

# Curriculum Vitae

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## KYONGJE (K) SUNG

Assistant Professor  
Department of Psychology  
Morgan State University  
Behavioral and Social Sciences Center (Tyler Hall), Room 422  
1700 East Cold Spring Lane  
Baltimore, MD 21251

[Kyongje.sung@morgan.edu](mailto:Kyongje.sung@morgan.edu)  
[LinkedIn Profile](#)  
[MSU Psychology on Facebook](#)

## EDUCATION

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| <b>PhD</b> | Purdue University, IN, USA<br>Department of Psychological Sciences<br>Program in Quantitative and Mathematical Psychology<br>Dissertation: "Testing of Serial Attentive Processing Assumption during Visual Search: Implications for Search Models" | Aug. 1999 – Aug. 2005 |
| <b>MS</b>  | Sungkyunkwan University, Seoul, Korea<br>Interdisciplinary Program in Cognitive Science<br>Laboratory of Artificial Intelligence<br>Thesis: "Segmentations of Korean Handwritten Characters using Mathematical Morphology"                          | Mar. 1995 – Feb. 1997 |
| <b>BBA</b> | Sungkyunkwan University, Seoul, Korea<br>Department of Industrial and Organizational Psychology   | Mar. 1988 – Feb. 1994 |

## PROFESSIONAL POSITIONS/EXPERIENCE

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| <b>Assistant Professor</b>  | Aug. 2025 – Current   |
| <ul style="list-style-type: none"><li>• Department of Psychology<br/>Morgan State University, Baltimore, MD</li></ul>   |                       |
| <b>Assistant Professor</b>  | Aug. 2020 – Aug. 2025 |
| <ul style="list-style-type: none"><li>• Counseling, Special Education, and Neuroscience Division<br/>Emirates College for Advanced Education, Abu Dhabi, UAE</li><li>• Research Projects<ul style="list-style-type: none"><li>○ Electroencephalogram (EEG) studies on the visual processing/attention of people with low- and high-functioning autism</li><li>○ Neural network classification of EEG in autism</li><li>○ Transcranial direct/alternating current stimulation (tDCS/tACS) on human visual perception process</li></ul></li></ul> |                       |

- Semantic network analysis in patients with schizophrenia and healthy individuals
- Teaching Experience
  - PSYC 101: General Psychology (2025 - current)
  - PHDM710: Advanced Quantitative Methods (2020 – 2021)
  - DOCM730: Quantitative Research Methods (2020 – 2021)
  - EDUCLD1: Cognitive and Social Cultural Foundations of Learning (co-instructor; 2020 – 2021)
  - PHDC720: Experimental Methods in Cognitive Neuroscience (2021 – 2022)
  - DOCC750: Seminars on Educational Neuroscience (2021 – 2022)
  - DOCC760: PhD Seminar Course (2021 – 2022)
  - PHDC760: Research Apprenticeship (2021 – 2022)
  - EDUCMI04: Introduction to Enquiry Methods and Innovation (2021 – 2025)
  - EDUECE1: Child Development Across Contexts (2023 – current)
- Services
  - IRB Chair (August 2023 – 2025)
  - IRB review panel (2021 – 2023)
  - Human Resources Committee (2023 – 2025)
  - Research Grant Award Committee member (2021 – 2022)
  - Students' thesis advisor (three masters' students, 2022-2023; PhD thesis Committee member for eight PhD candidates, 2020 – 2025)

#### **Research Associate**

Jan. 2010 – Jun. 2020

- Division of Cognitive Neurology/Neuropsychology  
Department of Neurology, Johns Hopkins University School of Medicine
- Research Projects
  - Electroencephalogram (EEG) studies on the visual processing/attention of people with low- and high-functioning autism
  - Neural network classification of EEG in autism
  - Transcranial direct/alternating current stimulation (tDCS/tACS) on human visual perception process
  - The latent semantic analysis on the semantic systems of the healthy and clinical population (schizophrenia, bipolar disorder) through cued-word recall tasks (verbal fluency)

#### **Postdoctoral Research Fellow**

Aug. 2008 – Dec. 2009

- Division of Cognitive Neurology/Neuropsychology  
Department of Neurology, Johns Hopkins University School of Medicine
- Research Projects
  - The latent semantic analysis on the semantic systems of the healthy and clinical population (schizophrenia, bipolar disorder) through cued-word recall tasks (verbal fluency)

**Postdoctoral Research Associate**

Sep. 2005 – Jul. 2008

- Center for Cognitive Neuroscience, Duke University
- Research Projects
  - Computer simulation models for human motion perception
  - Psychophysical experiments on human motion perception

**Teaching Assistant for Undergraduate/Graduate Courses**

1999 – 2005

- Department of Psychological Sciences, Purdue University
  - PSY 120: Elementary Psychology
  - PSY 201 & 201H: Introduction to Quantitative Topics in Psychology
  - PSY 500: Statistical Methods Applied to Psychology, Education, and Sociology
  - PSY 600: Statistical Inference
  - PSY 601: Experimental Design

**Lecturer**

Spring, 1999

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

**Multimedia Educational Software Content Development**

Apr. 1998 – Jun. 1999

- E-point, Co., Seoul, South Korea

**RESEARCH GRANT/AWARD**

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Abu Dhabi Early Childhood Development Grant (2022) (Co-PI)  
Abu Dhabi Award for Research Excellence (AARE-2020), 2020 (Co-PI)  
ECAE Research Grant (GP-179-2022), 2022  
ECAE Research Grant (GP-051-2020), 2021  
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

**RESEARCH SKILLS/TOOLS**

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**Proficient in**

MATLAB, C, Visual Basic programming languages, SPSS, E-prime, Psychophysics toolbox, EGI NetAmp EEG Systems, Brain Vision EEG systems, EEGLab, Advanced uni- and multivariate analysis (ANOVA, general and generalized linear models, multi-level regression, clustering analysis), Windows/OSX, and Office suite/VBA, Muse 2 (portable EEG device)

**Familiar with**

R, Python, TensorFlow, SAS, Linux

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**PROFESSIONAL AFFILIATIONS/SERVICES**

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**Professional Society Membership**

Society for Neuroscience  
Cognitive Neuroscience Society

**Ad hoc Reviewer**

National Science Foundation  
Proceedings of the National Academy of Sciences, USA  
Journal of Mathematical Psychology  
Cognitive and Behavioral Neurology  
Attention, Perception, & Psychophysics  
Journal of Experimental Psychology: Learning, Memory & Cognition  
Journal of Experimental Psychology: Human Perception & Performance  
Psychonomic Bulletin Review  
Neuropsychology  
Journal of Clinical and Experimental Neuropsychology  
Cortex  
Journal of Alzheimer's Disease  
Journal of Autism and Developmental Disorders  
Frontiers in Psychology: Neuropsychology  
Neuropsychiatric Disease and Treatment  
Journal of Multidisciplinary Healthcare

**An Organizer of Purdue University Winer Memorial Lecture Series**      Nov. 2003, 2004

**Assistant for Editor of Journal of Mathematical Psychology**      Summer, 2002, 2003

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**PUBLICATIONS**

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***Work in preparation/under review***

**Sung, K.** (in preparation). Intact behavioral response in an exogenous cued-target detection with abnormal EEG oscillation in alpha band in adults with autism spectrum disorder-Level 3 versus ASD-Level 1 and typically-developed individuals.

**Sung, K.,** Rozycka, M., Boatman, R. D., O'Grady, J., Keller, K., & Gordon, B. (in preparation). Test-retest reliability of evoked potentials during exogenous attentional processing in low-functioning autism.

Agbenyega, J., Santos, I., Habak, C., & **Sung, K.** (in preparation). Exploring Early Childhood Educator Perspectives on their Professional Practice and Experiences

**Sung, K.** & Habak, C. (in preparation). Semantic mapping and representations in Arabic speaking adults and children: Verbal fluency analysis.

Alameri, N.S., **Sung, K.**, Habak, C. (in preparation) Reaction time variability in ASD. OSF Preregistration [osf.io/x3nv9](https://osf.io/x3nv9)

### **Book**

Schweickert, R., Fisher, D. L., & **Sung, K.** (2012). *Discovering Cognitive Structure by Selectively Influencing Mental Processes: A Guide*. Singapore: World Scientific.

### **Peer-Reviewed Journal Publications**

**Sung, K.**, Glazer, H., McEntee, M. L., Bosley, L. V., Boatman Reich, D., & Gordon, B. (2022). Measuring Visual Electrophysiological Responses in Individuals with Low-Functioning Autism: A Feasibility and Pilot Study. *Pilot and Feasibility Studies*, 8:7. <https://doi.org/10.1186/s40814-021-00960-7>

**Sung, K.**, Rozycka, M., Boatman, R. D., O'Grady, J., Keller, K., & Gordon, B. (2020). Test-Retest Reliability of Sensory Evoked Potentials in Low-Functioning Autism: A Case Report. *Journal of Behavioral and Brain Science*, 10, 537-547. doi: <https://doi.org/10.4236/jbbs.2020.1012033>

**Sung, K.** & Gordon, B. (2018). Transcranial direct current stimulation (tDCS) facilitates overall visual search response times but does not interact with visual search task factors. *PLOS ONE*, 13(3): e0194640.

**Sung, K.**, Gordon, B., & Schretlen, D. J. (2016). Semantic structure can be inferred from category fluency tasks via clustering analyses: Reply to Voorspoels et al. (2014). *Cortex*, 75, 249-254.

**Sung, K.**, Gordon, B., Yang, S., & Schretlen, D. J. (2013). Evidence of semantic clustering in letter-cued word retrieval. *Journal of Clinical and Experimental Neuropsychology*, 35(10), 1015-1023.

**Sung, K.**, Gordon, B., Vannorsdall, T. D., Ledoux, K., & Schretlen, D. J. (2013). Impaired retrieval of semantic information in bipolar disorder: A clustering analysis of category fluency productions. *Journal of Abnormal Psychology*, 122(3), 624-634. doi:10.1037/a0033068.

**Sung, K.**, Gordon, B., Vannorsdall, T. D., Ledoux, K., Pickett, E. J., Pearlson, G. D., & Schretlen, D. J. (2012). Semantic clustering of category fluency in schizophrenia examined via singular value decomposition analysis. Journal of International Neuropsychological Society, 18(3), 565-575. doi:10.1017/S1355617712000136.

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 crosstalk. 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.

### ***Opinion Papers (non-peer reviewed)***

Seghier, M. L., Habak, C., **Sung, K.**, & Fahim, M. A. (2022). Bridging the learning gaps to improve mentoring in doctoral programs in cognitive neuroscience. Frontiers in Education.

### ***Conference Papers***

(Peer-Reviewed)

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.

### ***Conference Presentations/Invited Talks***

Alshannag, A. & **Sung, K.** (2025). Exploring teachers' and parents' perspectives on parental involvement and its influence on students' behavior and academic performance in science class: A qualitative investigation. Abu Dhabi Teaching Conference 2025, Abu Dhabi, UAE.

**Sung, K.**, Aljaafari, M., Alameri, N., & Habak, C. (2024). Test for inhibition hypothesis and EEG alpha rhythm in visual detection: preliminary findings. Cognitive Neuroscience Society 2024 Annual Meeting, Toronto, Canada.

AlSyed, N., Alameri, N., **Sung, K.**, Santos, I. M., Melkonian, M., Agbenyega, J. S., & Habak, C. (2024). Where We Want to Play and Learn: Children's Voices in Choices of Environments in Abu Dhabi. 12th World Environmental Education Congress (WEEC) Book of Abstracts, 342.  
[https://www.weec2024.org/media/2c5jjaj4/weec\\_book-of-abstracts\\_v5b.pdf](https://www.weec2024.org/media/2c5jjaj4/weec_book-of-abstracts_v5b.pdf)

Alameri, N., AlSyed, N., **Sung, K.**, Santos, I. M., Melkonian, M., Agbenyega, J. S., & Habak, C. (2024). Educator Practices and Approaches for Environmental Awareness in Early Childhood Education in Abu Dhabi. 12th World Environmental Education Congress (WEEC) Book of Abstracts, 340.  
[https://www.weec2024.org/media/2c5jjaj4/weec\\_book-of-abstracts\\_v5b.pdf](https://www.weec2024.org/media/2c5jjaj4/weec_book-of-abstracts_v5b.pdf)

Jubran, M., AlSyed, N., Alameri, N., **Sung, K.**, Santos, I. M., Melkonian, M., Agbenyega, J. S., & Habak, C. (2024). How I Teach and Play: Wellbeing, Practices, and Growth in Early Childhood Educators. 12th World Environmental Education Congress (WEEC) Book of Abstracts, 651.  
[https://www.weec2024.org/media/2c5jjaj4/weec\\_book-of-abstracts\\_v5b.pdf](https://www.weec2024.org/media/2c5jjaj4/weec_book-of-abstracts_v5b.pdf)

**Sung, K.**, Aljaafari, M., Al Ameri, N., & Habak, C. (2023). Testing the inhibition hypothesis for EEG alpha rhythm in visual detection: preliminary findings. Society for Neuroscience Annual Meeting 2023, Virtual Online Conference.

Habak, C., Santos, I. M., **Sung, K.**, Woolsey, M., Seghier, M., Fahim, M., & Melkonian, M. (2022). Developmental considerations for digital platforms: effect of perceptual backgrounds on cognitive task engagement. 10<sup>th</sup> Annual International Conference of Education, Research, and Innovation (ICERI 2022). Seville, Spain.

**Sung, K.** (2022). Impaired alpha power and modulation in adults with severe autism symptoms (ASD-3) compared to adults with ASD-1 and typically developed adults: An exploratory study. 13<sup>th</sup> Autism-Europe International Congress, Krakow, Poland.

**Sung, K.** (2021). Abnormal alpha power spectra, modulation, and connectivity in low-functioning individuals with autism with intact exogenous attention. Society for Neuroscience Annual Meeting 2021, Virtual Online Conference.

**Sung, K.** (2021). Impaired alpha oscillation and its modulation in adults with low- and high-functioning autism. Presented at the ECAE Research Forum.

**Sung, K.** (2021). Alpha-band EEG oscillation in adults with low-functioning autism (LFA), along with high-functioning autism (HFA) and healthy adults. Presented at the Annual Meeting of Cognitive Neuroscience Society 2021, Virtual Online Conference.

**Sung, K.** (2019). Impaired alpha oscillation and its modulation in adults with autism spectrum disorder – severity level 3 (DSM-5). Presented at the EEG Research Symposium at Kennedy Krieger Institute, Johns Hopkins University, Baltimore, MD.

**Sung, K., & Gordon, B.** (2016). Visual processing abnormalities in low-functioning individuals with autism may not be due to low-level deficits: A visual evoked potential/spectral analysis study. Presented at the Annual Meeting of Cognitive Neuroscience Society, New York City, NY.

**Sung, K., Bosley, L. V., & Gordon, B.** (2015). Facilitation of visual search response times through anodal and cathodal transcranial direct current stimulation is dependent on the visual quality of the stimulus. To be presented at the Annual Meeting of Cognitive Neuroscience Society, San Francisco, CA.

**Sung, K., & Gordon, B.** (2014). Early visually-evoked potentials, alpha, and beta band activities in low- and high-functioning individuals with autism and healthy controls. Presented at the Annual Meeting for Society for Neuroscience, Washington DC.

**Sung, K., Bosley, L. V., Fisher, Z. F., & Gordon, B.** (2014). Abnormal visual ERPs and alpha band power in low- and high-functioning individuals with autism. Presented at the Annual Meeting for American Neurological Association, Baltimore, MD.

**Sung, K., Schretlen, D. J., & Gordon, B.** (2013). Cued word-retrieval as a nonhomogeneous Poisson process: Evidence from inter-response intervals in semantic-cued word recall tasks. Presented at the Annual Meeting for Neurobiology of Language Conference, San Diego, CA.

**Sung, K.** (2013). Empirical Theory of Vision: How it works. Talk Presented at the Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD.

**Sung, K., Vannorsdall, T. D., Ledoux, K., Gordon, B., & Schretlen, D. J.** (2013). Persons with schizophrenia show aberrant clustering on category word fluency



compared to healthy adults with equivalent productivity. Presented at the Annual Meeting for International Neuropsychological Society, Waikoloa, Hawaii.

**Sung, K.,** Vannorsdall, T. D., Ledoux, K., Pickett, E. J., Gordon, B., & Schretlen, D. J. (2012). A Clustering Analysis of Semantic Associations among Letter-Cued Word Fluency Productions by Healthy Adults. Presented at the Annual Meeting for International Neuropsychological Society, Montreal, Quebec, Canada.

**Sung, K.,** McEntee M.L., Schretlen, D.J., & Gordon, B. (2012). The effect of transcranial direct-current stimulation on visual search reaction time. Presented at the Annual Meeting of the Society for Neuroscience, New Orleans, LA.

**Sung, K.,** McEntee, M. L., & Gordon, B. (2011). Non-susceptibility to vertical-horizontal line illusion by a low-functioning individual with autism: An ERP study. Presented at the Annual Meeting of Society for Neuroscience, Washington, DC.

Vannorsdall, T. D. , Gordon, B., Ledoux, K., **Sung, K.,** Pickett, E. J., Andrejczuk, M., Lassen-Greene, C., Weaver, J. R., Van Droof, L., & Schretlen, D. J. (2011). Altering Automatic Verbal Processes with Transcranial Direct Current Stimulation. Presented at the 2011 International Neuropsychological Society Conference in Boston, MA.

Vannorsdall, T. D., Gordon, T. B., **Sung, K.,** Pickett, E. J., Lassen-Greene, C., Andrejczuk, M., Weaver, J. R., Van Droof, L., & Schretlen, D. J.. (2011). Transcranial Direct Current Stimulation Modifies Processing Speed in Healthy Adults. Presented at the 2011 International Neuropsychological Society Conference in Boston, MA.

**Sung, K.,** Pickett, E. J., Ledoux, K., Pickett, E. J., Vannorsdall, T. D., Elsayed, M., Billings, N. M., Silva, J., Gordon, B., & Schretlen, D. J. (2011). Differences in time interval distributions reveal controlled and automatic contributions to cued word retrieval. Presented at the 136th Annual Meeting of the American Neurological Association, San Diego, CA.

**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. Presented at the 51st Annual Meeting for Psychonomic Society, St. Louis, MO.

**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. 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. Presented at the 30th Annual Meeting of the National Academy of Neuropsychology, Vancouver, BC, Canada.

**Sung, K.** (2010). Semantic clustering in patients with S.Z.: SVD analysis of category fluency. Talk Presented at the Department of Psychiatry and Behavioral Sciences. Johns Hopkins University School of Medicine, 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.