

Curriculum Vitae

Joseph B. Hopfinger

Personal Information:

Date of Birth: October 4, 1971
Address: Department of Psychology; CB #3270 Davie Hall
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Education:

B.S. University of Illinois at Urbana-Champaign, Psychology, 1994.
M.A. University of California at Davis, Psychology, 1996.
Ph.D. University of California at Davis, Psychology, 1998.

Professional Experience:

1994-1998 Graduate Research Assistant, Department of Psychology and Center for Neuroscience, University of California at Davis
1997 Visiting doctoral student; Wellcome Department of Cognitive Neurology Functional Imaging Laboratory, University College London, U.K.
1999-2000 Postdoctoral Research Fellow, Department of Psychology, University of California at Davis
1999-2000 Lecturer, Department of Psychology, University of California at Davis
2000-2006 Assistant Professor, Department of Psychology, University of North Carolina at Chapel Hill
2002-present Graduate Faculty Member, Curriculum in Neurobiology, University of North Carolina at Chapel Hill
2005-present Investigator, Neurodevelopment Disorders Research Center, University of North Carolina at Chapel Hill
2006-present Associate Professor, Department of Psychology, University of North Carolina at Chapel Hill

Honors and Awards:

1994-95 McDonnell-Pew Fellowship in Cognitive Neuroscience, University of California at Davis
1995-98 National Science Foundation Graduate Fellowship
1997 Fellow at the James S. McDonnell Foundation's Summer Institute in Cognitive Neuroscience, Dartmouth College
2000 Mason & Linda Stephenson Faculty Award, University of North Carolina at Chapel Hill
2001 Junior Faculty Development Award, University of North Carolina at Chapel Hill
2003 Faculty at the 16th annual James S. McDonnell Foundation's Summer Institute in Cognitive Neuroscience, Tahoe, California.
2004 Johnston Center for Undergraduate Excellence Honors Course Development Award, University of North Carolina at Chapel Hill
2005 *Brain Research* Young Investigator Award (Elsevier Science)

Professional Activities:

Editorial Service:

Associate Editor: Psychonomic Bulletin & Review (2010-present)

Editorial Board:

Brain Research (2006-present)

Cognitive, Affective & Behavioral Neuroscience (2007-present)

Cognitive Brain Research (2002-2005)

Frontiers in Human Neuroscience (2008-present)

Ad hoc Reviewer:

Biological Psychology; Brain; Cerebral Cortex; Consciousness and Cognition; Cortex; Experimental Brain Research; Human Brain Mapping; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: Human Perception and Performance; Journal of Neurophysiology; Journal of Neuroscience; NeuroImage; Neuropsychologia; Neuron; NeuroReport; Neuroscience; Psychological Science; Psychonomic Bulletin & Review; Psychophysiology; Visual Cognition; Vision Research

Federal Government Advisory Panels:

National Science Foundation, Ad Hoc Grant Referee, Social and Behavioral Sciences Minority Post-Doctoral Fellowship Program (2003)

NIMH Study Section, Ad Hoc member, COG: Cognitive Neuroscience (2004)

NIMH Special Emphasis Panel, Translational Research Centers (2004)

NIMH, Ad Hoc Referee, B-START grants (2005, 2006; 2007)

National Science Foundation, Ad Hoc Grant Referee, Cognitive Neuroscience Program (2002, 2003, 2004, 2006)

NIH Study Section, Ad Hoc member, CP: Cognition & Perception (2007; 2009)

NIDA, Ad Hoc reviewer, I/START R03 grant program (2009; 2010)

International Advisory Panels:

Ad Hoc Grant Referee for the Wellcome Trust (UK) (2003; 2006)

Conference Committees

Society for Psychophysiological Research (SPR) Program Committee (2008)

Society Membership:

Association for Psychological Science; Cognitive Neuroscience Society;

Organization of Human Brain Mapping; Society for Neuroscience

Service at the University of North Carolina:

Psychology IRB member (2000-2004 & 2007)

Duke/UNC Brain Imaging & Analysis Center: Proposal Review Committee (2000-2004)

Cognitive Faculty Search Committee (2001-2002; 2002-2003; 2003-2004; 2005-2006)

Biomedical Imaging Research Task Force, UNC, member (2003)

Department of Psychology; Chair's Advisory Committee (2003-2007)

Department of Psychology; Chair Nominating Committee (2004)

UNC Biomedical Research Imaging Center (BRIC) Advisory Board (2004-2006)

Carolina Covenant Mentoring program (2005–present)
 Biological/Social Psychology Faculty Search Committee (2006-2007)
 Department of Psychology, Third-year review committees (2) (2007)
 Department of Psychology, Tenure review committee (1) (2008)
 Department of Psychology, Undergraduate Studies Committee, member (2007-present)
 UNC Academic Calendar Committee, member (2007-present)
 Biomedical Research Imaging Center/Neurology, Faculty Search Committee (2009)
 Biomedical Research Imaging Center, Search Committee for Director (2009-2010)

Courses taught: (new departmental courses or sections denoted by *)

Undergraduate Courses:

University of California, Davis	Psyc132	“Language & Cognition”
University of California, Davis	Psyc135	“Cognitive Neuroscience”
University of North Carolina, Chapel Hill	Psyc 230	“Intro to Cognitive Psych.”
University of North Carolina, Chapel Hill	Psyc 230-H*	“Honors Cog. Psych.”
University of North Carolina, Chapel Hill	Psyc 100	“Topics in Cognition”
University of North Carolina, Chapel Hill	Psyc 434*	“The Brain & Cognition”

Graduate Courses:

University of North Carolina, Chapel Hill	Psyc 209-C	“Sensation & Perception”
University of North Carolina, Chapel Hill	Psyc 209-I*	“Cognitive Neuroscience”
University of North Carolina, Chapel Hill	Psyc 336*	“Electrophysiology and Neuroimaging of Attention”
University of North Carolina, Chapel Hill	Psyc 336*	“Neuroimaging of Cognition in Special Populations”
University of North Carolina, Chapel Hill	Psyc 336*	“Cognitive Neuroscience: Methods and Applications”
University of North Carolina, Chapel Hill	Psyc 742*	“Attention”
University of North Carolina, Chapel Hill	Psyc 708	“Neurobiology of the Frontal lobes”
University of North Carolina, Chapel Hill	NBIO 727	“Translational Seminar in Cognitive and Clinical Neuroscience” (team-taught)

Grants:

Currently Funded Projects:

Principal Investigator:

“Selective Attention and Control Mechanisms in the Brain”

2R01 MH066034 (PI: Hopfinger, J. B.)

5/5/09 – 4/30/11

NIMH

Mechanisms of attention are critical for efficiently processing relevant information and avoiding distraction amidst a constant flood of sensory input. Cognitive and social functioning can be severely impaired when these mechanisms are damaged, such as following brain damage (i.e., unilateral neglect syndrome), in developmental disorders (e.g., autism, ADHD), or in clinical populations (e.g., depression, schizophrenia). The overall goal of this project is to dissociate and better understand the neural mechanisms by which multiple factors influence attention, thus providing a first step toward developing therapies specifically targeting the impaired aspect(s) of attention.

Investigator:

“Adaptation to Unilateral Hearing Loss in Humans: Cortical and Perceptual Effects”
R21 DC008551 (PI: Gordon, P. C.) 12/1/06 – 11/30/09
NIH/NIDCD

The goal of this project is to increase understanding of adaptation in human auditory cortex after peripheral hearing loss in adults. This project uses fMRI to investigate the nature and extent of long-term neural adaptation in individuals with unilateral hearing impairment, and psychoacoustic experiments to determine the nature of the perceptual changes that are associated with cortical adaptation.

Pending Grants:**Investigator:**

“Linguistic Memory Representations: Behavioral & neural assessment”
R01 (PI: Gordon, P.) 4/01/2010 – 3/31/14
NIH

The goal of this project is to increase understanding of the basic cognitive processes by which words are recognized during reading and to increase understanding of the neural basis of those processes. The experiments closely coordinate the use of behavioral methods (primarily eye-tracking during reading) and neurophysiologic methods (ERPs).

Previously Funded Projects:**Principal Investigator:**

“Selective Attention and Control Mechanisms in the Brain”
5 R01 MH066034 (PI: Hopfinger, J. B.) 08/01/02 – 07/31/09
NIMH

The major goals of this proposal were to elucidate the spatio-temporal neural dynamics of the control of selective attention.

Co-Investigator:

“The Neural Basis of Social Cognition in Schizophrenia: Does Amygdalar Hyperactivity Underlie Paranoia?”
NARSAD Individual Investigator Award (PI: Penn, D.) 09/01/03 – 08/31/06
National Alliance for Research on Schizophrenia
And Depression

The primary goal of this grant was to compare neural activation in persons with schizophrenia with persecutory delusions, to persons with schizophrenia without persecutory delusions and non-clinical controls during a social information-processing task.

Publications:

Hopfinger, J. B., Camblin, C.C. & Parks, E. (in press). Isolating the internal in endogenous attention. Psychophysiology.

Chica, A., Klein, R., Rafal, R., & **Hopfinger, J. B.** (in press). Endogenous saccade preparation does not produce Inhibition of Return: Failure to replicate Rafal, Calabresi, Brennan, & Sciolto (1989). Journal of Experimental Psychology: Human Perception & Performance.

- Kim, S. & **Hopfinger, J. B.** (in press). Neural basis of visual distraction. Journal of Cognitive Neuroscience.
- Hopfinger, J. B.** (in press). Neuroimaging studies of attention. In H. Pashler (Ed.), Encyclopedia of the Mind. Los Angeles: Sage.
- Hopfinger, J. B.** & Parks, E. L. (in press). Involuntary attention. In G. R. Mangun (Ed.), Neuroscience of Attention. New York: Oxford University Press.
- Fichtenholtz, H. M., **Hopfinger, J. B.**, Graham, R., Detwiler, J. M., & LaBar, K. S. (2009). Event-related potentials reveal temporal staging of dynamic emotional expression and gaze shift effects on attentional orienting. Social Neuroscience, 4 (4), 317-331.
- Parks, E. W. L. & **Hopfinger, J. B.** (2008). Hold it! Memory affects attentional dwell time. Psychonomic Bulletin & Review, 15, 1128-1134.
- Pinkham, A. E., **Hopfinger, J. B.**, Ruparel, K., Penn, D. L. (2008). An investigation of the relationship between activation of a social cognitive neural network and social functioning. Schizophrenia Bulletin, 34, 688-697.
- Chanon, V. M. & **Hopfinger, J. B.** (2008). Memory's grip on attention: The influence of item memory on the allocation of attention. Visual Cognition, 16, 325-340.
- Pinkham, A. E., **Hopfinger, J. B.**, Pelphrey, K. A. Piven, J., Penn, D. L. (2008). Neural bases for impaired social cognition in schizophrenia and autism spectrum disorders. Schizophrenia Research, 99, 164-175.
- Fichtenholtz, H. M., **Hopfinger, J. B.**, Graham, R., Detwiler, J. M. LaBar, K. S. (2007). Happy and fearful emotion in cues and targets modulates event-related potential indices of gaze-directed attentional orienting. Social Cognitive and Affective Neuroscience, 2, 323-333.
- Hopfinger, J. B.**, & West, V. M. (2006). Interactions between endogenous and exogenous attention on cortical visual processing. NeuroImage, 31, 774-789.
- Giesbrecht, B., Kingstone, A., Handy, T. C., **Hopfinger, J. B.**, and Mangun, G. R. (2006). The Functional Neuroimaging of Attention. In R. Cabeza & A. Kingstone (Eds.) Handbook of Functional Neuroimaging of Cognition, 2nd Edition (pp. 85-111). Cambridge, MA: MIT Press.
- Hopfinger, J. B.** & Ries, A. J. (2005). Automatic versus contingent mechanisms of sensory-driven neural biasing and reflexive attention. Journal of Cognitive Neuroscience, 17, 1341-1352.
- Hopfinger, J. B.** & Maxwell, J. S. (2005). Appearing and disappearing stimuli trigger a reflexive modulation of visual cortical activity. Cognitive Brain Research, 25, 48-56
- Hopfinger, J. B.** (2005). Electrophysiology of reflexive attention. In L. Itti, G. Rees, & J. Tsotsos (Eds.), Neurobiology of Attention (pp. 219-225). San Diego: Academic Press / Elsevier.

- Hopfinger, J. B.**, Khoe, W. & Song, A. (2005). Combining electrophysiology with structural and functional neuroimaging: ERPs, PET, MRI, and fMRI. In T. Handy (Ed.), Event-Related Potentials: A Methods Handbook (pp. 345-379). Cambridge, MA: MIT Press.
- Hopfinger, J. B.**, Luck, S. J., & Hillyard, S. A. (2004). Selective attention: Electrophysiological and neuromagnetic studies. In M. S. Gazzaniga (Ed.) The Cognitive Neurosciences III (pp. 561-574). Cambridge, MA: MIT Press.
- Slotnick, S. D., **Hopfinger, J. B.**, Klein, S. A., & Sutter, E. E. (2002). Darkness beyond the light: attentional inhibition surrounding the classic "spotlight." NeuroReport, *13*, 773-778.
- Hopfinger, J. B.**, Woldorff, M. G., Fletcher, E., & Mangun, G. R. (2001). Dissociating top-down attentional control from selective perception and action. Neuropsychologia, *39*, 1277-1291.
- Hopfinger, J. B.** & Mangun, G. R. (2001). Tracking the influence of reflexive attention on sensory and cognitive processing. Cognitive, Affective, & Behavioral Neuroscience, *1*, 56-65.
- Hopfinger, J. B.** & Mangun, G. R. (2001). Electrophysiological Studies of Reflexive Attention. In C. Folk & B. Gibson (Eds.), Attraction, distraction, and action: Multiple perspectives on attentional capture (pp. 3-26). Amsterdam: Elsevier Science.
- Handy, T. C., **Hopfinger, J. B.**, & Mangun, G. R. (2001). Functional neuroimaging of attention. In R. Cabeza & A. Kingstone (Eds.) Handbook on Functional Neuroimaging of Cognition (pp. 75-108). Cambridge, MA: MIT Press.
- Yonelinas, A. P., **Hopfinger, J. B.**, Buonocore, M. H., Kroll, N. E. A., & Baynes, K. (2001). Hippocampal, parahippocampal and occipital-temporal contributions to associative and item recognition memory: An fMRI study. NeuroReport, *12*, 359-363.
- Hopfinger, J. B.**, Buonocore, M. H., & Mangun, G. R. (2000). The neural mechanisms of top-down attentional control. Nature Neuroscience, *3*, 284-291.
- Kiehl, K. A., Liddle, P. F., & **Hopfinger, J. B.** (2000). Error processing and the rostral anterior cingulate: An event-related fMRI study. Psychophysiology, *37*, 216-223.
- Hopfinger, J. B.**, Büchel, C., Holmes, A. P., & Friston, K. J. (2000). A meta-analysis of multiple parameter spaces influencing the sensitivity of event-related fMRI analyses. NeuroImage, *11*, 326-333.
- Hopfinger, J. B.**, Jha, A. P., Hopf, J. M., Girelli, M., & Mangun, G. R. (2000) Electrophysiological and neuroimaging studies of voluntary and reflexive attention. In S. Monsell & J. Driver (Eds.), Control of Cognitive Processes, Attention & Performance, vol. XVIII (pp. 125-153). Cambridge, MA: The MIT Press.
- Mangun, G. R., **Hopfinger, J. B.**, & Jha, A. P. (2000). Integrating electrophysiology and neuroimaging in the study of human brain function. In P. Williamson, A. M. Siegel, D. W. Roberts, V. M. Thandi, & M. S. Gazzaniga (Eds.), Advances in Neurology (Vol. 84): Neocortical Epilepsies (pp. 35-49). Philadelphia: Lippincott, Williams, & Wilkins.

Mangun, G. R., Jha, A. P., **Hopfinger, J. B.**, & Handy, T. C. (2000). The timecourse and functional anatomy of attention and working memory systems: Effects on visual processing. In M. S. Gazzaniga (Ed.), The New Cognitive Neurosciences (pp. 701-710). Cambridge, MA: The MIT Press.

Hopfinger, J. B. & Mangun, G. R. (1998). Reflexive attention modulates processing of visual stimuli in human extrastriate cortex. Psychological Science, *9*, 441-447.

Mangun, G. R., **Hopfinger, J. B.**, & Heinze, H. J. (1998). Integrating electrophysiology and neuroimaging in the study of human cognition. Behavior Research Methods, Instruments, & Computers, *30*, 118-130.

Mangun, G. R., **Hopfinger, J. B.**, Kussmaul, C., Fletcher, E., & Heinze, H. J. (1997). Covariations in ERP and PET measures of spatial selective attention in human extrastriate visual cortex. Human Brain Mapping, *5*, 273-279.

Manuscripts (submitted):

Shin, E., **Hopfinger, J. B.**, Lust, S. A., Henry, E. A. & Bartholow, B. D. (submitted). Electrophysiological evidence of alcohol-related attentional bias in social drinkers low in alcohol sensitivity. Manuscript submitted for publication.

Selected Invited Lectures:

Hopfinger, J. B. (2009, March). Methods in human cognitive neuroscience. Master Mediator Institute, Duke University, Durham, NC.

Hopfinger, J. B. (2008, March). A stranger across a crowded room: The effects of memory and faces on attention. Center for Cognitive Neuroscience, Duke University, Durham, NC.

Hopfinger, J. B. (2007, April). Varieties of Attention: ERP, fMRI, and Eye-tracking measures. Department of Psychology, University of North Carolina at Greensboro, Greensboro, NC.

Hopfinger, J. B. (2006, January). Memory's slippery grip on attention. Department of Psychological and Brain Sciences, Duke University, Durham, NC.

Hopfinger, J. B. (2004, October). Electrophysiological Studies of Reflexive Attentional Capture. Olin Neuropsychiatry Research Center, Institute of Living; Yale University School of Medicine; Hartford, CT.

Hopfinger, J. B. (2003, July). Electrophysiological and Neuromagnetic Studies of Automatic and Contingent Mechanisms of Reflexive Attention. The 16th annual Summer Institute in Cognitive Neuroscience, Tahoe, California. Sponsored by the James S. McDonnell Foundation, the National Institute of Mental Health & The National Institute on Drug Abuse.

Hopfinger, J. B. (2003, May). Top-down versus Bottom-up mechanisms of attention. Department of Neurobiology, Duke University, Durham, NC.

- Hopfinger, J. B.** (2002, July). Neural Mechanisms of Attentional Capture & Control. NIH Cognitive Neuroscience Consortium Seminar Series; Sponsored by NINDS, NIA, NIMH, NIDA, NEI. Bethesda, MD.
- Hopfinger, J. B.** (2002, May). Reflexive attention mechanisms. Duke/UNC Cognitive Neuroscience Retreat; Carolina Inn, Chapel Hill, NC.
- Hopfinger, J. B.** (2000, June). Tracking the Influence of Reflexive Attention on Sensory & Cognitive Processing Using ERPs. Attraction, distraction, and action: An interdisciplinary conference and workshop on attentional capture. Villanova University.
- Hopfinger, J. B.** (1999, April). Event-related fMRI studies of attentional control and selective perception. Satellite symposium of the 1999 Cognitive Neuroscience Society meeting.
- Hopfinger, J. B.** (1997, October). A meta-analysis of multiple parameter spaces influencing the sensitivity of event-related fMRI analyses. Functional Imaging Laboratory colloquia, Wellcome Department of Cognitive Neurology; University College London.