

Randolph Blake

Website: <http://www.psy.vanderbilt.edu/faculty/blake/blake.html>

Email: [randolph.blake@vanderbilt.edu](mailto:randolph.blake@vanderbilt.edu) or [blakerr@snu.ac.kr](mailto:blakerr@snu.ac.kr)

#### Overview of research:

My research blends psychophysics, neural modeling and brain imaging to study several aspects of perception including binocular vision, motion perception, visual grouping, multisensory integration and synesthesia. Besides advancing our understanding of perception and its neural bases, my work bears on clinical conditions including strabismus, autism and schizophrenia.

#### Education and Employment:

BA University of Texas, Arlington, 1967; Ph.D. Vanderbilt University, 1972; NIHM Postdoctoral Fellow, Baylor College of Medicine/Texas Medical Center, 1972-74; Assistant to Full Professor, Northwestern University, 1974-1987; Professor of Psychology/Kennedy Center Fellow, Vanderbilt University, 1987 – 2001; Centennial Professor, Vanderbilt University, 2001 – present; Professor of Brain and Cognitive Sciences, Seoul National University, 2010 - present.

#### Awards and Honors:

Elected Fellow, American Association for the Advancement of Science, 1987; Elected Fellow, American Psychological Association, 1990; Fellow, Japan Society for Promotion of Science, 1992; William Evans Professorship, Otago University, 1995; Elected Fellow, Society of Experimental Psychologists, 2005; Elected Fellow, American Academy of Arts and Science, 2006; Earl Sutherland Award, 2000; Thomas Jefferson Award, 2008; American Psychological Association, Early Career Award, 1977; Career Development Award, NIH, 1978-83; Distinguished Alumni Award, University of Texas, Arlington, 2002; Distinguished Faculty Award, Vanderbilt University, 2002; Graduate Mentoring Award, Vanderbilt University, 2006; IgNobel Prize, 2006; Jefferson Award, 2008; University of Sydney International Visiting Research Fellow, 2009; Foreign Scholar, Brain and Cognitive Sciences Program, Seoul National University, 2009-2012

#### Recent publications representative of my interests:

- Kim, C.-Y. & Blake (2007) Brain activity accompanying perception of implied motion in abstract paintings. *Spatial Vision*, 20, 545-560.
- Blake, R., Rizzo, M. & McEvoy, S. (2008) Aging and perception of visual form from temporal structure. *Psychology and Aging*. 23, 181-189.
- Kim, J., Blake, R., Park, S., Shin, Y.-W., Kang, E.-H. & Kwon, J.-S. (2008) Selective impairment in visual perception of biological motion in obsessive-compulsive disorder. *Depression and Anxiety*, 25, E15-25.
- Kang, M.S., Heeger, D. & Blake, R. (2009) Periodic perturbations producing phase-locked fluctuations in visual perception. *Journal of Vision*, 9, 1 -12.
- Maruya, K. & Blake, R. (2009) Spatial spread of interocular suppression is guided by stimulus configuration. *Perception*, 38, 215-231.

- Ling, S. & Blake (2009) Suppression during binocular rivalry broadens orientation tuning. *Psychological Science*. 20, 1348-1355.
- Ling, S., Pearson, J. & Blake, R. (2009) Dissociation of neural processing underlying orientation tuning in human vision. *Current Biology*. 19, 1458-1462.
- Joo, S.J., Shin, K., Chong, S.C. & Blake, R. (2009) On the nature of the stimulus information necessary for estimating mean size of visual arrays. *Journal of Vision*, 9, 1-12. PMID: 19761340, <http://journalofvision.org/9/9/7/>
- Yang, R., Blake, R. & McDonald, J. (2010) A new interocular suppression technique for measuring sensory eye dominance. *Investigative Ophthalmology and Visual Science*. 15, 588-593.
- Jackson, S. & Blake, R. (2010) Neural integration of information specifying human structure from form, motion and depth. *Journal of Neuroscience*, 30(3):838-848

Widely cited, recent reviews:

- Blake, R. & Logothetis, N. (2002) Visual competition. *Nature Reviews Neuroscience*, 3, 13-23.
- Blake, R. & Lee, S-H. (2005) The role of temporal structure in human vision. [\*Behavioral and Cognitive Neuroscience Reviews\*](#), 4, 21-42.
- Tong, F., Meng, M. & Blake, R. (2006) Neural bases of binocular rivalry. *Trends in Cognitive Sciences*. 10, 502-511.
- Blake, R. & Shiffrar, M. (2007) Perception of human motion. *Annual Review of Psychology*, 58, 47-73.
- Blake, R. & Tong, F. (2008) Binocular rivalry. *Scholarpedia*, 3(12):1578  
[http://www.scholarpedia.org/article/Binocular\\_rivalry](http://www.scholarpedia.org/article/Binocular_rivalry)