

Jocelyn L. Sy

Post-doctoral Researcher
Department of Psychology
Vanderbilt University

Mailing address:
PMB 407817
2301 Vanderbilt Place,
Nashville, TN 37240-7817
Email: Jocelyn.L.Sy@Vanderbilt.edu
Phone: 615-322-6019

Education & Training:

- 2005-2011 Ph.D in Psychological & Brain Sciences from the University of California, Santa Barbara
Dissertation title: *Top-down influences in selection and distraction: Load Theory revisited.*
Advisor: Dr. Barry Giesbrecht
- 2003 B.S. Psychology with Honors, from the University of California, Davis

Appointments:

- 2014-present Post-doctoral research associate
Advisor: Dr. Randolph Blake
Vanderbilt University, Nashville, TN
- 2011-present Post-doctoral research associate
Advisor: Dr. Frank Tong
Vanderbilt University, Nashville, TN
- 2005 Junior Specialist II, Dr. Barry Giesbrecht, Department of Psychology, University of California, Santa Barbara
- 2003-2005 Postgraduate Researcher I & II, Drs. G. Ron Mangun and Tamara Swaab, Center for Mind and Brain, University of California, Davis

Awards:

- 2012-2013 NIH Institutional Research Training Grant, Vanderbilt Vision Research Center, 5T32EY007135-18
- 2011 Graduate Division Dissertation Fellowship, University of California, Santa Barbara
- 2008 Summer Institute in Cognitive Neuroscience, Lake Tahoe, California, fellowship
- 2007 Summer Institute in Cognitive Neuroscience, University of California, Santa Barbara fellowship

Published Articles:

- Sy, J.L., Guerin, S.A., Stegman, A., & Giesbrecht, B. (2014). Accurate expectancies diminish perceptual distraction during visual search. *Frontiers in Human Neuroscience*, 8(334), doi: 10.3389/fnhum.2014.0034.
- Sy, J.L., Elliott, J.C., & Giesbrecht, B. (2014). Post-perceptual processing during the attentional blink is modulated by inter-trial expectancies. *Frontiers in Human Neuroscience*, 7(627), doi: 10.3389/fnhum.2013.00627.
- Giesbrecht, B., Sy, J. L., Bundesen, C., & Kyllingsbæk, S. (2014). A new perspective on the perceptual selectivity of attention under load. *Annals of the New York Academy of Sciences*, 1316, 71-86, doi: 10.1111/nyas.12404.
- Eckstein, M.P., Das, K., Pham, B.T., Peterson, M.F., Abbey, C.K., Sy, J.L., & Giesbrecht, B. (2012). Neural decoding of collective wisdom with multi-brain computing. *Neuroimage*, 59, 94-108.
- Giesbrecht, B., Sy, J.L., Guerin, S.A. (2012). Both memory and attention systems contribute to visual search for targets cued by implicitly learned context. *Vision Research*, 85, 80-89.
- Peterson, M.P., Das, K., Sy, J.L., Li, S., Giesbrecht, B., Kourtzi, Z., & Eckstein, M.P. (2010). Ideal observer analysis for task normalization of pattern classifier performance applied to EEG and fMRI data. *Journal of the Optical Society of America A: Optics, image science, and vision*, 27(12), 2670-2683.
- Kyllingsbæk, S., Sy, J.L., & Giesbrecht, B. (2011). Understanding the allocation of attention when faced with varying perceptual load in partial report: A computational approach. *Neuropsychologia*, 46, 1487-1497.
- Cecotti, H., Sato-Reinhold, J., Sy, J.L., Elliott, J.C., Eckstein, M.P., Giesbrecht, B., (2011). Impact of target probability on single-trial EEG target detection in a difficult rapid serial visual presentation task. *Engineering in Medicine and Biology Society, EMBC, 2011 Annual International Conference of the IEEE*, 6381-6384.
- Giesbrecht, B., Sy, J.L., Lewis, M. (2009). Personal names do not always survive the attentional blink: Behavioral evidence for a flexible locus of selection. *Vision Research*, 49(10), 1378-1388.
- Sy, J.L., & Giesbrecht, B. (2009). Task-relevance modulates the influence of target similarity on the attentional blink. *Visual Cognition*, 17(3), 307-317.
- Giesbrecht, B., Sy, J.L., Elliott, J. (2007). Electrophysiological evidence for both perceptual and post-perceptual selection during the attentional blink. *Journal of Cognitive Neuroscience*, 19(12), 2005-2018.

Manuscripts currently under peer review:

Pratte, M.S., Sy, J.L., Swisher, J.D., & Tong, F. (in review). Radial Bias Is Not Necessary For Orientation Decoding.

Manuscripts in preparation:

Sy, J.L., Jehee, J., & Tong, F. (writing). Multi-voxel pattern analysis reveals object-base representations arise from extra-striate cortex.

Park, YP, Sy, J.L., & Tong, F. (writing). Retro-active attention to features prevents decay in working memory.

Recent Conference Presentations:

Park, YP, Sy, J.L., & Tong, F. (2015). Reprioritization of features of multidimensional objects stored in visual working memory. Talk presented at the annual meeting of the Vision Science Society.

Sy, J.L., Marois, R & Tong, F. (2015). Degraded precision of consciously perceived targets in the attentional blink. Poster presented at the annual meeting of the Vision Science Society.

Sy, J.L., & Tong, F. (2014). Evidence of a feature-based attentional template in early visual areas during the absence of visual stimulation. Poster presented at the annual meeting of the Vision Science Society.

Angeloni, C., Sy, J.L., & Tong, F. (2014). A temporal benefit of covert spatial orienting across visual hemifields? Poster presented at the annual meeting of the Vision Science Society.

Pratte, M., Sy, Jocelyn, & Tong, F. (2014). The radial bias is not necessary for orientation decoding. Talk presented at the annual meeting of the Vision Science Society.

Sy, J.L., Jehee, J., & Tong, F. (2013). Attention to task-irrelevant features of an object is not mandatory, but rather resource-dependent. Poster presented at the annual meeting of the Society for Neuroscience.

Cecotti, H., Sato-Reinhold, J., Sy, J.L., Eckstein, M.P., & Giesbrecht, B. (2011). Using single-trial EEG to detect targets with unknown stimulus onsets. Poster presented at the annual meeting for the Society for Neuroscience.

Sy, J., & Giesbrecht, B. (2010). fMRI evidence for top-down influences on perceptual distraction. Poster presented at the Annual meeting of the Vision Science Society.

Sy, J., & Giesbrecht, B. (2010). Intraparietal sulcus involvement in top-down modulations of visual cortex and behavioral distraction. Poster presented at the Annual meeting of the Society for Neuroscience.

Sy, J., Ristic, J., & Giesbrecht, B. (2009). Top-down modulation of reflexive social orienting. Poster presented at the Annual meeting of the Vision Science Society.

Invited Talks:

Sy, J.L., Jehee, J., Tong, F. (2013). Object-based attention is not mandatory: Perceptual load reduces the attentional boost of task irrelevant features in the human visual cortex. Talk to be presented at the Vision Science Society Annual meeting.

Sy, J.L., Jehee, J., Tong, F. (January, 2013). Object-based vs. Feature-based Selection: Perceptual load and irrelevant features. Invited speaker for a PhD workshop on "Perceptual Load and Attention" at the Department of Psychology, at the University of Copenhagen, Copenhagen, Denmark.

Sy, J.L., Guerin, S.A., Stegman, A.C., & Giesbrecht, B. (2011). fMRI and ERP evidence that predictive load cues modulate the susceptibility to perceptual distraction. Talk presented at the annual meeting for the Society for Neuroscience.

Sy, J., & Giesbrecht, B. (2009). fMRI evidence for expectation-based modulations of perceptual distraction. Talk presented at the annual meeting for the Society for Neuroscience.

Related Professional Experience:

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| 2002 | Undergraduate Research Assistant, Dr. Richard Robins, Department of Psychology, University of California, Davis |
| 2001-2002 | Undergraduate Research Assistant, Dr. Stanley Sue, National Research Center for Asian American Mental Health, University of California, Davis |

Teaching Experience:

Courses

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| 2009 | Assistant, Lab in Advanced Research |
| 2009, 2010 | Assistant, <i>Laboratory in Attention</i> |
| 2008 | Assistant, <i>Auditory Perception</i> |
| 2007, 2008, 2009 | Assistant, <i>Laboratory in Perception</i> |
| 2007 | Assistant, <i>Visual Perception</i> |
| 2006, 2008, 2009 | Assistant, <i>Introduction to Statistics</i> |
| 2006 | Assistant, <i>Contemporary Issues in Biopsychology: Attention and the Brain</i> |

2006 Assistant, *Graduate Seminar: Human Electrophysiology*

2005, 2006, 2010 Assistant, *Introduction to Psychology*

Professional Service:

Ad Hoc Reviewer for:

Attention, Perception, and Psychophysics

Psychological Brain Research