

CURRICULUM VITAE

Kyongje Sung, Ph.D.

■ PERSONAL INFORMATION

Current Position: Research Associate, Faculty

Cognitive Neurology/Neuropsychology group,
Department of Neurology, School of Medicine
Johns Hopkins University

Current Immigration Status: Permanent resident (green card holder)

Citizenship: South Korea

Language Spoken: Korean (Native), English (Second), Chinese (Limited Reading)

Office Address: 1629 Thames St., Suite 350

Baltimore, MD 21231

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■ RESEARCH INTERESTS

Visual Search/Attention, Visual Perception (motion perception), Stochastic Network
Modeling of Cognitive Processes, Response Time Distribution Analysis, Semantic
Network/Lexical Decision Process, Human-Computer Interaction, Human Factors

■ EDUCATION/PROFESSIONAL POSITION

Faculty, Research Associate

From January 2010 to current

Cognitive Neurology/Neuropsychology, Department of Neurology, School of Medicine,
Johns Hopkins University, Baltimore, Maryland

Postdoctoral Research Fellow

From August 2008 to December 2009

Cognitive Neurology/Neuropsychology, Department of Neurology, School of Medicine,
Johns Hopkins University, Baltimore, Maryland

Postdoctoral Research Associate

September 2005 to July 2008

Purves Lab, Center for Cognitive Neuroscience

Duke University, Durham, North Carolina

Ph.D. in Quantitative-Mathematical Psychology

August 1999 to August 2005

Department of Psychological Sciences

Purdue University, West Lafayette, Indiana

Thesis: Testing of Serial Attentive Processing Assumption during Visual Search:

Implication for Search Models

Ph.D. Studentship (withdrawn)

March 1997 to February 1998

Department of Psychology, SungKyunKwan University, Seoul, Korea

Masters of Science in Cognitive Science

March 1995 to February 1997

Artificial Intelligence Lab, Interdisciplinary Program of Cognitive Science

SungKyunKwan University, Seoul, Korea

Thesis: Segmentations of Korean Handwritten Characters using Mathematical Morphology

Bachelor of Business Administration in Industrial and Organizational Psychology

March 1988 to August 1994

Department of Industrial and Organizational Psychology

SungKyunKwan University, Seoul, Korea

■ **SCHOLARSHIPS and AWARDS**

Purdue Research Foundation Grant, Purdue University, Summer, 2005

Purdue Research Foundation Grant, Purdue University, Summer, 2004

M.S. Tuition Scholarship, Awarded by SungKyunKwan University, Interdisciplinary
Program in Cognitive Science, 1998

Undergraduate Tuition Scholarship, Awarded by SungKyunKwan University,
Department of Industrial & Organization Psychology, 1988

■ PROFESSIONAL/PERSONAL ACTIVITIES/EXPERIENCE

Professional Society Membership

Cognitive Neuroscience Society
American Psychological Association (APA)
Association for Psychological Science (APS)
Vision Science Society
Society for Mathematical Psychology

Journal/Grant Proposal Ad hoc Reviewer

Reviewer, Proceedings of the National Academy of Sciences, USA (2007)
Reviewer, Journal of Mathematical Psychology (2003, 2004)
Proposal Reviewer, National Science Foundation (2008)
Reviewer, Cognitive and Behavioral Neurology (2010)

Organizer of Purdue University Winer Memorial Lecture Series

November 6th and 7th 2004, West Lafayette, Indiana
November 22nd and 23rd 2003, West Lafayette, Indiana

Assistant for Editor of Journal of Mathematical Psychology

Summer 2002, 2003

Lectureship

Kyung-in Woman's College, In-Cheon, Korea
Courses on Microsoft Office software practice, Spring 1999

Multimedia Game and Educational Software Content Development

E-point, Co., Seoul, Korea, April 1998 to June 1999

Military Service

Corporal, Army, South Korea, June 1991 to December 1992

■ PROGRAMMING/COMPUTER SOFTWARE EXPERTISE

Expertise in SPSS, SAS, C/C++, MATLAB, Psychophysics Toolbox for MATLAB, Visual Basic, MS Office suite
Working knowledge in Linux/Unix, Mac OsX, Adobe Illustrator, HTML, JAVA, JMP, LaTeX

■ GRANT PROPOSAL

2008, Research Associate, 'Is perceived motion determined empirically?' submitted to NSF

2007, Research Associate, 'An Empirical Basis for Visual Motion Perception', submitted to NSF

2006, Research Associate, 'Understanding the Perception of Motion in Empirical Terms', submitted to Whitehall Foundation

■ PUBLICATIONS

Wojtach, W. T., **Sung, K.**, & Purves, D. (2009). An empirical explanation of the speed-distance effect. PLoS One 4(48): e6771. doi:10.1371/journal.pone.0006771.

Sung, K., Wojtach, W. T., & Purves, D. (2009). An empirical explanation of the aperture effect. Proceedings of National Academy of Science USA, 106, 298-303.

Wojtach, W. T., **Sung, K.**, Truong, S., & Purves, D. (2008). An empirical explanation of the flash-lag effect. Proceedings of National Academy of Science USA, 105, 16338-16343.

Sung, K. (2008). Serial and parallel attentive visual searches: Evidence from cumulative distribution functions of response times. Journal of Experimental Psychology: Human Perception and Performance, 34, 1372-1388.

Schweickert, R., Fortin, C., & **Sung, K.** (2007). Concurrent visual search and time reproduction with cross talk. Journal of Mathematical Psychology, 51, 99-121.

Dzhafarov, E., Schweickert, R., & **Sung, K.** (2004). Mental architectures with selectively influenced but stochastically interdependent components. Journal of Mathematical Psychology, 48, 51-64.

Park, C., Kwak, H., Kim, Y., Lee, J., Lee, K., **Sung, K.**, & Lee, J. (1997). A study of information search in the internet and cognitive learning process. Proceedings of the Meeting for Korean Society for Cognitive Science. Seoul, Korea.

Park, C., Kim, Y., Kwak, H., Lee, J., **Sung, K.**, & Lee, J. (1997). Exploratory learning and user strategy in information search on the internet. Proceedings of the Annual Meeting for Korean Psychological Association. Seoul, Korea.

■ MANUSCRIPTS & BOOK IN PREPARATION

Sung, K., Gordon, B., Vannorsdall, T. D., Ledoux, K., Pickett, E. J., Thaker, G. K., Pearlson, G. D., & Schretlen, D. J. (in preparation). Semantic clustering of category fluency in schizophrenia examined via singular value decomposition analysis.

Sung, K., Gordon, B., Vannorsdall, T. D., Ledoux, K., Pickett, E. J., Thaker, G. K., Pearlson, G. D., & Schretlen, D. J. (in preparation). Semantic deficit in bipolar disorder: a cluster analysis on category fluency.

Sung, K., Pickett, E. J., Ledoux, K., Vannorsdall, T. D., Thaker, G. K., Pearlson, G. D., & Schretlen, D. J., Gordon, B. (in preparation). Characteristics of time intervals between exemplars generated during verbal fluency.

Pruves, D., Wojtach, W., & **Sung, K.** (in preparation). The perception of motion.

Schweickert, R., Fisher, D. L., & **Sung, K.** (book in preparation). Discovering Cognitive Structure by Selectively Influencing Mental Processes: A Guide.

Schweickert, R., Fortin, C., & **Sung, K.** (2003). Parallel visual search and time reproduction: Evidence from selectively influencing processes. Technical Report No. 2003-1, Purdue Mathematical Psychology Program, West Lafayette, Indiana.

■ PRESENTATIONS/INVITED TALKS

Sung, K., Ledoux, K., Pickett, E. J., Vannorsdall, T. D., Fieldstone, S. C., Gordon, B., & Schretlen, D. J. (2010). Deficit in semantic clustering of category examples generated by people with bipolar disorder. To be presented at the 40th Annual Meeting for Society for Neuroscience, San Diego, CA.

Sung, K., Ledoux, K., Pickett, E. J., Vannorsdall, T. D., Fieldstone, S. C., Gordon, B., & Schretlen, D. J. (2010). Semantic deficits in category fluency in schizophrenia and bipolar disorder. To be presented at the 40th Annual Meeting for Society for Neuroscience, San Diego, CA.

Schretlen, D. J., Vannorsdall, T. D., **Sung, K.**, & Gordon, B. (2010). Using verbal fluency to explore semantic networks and the potential of transcranial direct current stimulation to enhance lexical retrieval. To be presented at the 30th Annual Meeting of the National Academy of Neuropsychology, Vancouver, BC, Canada.

Sung, K. (2010). Semantic clustering in patients with SZ: SVD analysis of category fluency. Presented at the Department of Psychiatry and Behavioral Sciences. Baltimore, MD.

Sung, K., Ledoux, K., Pickett, E. J., Fieldstone, S. C., Vannorsdall, T. D., Schretlen, D. J., & Gordon, B. (2009). Semantic representations in healthy adults and persons with schizophrenia. Presented at the 50th Annual Meeting for the Psychonomic Society. Boston, MA.

Sung, K., Ledoux, K., Pickett, E. J., Vannorsdall, T. D., Fieldstone, S. C., Schretlen, D. J., & Gordon, B. (2009). Verbal Fluency and Its Semantic Basis: A Latent Semantic Analysis. Presented at the 134th Annual Meeting for the American Neurological Association. Baltimore, MD.

Pickett, E. J., Ledoux, K., Vannorsdall, T. D., **Sung, K.**, Fieldstone, S. C., Schretlen, D. J., & Gordon, B. (2009). Production Time Differences as Evidence for Automatic vs. Controlled Word Selection Processes. Presented at the 134th Annual Meeting for the American Neurological Association. Baltimore, MD.

Sung, K. (2008). Discrimination of serial/parallel search: Method and application. Talk presented at the Cognitive Neurology/Neuropsychology, Dept. of Neurology, Johns Hopkins Medical Institutions, MD.

Sung, K. (2007). Parallel Attentive Visual Search. Talk presented at the Department of Psychology, Vanderbilt University, TN.

Wojtach, W., **Sung, K.**, & Purves, D. (2006). Is motion perception completely determined by experience with moving objects? Presented at the 6th Annual Meeting of the Vision Science Society. Sarasota, FL.

Sung, K. (2005). Distinguishing serial and parallel processing in visual search without depending on set size effect. Presented at the 5th Annual Meeting of the Vision Science Society. Sarasota, FL.

Sung, K. (2005). Parallel and serial deployment of visual attention. Talk presented at the Department of Psychology and Counseling, Central Arkansas University, AK.

Sung, K. (2005). Attentive Visual Search: Interaction contrast tests of reaction times. Talk presented at the Center for Cognitive Neuroscience, Duke University, NC.

Schweickert, R., Fisher, D., & **Sung, K.** (2004). Basis for selective influence despite cross talk and resource sharing. Presented at the 45th Annual Meeting of the Psychonomics Society, Minneapolis, MN.

Sung, K. (2004). Parallel Visual Search: Evidence from Interaction contrasts of cumulative distribution functions of response times. Presented at the Meeting of the Society for Mathematical Psychology, Ann Arbor, MI.

Schweickert, R., Fortin, C., & **Sung, K.** (2003). Parallel time reproduction and visual search revealed by selective influence. Presented at the 44th Annual Meeting of the Psychonomics Society. Vancouver, Canada.

Sung, K., Schweickert, R., & Fortin, C. (2003). Evidence from cumulative distribution function interaction contrasts for concurrent visual search and time reproduction. Hoosier Mental Life 2003, West Lafayette, IN.