Nicholas K DeWind

NDEWIND@GMAIL.COM
(917) 497 3462
www.nickdewind.com

Education and Training

February 2015 – Present: Postdoctoral associate
Department of Psychology, University of Pennsylvania, Philadelphia, PA
Department of Psychology and Neuroscience, Duke University, Durham, NC
Advised by Dr. Elizabeth Brannon
Investigating the neural mechanisms of numerical cognition in humans

August 2008 – December 2014: PhD, Neurobiology
Department of Neurobiology, Duke University Medical Center, Durham, NC
Advised by Dr. Michael Platt

September 2006 – June 2008 Lab Manager and Post-Baccalaureate Student
Department of Psychology, Columbia University, New York, NY
In the laboratory of Dr. Herbert Terrace
Managed primate lab; investigated cognitive impacts of seizure therapies in monkeys

August 2002 – May 2006 B.A., Neuroscience and Behavior
Wesleyan University, Middletown, CT
Advised by Dr. Harry Sinnamon and Dr. Hilary Barth
Investigated role of thalamic reuniens in phase reset of hippocampal theta in rats

Publications

Published Peer-Reviewed Articles

DeWind NK, Park JK, Woldorff MG, Brannon EM
Numerical encoding in early visual cortex
Cortex. 2018, In Press.

DeWind NK, Peng J, Luo A, Brannon EM, Platt ML
Pharmacological inactivation does not support a unique causal role for intraparietal sulcus in the discrimination of visual number
PLoS ONE. 2017, 12(12): e0188820

Starr A, **DeWind NK**, Brannon EM
The contributions of numerical acuity and non-numerical stimulus features to the development of the number sense and symbolic math achievement.

Cognition. 2017, Jul 14; 168: 222-233.

Park JK, **DeWind NK**, Brannon EM
Direct and rapid encoding of numerosity in the visual stream.
Brain and Behavioral Sciences. 2017, 40.

Bugden S, **DeWind NK**, Brannon EM
Using cognitive training studies to unravel the mechanisms by which the approximate number system supports symbolic math ability
Current Opinion in Behavioral Sciences. 2016, 10:73-80

DeWind NK, Brannon EM
Significant Inter-Test Reliability Across Approximate Number System Assessments
Frontiers in Psychology. 2016, 7:310.

Drucker CB, Carlson ML, Toda K, **DeWind NK**, Adams GK, Platt ML
Non-invasive primate head restraint using thermoplastic masks
Journal of Neuroscience Methods. 2015, 253: 90-100.

DeWind NK, Adams GK, Brannon EM, Platt ML
Modeling the approximate number system to quantify the contribution of visual stimulus features
Cognition. 2015, 142: 247-265.

Park J, **DeWind NK**, Woldorff MG, Brannon EM
Rapid and Direct Encoding of Numerosity in the Visual Stream
Cerebral Cortex. 2016, 26(7): 748-63. Epub 2015 Feb 24.

Jones SM, Pearson J, **DeWind NK**, Paulsen D, Tenekedjieva AM, Brannon EM
Lemurs and macaques show similar numerical sensitivity
Animal Cognition. 2014, 17: 503-515

McClintock SM, **DeWind NK**, Husain MM, Rowny SB, Spellman TJ, Terrace H, Lisanby SH
Disruption of Component Processes of Spatial Working Memory by Electroconvulsive Therapy but not Magnetic Seizure Therapy
International Journal of Neuropsychopharmacology. 2013, 16(1): 177-187.

DeWind NK, Brannon EM
Malleability of the approximate number system: effects of feedback and training
Frontiers Human Neuroscience. 2012, 6(68).

Book Chapter

Merritt D, **DeWind NK**, Brannon EM
Comparative cognition of number representation
In T. Zentall & E Wasserman (Eds.), The Oxford Handbook of Comparative Cognition. Oxford, UK: Oxford University Press.

Invited Lecture

Brain and Cognitive Sciences Area Brown Bag Series
January 2018
Department of Psychology
Temple University, Philadelphia, PA

Conference Abstracts

DeWind NK, Woldorff MG, Brannon EM
Automatic encoding of visual numerosity
Neuroscience 2018, San Diego, CA

DeWind NK, Woldorff MG, Brannon EM
Automatic encoding of visual numerosity
Vision Science Society Annual Meeting 2018, St. Petersburg, FL

DeWind NK, Park, J, Woldorff MG, Brannon EM
A Number Signal in Early Visual Cortex
Cognitive Neuroscience Society Annual Meeting 2018, Boston, MA

DeWind NK, Peng JY, Brannon EM, Platt ML
Pharmacological inactivation of intraparietal sulcus reveals a causal role in ordinal comparison in macaque monkeys
Neuroscience 2016, San Diego, CA

DeWind NK, Park J, Adams GK, Platt ML, Brannon EM
An unbiased approach to analyzing the effect of numerosity and other visual features of dot arrays on neural and behavioral variables
Neuroscience 2014, Washington, DC

DeWind NK, Brannon EM, Platt ML
A small population of ventral intraparietal area (VIP) neurons encode numerosity in numerosity-task-naïve monkeys
Neuroscience 2013, San Diego, CA

DeWind NK, Pearson J, Brannon EM, Platt ML
Numerosity encoding in the ventral intraparietal area (area VIP) of numerically naïve monkeys (Macaca mulatta)
Neuroscience 2012, New Orleans, LA

Peng J, **DeWind NK**, Brannon EM, Platt ML
Functional role of lateral/ ventral intraparietal area (LIP/ VIP) in numerosity discrimination
Neuroscience 2011, Washington, DC

McClintock SM, **DeWind NK**, Terrace H, Husain MM, Spellman TJ, Rowny SB, Lisanby SH
Disruption of Spatial Working Memory Component Processes by Electroconvlusive but not

Magnetic Seizure Therapy
American College of Neuropsychopharmacology 49th Annual Meeting, Miami, Florida, 2010.

DeWind NK, Brannon EM, Platt ML
VIP encodes number in untrained rhesus monkeys
Space, Time, and Number 2010, 24th Attention & Performance meeting, Paris, France.

Morgan G, **DeWind NK**, Terrace HS
An Exception to Weber's Law in Numerical Representations by Rhesus Macaques (Macaca mulatta)
Comparative Cognition Society 2007, Melbourne Beach, FL

Joh AS, Adolph KE, **DeWind NK**
Learning from slipping and falling
International Society of Developmental Psychobiology 2005, Washington, D.C.

Research Grants and Fellowships

Nicholas K. DeWind 2011
Broad Research Award for Graduate Students, Ruth K. Broad Biomedical Research Foundation

Nicholas K. DeWind 2008-2012
James B. Duke Fellowship, Duke University

Honors

Society of Duke Fellows 2008 – 2014

National Science Foundation, Graduate Research Fellowship Program, 2008 - Honorable Mention

Teaching and Mentorship

Undergraduate Mentor, Fall, 2018 – On going
Grace Ragi
Independent Study (Department of Psychology, University of Pennsylvania)

Undergraduate Mentor, Fall, 2017 – Summer, 2018
Isaac Dayan
Independent Study (Department of Biology, University of Pennsylvania)

Undergraduate Mentor, Fall, 2013 – Summer, 2015
Andrew Luo

Independent Study (Department of Biology, Duke University)

Undergraduate Mentor, Summer, 2012
Messay Ibrahim
Summer Research Opportunities Program (SROP, Duke University)

Teaching Assistant, Fall, 2011
Fundamentals of Neuroscience
Duke University, Trinity College of Arts & Sciences (undergraduate course)

Teaching Assistant, January term, 2010
Brain and Behavior
Duke University School of Medicine (medical school course)

Reviewing Activities

Reviewer for Cognition
Reviewer for Journal of Numerical Cognition
Reviewer for Developmental Science
Reviewer for PLOS One
Reviewer for NeuroImage
Reviewer for Acta Psychologia
Review Editor for Frontiers in Psychology
Reviewer for Frontiers in Human Neuroscience