VITA

Name:	Walter Schneider
Address:	LRDC RM 629, 3939 O'Hara St., Pittsburgh PA 15260
Phone:	(412) 624-7061
EMAIL:	wws@pitt.edu
Date:	December 9, 2003

Date of Birth: February 9, 1950

Marital Status: Married

Educational History: B.A., Psychology (with honors), University of Illinois, 1971
Ph.D., Psychology, Indiana University, 1975
Post-Doc., Neurophysiology, University of California, Berkeley, CA, 1975-77

Title of Thesis: Selective attention, memory scanning, and visual search:
Three components of one process Supervisor: Richard M. Shiffrin

Professional History:

1971-1975	Research Assistant, Indiana University
1975-1977	Miller Research Fellow, Miller Institute for Basic Research in Science, University of California, Berkeley
1977-1983	Assistant Professor, University of Illinois
1983-1985	Associate Professor, University of Illinois
1985-1988	Associate Professor, Department of Psychology & Senior Scientist, Learning Research and Development Center, University of Pittsburgh
1988-	Professor, Department of Psychology, University of Pittsburgh
1995-2004	Co-Director, Education Program, Center for the Neural Basis of Cognition (CNBC)
2002-2004	Program Chair, Cognitive Program, University of Pittsburgh

Honors:

Phi Beta Kappa
Two Psychological Review papers have been awarded the status of "Science Citation
  Classics" (Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977)
President of Society for Computers in Psychology, 1986
Member of National Academy of Science Study Panel, 1985-1988
EDUCOM/NCRIPTAL Higher Education Software Award winner of Best Social and Behavioral
  Sciences award for Micro Experimental Laboratory programming system, 1988
American Association for the Advancement of Science Fellow, 1995
Fellow of the American Psychological Society, 1997
Top download paper in Cognitive Science (Schneider & Chein, 2003)

Fellowships and Scholarships:

Beckman Fellow, Center for Advanced Study, University of Illinois, 1981-1982
Miller Research Fellow, Miller Institute for Basic Research in Science, 1975-1977
Mathematical Psychology NIMH Training Fellowship, Indiana University, Years
Illinois State Scholar, 1968-1971

Publications:

Schneider, W. & Scholz, K. W. (1973). Requirements for minicomputer operating systems for human experimentation and an implementation on a 4KPDP-8 computer. Behavioral Research Methods and Instrumentation, 5, 173-177.

Shiffrin, R. M. & Schneider, W. (1974). An expectancy model for memory search. Memory and Cognition, 2(4), 616-628.

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National Conference Presentations Since 1980

Schneider, W. (1980, March). New information on automatic processing. Paper presented at ONR Contractors Meeting. Seattle, WA.

Schneider, W. (1980, June). Tutorial on attention. Paper presented at the National Academy of Science Flight Simulator Workshop, Williams Air Force Base, Phoenix, AZ

Schneider, W. (1980, November). Basic computer troubleshooting. Paper presented at the Tenth Annual Conference on the Use of Computers in Psychology, St. Louis, MO.

Schneider, W. (1981, March). Heterarchial processing and the development of skilled performance. Paper presented at the ONR Meetings on Information Processing Abilities, Yale University, New Haven, CT.

Schneider, W., & Fisk, A. D. (1981, November). Higher automatic and control category search. Paper presented at the meetings of the Psychonomic Society, Philadelphia, PA.

Schneider, W. (1982, January). Basic concepts in automatic/control processing. Paper presented at the Sloan Foundation Conference on Cognitive Psychophysiology, Carmel, CA.

Schneider, W. (1982, January). Development of automaticity of spatial skills in an air-intercept task. Paper presented at the ONR Meetings on Instructional Methods and Technology, Winter Park, FL.

Schneider, W., & Fisk, A. D. (1982, February). Attention theory and mechanisms for skilled performance. Paper presented at the Conference on Memory and Control of Motor Behavior, Baton Rouge, LA.

Schneider, W. (1982, April). Automatic processing in complex tasks -- the limits and the potential. Paper presented at the ONR Meetings on Individual Differences in Information Processing, Pittsburgh, PA.

Schneider, W. (1982, August). Automatic/control processing: The limits and the potential. Paper presented at the meeting of the American Psychological Association, Washington, DC.

Schneider, W., Vidulich, M., & Yeh, Y. (1982, October). Training spatial skills for air-traffic control. Paper presented at the meeting of the Human Factors Society, Seattle, WA.

Schneider, W., & Fisk, A. D. (1982, November). Processing with and without long-term memory modification: Attention, level of processing, and word frequency. Paper presented at the meeting of the Psychonomic Society, Minneapolis, MN.

Schneider, W. (1983, January). Microprocessor-based perceptual skill training: Building automatic components for air-intercept control. Paper presented at the ONR Contractors Meeting, Pensacola, FL.

Schneider, W. (1983, March). Microprocessor-based perceptual skill training: Building automatic components for air-intercept control. Paper presented at the meeting of ONR Contractors, Santa Barbara, CA.

Schneider, W. (1983, April). Developing skills by training to develop new automatic components. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada.

Schneider, W. (1983, May). A distributed processing architecture for attention and skill development. Paper presented at the meeting of the Midwestern Psychological Association, Chicago, IL.

Schneider, W., Vidulich, M., & Yeh, Y. (1983, October). Time-compressed components for air-intercept control skills. Paper presented at the meeting of the Human Factors Society, Virginia Beach, Va.

Schneider, W. (1983, November). A simulation of automatic/controlled processing predicting attentional and practice effects. Paper presented at the meeting of the Psychonomic Society, San Diego, CA.

Schneider, W. (1984, January). Attention, automation, and the compiling of knowledge and training for AIC and electronic troubleshooting. Paper presented at the meeting of the ONR contractors, San Francisco, CA.

Schneider, W. (1984, April). The crisis and challenge of attention. Paper presented at the meeting of ONR contractors, New Haven, CT.

Ackerman, P. L., & Schneider, W. (1984, April). Ramifications of practice effects for selection and training: A new approach to individual differences assessment. Paper presented at the First Annual Mid-central Ergonomics/Human Factors Society, Cincinnati, OH.

Schneider, W. (1984, July). Toward a model of attention and the development of automatic processing. Paper presented at Attention & Performance XI Conference, Eugene, OR.

Schneider, W. (1984, November). Attention, learning, and the transition from controlled to automatic processing. Paper presented at the Psychonomic Society, San Antonio, TX.

Ackerman, P. L., & Schneider, W. (1984, November). Practice effects and a model for Stroop interference. Paper presented at the Psychonomic Society, San Antonio, TX.

Schneider, W. (1984, November). A communication theory of attention and skill development: Neural architecture and a mathematical representation of automaticity. Paper presented at the Conference on Attention, Action, and Automaticity. Center for Interdisciplinary Study, Bielefeld, Germany.

Schneider, W. (1985, September). A neural/computational model of attention and skill acquisition: Neural function and pathology. Colloquium speaker, Princeton University, Cognitive science program, Princeton, NJ.

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Schneider, W. (1986, April). Automaticity and its implications for instructional design. Presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Schneider, W. & Yeh, Y. (1986, April). The reduction of workload with training. Presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Schneider, W. (1986, February). Building automatic component skills for electronic troubleshooting. Presented at the National Aeronautics and Space Administration, Moffet Field, CA.

Schneider, W. (1986, May). Training automatic component skills for electronic troubleshooting. Presented at the Army Research Institute In-process Review, Pittsburgh, PA.

Schneider, W. & Regian, W. (1986, July). Assessment procedures for prediction and optimizing acquisition in extended training. Presented at the ONR Conference on Diagnostic Monitoring, Educational Testing Service, Princeton, NJ.

Schneider, W. (1986, August). Psychological models of attention. Presented at the Attention and Brain Communication Theory Workshop, Jackson Hole, WY.

Schneider, W. & Posner, M. (1986, August). Empirical phenomena of attention. Presented at the Attention and Brain Communication Theory Workshop, Jackson Hole, WY.

Schneider, W. (1986, October). Training and the development of automaticity - A two level architecture for skill acquisition. Presented at the Canadian Association of Sports Sciences, Ottawa, Canada.

Schneider, W. (1986, October). Attention automaticity and the capturing of knowledge - A two level architecture for cognition. Presented at the ONR Contractors Meeting, Eugene, OR.

Schneider, W. & Detweiler, M. (1986, October.). Changes in performance and workload with training. Presented at Human Factors Society Conference, Dayton, OH.

Schneider, W. (1986, October). The concept of multiple resources from the perspective of dual processing theory. Presented at the Human Factors Society Conference, Dayton, OH.

Schneider, W. (1986, October). Attention, automaticity and learning. Oregon Symposium on Automaticity and Attention, Eugene, OR.

Schneider, W. (1986, November). Neurally-inspired models of cognition: Is it a paradigm shift?. Presidential address at Society for Computers in Psychology, New Orleans, LA.

Schneider, W. (1986, November). Automaticity and crystallizing knowledge: A two-level cognitive architecture. Presented at the Psychonomics Society, New Orleans, LA.

Schneider, W. (1987, March). Assessment procedures for training to perform high workload tasks. Presented at the National Society for Performance & Instruction 25th Anniversary Conference, San Antonio, TX.

Levine, J. M., & Schneider, W. (1987, March). Feedback and motivation in computer-based skill training. Presented at the ONR Contractor's Meeting on Advanced Instructional Theory, Yale University, New Haven, CT.

Schneider, W. (1987, May). A connectionist/control architecture of working memory with tests in the acquisition of electronic troubleshooting. Presented at the Army Research Institute In-process Review, Nashville, TN.

Schneider, W. (1987, June). A connectionist/control architecture for attention and working memory: Physiological predictions and constraints. Invited speaker, National Institute of Mental Health, Bethesda, MD.

Detweiler, M. & Schneider, W. (1987, October). A connectionist/control architecture for working memory and workload: Why working memory is not 7 +/- 2. Presented at the Human Factors Society Meeting, Dayton, OH.

Schneider, W. (1987, October). A connectionist/control architecture for attention, workload, and working memory. Colloquium speaker, Princeton University, Cognitive Science Program, Princeton, NJ.

Schneider, W. (1987, October). A connectionist/control architecture for attention from physiology to models of cognitive processing. Colloquium speaker, Harvard University, Psychology Department, Boston, MA.

Schneider, W. (1987, November). Micro Experimental Laboratory: An Integrated system for IBM PC Compatibles. Presented at the Seventeenth Annual Meeting of the Society for Computers in Psychology, Seattle, WA.

Schneider, W. (1987, November). Role of sensitivity analysis in attention and connectionist modeling. Presented at the Seventeenth Annual Meeting of the Society for Computers in Psychology, Seattle, WA.

Carlson, R. A., & Schneider, W. (1987, November). Failure of knowledge composition and use of working memory in procedural skill. Presented at the 28th Annual Meeting of the Psychonomic Society Meeting, Seattle, WA.

Resnick, L. B., & Schneider, W. (1987, November). Practice, representation, and strategy in acquiring arithmetic knowledge. Presented at the 28th Annual Meeting of the Psychonomic Society, Seattle, WA.

Schneider, W., & Detweiler, M. (1987, November). A connectionist/control architecture for working memory and attention. Presented at the 28th Annual Meeting of the Psychonomic Society, Seattle, WA.

Schneider, W. (1988, January). A connectionist/control architecture for human attention and skill acquisition. Presented at the Workshop on Vision Models of the DARPA Neural Network Study, MIT Lincoln Labs Neural Network Study Center, Cambridge, MA.

Schneider, W. (1988, March). A connectionist/control architecture for attention, skill acquisition and the capturing of knowledge. Colloquium presented at the University of Illinois, Champaign, IL.

Schneider, W. (1988, March). Micro Experimental Laboratory: An integrated system for psychological laboratory research. Presented at IBM East Coast Regional Conference on Computers in Higher Education, Princeton, NJ.

Schneider, W. (1988, March). Training automatic components: Changes from control to connectionist knowledge as a function of practice. Presented at the ARI Contractors Meeting, Champaign, IL.

Schneider, W. (1988, April). Connectionism: Is it a paradigm shift for psychology and computer science? Presented at Franklin and Marshall College, Lancaster, PA.

Schneider, W. & Oliver, W. (1988, May). An instructable connectionist/control architecture: Using rule-based instructions to accomplish connectionist learning in a human time scale. Presented at the Twenty-second Carnegie Mellon Symposium on Cognition, Pittsburgh, PA.

Schneider, W., & Oliver, W. (1988, May). Issues in top-down and bottom-up methodology. Presented at NAECON '88 Technology for Responsive Supportable Systems Conference, Dayton, OH.

Schneider, W. (1988, June). A connectionist/control architecture for attention and skill acquisition: From potential physiology to behavior. Presented at the James S. McDonnell Foundation Summer Institute in Cognitive Neuroscience, Harvard University, Boston, MA.

Schneider, W., & Oliver, W. (1988, August). Using rules and task division to augment connectionist learning. Presented at the Tenth Annual Conference of the Cognitive Science Society, Montreal, Canada.

Schneider, W. (1988, October). Specialization of function - for a modeler, why so many types of neurons? Presented at the Biological and Theoretical Aspects of Models of Cerebral Cortex Function Workshop, Center for Neuroscience, University of Pittsburgh.

Schneider, W. (1988, October). The macro-structure of cortex in cortical models. Presented at the Biological and Theoretical Aspects of Models of Cerebral Cortex Function Workshop, Center for Neuroscience, University of Pittsburgh.

Graham, D. J. & Schneider, W. (1988, November). Sequential learning in a connectionist model of mental arithmetic. Presented at the 29th Annual Meeting of the Psychonomic Society, Chicago, IL.

Schneider, W. (1988, November). Micro Experimental Laboratory (MEL): An integrated software system for computerized experimentation for research and instruction on IBM PC compatible computers. Presented at the Eighteenth Annual Meeting of the Society for Computers in Psychology, Chicago, IL.

Schneider, W. (1988, November). Implementing standard and advanced experimental paradigms in MEL. Presented at the Eighteenth Annual Meeting of the Society for Computers in Psychology, Chicago, IL.

Schneider, W. (1988, November). Computer viruses--what they are, how they might get you, how they work, and how to control them. Presented at the Eighteenth Annual Meeting of the Society for Computers in Psychology, Chicago, IL.

Schneider, W., & Oliver, W. L. (1988, November). Using declarative knowledge to guide skill acquisition in a connectionist/control architecture. Presented at the 29th Annual Meeting of the Psychonomic Society, Chicago, IL.

Schneider, W. (1988, November). Developing automatic components as a foundation for skilled performance. Presented at the American Psychological Association Congressional Site Visit, University of Pittsburgh.

Schneider, W. (1988, December). Developing automatic component skills for high workload performance in air traffic control tasks. Presented at the Symposium on Air Traffic Control Training for Tomorrow's Technology, Oklahoma City, OK.

Schneider, W. (1989, March). Developing component skills for use in complex tasks. Presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Schneider, W. (1989, April). Getting smart quicker: Training more skills in less time. Presented at Science and Public Policy Seminar luncheon sponsored by the Federation of Behavioral, Psychological and Cognitive Sciences, Washington, DC.

Schneider, W. (1989, June). A connectionist/control architecture of attention and control processing: From plausible physiology to behavior. Presented at Event Related Potentials Conference IX, Nordwijk, Netherlands.

Schneider, W. (1989, July). Control issues in cognitive processing. Presented at the Workshop on Control Issues in Cognitive Processing, Yale Medical Center, New Haven, CT.

Schneider, W. (1989, July). A connectionist/control architecture for working memory. Presented at the Workshop on Control issues in Cognitive Processing, Yale Medical Center, New Haven, CT.

Schneider, W., & Shedden, J. M. (1989, November). A connectionist/control simulation model of attentional processing and cortex microstructure. Presented at the 30th Annual Meeting of the Psychonomic Society, Atlanta, GA.

Schneider, W. (1989, November). MEL Workshop: Computerized research in psychology. Presented at the 19th Annual Conference of Society for Computers in Psychology, Atlanta, GA.

Schneider, W. (1990, February). Connecting cognition to physiological structure: A connectionist/control architecture for attention and skill acquisition. Presented at Georgia Institute of Technology, Atlanta, GA.

Shedden, J. M. & Schneider, W. (1990, August). A connectionist model of attentional enhancement and signal buffering. Presented at the Twelfth Annual Meeting of the Cognitive Science Society, Cambridge, MA.

St. James, J., & Schneider, W. (1990, November). Undergraduate laboratory instruction with MEL student library. Presented at the 20th Annual Conference of Society for Computers in Psychology, New Orleans, LA.

Schneider, W., McCarthy, G., & Rueda, J. (1990, November). The movement of attention, behavior and biology. Presented at the 31st Annual Meeting of the Psychonomic Society, New Orleans, LA.

Gupta, P., & Schneider, W. (1991, August). Attention, automaticity, and priority learning. Presented at the Thirteenth Annual Meeting of the Cognitive Science Society, Chicago, IL.

Shedden, J. M., & Schneider, W. (1991, August). A connectionist simulation of attention and vector comparison: The need for serial processing in parallel hardware. Presented at the Thirteenth Annual Meeting of the Cognitive Science Society, Chicago, IL.

Schneider, W., & McCarthy, G. (1991, August). Attention shifting in visual processing, behavior and biology. Presented at the International Brain Research Organization, Montreal, Canada.

Schneider, W. (1991, September). What does connectionism add, why are symbolic-like operations needed? Presented at the Workshop for Hybrid Models of Cognition, The Royal Society, London, England.

Schneider, W., Shedden, J. M., & McCarthy, G. (1991, November). The serial and parallel nature of attention shifting: Biology and behavior. Presented at the 32nd Annual Meeting of the Psychonomic Society, San Francisco, CA.

Shedden, J. M., & Schneider, W. (1992, March). The nature of attention shifting. Presented at the Rotman Research Institute of Baycrest Centre Conference: Attention: Theoretical and clinical perspectives. Toronto, Canada.

Schneider, W. (1992, March). Developing automatic components for high workload performance tasks. Presented at the ARI Contractors Meeting, Orlando, FL.

Schneider, W., Shedden, J. M., Noll, D. & Cohen, J. (1992, November). Mapping visual brain activation with functional MRI and high density ERP. Presented at the 33rd Annual Meeting of the Psychonomic Society, St. Louis, MO.

Cohen, J., Noll, D., & Schneider, W. (1992, November). Introduction to functional magnetic resonance imaging (F-MRI) techniques in visual tasks. Presented at the Society for Computers in Psychology Meeting, St. Louis, MO.

Schneider, W. (1993, May). Brain mapping and modeling of attention and learning in the visual system with functional MRI and high density ERPs. Presented at the Conference Learning Days in Jerusalem, Hebrew University, Jerusalem, Israel.

Schneider, W., Noll, D., Shedden, J. M., Worden, M. & Cohen, J. (1993, June). Pictures of the mind: Neuroimaging in neuropsychology. Presented at the Presidential Symposium, Annual Meeting of the American Psychological Society, Chicago, IL.

Shedden, J. M. & Schneider, W. (1993, July). The nature of visual attention shifting explored by using behavioural and brain imaging techniques (HD-ERPs and fMRI). Presented at the Annual Conference of the Canadian Society of Brain, Behaviour, and Cognitive Science, Toronto, Canada.

Schneider, W., Casey, B. J. & Noll, D. (1993, August). Functional MRI mapping of individual stages of visual processing. In Proceedings of the Society of Magnetic Resonance in Medicine, Vol 1, (p.56). Presented at the 12th Annual Scientific Meeting of the Society of Magnetic Resonance in Medicine, New York, NY.

Vincent, D. J., Schneider, W., Worden, M. & Shedden, J. M. (1993, October). Combining high density evoked response potentials and functional magnetic resonance imaging to obtain high temporal and spatial resolution of cortical activity. Presented at the American Electroencephalographic Society Annual Meeting, New Orleans, LA.

Vincent, D. J., Schneider, W., Worden, M. & Shedden, J. M. (1993, October). Comparison of the cortical imaging technique with functional magnetic resonance imaging mapping of cortical activity. Presented at the American Electroencephalographic Society Annual Meeting, New Orleans, LA.

Schneider, W. (1993, November). Psychomonic Symposium on Brain imaging and its impact on cognitive psychology. Presented at the 34th Annual Meeting of the Psychonomic Society (W. Schneider, organizer), Washington, DC.

Schneider, W. (1993, November). Functional magnetic resonance imaging (FMRI) mapping the visual system with millimeter resolution. Presented at the 34th Annual Meeting of the Psychonomic Society, Washington, DC.

Shedden, J. M., Schneider, W. & Noll, D. (1993, November). ERP and functional MRI measurement of attention shifting. Presented at the 34th Annual Meeting of the Psychonomic Society, Washington, DC.

Shedden, J. M. & Schneider, W. (1994, January). The control of directed visual spatial attention: Measures of event related potentials and functional magnetic resonance imaging. Presented at the 19th Annual Inter-disciplinary Conference, Jackson Hole, WY.

Schneider, W., Shedden, J. M. & Noll, D. (1994, March). Tracking visual attentional processing with functional MRI.   Presented at the First Annual Conference for the Society of Cognitive Neuroscience, San Francisco, CA.

Schneider, W. (1994, April). Looking inside the brain: Functional magnetic resonance imaging of attention and visual processing. Presented at The Greater Pittsburgh Psychological Association, Pittsburgh, PA.

Schneider, W., Noll, D., Shedden, J. & Worden, M. (1994, May). Mapping out the effects of attention modulation and control with functional magnetic resonance imaging (fMRI).   Presented at the Beckman Institute, University of Illinois at Urbana-Champaign, Urbana, IL.

Schneider, W., Noll, D., Shedden, J. & Pimm-Smith, M. (1994, August). Mapping cortical processing stages of human vision with fMRI. Presented at the 13th Annual Scientific Meeting of the Society of Magnetic Resonance in Medicine, San Francisco, CA.

Vincent, D. J., Worden, M., Schneider, W., and Shedden, J. (1994) Constraining High Density ERP source analysis using Functional MRI. First world conference in Computational Medicine and Public Health, City,

Schneider, W., Worden, M., Vincent, D., Shedden, J., & Noll, D. (1994, September). Co-localization of cortical generators the visual system: Determining the number, location and functional specialization of generators. American Electroencephalographic Society

Schneider, W., Worden, M., Vincent, D., Shedden, J., & Noll, D. (1994, September). fMRI state analysis of the visual system: Determining the number, location and functional specialization of generators. American Electroencephalographic Society

Schneider, W., Worden, M., Wellington R. (1995, November). Assessing the distribution of exogenous and endogenous attentional modulation in human visual cortex with fMRI. Presented at the 36th Annual Meeting of the Psychonomics Society, Los Angeles, CA.

Schneider, W. (1996, May). Hybrid connectionist/symbolic models of attention and learning. Presented at Michigan Brain and Computation Conference, Ann Arbor, MI.

Shrager, J., Worden, M., Wellington, R., Vaughn, G., Smith, T., Hahn, M., Noll, D. & Schneider, W. (1996, November). FMRI of cortical control areas in early skill acquisition. Presented at the 37th Annual Meeting of the Psychonomic Society, Chicago, IL.

Wellington, R., Worden, M., Shrager, J., Shedden, J. & Schneider, W. (1996, June). Functional imaging evidence in cross modality attention switching. Abstract of paper presented at the Second Human Brain Mapping Conference: Boston, MA.

Worden, M., Schneider, W. & Wellington, R. (1996, March). Determining the locus of attentional selection with functional magnetic resonance imaging. Poster and abstract presented at the Third Annual Meeting of the Cognitive Neuroscience Society.

Worden, M., Wellington, J. R. & Schneider, W. (1996,December). Determining the locus of attentional selection with functional magnetic resonance imaging. Abstract presented at Second Annual Conference on Functional Mapping of the Human Brain. Neuro Image, 3, 244.

Worden, M., & Schneider, W. (1996, November). Visiospatial attentional selection examined with functional magnetic resonance imaging. Poster presented at the 26th Annual Meeting of the Society for Neuroscience, Washington, DC.

McCandliss, B. D., Schneider, W. S., Smith, T. (1997, November). Learning new visual symbols as integrated wholes or component parts. Paper presented to the 38th Annual Meeting of the Psychonomic Society, Philadelphia, PA.

Schneider, W. (1997, July). Connectionist/Control architecture for working memory. Presented at Models of Working Memory Symposium, University of Colorado at Boulder, Boulder, CO.

Schneider, W. (1997, July). fMRI of spatial attention. Presented at Summer Institute in Cognitive Neuroscience, Dartmouth College and Dartmouth Medical School, Hanover, NH.

Schneider, W. (1997, July). Invited speaker at Workshop on Imaging Science and Technology. University of Florida, Gainesville, FL.

Schneider, W. (1997, September). Cortical control strategies for skill acquisition. Presented at ONR Cognitive and Neural Science and Technology Division Workshop. Woods Hole, MA

Schneider, W., Maciejczk, V., Zuccolotto, A., Cernicky, B., Pierce, C., Cohen, J. MacWhinney, B., Provost, J., & Psychology Software Tools, Inc. (1997, November) E-Prime - A cross platform experiment generator studio for computerized behavioral research. Presented at the Society for Computers in Psychology. University of York, England.

Schneider, W., MacWhinney, B. & Cohen, J.., (1997, April).   Real-time computing systems for professional research now and in the future, Presented at Eastern Psychological Association Annual Meeting, Washington, DC.

Schneider, W. & Schrager, J. (1997, August). Functional imaging and cognitive architectures. Presented at the ACT-R Conference, Carnegie Mellon University, Pittsburgh, PA.

Schneider, W. & Shrager, J. (1997, February). Skill acquisition and brain imaging. Presented at Winter Cognitive Psychology conference, Jackson Hole, WY.

Shrager, J., Worden, M., Smith, T., Noll, D. C., Hahn, M., and Schneider, W. (1997, March Cortical dynamics during skill acquisition: fMRI of task-specific and "management" regions in multiple

paradigms. Presented at the 4th Annual Meeting of the Cognitive Neuroscience Society. Proceedings of Cognitive Neuroscience Society, pg. 83, Boston, MA.

Vaughn, G.P., Worden, M., Smith, T., & Schneider, W. (1997, October). FMRI in visual search indicates that automatic processing modulates activity of lateral occipital cortex. Presented at the 27th Annual Meeting of the Society for Neuroscience. Abstracts, Society for Neuroscience, 23, p 1586.

Wellington, R.L., Popowicz, C., Smith, T.W., Worden, M.S., & Schneider, W. (1997, October). Visual attention switching in young and elderly populations examined with fMRI. Presented at the 27th Annual Meeting of the Society for Neuroscience.   Abstracts, Society for Neuroscience, 23, pp 1588.

Schneider, W. (1998, January). Making a Computer-Literate Psychology Major for the Year 2000. Workshop presentation at the 20th Annual National Institute on the Teaching of Psychology, St. Petersburg, FL.

Schneider, W., Maciejczk, V., Zuccolotto, A., Cernicky, B., Pierce, C., Cohen, J. MacWhinney, B., Provost, J., & Psychology Software Tools, Inc. (1998, April). E-Prime - A cross platform experiment generator studio for computerized behavioral research. Presented at Computers in Psychology 98, Philadelphia, PA.

Chein, J., Schneider, W., Smith, T., & Schrager, J. (1998, November). FMRI of domain general learning. Poster presented at Annual Meeting of the Society for Neuroscience. Abstract published in Society for Neuroscience, 24. Los Angeles, CA.

Schneider, W. (1999, February). Functional imaging in the attention and skill acquisition. Presented at Ohio State University Cognitive Neuroscience Lecture Series, city/OH.

McCandliss, B., Sandak, R., Beck, I., Perfetti, C. and Schneider, W. (1999, April). Inroads into reading acquisition failures: relating intervention strategies to changes in behavioral and fMRI measures. Symposium presentation at the annual meeting of the Society for the Scientific Study of Reading, Montreal, ON, Canada.

McCandliss, B.D., Sandak, R., Beck, I., and Schneider, W.S. (1999, April). The neural circuitry of early reading skill: An fMRI Investigation of Children with Poor Decoding Skills Symposium presentation at the annual meeting of the Society for Research in Child Development, Albuquerque, NM.

Vaughn, G.P. and Schneider, W. (1999, April). Functional magnetic resonance imaging of controlled and automatic processing in visual search. Abstract #23B from Abstract Proceedings for the 1999 Annual Meeting of the Cognitive Neuroscience Society, Washington, DC.

Chein, J., Smith, T., and Schneider, W. (1999, April). Functional specialization in a domain independent learning network investigated with fMRI. Abstract #54B from Abstract Proceedings for the 1999 Annual Meeting of the Cognitive Neuroscience Society, Washington, DC.

Worden, M.S. and Schneider W. (1999, April). Visuospatial attention is flexibly allocated at the earliest stages of cortical processing in humans. Abstract #53B from Abstract Proceedings for the 1999 Annual Meeting of the Cognitive Neuroscience Society, Washington, DC.

Vaughn, G. and Schneider, W. (1999, November). Event related fMRI of visual search. Society for Neuroscience, Miami, FL.

Schneider, W. (1999, November). E-Prime - A cross platform experiment generator studio for computerized behavioral research and teaching. Society for Computers in Psychology 1999 Annual Meeting (SCIP), Los Angeles, CA.

Schneider, W. and Zuccolotto, A. (2000, March). E-Prime: Hands-on tutorial for implementing your research designs. Computers in Psychology Conference (CIP), University of York, York, UK.

Schneider, W. and Fissell, K. (2000, March). Computerized methods for human brain mapping with fMRI. Computers in Psychology Conference (CIP), University of York, York, UK.

Schneider, W. (2000, March). Workshop: E-Prime. Computers in Psychology Conference (CIP), University of York, York, UK.

Vaughn, G., and Schneider, W. (2000, April). Event related functional MRI of the components of visual search. Cognitive Neuroscience Society, San Francisco, CA.

Schneider, W. (2000, May). Functional imaging of the modules of human learning. Fourth International Conference on Cognitive and Neural Systems, Boston University, Boston, MA.

Chein, J. and Schneider, W. (2000, June). An fMRI investigation of a common learning network: A test with verbal and nonverbal paired associates (poster #6851). Human Brain Mapping Conference. San Antonio, TX.

McCandliss, B.D., Bolger, D.J., and Schneider, W. (2000, November). Habituating visual features versus cognitive codes: An event-related fMRI study of abstract word representations in extrastriate cortex. (Abstract #464.5). Society for Neuroscience 30th Annual Meeting. New Orleans, LA.

Chein, J. and Schneider, W. (2001, March). Corresponding learning-related changes in brain activity associated with verbal and nonverbal versions of a paired-associate task (abstract #120B). Cognitive Neuroscience Society Meeting, New York, NY.

Wheeler, L., Chein, J., & Schneider, W. (2001, March). Functional magnetic resonance imaging of the role of feedback in learning (abstract #6C). Cognitive Neuroscience Society Meeting, New York, NY.

Schneider, W., Zuccolotto, A., & Cernicky, B. (2001, Nov.). Using package files to extend and upgrade experiment generators such as E-Prime. Presented at the 13th Annual Meeting of the Society for Computers in Psychology, New Orleans, LA.

Wheeler, L., Chein, J., & Schneider, W. (2001, March). Functional magnetic resonance imaging of the role of feedback in learning (abstract #6C). Cognitive Neuroscience Society Meeting, New York, NY.

Schneider, W., Zuccolotto, A., & Cernicky, B. (2001, November). Using package files to extend and upgrade experiment generators such as E-Prime. Presented at the 13th Annual Meeting of the Society for Computers in Psychology, New Orleans, LA.

Schneider, W. (2001, 2002 March). Integrated functional brain imaging workshop. (This involved about 10 hours of lectures and creation of a CD for distribution. The conference involved about 50 participants around the world.) University of Pittsburgh, Pittsburgh, PA.

Wheeler, E.Z, Chein, J.M., & Schneider, W. (2001 November). Feedback integration in learning: An event-related neuroimaging study. Society for Neuroscience , Los Angles, CA.

Wheeler, E.Z., Aizenstein, H., Schneider, W., Carter, C., & McClelland, J. (2002 April). Auditory sentence context modulates visual cortex activity during word recognition: An fMRI study. Cognitive Neuroscience Society, San Francisco, CA.

Schneider, W. & Chein, J. (2002, November). Automaticity and Domain-General Learning in Cortical Networks. Presented at the 43rd Annual Meeting of the Psychonomic Society, Kansas City, MO.

Drobyshevsky, A., Baumann, S., Ruth, R., Chein, J., & Schneider, W. (2002, June). Normative data from an FMRI cognitive task battery. Published in special issue of Neuroimage (Neuro Image for the 8th Annual Human Brain Mapping Conference, Sendai, Japan.

Chein, J. & Schneider, W. (2003, April). An fMRI investigation of the role of domain-general cognitive resources in the transition from controlled to automatic processing. Cognitive Neuroscience Society, New York, NY.

Goldberg, R. F., Perfetti, C. A., & Schneider, W. (2003, April). What's 'Alive' in Semantic Knowledge? Poster presented at the Cognitive Neuroscience Society, New York, NY.

Schneider, W., Chein, J., McHugo, M. (2003 November) CAP: A model of automatic/controlled processing in the brain. Presented at the 44th Annual Meeting of the Psychonomics Society, Vancouver, BC, Canada

Goldberg, R. F., Perfetti, C. A., & Schneider, W. (2004, April). Are abstract properties represented by the left inferior prefrontal cortex? Poster presented at the Cognitive Neuroscience Society, San Francisco, CA.

Hill, N. M. & Schneider, W. (2004, April). Learning to dual-task: An fMRI study of practice related changes in neural activity. Poster presented at the Cognitive Neuroscience Society, San Francisco, CA.

Goldberg, R.F. & Schneider, W. (2004 October). Controlled processing of semantic representations: Modality-specific and domain-general contributions. Poster presented at the Society for Neuroscience meeting, San Diego, CA.

Goldberg, R.F., Perfetti, C.A., Fiez, J.A., & Schneider, W. (2004, April). The role of left inferior prefrontal cortex in semantic processing: Are abstract properties represented? Poster presented at the Cognitive Neuroscience Society, San Francisco, CA.

Schneider, W, Hill, N, Chein, J, McHugo, M, Cole, M. (2004, Minneapolis, MN) Differentiating the control network of the human brain: Modules supporting attention, decision making, learning, and skilled performance. Psychonomics

Schneider, W., Boldger, DJ, Eschman, & Zuccolotto, A. (2004, November) ExpSpreadSheet – An Easy-to-Learn Method for Creating Complete Computerized Experiments Society for Computers in Psychology Minneapolis, MN

St. James, J, Eschman, A, Zuccolotto, A., Schneider, W., (2004, November) PsychMate: Providing Psychology Majors the Tools to do Real Experiments and Learn Empirical Methods. Society for Computers in Psychology Minneapolis, MN

Cole M.W., Schneider W. (2005, November). Less Working Memory, More Control: Greater BOLD Response to Overcoming Prepotency in Prefrontal and Parietal Cortices. Talk presented at Society for Neuroscience, Washington, D.C.

Hill, N.M., & Schneider, W. (2005, June). Changes in neural activation related to dual-task practice: Evidence for a domain general learning network. Poster presented the annual meeting for Organization for Human Brain Mapping, Toronto, Canada.

Schneider, W, Hill, N, & Cole, M., (2005, Toronto, Canada) Native and supported mode processing in attentional control network. Psychonomics

Schneider, W. (2005, Toronto, Canada) Three common misconceptions causing bad timing for most experimenters and how to correct for them. Society for Computers in Psychology

2005 Grant related presentations
    ONR MURI Review (May, 2005, Pittsburgh) Mapping the automatic parallel computation with domain general control
    ONR/DARPA Review (September 2005 DC) Biologically Informed Training
    DARPA Project kickoff meeting (November 2005, San Diego). Mapping Brain Architectures and Processes Supporting Experience Based Cognition
Cole, M. W. & Schneider, W. (2006, March) Response conflict, stimulus-response processing, and task switching involve different components of a fronto-parietal network Cognitive Neuroscience Society
Schneider, W. Formisano, E., Goebel, R., Goldberg, R., Haxby, J., Hasson, U. Mitchell,T. Nichols, T., Siegle, G. (2006, June) Workshop - Competition: Inferring Experience Based Cognition from fMRI. Workshop for Organization for Human Brain Imaging Florence, Italy
Mark Wheeler1, Robert Goldberg, & Walter Schneider, The Representation Of Semantic and Experiential Knowledge In Multiple Cortical Areas And Medial Temporal Lobes (Psychonomics November 2007, Huston TX).
Cole, M. W, & Schneider W. Dissociation of anterior cingulate, dorsolateral prefrontal, and premotor cortex during a visual search task reveals specialized roles within a commonly activated fronto-parietal network. (OHBM June 2006 Florence, Italy)
Schneider, W. The Cognitive Neuroscience of Controlled & Automatic Processing (ONR Contractors Washington DC 2006 May).
Schneider, W. Mapping Brain Architectures and Processes Supporting Experience Based Cognition. DARPA Contractors meeting (August 2006, San Francisco, May, 2006 Boston, January 2006 Washington DC). Several talks including progress report, review of fMRI technology, virtual worlds and fMRI, DTI mapping of connective topology)
Schneider, W. The control and representation systems of the human brain providing cognitive synergy Key note presentation International Conference of Cognitive Modeling.Ann Arbor July 2007
 2006 Grant related presentations
    DARPA Project Planning review (January 2006, DC) – Magic and biology of human cognition
    DAPRA Project Scenario Review (May 2006 Boston) Mapping the Chipset of the Brain
    ONR MURI project review (May 2006, DC). Mapping the automatic parallel computation with domain general control
Schneider, W., Siegle, G., McHugo, M., Gemmer, L., Jones, D., Fissell, K., Koerbel, L., Suzuki, I., Jung, K., Goldberg, R., Wheeler, M., Cole, M., Hill, N. (June, 2006). 2006 Pittsburgh Brain Activity Interpretation Competition: Inferring experienced based cognition from fMRI data. Poster presented at Human Brain Mapping. Florence, Italy
Schneider, W. (May, 2006). The cognitive neuroscience of controlled & automatic processing. ONR Contractors Meeting. Washington, DC.
Schneider, W. Mapping brain architectures and processes supporting experience based cognition. DARPA Contractors meeting (August 2006, San Francisco, May, 2006 Boston, January 2006 Washington DC). Several talks including progress reports & reviews of project
Wheeler, M., Goldberg, R., Schneider, W. (2006, November) The representation of semantic and experiential knowledge in multiple cortical areas and medial temporal lobes. Psychonomics Society. Houston, TX).

Cole, M. & Schneider, W. (May 2007). The cognitive control network: Integrated cortical regions with dissociable functions. *NeuroImage*. doi: 10.1016/j.neuroimage.2007.03.071

Cole M., & Schneider, W. (June, 2007). Abstract decision making is mediated by the cognitive control network via ACC/pre-SMA to DLPFC connectivity. Poster to be presented at Human Brain Mapping. Chicago, IL.

Technical Reports:

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Office of Navy Research ONR, No. 010360. Cognitive, biological, and computational analyses of automaticity in complex cognition. PI: Marcel Just; Co-PI: Walter Schneider.$4,833,321, 06/01/01 - 05/30/06. (Carnegie Mellon University).

Department of Health and Human Services PHS,No. Par-99-138. Usability and interoperability of neuroimaging software. PI: Jonathan Cohen ;Co-Pis: Walter Schneider, Cameron Carter. 7/1/00-6/30/05; $1,542,510. (Yale University).

Department of Health & Human Services PHS. Graduate education in the neural basis of cognition. PI James McClelland; Co-PIs: Peter Strick, David Touretzky, Walter Schneider. 7/1/00 - 6/30/05; $772,108. (Carnegie Mellon University.

National Science Foundation, #DUE-9952631. Laboratory for undergraduate instruction and research in psychology. PI: Carey Ryan; Co-PI: Walter Schneider; 5/1/00 - 4/30/02; $29,712. (University of Pittsburgh).

National Science Foundation, IGERT #9987588. Innovative cross-disciplinary training in neuroscience and computation, PI: David Touretzky,   Co-PI: Walter Schneider. 6/1/00 -5/31/05; $1,800,000. (Carnegie Mellon University).

National Science Foundation, KDI Proposal No. 58512-55-00. Computational models and coordinated neuroimaging of learning and cognitive function. PI: Walter Schneider; Co-PI: Jay McClelland. 10/1/98-9/30/01; $1,200,000.
James S. McDonnell Foundation, JSMF Grant No. 97-29. Brain activations and learning to read: an fMRI investigation. PI: Walter Schneider; Co-PIs: Isabel Beck, Charles Perfetti, B.J. Casey. 7/1/97-6/30/00; $105,000.

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Department of Health & Human Services, PHS. Usability and interoperability of neuroimaging software. PI: Jonathan Cohen; Co-PIs Cameron Carter, Walter Schneider. 7/1/00 - 6/30/05; $1,542,510.

National Science Foundation, Large Scale Equipment Grant . Acquisition of a 3 Tesla MRI scanner for brain imaging. PI: Marcel Just; Co-PI: Walter Schneider 9/1/00-6/1/02; $1,893,000. (University of Pittsburgh/Carnegie-Mellon Consortium).

Department of Health and Human Services, PHS. Graduate education in the neural basis of cognition. PI: James McClelland; Co-PIs: Peter Strick, David Touretzky, Walter Schneider. 7/1/00 - 6/30/05; $772,108. (Carnegie Mellon University).

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