

Curriculum Vitae

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Richard P. Heitz

Psychology
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Education

Ph.D. (2007); Georgia Institute of Technology

Dissertation: *Neural correlates of speed-accuracy tradeoff: An electrophysiological analysis*

M.S. (2003); Georgia Institute of Technology

Specialization: Cognitive Psychology

Minor: Quantitative

Advisor: Dr. Randall W. Engle

B.A. (2000); University of Illinois at Chicago

Specialization: General Psychology

Advisor: Dr. Andrew R. A. Conway

Research

Post-Doctoral Fellow (2007 – present). Advisor: Jeffrey D. Schall, Ph.D., Vanderbilt University

Research Assistant (2001 – 2007). Advisor: Randall W. Engle, Ph.D., Georgia Institute of Technology.

Research Assistant (1999 – 2001). Advisor: Andrew R. A. Conway, Ph.D., University of Illinois at Chicago.

Research Assistant (1999 – 2000). Advisor: Linda J. Skitka, Ph.D., University of Illinois at Chicago.

Research Assistant (1999). Advisor: Fabricio Balcazar, Ph.D., University of Illinois at Chicago.

Teaching

Teaching Assistant for Abnormal Psychology (2001).
Seminar on programming in E-Prime (August, 2003).
Seminar on programming in E-Prime (April, 2004).
Seminar on programming in E-Prime (August, 2004).
Seminar on programming in E-Prime (September, 2005).
Seminar on programming in E-Prime (February, 2006).
Seminar on programming in E-Prime (September, 2006).
Undergraduate Statistics Lab Instructor (Spring semester, 2006; rating = 4.8 out of 5.0).
Graduate Statistics Lab Instructor (Fall semester, 2005; rating = 4.7 out of 5.0).
Graduate Statistics Lab Instructor (Fall semester, 2006; rating = 4.8 out of 5.0).
Applied Statistics Instructor (Spring semester, 2007; rating = 4.9 out of 5.0).

Publications

Bunting, M. F., Conway, A. R. A., & Heitz, R. P. (2004). Individual differences in the fan effect and working memory capacity. *Journal of Memory and Language, 51*, 604-622.

Unsworth, N., Heitz, R. P., Shrock, J. C., & Engle, R. W. (2005). An automated version of the operation span task. *Behavior Research Methods, Instruments, and Computers, 37*, 498-505.

Heitz, R. P., Redick, T. S., Hambrick, D. Z., Kane, M. J., Conway, A. R. A., & Engle, R. W. (2006). WM, EF, and gF are not the same. *Behavioral and Brain Sciences, 29*, 135-136. (Invited commentary on a source article by C. Blair).

Heitz, R. P., & Engle, R. W. (2007). Focusing the spotlight: Individual differences in visual attention control. *Journal of Experimental Psychology: General, 136*, 217-240.

Heitz, R. P., Schrock, J. C., Payne, T. W., & Engle, R. W. (2007). Effects of incentive on working memory capacity: Behavioral and pupillometric data. *Psychophysiology, 45*, 119-129.

Pouget, P., Nelson, M., Cohen, J., & Heitz, R. P. (2007). Pulse-pattern sensitivity in the frontal eye field of the macaque monkey. *Journal of Neuroscience, 27*, 11780-11781.

Liu, S., Heitz, R. P., Sampson, A. R., Zhang, W., & Bradberry, C. W. (in press). Evidence of temporal cortical dysfunction in rhesus monkeys following chronic cocaine self-administration. *Cerebral Cortex*.

Unsworth, N., Heitz, R. P., & Parks, N. A. (in press). The importance of temporal distinctiveness for forgetting over the short term. *Psychological Science*.

Under Review

Cohen, J. Y., Pouget, P., Heitz, R. P., Woodman, G. F., & Schall, J. D. Support for functionally distinct cell types in the frontal eye field. Manuscript submitted.

Unsworth, N., Redick, T. S., Heitz, R. P., & Broadway, J. B., & Engle, R. W. Complex working memory span tasks and higher-order cognition: A latent variable analysis of the relationship between processing and storage. Manuscript submitted.

Book Chapters

Heitz, R. P., Unsworth, N., & Engle, R. W. (2005). Working memory capacity, attention control, and intelligence. In O. Wilhelm & R. W. Engle (Eds.), *Understanding and measuring intelligence*. NY: Sage.

Unsworth, N., Heitz, R. P., & Engle, R. W. (2005). Working memory capacity in hot and cold cognition. In R. W. Engle, G. Sedek, U. Hecker, & D. N. McIntosh (Eds.), *Cognitive limitations in aging and psychopathology* (pp. 19-43). New York: Oxford University Press.

Redick, T. S., Heitz, R. P., & Engle, R. W. (2007). Working memory capacity and inhibition: Cognitive and social consequences. In D. S. Gorfein & C. M. MacLeod & (Eds.), *Inhibition in cognition*. Washington, DC: American Psychological Association.

Talks and Presentations

Heitz, R. P., Woodman, G. F., Pouget, P., Cohen, J. Y., & Schall, J. D. (2008, May). *Effects of luminance contrast on visual responses in frontal eye field*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Purcell, B. A., Heitz, R. P., Cohen, J. Y., Logan, G. D., Schall, J. D., & Palmeri, T. J. (2008, May). *Modeling interactions between visually-responsive and movement-related neurons in FEF during saccade visual search*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Cohen, J. Y., Heitz, R. P., Schall, J. D., & Woodman, G. F. (2008, May). *Attention in visual cortex occurs earlier than target selection in the frontal eye field*. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Kerr, D. D., Liu, S., Heitz, R. P., & Bradberry, C. W. (2007, November). *Impulsivity and performance monitoring in rhesus monkeys following long-term cocaine self-administration*. Poster presented at the annual meeting of the Society for

Neuroscience, San Francisco, CA.

- Heitz, R. P. (2007, August). *Neural correlates of speed-accuracy tradeoff: An electrophysiological analysis*. Talk presented to the Cognition and Cognitive Neuroscience Seminar at Vanderbilt University.
- Redick, T. S., Heitz, R. P., Aguilera-Martinez, A., & Engle, R. W. (2006, November). *Working memory capacity, processing speed, and fluid intelligence: An eye movement analysis*. Poster presented at the annual meeting of the Psychonomic Society, Houston, TX.
- Liu, S., Kerr, D., Gurnsey, K., Heitz, R. P., & Bradberry, C. W. (2006, October). *Cognitive dysfunction in rhesus monkeys after chronic cocaine self-administration*. Poster presented at the annual meeting of the Society for Neuroscience, Atlanta, GA.
- Heitz, R. P. (2005, September). *Mechanisms of speed-accuracy tradeoff*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Bradberry, C. W., & Heitz, R. P. (2005, November). *Orbitofrontal cortex dysfunction in compulsive cocaine seeking in the rhesus monkey*. Poster presented at the annual meeting of the Society for Neuroscience, Washington D.C.
- Heitz, R. P., Corballis, P. M., Parks, N. A., & Engle, R. W. (2005, April). *Working memory capacity and attention control: A psychophysiological analysis*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, New York.
- Heitz, R. P., Corballis, P. M., Parks, N. A., & Engle, R. W. (2005, April). *Working memory capacity and attentional load: Filtering and Processing*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Heitz, R. P. (2004, October), *Opening the black box: Lateralized readiness potentials, speed-accuracy tradeoff, criterion, and individual differences*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Heitz, R. P. (2004, July), *Individual differences in visual attention control*. Poster presented at the annual meeting of the American Psychological Association, Honolulu.
- Heitz, R. P. (2004, May), *Individual differences in visual attention control*. Talk given at the annual meeting of the Midwestern Psychological Association, Chicago.
- Heitz, R. P. (2003, April), *Working memory capacity and the visually evoked potential*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Heitz, R. P. (2003, November), *Working memory capacity and visual attention*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.

- Heitz, R. P., & Engle, R. W. (2003, November). *Working memory capacity and visual attention*. Poster presented at the annual meeting of the Psychonomic Society, Vancouver.
- Heitz, R. P. (2003, May). *Working memory and mental effort: Data from pupillometry*. Talk given at the annual meeting of the American Psychological Society, Atlanta, GA.
- Unsworth, N., Schrock, J. C., Heitz, R. P., & Engle, R. W. (2003, May). *An automatic version of Ospan*. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Heitz, R. P. (2003, May). *Working memory and mental effort: Data from pupillometry*. Talk given at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Heitz, R. P. (2003, February). *Speed-Accuracy Tradeoff (SAT) functions in individual differences research*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Heitz, R. P. (2002, December). *Working memory and mental effort: Data from pupillometry*. Talk given at the weekly cognitive seminar at the Georgia Institute of Technology.
- Heitz, R. P. (2002, October). *Working memory and deep-brain stimulation*. Talk given at the weekly cognitive aging brown bag at the Georgia Institute of Technology.
- Bunting, M. R., Conway, A. R. A., & Heitz, R. P. (2002, May). *Individual differences in the fan effect: Capacity or control?* Poster presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Heitz, R. P., Payne, T. W., Schrock, J. C., & Engle, R. W. (2002, April). *Working memory and motivation*. Poster presented at the Cognitive Science Student Conference at Emory University. Atlanta, Georgia.
- Rosenblatt, B. L., Skitka, L. J., & Heitz, R. P. (2001, June). *When do people prefer action to inaction?* Poster presented at the annual meeting of the American Psychological Society: Toronto, Ontario, Canada.
- Rosenblatt, B. L., Heitz, R. P., & Skitka, L. J. (2001, May). *Does providing multiple-choice options for verbal insight problems guarantee solution?* Poster presented at the annual meeting of the Midwestern Psychological Association. Chicago, IL.

Ad Hoc Reviewer

- Memory
- Psychologia

- Psychonomic Bulletin & Review
- Quarterly Journal of Experimental Psychology
- Memory & Cognition
- European Journal of Cognitive Psychology
- Human Brain Mapping

Consulting

- Consultant/Programmer for Dr. Charles W. Bradberry, University of Pittsburgh. “CNS Consequences of Chronic Cocaine Self-Administration,” funded by the National Institute of Drug Abuse.
- Consultant for Dr. Jagdeep Bijwadia, University of Minnesota and Regions Hospital. “The Effect of Resident Work Schedule on Working Memory Capacity”

Awards

- Georgia Tech Graduate student research award (2004), \$1000
- Georgia Tech Graduate student research award (2005), \$1500
- APA Dissertation Research Award (2005), \$1000
- Georgia Tech Graduate student research award (2006), \$1320

Honors

- Hirshberg Literary Award, 2000 (nomination)
- Dean’s Honor List, University of Illinois at Chicago
- Georgia Tech CETL/BP teaching award, 2006 (nomination)
- Outstanding Graduate Student award, 2007

Affiliations

- Cognitive Neuroscience Society
- Vision Sciences Society
- Society for Neuroscience

Service

- Graduate student representative on the cognitive job search committee, 2002-2003.
- Co-author of *Graduate Student Corner* in the APA Division 3 newsletter, 2004-2005.
- Organized Cognitive Seminar series, 2006-2007.

References

Randall W. Engle

Georgia Institute of Technology

E-mail: randall.engle@psych.gatech.edu

Jeffrey D. Schall

Vanderbilt University

E-mail: jeffrey.d.schall@vanderbilt.edu

Gordon D. Logan

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Andrew R. A. Conway

Princeton University

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