

Francesca Cowden Fortenbaugh

Boston Attention and Learning Lab
V.A. Boston Healthcare System
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EDUCATION

- 2012 Ph.D. **University of California, Berkeley**
Department of Psychology; Cognition, Brain & Behavior
Advisor: Lynn C. Robertson, PhD
Dissertation: *The Many Maps of Visual Space: Examining the Perception and Representation of Space in the Visual Periphery*
- 2004 B.S. **University of San Francisco**
Majors: Mathematics & Psychology, *summa cum laude*
Advisors: Paul Zeitz, PhD & Susan Heidenreich, PhD

ACADEMIC POSITIONS

- 3/2014 – *Research Fellow*
Harvard Medical School, Department of Psychiatry
- 9/2013 – *Postdoctoral Fellow*
Dept. of Veterans Affairs, Boston Healthcare System
Geriatric Research, Education, and Clinical Center (GRECC)
Advisor: Michael Esterman, PhD
- 7/2012 – 8/2013 *Postdoctoral Fellow*
University of California, Berkeley
Department of Psychology
Advisor: Lynn C. Robertson, PhD
- 9/2006 – 8/2013 *Research Associate*
Dept. of Veterans Affairs, Martinez, CA
Supervisor: Lynn C. Robertson, PhD
- 7/2004 – 6/2006 *Assistant Research Program Coordinator*
Johns Hopkins University
Wilmer Eye Institute, Department of Ophthalmology
Supervisor: Kathleen Turano, PhD

6. **Fortenbaugh, F. C.**, Prinzmetal, W., & Robertson, L. C. (2011). Rapid changes in visual-spatial attention distort perceived object shape. *Psychonomic Bulletin & Review*, 18(2), 287-294.
7. **Fortenbaugh, F. C.**, & Robertson, L. C. (2011). When here becomes there: Attentional modulation of foveal bias in peripheral localization. *Attention, Perception and Psychophysics*, 73(3): 809-828.
8. Kosovicheva, A. A., **Fortenbaugh, F. C.**, & Robertson, L. C. (2010). Where does attention go when it moves? Spatial properties and locus of the attentional repulsion effect. *Journal of Vision*, 10(12):33, 1-13.
9. **Fortenbaugh, F. C.**, Hicks, J. C., Hao, L., & Turano, K. A. (2008). The affect of peripheral field loss on representations of space: Evidence for distortion and adaptation. *Investigative Ophthalmology and Visual Science*, 49(6), 2765-2772.
10. **Fortenbaugh, F. C.**, Hicks, J. C., Hao, L., & Turano, K. A. (2007). Losing sight of the bigger picture: Peripheral field loss compresses representations of space. *Vision Research*, 47(19), 2506-2520.
11. **Fortenbaugh, F. C.**, Hicks, J. C., Hao, L., & Turano, K. A. (2007). A new technique for simulating peripheral field losses to study human navigation. *Behavior Research Methods*, 39(3), 552-560.
12. **Fortenbaugh, F. C.**, Chaudhury, S., Hicks, J. C., Hao, L., & Turano, K. A. (2007). Gender differences in cue preference during path integration in virtual environments. *ACM: Transactions in Applied Perception*, 4(1), 6. <http://doi.acm.org/10.1145/1227134.1227140>
13. **Fortenbaugh, F. C.**, Hicks, J. C., Hao, L., & Turano, K. A. (2006). High-speed navigators: Using more than what meets the eye. *Journal of Vision*, 6(5), 565-579.

MANUSCRIPTS UNDER REVIEW

1. Schendel, K. P., **Fortenbaugh, F. C.**, & Robertson, L. C. (in revision). Reflexive attentional orienting in spatiotopic reference frames: A closer look at dynamic stimulus displays. *Visual Cognition*.
2. **Fortenbaugh, F. C.**, DeGutis, J., Germine, L., Wilmer, J., Grosso, M., Russo, K., & Esterman, M. (under review). Sustained attention across the lifespan in a sample of 10,000: Dissociating ability and strategy. *Psychological Science*.
3. **Fortenbaugh, F. C.**, VanVleet, T. M., Silver, M. A., & Robertson L. C. (under review). Spatial distortions in localization and midline estimation in hemianopia and normal vision. *Vision Research*.

MANUSCRIPTS IN PREPARATION

1. **Fortenbaugh, F. C.**, Parker, K. S., Robertson, L. C., Dronkers, N. F., & Baldo, J. (in preparation). The neglected left hemisphere: Chronic right neglect on a line bisection task.

2. **Fortenbaugh, F. C.**, Meier, L. A., & Robertson L. C. (in preparation). The influence of spatial and temporal properties on relative size asymmetries across the left and right hemifield.

INVITED LECTURES AND COLLOQUIA

Fortenbaugh, F.C. (December 2013). “The influence of visual field boundaries on attentional resolution and crowding performance”. *Visual Attention Seminar*, Brigham & Women’s Hospital, Harvard Medical School, Boston, MA.

Fortenbaugh, F.C., & Robertson, L.C. (November 2013). “The influence of vertical field of view size on attentional resolution”. *Perception & Action Seminar*, Brown University, Providence, RI.

Fortenbaugh, F.C. & Robertson, L.C. (June 2013). “The influence of visual field boundaries on peripheral localization”. Ohio State University, Columbus, OH.

Fortenbaugh, F.C. (February 2013). “The influence of visual field boundaries on attentional resolution and crowding performance”. *Neuroimaging and Neuropsychology Lecture Series*, Veterans Administration, Boston, MA.

Fortenbaugh, F.C. (March 2012). “The many mappings of visual space”. *Cognition, Brain, and Behavior Colloquium*, University of California, Berkeley. Berkeley, CA.

Fortenbaugh, F.C. & Robertson, L.C. (April 2011). “Visual boundaries and space perception”. *Neuropsychological Brown Bag Symposium*. Veterans Administration, Martinez, CA.

Fortenbaugh, F.C., Prinzmetal, W., & Robertson, L.C. (October 2010). “Shifts of attention can distort object shapes”. *Cognition, Brain, and Behavior Colloquium*, University of California, Berkeley. Berkeley, CA.

Fortenbaugh, F.C., Hicks, J.C., Hao, L., & Turano, K.A. (October 2007). “The affect of field of view size on spatial representations”. *Neuroscience Speaker Series*, University of San Francisco. San Francisco, CA.

CONFERENCE TALKS

Silver, M.A., **Fortenbaugh, F.C.**, & Robertson, L.C. (November 2014). “Redefining the metric of visual space: the influence of visual field boundaries and attention on crowding performance.” To be presented at the Annual Meeting of the Society for Neuroscience, Washington, D.C.

- Fortenbaugh, F.C.**, Silver, M.A., & Robertson, L.C. (May 2012). “Redefining the metric of retinotopic visual space”. Presented at the Annual Berkeley-Stanford Talks, Berkeley, CA.
- Fortenbaugh, F.C.**, Prinzmetal, W., & Robertson, L.C. (July 2010). “Cue position can distort object space”. Presented at the 16th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning. Hood River, OR.
- Fortenbaugh, F.C.**, Prinzmetal, W., & Robertson, L.C. (April 2010). “Rapid cue onsets can distort object space”. Presented at the Annual Berkeley-Stanford Talks, Berkeley, CA.
- Palmer, S.E., Schloss, K.B., & **Fortenbaugh, F.C.** (May 2009). “A Configural Shape Illusion”. Presented at the 9th Annual Meeting of the Vision Science Society, Naples, FL.
- Fortenbaugh, F.C.**, Hicks, J.C., Hao, L., & Turano, K.A. (August 2007). “The Peripheral Visual Field and Spatial Representations: What You Have Now Effects What You Remember”. Presented at the 4th Annual Bay Area Memory Meeting, Berkeley, CA.
- Fortenbaugh, F.C.**, Hicks, J.C., Hao, L., & Turano, K.A. (February 2006). “Losing Sight of the Bigger Picture: Peripheral Field Loss and the Compression of Visual Space”. Presented at the Wilmer Research Meeting, Baltimore, Maryland.
- Fortenbaugh, F.C.**, Hicks, J.C., Hao, L., & Turano, K.A. (May 2005). “An Internal GPS: The Role of Spatial Representations in Human Navigational Ability”. Presented at the 9th International Conference for Cognitive and Neural Systems, Boston, Massachusetts.
- Fortenbaugh, F.C.**, Hicks, J.C., Hao, L., & Turano, K.A. (April 2005). “Cognitive maps and navigational ability: Behavioral evidence for a connection”. Presented at the Wilmer Research Meeting, Baltimore, Maryland.

CONFERENCE POSTERS

- Baldo, J., **Fortenbaugh, F.C.**, Schendel, K., Robertson, L.C., & Dronkers, N.F. (March 2015). “The neglected left hemisphere: Chronic right neglect on a line bisection task”. To be presented at the 22nd Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Fortenbaugh, F.C.**, Silver, M.A., & Robertson, L.C. (May 2013). “Redefining the metric of visual space: Visual field boundaries influence attentional resolution and crowding performance”. Presented at the 12th Annual Meeting of the Vision Science Society, Naples, FL.
- Fortenbaugh, F.C.**, Parker, K.S., Meier, L., & Robertson, L.C. (April 2012). “Hemispheric asymmetries in size perception”. Presented at the Veterans Administration Research Day, Martinez, CA.
- Fortenbaugh, F.C.**, Sanghvi, S., Silver, M.A., & Robertson, L.C. (May 2011). “Visual boundaries influence the direction of biases in peripheral localization”. Presented at the 11th Annual Meeting of the Vision Science Society, Naples, FL.

- Palmer, S.E., Schloss, K.B., & **Fortenbaugh, F.C.** (November 2010). "CSI Berkeley, Episode II: The case for edge assimilation". Presented at the Annual Configural Processing Consortium. St. Louis, MO.
- Fortenbaugh, F.C.**, & Robertson, L.C. (May 2010). "Cue position alters perceived object space". Presented at the 10th Annual Meeting of the Vision Science Society, Naples, FL.
- Kosovicheva, A.A., **Fortenbaugh, F.C.**, & Robertson, L.C. (May 2010). "Spatial properties of the Attentional Repulsion Effect". Presented at the 10th Annual Meeting of the Vision Science Society, Naples, FL.
- Schloss, K.B., **Fortenbaugh, F.C.**, Strauss, E.D., & Palmer, S.E. (May 2010). "CSI Berkeley Episode II: Perceptual organization and selective attention". Presented at the 10th Annual Meeting of the Vision Science Society, Naples, FL.
- Enzminger, A., **Fortenbaugh, F.C.**, & Robertson, L.C. (May 2010). "Varying the distribution of attention can alter perceived location". Presented at the Annual California Cognitive Science Conference, Berkeley, CA.
- Parker, K.S., **Fortenbaugh, F.C.**, Tyson, N., & Robertson, L.C. (April 2010). "Left brain/Right brain: Do both side of the brain contribute equally when searching for visual targets?" Presented at the Veterans Administration Research Day, Martinez, CA.
- List, A., Landau, A.N., Brooks, J.L., Flevaris, A., **Fortenbaugh, F.C.**, Esterman, M., VanVleet, T.M., Albrecht, A.R., Alvarez, B., Robertson, L.C., & Schendel, K. (July 2009). "Object-based attention in patients with unilateral lesions". Presented at the 15th Annual Meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River OR.
- List, A., Landau, A.N., Brooks, J.L., Flevaris, A.V., **Fortenbaugh, F.C.**, Esterman, M., VanVleet, T.M., Albrecht, A.R., Alvarez, B., Robertson, L.C. & Schendel, K. (May 2009). "Object-based attention in patients with left and right hemisphere lesions". Presented at the 9th Annual Meeting of the Vision Sciences Society, Naples, FL.
- List, A., Landau, A.N., Brooks, J.L., Flevaris, A.V., **Fortenbaugh, F.C.**, Esterman, M., VanVleet, T.M., Albrecht, A.R., Alvarez, B., Robertson, L.C. & Schendel, K. (April 2009). "Object-based attention in patients with left and right hemisphere lesions". Presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Palmer, S.E., Schloss, K.B., & **Fortenbaugh, F.C.** (November 2008). "A Configural Shape Illusion". Presented at the Configural Processing Consortium, University of Notre Dame, South Bend, IN.
- Fortenbaugh, F.C.** & Robertson, L.C. (May 2008). "Visual Boundaries and Perceived Eccentricity: Evidence that Boundary Reduction Changes the Scale of Space". Presented at the Annual Meeting of the Vision Science Society, Naples FL.
- Fortenbaugh, F.C.** & Robertson, L.C. (April 2008). "Attentional Modulation of Perceived Eccentricity". Presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

- Turano, K.A., **Fortenbaugh, F.C.**, Hicks, J.C., & Hao, L. (2007). "Peripheral Visual Field Loss Compresses Space in Visual Memory". Presented at the Annual Meeting of the Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL.
- Fortenbaugh, F.C.**, Hicks, J.C., Hao, L., & Turano, K.A. (May 2006). "Peripheral Field Loss and the Perception of Visual Space: Evidence of Compression and Adaptation". Presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Turano, K.A., **Fortenbaugh, F.C.**, & Chaudhury, S. (May 2005). "Implicit auditory signal can scale men's egocentric spatial representation". Presented at the Annual Meeting of the Vision Science Society, Sarasota, FL.
- Turano, K.A., **Fortenbaugh, F.C.**, Hicks, J.C., & Hao, L. (May 2005). "Visual Span for Navigation: Fast vs. Slow Walkers". Presented at the Annual Meeting of the Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL.

TEACHING EXPERIENCE

Graduate Teaching Experience:

- Spring 2007 **Research Design and Data Analysis**, Graduate Student Instructor with Frederic Theunissen, PhD, University of California, Berkeley
- Fall 2006 **Cognitive Psychology**, Graduate Student Instructor with William Prinzmetal, PhD, University of California, Berkeley

Undergraduate Teaching Experience:

- 2003 **Certified Advanced Tutor**, awarded by the College Reading and Learning Association
- Spring 2004 **Tutor at the Learning and Writing Center**, University of San Francisco
General Areas: Psychology, Mathematics, & Astronomy
- Spring 2004 **Calculus II**, Undergraduate Teachers Assistant for James Fink, PhD, University of San Francisco
- 2003-2004 **Psychological Research Methods**, Undergraduate Teachers Assistant for Kay Livesay, PhD and Susan Heidenreich PhD, University of San Francisco
- Fall 2003 **Private Tutor in mathematics**, San Francisco, CA
Area: High-school level algebra and geometry
- 2001-2003 **Astronomy**, Supplemental Instructor for Astronomy through the Learning & Writing Center, University of San Francisco
- Spring 2003 **Tutor at the Learning and Writing Center**, University of San Francisco
General Areas: Psychology, Mathematics, & Astronomy
- Fall 2002 **Calculus III**, Undergraduate Teacher's Assistant for James Fink, PhD, University of San Francisco

Spring 2001 **Brain and Behavior**, Undergraduate Teacher's Assistant for Susan Heidenreich, PhD, University of San Francisco

EDITORIAL AND REVIEW

Editorial: Guest editor for forthcoming special issue in Journal of Vision "Scene Perception from Central to Peripheral Vision"

Journal Reviewer: *Behavior Research Methods; Investigative Ophthalmology & Vision Science; Journal of Experimental Psychology: Human Perception & Performance; Journal of Experimental Psychology: Learning, Memory, & Cognition; Journal of Vision; Journal of Vision Impairment & Blindness; Memory & Cognition; Perception; Psychological Science; Vision Research*

PROFESSIONAL MEMBERSHIP

Association for Psychological Science, Vision Science Society

STUDENTS SUPERVISED

- 1) *Anna Kosovicheva*: Psychology undergrad research assistant, Spring 2008. Co-mentored honors thesis project with Dr. Lynn Robertson (Fall 2008 – Spring 2009).
- 2) *Shradha Sanghvi*: Optometry graduate research assistant. Co-mentored during NEI Summer Research Program in 2008 and completion of her honors thesis project with Dr. Michael Silver (Spring 2009 – Spring 2010).
- 3) *Hilary Lapping*: Psychology undergrad research assistant, Fall 2009.
- 4) *Betty Wang*: Optometry graduate research assistant. Co-mentored during NEI Summer Research Program in 2009, and as a research assistant with Dr. Michael Silver (Fall 2010 – Spring 2012).
- 5) *Anna Enzlinger*: Psychology undergrad research assistant, Fall 2009 - Spring 2010.
- 6) *Natalie Tyson*: Psychology undergrad research assistant, Spring 2010 – Spring 2011. Co-mentored honors thesis project with Dr. Lynn Robertson (Fall 2011 – Spring 2012).
- 7) *Alyssa Beck*: Psychology undergrad research assistant, Fall 2010.
- 8) *Laura Meier*: Psychology undergrad research assistant, Fall 2010 – Fall 2012.
- 9) *Gurpreet Malhi*: Psychology undergrad research assistant, Spring 2011.
- 10) *Tytus Massei*: Psychology undergrad research assistant, Spring 2011.
- 11) *Shanelle Nebre*: Psychology undergrad research assistant, Fall 2012 – Spring 2013.
- 12) *Minsu Kim*: Psychology undergrad research assistant, Spring 2013.

13) Bailey Tiura: Psychology undergrad research assistant, Spring 2013.

REFERENCES

Michael G. Esterman, PhD

Current Advisor

Phone: 857-364-2542

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Joseph DeGutis, PhD

Current Co-Advisor

Phone: 510-642-6266

Email: deguti@gmail.com

Lynn C. Robertson, PhD

Dissertation Committee Chair

Phone: 510-642-6266

Email: lynnrob@berkeley.edu

Michael A. Silver, PhD

Dissertation Committee Member

Phone: 510-642-3130

Email: masilver@berkeley.edu