

**Anastasia V. Flevaris, Ph.D.**

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**Education**

- Ph.D. December 2009  
Psychology, University of California, Berkeley  
Dissertation: The role of spatial frequency in processing parts and configurations
- B.A. May 2001  
Psychology, Reed College  
Senior Thesis: Defining the origin of the scene-based reference frame

**Positions**

- 2013 –present **Postdoctoral Fellow**  
Scott Murray's Lab, Department of Psychology, University of Washington
- 2010-2012 **Postdoctoral Fellow**  
Steven Hillyard's Lab, Department of Neurosciences, UC San Diego
- 2010 **Research Specialist**  
Lynn Robertson's Lab, Department of Psychology, UC Berkeley
- 2003 – 2009 **Graduate Student Researcher**  
Lynn Robertson's Lab, Department of Psychology, UC Berkeley
- 2001 – 2003 **Lab Manager**, Shaun Vecera's Lab, Department of Psychology, University of Iowa

**Teaching Experience**

- 2013 **Guest Lecturer**  
Sensation and Perception, University of Washington
- 2007 **Reader**  
Cognitive Science, UC Berkeley
- 2004 **Graduate Student Instructor**  
Human Neuropsychology, UC Berkeley
- 2003 **Graduate Student Instructor**  
Biological Psychology, University of California, Berkeley

## **Honors and Awards**

2013

### **Vision Training Grant**

Department of Biological Structure, University of Washington  
National Eye Institute

2010-2012

### **Cognitive Neuroscience Training Fellowship**

Institute for Neural Computation, UC San Diego  
National Institute of Mental Health

2004-2006

### **Human Cognitive Neuroscience Training Fellowship**

Institute for Cognitive and Brain Studies, UC Berkeley  
National Institute of Mental Health

2004

### **Summer Institute in Cognitive Neuroscience Fellowship**

Dartmouth College

2000-2001

### **Excellence in Scholarship Commendation**

Reed College

## **Research Support**

NIH R01: Inhibitory dysfunction in autism (1R01MH106520-01). Role: Co-Investigator. The goal of this project is to characterize changes in cortical GABA concentrations using magnetic resonance spectroscopy (MRS) in adults with ASD compared to neurotypical controls, and determine the relationship between GABA concentration, inhibitory neural circuits, and clinical sensory and motor symptoms.

## **Publications**

**Flevaris, A.V.** & Robertson, L.C. Spatial frequency selection and integration of global and local information in visual processing: A selective review and tribute to Shlomo Bentin. In press at *Neuropsychologia*.

**Flevaris, A.V.** & Murray, S.O. (2015). Attention determines contextual enhancement versus suppression in human primary visual cortex. *The Journal of Neuroscience*, 35(35), 12273-12280.

**Flevaris, A.V.** & Murray, S.O. (2015). Feature-based attention modulates surround suppression. *Journal of Vision*, 15(1), 29.

**Flevaris, A. V.,** & Murray, S. O. (2015). Orientation-specific surround suppression in the primary visual cortex varies as a function of autistic tendency. *Frontiers in Human Neuroscience*, 8.

**Flevaris A.V.,** Martinez, A., & Hillyard, S. (2014). Attending to global versus local stimulus features modulates neural processing of low versus high spatial frequencies: An analysis with event-related brain potentials. *Frontiers in Psychology*, 5:277.

- Flevaris, A.V.**, Martinez, A. & Hillyard, S.A. (2013). Neural substrates of perceptual integration during bistable object perception. *Journal of Vision*, 13(17), 1–25.
- Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (2011). Attentional selection of relative SF mediates global versus local processing: Evidence from EEG. *Journal of Vision*, 11(7), 1-12.
- Gao, Z., **Flevaris, A.V.**, Robertson, L.C. & Bentin, S. (2011) Priming global and local processing of composite faces: Revisiting the processing-bias effect on face perception. *Attention, Perception & Psychophysics*, 75(5), 1477-1486.
- List, A., Landau, A.N., Brooks, J., **Flevaris, A.V.**, Fortenbaugh, F., Esterman, M., VanVleet, T.M., Albrecht, A.R., Alvarez,B., Robertson, L.C. & Schendel, K. (2011). Shifting attention in viewer and object-based reference frames after unilateral brain injury, *Neuropsychologia*, 49(7), 2090-2096.
- Flevaris, A.V.**, Bentin, S., & Robertson, L.C. (2011). Attention to hierarchical level influences attentional selection of spatial scale. *Journal of Experimental Psychology: Human Perception and Performance*, 37(1), 12-22.
- Flevaris, A.V.**, Bentin, S., & Robertson, L.C. (2010). Local or Global? Attentional selection of spatial frequencies binds shapes to hierarchical levels. *Psychological Science*, 21(3), 424-431.
- Flevaris, A.V.**, Robertson, L., & Bentin, S. (2008). Using spatial frequency scales for processing face features and face configuration: An ERP analysis. *Brain Research*, 1194, 100-109.
- List, A., Brooks, J.L., Esterman, M., **Flevaris, A.V.**, Landau, A., Bowman, G., Stanton, V., VanVleet, T.M., Robertson, L.C. & Schendel, K. (2008). Visual hemi-spatial neglect, re-assessed. *Journal of the International Neuropsychological Society*, 14(2), 243-56.
- Bentin, S., Golland, Y., **Flevaris, A.V.**, Robertson, L.C. & Moscovitch, M. (2006). Processing trees before the forest during initial stages of face perception: electrophysiological evidence. *Journal of Cognitive Neuroscience*, 18, 1406-1421.
- Vecera, S. P., & **Flevaris, A.V.** (2005). Attentional Control Parameters Following Parietal Lobe Damage: Evidence from Normal Subjects. *Neuropsychologia*, 43(8), 1189-1203.
- Vecera, S. P., **Flevaris, A.V.**, & Filapek, J. C. (2004). Exogenous spatial attention influences figure-ground assignment. *Psychological Science*, 15(1), 20-26.

### Invited Talks

- Flevaris, A.V.** (February 2015). Contextual processing in the primary visual cortex and variations with autistic tendency. Invited talk to the *Cognitive Science Colloquium Series*, University of Arizona.

**Flevaris, A.V.** (October 2013). Dynamic visual perception: How low-level feature processing is influenced by context and attention. Invited talk to the *Perception and Action Seminar Series*, Brown University.

**Flevaris, A.V.** (July 2012). Interactions between top-down mechanisms and low-level visual processing. Invited talk presented to the *Vision and Cognition group*, University of Washington.

**Flevaris, A.V.** (March 2010). Unifying two theories of hierarchical perception: Attention to spatial frequency is the medium for shape-level integration. Colloquium presented to the *Psychology Department*, University of California, Berkeley.

**Flevaris, A.V.** (October 2009). Spatial frequency is the medium for hierarchical integration. Invited talk presented to the *ERP lab*, University of California, San Diego.

**Flevaris, A.V.**, Robertson, L.C. & Bentin, S. (June 2005). Using spatial frequency scales to process faces and face components: An ERP analysis. Invited talk presented to the *Cognitive Neurophysiology and Human Cognitive Neuroscience groups*, Hebrew University, Jerusalem.

### **Professional Activities**

#### Guest Associate Editor:

Frontiers in Perception Science Research Topic: Zooming in on the big picture: Current issues in global versus local processing

#### Journal Reviewer:

Attention, Perception & Psychophysics, Biological Psychology, Brain and Cognition, Brain Research, Cerebral Cortex, Cognitive Neuropsychology, Frontiers in Human Neuroscience, Frontiers in Perception Science, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: General, Journal of Vision, Laterality: Asymmetries of Body, Brain and Cognition, Neuropsychologia, Psychological Science, Psychonomic Bulletin and Review, Visual Cognition

#### Professional Membership

Society for Neuroscience, Cognitive Neuroscience Society, Vision Sciences Society

### **Conference Presentations**

**Flevaris, A.V.**, & Murray, S.O. (May 2014). Grouping-based attention influences surround suppression in early visual cortex. *Vision Sciences Society*, St. Petersburg, FL.

**Flevaris, A.V.**, & Murray, S.O. (November 2013). Feature-based attention modulates surround suppression in early visual cortex. *Society for Neuroscience*, San Diego, CA.

**Flevaris, A.V.**, Martinez, A. & Hillyard, S.A. (May 2013). Neural substrates of perceptual integration during bistable object perception. *Vision Sciences Society*, Naples, Florida.

**Flevaris, A.V.**, Martinez, A. & Hillyard, S.A. (May 2013). Neural substrates of perceptual integration during bistable object perception. *Association for Research in Vision and Ophthalmology*, Seattle, Washington.

**Flevaris, A.V.**, Martinez, A. & Hillyard, S. (August 2012). Neural mechanisms underlying perceptual integration in object perception. *Cognitive Science Association for Interdisciplinary Learning*, Hood River, Oregon.

**Flevaris, A.V.**, Martinez, A. & Hillyard, S. (May 2012). Neural mechanisms underlying perceptual integration in object perception. *Cognitive Neuroscience Spring Retreat & Kavli Institute for Brain and Mind Symposium*, UC San Diego.

**Flevaris, A.V.**, Martinez, A. & Hillyard, S. (May 2011). Attentional modulation of early perceptual processing: Interaction between selection of spatial location and spatial frequency. *NIMH Cognitive Neuroscience and Kavli Symposium on Innovative Research*, UC San Diego.

**Flevaris, A.V.**, Bentin, S. & Roberson, L.S. (May 2011). Attentional selection of relative SF mediates global versus local processing: EEG evidence. *Vision Sciences Society*, Naples, Florida.

**Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (May 2010). Unifying two theories of local versus global perception: Attention to relative spatial frequency is the medium for shape-level integration. *Vision Sciences Society*, Naples, Florida.

List, A., Sherman, A., **Flevaris, A.V.**, Grabowecky, M., & Suzuki, S. (May 2010). Neural signatures of local and global biases induced by automatic versus controlled attention. *Vision Sciences Society*, Naples, Florida.

**Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (November 2009). Attentional selection of spatial frequencies as a medium for binding shapes to hierarchical levels. *Object Perception, Attention and Memory*, Boston, Massachusetts.

**Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (August 2009). Local or Global? Attentional selection of spatial frequencies binds shapes to hierarchical levels. *Cognitive Science Association for Interdisciplinary Learning*, Hood River, Oregon.

**Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (May 2009). Attention to hierarchical level influences attentional selection of spatial scale. *Vision Sciences Society*, Naples, Florida.

List, A., Landau, A., Brooks, J., **Flevaris, A.V.**, Fortenbaugh, F., Esterman, M., Van Vleet, T., Albrecht, A., Alvarez, B., Robertson, L., Schendel, K. (May 2009). Object-based attention in patients with left and right hemisphere lesions. *Vision Sciences Society*, Naples, Florida.

**Flevaris, A.V.**, Bentin, S. & Robertson, L.C. (April 2009). Local or Global? Attentional selection of spatial frequencies binds shapes to hierarchical levels. *Berkeley-Stanford Talks*, Stanford University.

List, A., Landau, A., Brooks, J.L. **Flevaris, A.V.**, Fortenbaugh, F., Esterman, M., Van Vleet, T.M., Albrecht, A., Alvarez, B., Robertson, L.C. & Schendel, K. (March 2009). Object-based attention in patients with left and right hemisphere lesions. *Cognitive Neurosciences Society*, San Francisco.

List, A., Brooks, J.L., Esterman, M., **Flevaris, A.V.**, Landau, A.N., Van Vleet, T.M., Robertson, L.C. & Schendel, K. (January 2008). Improving assessment of hemispatial neglect: Adaptive measures of lateralized visual search deficits. *European Workshop on Cognitive Neuropsychology*, Bressanone, Italy.

**Flevaris, A.V.**, Bentin, S., & Robertson, L.C. (May 2008). Attention to hierarchical level influences spatial frequency processing. *Vision Sciences Society*, Naples, Florida.

**Flevaris, A.V.**, Robertson, L.C., & Bentin, S. (May 2007). Methodological issues in using spatial filters in ERP studies of face processing. *Vision Sciences Society*, Sarasota, Florida.

**Flevaris, A. V.**, Robertson, L.C. & Bentin, S. (September 2005). Using spatial frequency scales to process faces and face components: An ERP analysis. *International Conference on Cognitive Neuroscience 9*, Havana, Cuba.

Bentin, S., Golland, Y., **Flevaris, A.V.** & Robertson, L.C. (September 2005). Processing the trees and the forest during initial stages of face perception: Electrophysiological evidence. *International Conference on Cognitive Neuroscience 9*, Havana, Cuba.

Schendel, K., List, A., Van Vleet, T.M., Brooks, J.L., Stanton, V., **Flevaris, A.V.**, Landau, A.N. Esterman, M. & Robertson, L.C. (June, 2005). Neglect: Subcomponents and neural substrates. *Cognitive Neurosciences Society*, New York, NY.

**Flevaris, A.V.**, Robertson, L.C., & Bentin, S. (April 2006). Spatial frequency scales used in early face processing: N170 evidence. *Cognitive Neurosciences Society*, San Francisco.

Bentin, S., Golland, Y, **Flevaris, A.V.**, Robertson, L.C. & Moscovitch, M. (July 2004). Processing the trees before the forest during initial stages of face perception: Electrophysiological evidence. *Cognitive Science Association for Interdisciplinary Learning*, Hood River, Oregon.

Vecera, S.P., Brodson, N.S., & **Flevaris, A.V.** (November 2003). The fate of the ground in figure-ground assignment. *Psychonomics Society*, Vancouver.

Vecera, S.P., **Flevaris, A.V.**, & Filapek, J.C. (May 2003). Exogenous spatial attention influences figure-ground assignment. *Vision Sciences Society*, Sarasota, Florida.

**Flevaris, A.V.**, Montgomery, S. & Rhodes, D. (August 2001). What's left and what's right: attention-centering of reference frames. *Cognitive Science Association for Interdisciplinary Learning*, Hood River, Oregon.