CURRICULUM VITAE

Jason Alan Droll

January 2008

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EDUCATION

2005	Ph.D. in Brain & Cognitive Science University of Rochester
2003	M.S. in Brain & Cognitive Science University of Rochester
1998	Bachelor of Arts in Molecular Biology Minor in Philosophy University of California Santa Cruz

RESEARCH INTERESTS

Visual attention	Visual search
Eye movements	Visual working memory
Mechanisms of learning and reward	Neurophysiology of visual system

WORK EXPERIENCE

2005 – present	Postdoctoral Scholar, Department of Psychology Advisor: Miguel Eckstein University of California Santa Barbara
1999 – 2005	Graduate Student, Department of Brain & Cognitive Science Advisor: Mary Hayhoe University of Rochester
1998 – 1999	Research Associate, Gene Recombinant Department Santa Cruz Biotechnology, Santa Cruz, CA
1998-1999	Research Assistant, Visual psychophysics laboratory of Gene Switkes University of California Santa Cruz

PROFESSIONAL MEMBERSHIPS

2004- present	Vision Sciences Society
2000- present	The Society for Neuroscience

FELLOWSHIPS AND GRANT SUPPORT

2006 – present	Post Doctoral Fellowship Proposal (HM1 582-05-1-2018) National Geospatial Intelligence Agency

"Optimizing Visual Change Detection and Gaze Control by Learning Scene Statistics"
Award: $120,000 annually

1999 – 2003 NEI Pre-doctoral Training Grant
Center for Visual Science, Univ. of Rochester

TEACHING EXPERIENCE

Spring 2006 Lecturer, University of California, Santa Barbara
Laboratory in Perception (undergraduate)
Lectured for one hour, twice a week, discussing experimental techniques and preparing students for lab exercises. Supervised three Teaching Assistants.

Fall 2002 Teaching Assistant, University of Rochester
Neural Foundations of Behavior (undergraduate)
Organized and led review sessions, graded exams and monitored class grades.

Spring 2002 Teaching Assistant, University of Rochester
Advanced Neuroscience Laboratory (undergraduate)
Organized and led review sessions, conducted lab demonstrations. (crayfish neural recording, stereotaxic rat surgery), graded lab reports

Fall 1999 Teaching Assistant, University of Rochester
Introduction to Neuroscience (undergraduate)
Organized and led review sessions, conducted lab demonstrations, graded essays.

AWARDS AND ACTIVITIES

2004 Travel Scholarship (Top Ten Student Abstracts), Vision Sciences Society
2003 Travel Scholarship, European Conference on Visual Perception

INVITED TALKS

November, 2004 *Task demands control acquisition and maintenance of visual information.*
University of California San Diego, Salk Institute, Sloan-Schwartz seminar series

November, 2004 *Task demands control acquisition and working memory use.*
University of Rochester, Department of Computer Science, Vision Seminar

May, 2005 *How task demands and prior knowledge control eye movements, visual attention, and use of working memory.*
Johns Hopkins University, Department of Psychological and Brain Sciences
University of California Los Angeles, Department of Psychology
California Institute of Technology, Biology Division: Computation and Neural Systems
University of California Santa Barbara, Department of Psychology

June, 2006 *Learning scene statistics and reward structure during visual search*
University of California Santa Barbara, Department of Psychology Cognition & Perception Seminar

REVIEWER

Journal of Experimental Psychology
Journal of Cognitive Neuroscience
Reed Elsevier Publications
Vision Research
Cognition

PUBLICATIONS

Research Papers

Droll, J.A., Pham, B.T., Abbey, C.K., Eckstein, M.P. (in review) Learning cue validity through performance feedback.

Droll J.A., Hayhoe, M.M. (in review) Change detection as a result of violation in scene statistics.

Droll J.A., Gigone, K., Hayhoe, M.M. (2007) Learning where to direct gaze during change detection. Journal of Vision, *7*(14):6, 1-12, http://journalofvision.org/7/14/6/, doi:10.1167/7.14.6.

Droll J.A., Hayhoe, M.M. (2007) Trade-offs between gaze and working memory use. Journal of Experimental Psychology: Human Perception and Performance, 33(6), 1352-1365.

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): 1416-1438.

Bisley J.W., Zaksas D., Droll J., Pasternak, T. (2003) Activity of MT neurons during a memory for motion task. Journal of Neurophysiology 90:2752-2757.

Book Chapters

Hayhoe, M.M., Droll, J.A., Mennie, N. (2007) Learning where to look. In R. van Gompel, M. Fischer, W. Murray, & R. Hill (Eds.), *Eye movement research: Insights into mind and brain*. Elsevier.

Conference Talks

Droll, J.A., Pham, B.T., Abbey, C.K., Eckstein, M.P. (2007) Gaze control and perceptual decisions are modulated by learned expected reward. Vision Sciences Society Meeting Abstracts, 7.

Droll, J.A., Pham, B.T., Abbey, C.K., Eckstein, M.P. (2006) Implicit, but not explicit, measures of learning cue validity during visual search require task feedback. Society for Neuroscience Abstracts, 32.

Droll J.A., Gigone, K., Hayhoe, M.M. (2005) Influencing gaze allocation through Bayesian integration of environmental probabilities. Society for Neuroscience Abstracts, 31.

Droll J.A., Hayhoe, M.M., Triesch, J., Sullivan, B.T. (2004) Working memory for object features is influenced by scene context. Vision Sciences Society Meeting Abstracts, 4.

Droll J.A., Hayhoe, M.M., Triesch, J., Sullivan, B.T. (2003) Attention is not enough: Task micro-structure determines visual information acquisition. Society for Neuroscience Abstracts, 29.

Droll J.A., Hayhoe, M.M., Triesch, J., Sullivan, B.T. (2003) Influence of task demands on object representations. European Conference on Visual Perception Abstracts, 26.

Droll J.A., Hayhoe, M.M., Triesch, J., Sullivan, B. (2003) Task relevance of object features modulates the content of visual memory. Vision Sciences Society Meeting Abstracts, 3.

Conference Posters

Droll, J.A. and Eckstein, M.P. (2007) Understanding visual change perception in unconstrained environments using eye tracking. IC Postdoctoral Research Fellowship Colloquium.

Droll, J.A., Pham, B.T., Abbey, C.K., Eckstein, M.P. (2006) Learning predictive cues to optimize visual search. Vision Sciences Society Meeting, 6.

Gigone, K.M., Droll, J.A., Hayhoe, M.M. (2006) Gaze patterns in search reflect learnt environmental probabilities and rewards. Vision Sciences Society Meeting, 6.

Chajka, K., Hayhoe, M.M., Sullivan, B.T., Pelz, J., Mennie, N., Droll, J.A. (2006) Predictive eye movements in squash. Vision Sciences Society Meeting, 6.

Robinson, A.E., Triesch, J., Hayhoe, M.M., Droll, J.A., Sullivan, B.T. (2006) Change blindness during multiple interactions with a single object. Vision Sciences Society Meeting, 6.

Droll, J.A., Hayhoe, M.M. (2005) Knowing when to remember and when to forget: Expected task relevance controls working memory use. Vision Sciences Society Meeting, 5

Droll, J.A., Hayhoe, M.M, Sullivan, B.T. (2004) Task demands control acquisition and maintenance of visual information. Object Perception, Attention & Memory Meeting Abstracts, 12.

Droll, J.A., Hayhoe, M.M, Sullivan, B.T. (2004) Gaze and hand movements indicate acquisition of new object features. Society for Neuroscience Abstracts, 30.

Droll J.A., Zaksas D., Bisley J.W., Pasternak, T. (2001) MT neurons respond to remote visual motion stimuli used in a working memory task. Society for Neuroscience Abstracts, 27.

Droll J.A., Bisley J.W., Pasternak, T. (2001) Activity in MT neurons during a memory for visual motion task. European Conference on Visual Perception Abstracts, 24

Droll J.A., Bisley J.W., Pasternak, T. (2001) The delay activity of some MT neurons may signal the remembered direction of motion. Vision Sciences Society Meeting Abstracts, 1.

Droll J.A., Bisley J.W., Pasternak, T (2000) Delay activity in area MT neurons during a visual working memory task. Society for Neuroscience Abstracts, 26.

Droll J.A., Bisley J.W., Pasternak, T. (2000) Delay activity in area MT neurons during a visual working memory task. IOVS Suppl. (abstracts), 41,4.

PROFESSIONAL REFERENCES

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