Investigator**
National Eye Institute, $259,078

2013 – 2014 *The Role of Endogenous Brain Rhythms in Modulating Short-Term Neuroplasticity in Human Neocortex,* **Principal Investigator**
Arkansas Bioscience Institute, $39,319

2013 – 2014 *A Pilot Project focused on the Role of HPA Activity in Parental PTSD – Adolescent Panic Links,* **Co-Investigator**
Arkansas Bioscience Institute, $4,000

2013 – 2014 *Parental smoking and PTSD: Advancing our understanding of effects on offspring panic vulnerability*, **Co-Investigator** (PI: Ellen Leen-Feldner, Co-PI: Matthew Feldner).
Arkansas Biosciences Institute, $42,428

2009 – 2012 *Postdoctoral Research Fellowship and Research Fund,* **Principal Investigator**
Arnold and Mabel Beckman Foundation, $191,500

Intellectual Property

Parks, N.A. (Patent Pending). *Device and Method of Phase-Locking Brain Stimulation to Electroencephalographic Rhythms.* (US Provisional Patent Application 62/109,982).

Invited Talks

Parks, N.A. (2015). *Simultaneous TMS and Optical Imaging*. Talk given at the Beckman Institute, University of Illinois Urbana-Champaign, Urbana, IL.

Parks, N.A. (2013). *Examining Cortico-Cortical Feedback in the Human Visual System.* Talk given at the Center for Integrative and Cognitive Neuroscience, Vanderbilt University, Nashville, TN.

Parks, N.A. (2013). *Examining the Brain Dynamics of Human Vision and Attention*. Talk given at the Food Sciences Department. University of Arkansas, Fayetteville, AR.

Parks, N.A. (2011). *ERP correlates of predictive remapping in the human visual system.* Talk given at the University of San Francisco and VA Medical Center, San Francisco, CA.

Conference Talks

Parks, N.A., Beck, D.M., Low, K.A., Maclin, E.L., Tapia, E., Savazzi, S., Mazzi, C., Fabiani, M., & Gratton, G. (2013). *Dynamic Measurement of Functional Connectivity Using Simultaneous Fast Optical Imaging and Magnetic Stimulation*. Talk given at the 53rd annual meeting of the Society for Psychophysiological Research, Florence, Italy.

Parks, N.A. & Corballis, P.M. (2010). *Neural correlates of short-term visual plasticity and cortical disinhibition in humans.* Talk given at the 17th annual meeting of the Cognitive Neuroscience Society, Montréal, Québec, Canada.

Hilimire, M.R., Mounts, J.R.W., **Parks, N.A.,** & Corballis, P.M. (2009). *Event-related potentials dissociate effects of salience and space in biased competition for visual representation.* Talk given at the 40th annual meeting of the Society for Neuroscience, Chicago, IL.

Parks, N.A., Hilimire, M.R., & Corballis, P.M. (2009). *Steady-state signatures of visual perceptual load, neural competition, and multimodal distractor filtering.* Talk given at the 16th annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Recent Conference Presentations (2012 – 2015)

Gannon, M.A., & **Parks, N.A.** (2014, September). *Electrophysiological Indices of Plasticity Following Intermittent Theta Burst Stimulation to Motor Cortex.* Poster presented at the 54th annual meeting of the Society for Psychophysiological Research, Atlanta, GA.

Currey, D.J., Gannon, M.A., & **Parks, N.A.** (2014, September). *Examining Mechanisms of Short-Term Visual Plasticity Through the Cortical Representation of the Retinal Blind Spot.* Poster presented at the 54th annual meeting of the Society for Psychophysiological Research, Atlanta, GA.

Currey, D.J., Gannon, M.A., & **Parks, N.A.** (2014, May). *Lateral Masking Reveals Effects of Invading Activity of Short-Term Visual Plasticity.* Poster presented at the 14th annual meeting of the Vision Sciences Society, St. Petersburg, FL.

Gannon, M.A., Currey, D.J., & **Parks, N.A.** (2014). *Load-Induced Visual Enhancement and Suppression Modulates with Attentional Field Size.* Poster presented at the 14th annual meeting of the Vision Sciences Society, St. Petersburg, FL.

Center, E.G. & **Parks, N.A.** (2013, November). *Neural Correlates of Presaccadic Spatial Compression in the Human Visual System.* Poster presented at the 43rd annual meeting of the Society for Neuroscience, San Diego, CA.

Salomaa, A.C. & **Parks, N.A.** (2013, October). *The Spatiotemporal Dynamics of Load-Induced Visual Suppression.* Poster presented at the 53rd annual meeting of the Society for Psychophysiological Research, Florence, Italy.

McCormick, E.M., Riahi, R.H., & **Parks, N.A.** (2013, October). *rTMS-Evoked Potentials from Posterior Parietal Cortex.* Poster presented at the Arkansas Psychological Association, Conway, AR.

Riahi, R.H., McCormick, E.M., & **Parks, N.A.** (2013, October). *Visual Perceptual Filling-In: Feedback from the Middle Occipital Gyrus?* Poster presented at the Arkansas Psychological Association, Conway, AR.

Riahi, R.H., Center, E.G., **Parks, N.A.** (2013, April). *The Role of Cortical Feedback in Perceptual Filling-in: An EEG Source Localization Study.* Poster presented at the North Louisiana Behavioral and Social Sciences Conference, Ruston, LA.

Center, E.G., Riahi, R.H., **Parks, N.A.** (2013, April). *Spatial Surrounds Enhance the Perceptual Filling-in of an Artificial Scotoma.* Poster presented at the North Louisiana Behavioral and Social Sciences Conference, Ruston, LA.

Parks, N.A., Maclin, E.L., Low, K.A., Beck, D.M., Fabiani, M., & Gratton, G. (2012, April). *Examining Cortical Function and Connectivity with Concurrent TMS and EROS.* Poster presented at the 19th annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Teaching Experience

2012 - present	**Behavioral Neuroscience (Undergraduate),** *University of Arkansas*
2013 - present	**Advanced Behavioral Neuroscience (Graduate)**, *University of Arkansas*
Spring 2015	**Advanced Seminar in Cognitive Neuroscience**, *University of Arkansas*
Spring 2014	**Graduate Seminar: Prefrontal and Parietal Circuitry**, *University of Arkansas*
Spring 2013	**Undergraduate Seminar in Cognitive Neuroscience**, *University of Arkansas*
2006 – 2009	**Introduction to Psychology**, *Georgia Institute of Technology*

Honors

2012	**Summer Grant Writing Fellowship**, Marie Wilson Howells Foundation, University of Arkansas
2012	**SEC Faculty Travel Award**, University of Arkansas
2007	**Dissertation Research Award**, American Psychological Association
2006 - 2009	**Graduate Student Research Award**, Georgia Institute of Technology
2005	**Tursky Award for Outstanding Predoctoral Research in Psychophysiology**. Society for Psychophysiological Research

Ad-Hoc Reviewing

AIS Transactions on Human-Computer Interaction
Brain Topography

Frontiers in Human Neuroscience
Frontiers in Behavioral Neuroscience
Journal of Motor Behavior
Multisensory Research
Neuropsychologia
Neuroscience Letters
Psychophysiology

Professional Affiliations

Cognitive Neuroscience Society

Society for Psychophysiological Research

Society for Neuroscience

Vision Sciences Society