

Curriculum Vita

Ione Fine

3rd August, 1971

British citizen (USA Green card)

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Education and training

Merton College, Oxford University, UK	B.A.	1989-93	Experimental Psychology and Philosophy
University of Rochester, Rochester N.Y.	M.A.	1996	Brain and Cognitive Sciences
University of Rochester, Rochester N.Y.	Ph.D.	2000	Brain and Cognitive Sciences

Positions and Employment

Feb 2010-	Associate Professor, Department of Psychology, University of Washington, Seattle Co-Director of the UW Center for Brain Imaging
Feb 2007-	Assistant Professor, Department of Psychology, University of Washington, Seattle Adjunct Assistant Professor of Radiology, University of Washington, Seattle Co-Director of the UW Center for Brain Imaging
2004-7	Assistant Professor, Department of Ophthalmology, Zilkha Neurogenetic Institute, Keck School of Medicine, USC
2003-4	Joint appointment: Research Assistant Professor, Doheny Eye Institute, Keck School of Medicine, USC & Second Sight Medical Products Inc.
2002	Research Scientist, Department of Psychology, University of California, San Diego
2000 - 2002	Postdoctoral Researcher (with Professors MacLeod, Dobkins), Department of Psychology, University of California, San Diego

Other Experience and Professional Memberships

2009	Session moderator for VSS, 2009, SFN 2009
2009	Local Organizer for OSA Vision Meeting (Seattle)
2007	Visiting Lecturer for OSA (OSA supports a selected group of speakers whose role is to visit student chapters across the country)

- 2006-7 Division Chair of OSA (Vision, Color, Applications and Clinical)
- 2005 Member of the OSA Tillyer Award committee
- 2004-6 Division Chair-Elect of OSA (Vision, Color, Applications and Clinical)
- 2003 – 2007 Member of OSA Executive Committee of the Science and Engineering Council
- 2003 - 2004 Chair of OSA committee (*Vision*)
- 2001 - 2002 Co-chair of OSA committee (*Vision*)
- 2001, 2005 Session moderator for Neuroscience, 2001
- 2001 Symposium organizer for OSA, 2001
- 2000 Session moderator for ARVO, 2000
- 2000 Co-chair of the tutorial section of Cognitive Science
- 1996 Participant in the summer school on Computational Neuroscience, Cold Spring Harbor Laboratories.

Editorial Board: Open Neuroscience Journal; Visual Neuroscience

Reviewer for: Brain, Cognitive Science, Current Biology, Department of Energy, IEEE, Journal of the Optical Society of America, Investigative Ophthalmology and Visual Science, Journal of Vision, National Institute of Health, National Science Foundation, Nature Neuroscience, New England Journal of Medicine, Neuropsychologia, Public Library of Science, Royal Society of London, Sinauer Press, IEEE Transactions on Neural Systems and Rehabilitation Engineering, Visual Neuroscience, Vision Research

Member of: ARVO, Society for Neuroscience, Optical Society of America, Vision Sciences Society

Awards and Scholarships

- 2010 Fellow of the Optical Society of America
- 2001 - 2002 Fight for Sight Research fellowship from Prevent Blindness America
- 2000 - 2002 Burroughs Wellcome Interdisciplinary fellowship (mathematics and neuroscience)
- 1993-1995 Sproull Fellow (a university-wide tuition fellowship) of the University of Rochester
- 1992 Recipient of a Merton College, Oxford University, UK undergraduate research grant.
- 1992 Recipient of a special college award to fund research at the University of California, Los Angeles.

Current research Interests

The effects of long-term visual deprivation
 Adult perceptual learning and plasticity.
 Psychophysics, fMRI and computational vision.

Visual prostheses

Current Support

RO1 EY-014645
08/2016

Fine (PI)

08/2004-

NIH/NEI, \$170,163 (direct)/\$259,109 (total) per year.

The neural and functional effects of long term visual deprivation.

The goal of this project is to examine the neural and behavioral effects of long-term bilateral visual deprivation in adults using a combination of anatomical and functional magnetic resonance imaging.

Issued Patents

Fine, I. and Boynton, G.M. Surface segmentation from color and luminance differences. US 2005 0058351

S324-DIV1 Fitting of Brightness in a Visual Prosthesis, Second Sight Medical Products, Inc.

S324-USA Fitting of Brightness in a Visual Prosthesis, Second Sight Medical Products, Inc.

S401-DIV1 Visual Prosthesis Fitting, Second Sight Medical Products, Inc

Peer Reviewed Papers

Derrington AM, **Fine I**, Henning GB. Errors in direction-of-motion discrimination with dichoptically viewed stimuli. *Vision Res* 1993;33:1491-1494.

Fine I, Jacobs RA. Combining visual cues to depth and shape: a comparison of three models. *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society*. Hillsdale, NJ: Lawrence Erlbaum, 1997.

Fine I, Jacobs RA. A comparison of visual cue combination models. In: Sharkey A, ed. *Combining artificial neural nets: ensemble and modular multi-net systems*. Berlin: Springer-Verlag, 1999.

Fine I, Jacobs RA. Modeling the combination of motion, stereo, and vergence angle cues to visual depth. *Neural Comput* 1999;11:1297-1330.

Jacobs RA, **Fine I**. Experience-dependent integration of texture and motion cues to depth. *Vision Res* 1999;39:4062-4075.

Fine I, Jacobs RA. Visual learning for a mid-level pattern discrimination task. *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society*. Hillsdale, NJ: Lawrence Erlbaum, 2000.

Fine I, Jacobs RA. Perceptual learning for a pattern discrimination task. *Vision Res* 2000;40:3209-3230.

Finney EM, **Fine I, Dobkins KR.** Visual stimuli activate auditory cortex in the deaf. *Nat Neurosci* 2001;4:1171-1173.

Fine I, Smallman HS, Doyle P, MacLeod DI. Visual function before and after the removal of bilateral congenital cataracts in adulthood. *Vision Res* 2002;42:191-210. Erratum in: *Vision Res* 2002;42:2561-2562.

Fine I, Jacobs RA. Comparing perceptual learning across tasks: A review. *JOV* 2002;2:190-203.

Fine I, MacLeod DI, Boynton GM. Surface segmentation based on the luminance and color statistics of natural scenes. *J Opt Soc Am A Opt Image Sci Vis.* 2003;20:1283-1291.

Fine I, Wade AR, Brewer AA, May MG, Goodman DF, Boynton GM, Wandell BA, MacLeod DI. Long-term deprivation affects visual perception and cortex. *Nat Neurosci* 2003;6:915-916.

Fine I, Anderson CM, Boynton GM, Dobkins, KR. The effects of contrast and coherence on directional tuning. *Vision Res* 2004; 44(9).

Dobkins KR, **Fine I, Hsueh AC, Vitten C.** Pattern motion integration in infants. *Journal of Vision*, 2004(3), 144-55.

Buracas, G.T., **Fine, I.** and Boynton, G.M. The relationship between task performance and fmri response. *J Neurosci* 2005;25:3023-3031.

Mahadevappa, M., Weiland, J.D., Yanai, D., **Fine, I., Greenberg, R.J., Humayun, M.S.** Correlations between perceptual thresholds, electrode impedance, and electrode height from the retina in 3 retinal prosthesis subjects. *IEEE Transactions on Neural Systems and Rehabilitation Engineering.* 13(2)

Fine, I, Finney, E.M., Boynton, G.M. & Dobkins, K.R. Neural plasticity after auditory deprivation within auditory and visual cortex *Journal of Cognitive Neuroscience.* 17(10) 1621-1637

Ng, M., Ciaramitaro, V., Boynton, G.M. and **Fine, I.** (2006) Selectivity for the configural cues that identify gender, ethnicity and identity in human cortex. *Proceedings of the National Academy of Sciences*, 105:51, 19552-7

Dobkins KR, Lewis LB, **Fine I.**(2006) Integration of one- and two-dimensional motion signals in infants: evidence from the barber-pole illusion. *Vision Res.* 2006 Oct; 46(20):3360-72.

Yanai D., Weiland J.D., Mahadevappa M., Greenberg R.J., **Fine I., Humayun M.S.** (2007) Visual performance using a retinal prosthesis in three subjects with retinitis pigmentosa. *Am J Ophthalmol*;143(5):820-827, 2007

Ng M. Boynton, G.M., **Fine, I.** (2007) Face adaptation does not improve performance on search or discrimination tasks. *JOV*; 4;8(1):1.1-20

Saenz, M., Lewis, L.B., Huth, A.G., **Fine, I.**, Koch, C. (2008) Visual Motion Area MT+V5 Responds to Auditory Motion in Human Sight-Recovery Subjects. *J. Neuroscience*; 28(20) 5141-8

deBalthasar C., Roy, A., Freda, R., Greenwald, S. Horsager, A., Mahadevappa, M., Yanai, D., McMahan, M., Humayun, M.S., Greenberg, R.J., Weiland, J.D., Fine, I. (2008) Factors affecting perceptual thresholds in epiretinal prostheses. *IOVS*; 49:2303-2314.

Horsager, A., Greenwald, S., Weiland, J.D., Humayun, M.S., Greenberg, R.J., McMahan, M., Boynton, G.M., **Fine, I.** Predicting visual sensitivity in retinal prosthesis patients. *IOVS* 2009;50(4):1483-91

Greenwald, S. H., Horsager, A., Humayun, M.S., Greenberg, R.J., McMahan, M., **Fine, I.** Brightness as a function of current amplitude in human epiretinal electrical stimulation. *IOVS*; 2009; 50(11):5017-25

Horsager A, Boynton GM, Greenberg RJ, **Fine I.** Temporal interactions during paired-electrode stimulation in two retinal prosthesis subjects. *Invest Ophthalmol Vis Sci.* 2010 Aug 18.

Saenz M, **Fine I.** Topographic organization of V1 projections through the corpus callosum in humans. *Neuroimage.* 2010 Oct 1;52(4):1224-9.

Lewis LB, Saenz M, **Fine I.** Mechanisms of cross-modal plasticity in early blind subjects. *J. Neurophysiol.* 2010 Jul 28. 104(6) 2995-3008

Secondary Citations

Academic/scientific commentaries (selected): Faculty of 1000 highlighted paper (2004, 2005); Seeing after Blindness (2003) Richard Gregory, R. News and Views. *Nature Neuroscience*; Highlights of the Week, *Nature*; *The Lancet Neurology* (2003); Euro Times, newspaper of the European Society of Cataract and Refractive Surgeons (2003) *Science Online* (2003); Dana Foundation (2003); *Discover Magazine* (2002); *Trends in Cognitive Science* (2002); *Psychology* 4th Edition (2005); *Nature News* (2008); *Discover* (2009); *Science et vie* (2009) *Newspapers and Magazines (selected):* *Science et Vie* (2009); *LA Times* (2008); *Associated Press* (2003); *U.S. News and World Report* (2003); *Washington Post* (2003); *Pittsburg Post-Gazette* (2003); *Baltimore Sun* (2003); *LA Times* (2003); *Health Day* (2003); *WebMD* (2003); *London Times* (2003); *London Daily Telegraph* (2003); *London Daily Mail* (2003); *German Focus* (2003); *der Spiegel* (2002). *Television/Radio (selected):* *ABC* (2008); *HBO* (2008); *Hot Shot Films* (2007); *Catalyst* (2004); *CBS News* (2003); *Good Morning America* (2003); *Inside Edition* (2003); *NPR Science Friday* (2003); *BBC World Service radio* (2003); *Design Rules* (2002); *BBC2 Documentary* (2002); *NBC Discover* (2001)
