

Brian Sullivan, PhD
Rachel C. Atkinson Postdoctoral Fellow
Smith-Kettlewell Eye Research Institute
2318 Fillmore St., San Francisco, CA 94115
email: brians@ski.org
phone: 415-345-2117
http://www.ski.org/Renninger_Lab/BSullivan/

Curriculum Vitae

Positions:

Postdoctoral Fellow, Smith-Kettlewell Eye Research Institute. (April 2012-Present)
Ph. D. Student & Research Assistant, Advisors: Dr.'s Mary Hayhoe & Dana Ballard,
University of Texas at Austin; Dissertation: *"The role of uncertainty and reward
On eye movements in natural tasks"* (Sept 2006-April 2012)
Ph. D. Student, Advisors: Dr.'s Mary Hayhoe & Dana Ballard, University of Rochester
(Sept 2005-Sept 2006)
Research Technician, (Dec 2000-Sept 2005), University of Rochester, Vision and Virtual
Reality Lab of Dr.'s Mary Hayhoe & Dana Ballard
Energy Analyst, Carli Inc., Amherst, MA, (March 2000 - Aug 2000)
Lab Assistant, Dr. Geert DeVries' Behavioral Neuroscience Lab, University of
Massachusetts at Amherst (Jan 1999-May 1999)
Research Assistant, for MS candidate Dan Hrubes, University of Massachusetts at
Amherst (Sept 1998 – Dec 1998)
Computer Technician, Tech Plus Computers, Yarmouth, MA, (June 1996- Sept 1999)

Education:

University of Texas at Austin, (2006-2012), GPA: 3.97, Ph.D., Psychology and
Perceptual Systems
University of Rochester, (2005-2006), Matriculated Ph.D. Program and transferred to UT
Austin, Brain and Cognitive Sciences, GPA: 3.38
University of Massachusetts at Amherst, (1997-2000), GPA: 3.72,
B.S., cum laude, Psychology and Neuroscience,
Cape Cod Community College, (1995-1997), GPA: 3.47, A.A., Liberal Arts,

Honors & Awards:

Envision ARVO Atwell Young Researcher Award in Low Vision Nominee (2013)
Rachel C. Atkinson Fellowship, Smith-Kettlewell Eye Research Institute, San
Francisco, CA (2012-Present)
Wayne H. Holtzman Regents Chair in Psychology, University of Texas at Austin (2010)
Lloyd Jeffress Fellowship in Psychology, University of Texas at Austin (2009)
Phi Beta Kappa Honor Society Member, Washington University, St. Louis, MO (2000)
Cum Laude Graduate, University of Massachusetts, Amherst, MA(2000)

Publications:

Sullivan B, Ghahghaei S, Walker L; Statistics of eye movements in natural tasks. (In
Preparation 2014)

Sullivan B, Walker L; Task versus Fixational PRL use in Central Vision Loss. (In Preparation 2014)

Johnson LM, Sullivan BT, Hayhoe MH, Ballard DH; Predicting Human Visuomotor Behavior in a Driving Task. *Phil. Trans. R. Soc. B*; 2014; 369: 20130044

Johnson LM, Sullivan BT, Hayhoe MM, Ballard DH. (2013). A soft barrier model for predicting human visuomotor behavior in a driving task. *In Proc. 35th Annual Conf. of the Cognitive Science Society* (eds M Knauff, M Pauen, N Sebanz, I Wachsmuth), pp. 689 – 691. Austin, TX: Cognitive Science Society.

Ballard, D. H., Kit, D., Rothkopf, C. A., & Sullivan, B. (2013). A Hierarchical Modular Architecture for Embodied Cognition. *Multisensory research*, 26(1-2), 177.

Sullivan, B., Johnson, L., Rothkopf, C., Ballard, D., & Hayhoe, M. (2012). The effect of uncertainty and reward on fixation behavior in a driving task. *Journal of Vision* 2012 Dec 21;12(13):19.

Kit, D., Sullivan, B., & Ballard, D. (2011, September). Novelty detection using growing neural gas for visuo-spatial memory. In *Intelligent Robots and Systems (IROS), 2011 IEEE/RSJ International Conference on* (pp. 1194-1200). IEEE.

Sullivan BT, Johnson LM, Ballard DH, Hayhoe MH; A modular reinforcement learning model for human visuomotor behavior in a driving task. *Proceedings of the AISB 2011 Symposium on Architectures for Active Vision*. (2011) April; 33-40.

Sullivan, B., Jovancevic-Misic, J., Hayhoe, M., & Sterns, G. (2008). Use of multiple preferred retinal loci in Stargardt's disease during natural tasks: a case study. *Ophthalmic and Physiological Optics*, 28(2), 168-177.

Mennie, N., Hayhoe, M., & Sullivan, B. (2007). Look-ahead fixations: anticipatory eye movements in natural tasks. *Experimental Brain Research*, 179(3), 427-442.

Jovancevic, J., Sullivan, B., & Hayhoe, M. (2006). Control of attention and gaze in complex environments. *Journal of Vision*, 6(12).

Droll, J. A., Hayhoe, M. M., Triesch, J., & Sullivan, B. T. (2005). Task demands control acquisition and storage of visual information. *Journal of Experimental Psychology: Human Perception and Performance*, 31(6), 1416.

Sullivan, B., Jovancevic, J., Hayhoe, M., & Sterns, G. (2005, September). Use of gaze in natural tasks in Stargardt's disease: A preferred retinal region. In *International Congress Series* (Vol. 1282, pp. 608-612). Elsevier.

Hayhoe, M., Mennie, N., Sullivan, B., & Gorgos, K. (2005). The role of internal models and prediction in catching balls. In *Proceedings of the American Association for Artificial Intelligence*.

Triesch, J., Ballard, D. H., Hayhoe, M. M., & Sullivan, B. T. (2003). What you see is what you need. *Journal of vision*, 3(1).

Triesch, J., Sullivan, B. T., Hayhoe, M. M., & Ballard, D. H. (2002, March). Saccade contingent updating in virtual reality. In *Proceedings of the 2002 symposium on Eye tracking research & applications* (pp. 95-102). ACM.

Hayhoe MM, Ballard DH, Triesch J, Shinoda H, Aivar P, Sullivan B (2002, March). Vision in natural and virtual environments. In *Proceedings of the 2002 symposium on Eye tracking research & applications* (pp. 7-13). ACM.

Teaching Experience:

Guest Lecturer & Teaching Assistant, Perception (undergraduate level, UT Austin Fall 2009)

Guest Lecturer & Teaching Assistant, Seeing & Acting in a Virtual World (undergraduate level, UT Austin, Spring 2008)

Teaching Assistant, Children & Society (undergraduate level, UT Austin, Spring 2008)

Lecturer & Teaching Assistant, Statistics & Research Design Lab, (undergraduate level, UT Austin, Fall 2007)

Teaching Assistant, Introduction to Psychology (undergraduate level, UT Austin, Spring 2007)

Lecturer, Seeing & Acting in a Virtual World (undergraduate level, University of Rochester, Spring 2006)

Teaching Assistant, Seeing & Acting in a Virtual World (undergraduate level, University of Rochester, Spring 2001-2005)

Conferences:

A full list of conference posters and presentations can be found at:
http://www.ski.org/Renninger_Lab/BSullivan/pubs.html

Professional Memberships:

Vision Sciences Society (since 2003)

The British Society for the study of Artificial Intelligence and the Simulation of Behavior (2011-2012)

The Association for Research in Vision and Ophthalmology (since 2012)

Computer Languages:

Highly experienced with Matlab. Working knowledge of C/C++, Python and R.

Service:

Ad hoc journal reviewer: Vision Research, Journal of Vision, Perception, Journal of Neurophysiology, Visual Cognition, Journal of Visualized Experiments, IEEE Conference on Development and Learning and Epigenetic Robotics, ACM Transactions on Applied Perception, Animal Cognition, Journal of Neuroscience Methods

Outside Interests:

Musical performance and composition, visual arts, hiking, camping, reading and writing