Curriculum Vitae

Anthony Scott Drew
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EDUCATION:

2001-2006: Ph.D. in Human Physiology. Department of Human Physiology, University of Oregon, Eugene, OR
Dissertation: The Brain, Attention and Eye Movements
Advisor: Dr. Paul van Donkelaar

1999-2001: M.S. in Exercise and Movement Science. Department of Exercise and Movement Science, University of Oregon, Eugene, OR
Thesis: The Allocation of Attention Changes with Increases in Smooth Pursuit Velocity
Advisor: Dr. Paul van Donkelaar

1995-1998: B.S. in Movement Science with distinction. Division of Kinesiology, University of Michigan, Ann Arbor, MI
Senior Honors Thesis: The Role of Limb Proprioceptive Feedback on the Transition from Smooth Pursuit to Saccadic Tracking
Advisor: Dr. Susan Brown

PROFESSIONAL EXPERIENCE:

2006-present: Lecturer in Division of Kinesiology. University of Michigan, Ann Arbor, MI

TEACHING EXPERIENCE:

Post-doctoral courses taught as Primary Instructor:

MVS 110 – Biophysical Foundations of Human Movement: (F06, W07, F07, W08)
MVS 250 – Introductory Statistics and Research Methodology: (W07, F07)

Pre-doctoral courses taught as Primary Instructor:

EMS/HPHY 101 – Exercise as Medicine: (F05, F04)
EMS/HPHY 103 – Exercise and Performance: (Su05, W04, Su04, W02)
EMS/HPHY 333 – Motor Control: (W06, Sp06, W05, Su02)

EMS/HPHY 335 – Motor Development: (Sp05, Sp04)

Post-doctoral courses taught as Lab Instructor:

MVS 230 – Musculoskeletal Anatomy Laboratory: (W07)
MVS 320 – Motor Control Laboratory: (F06, W07, F07, W08)

Pre-doctoral courses taught as Lab Instructor:

EMS/HPHY 333 – Motor Control Laboratory: (W06, Sp06, W05, Su02)
EMS/HPHY 335 – Motor Development Laboratory: (Sp05, Sp04)

RESEARCH EXPERIENCE:

2001-2006: Dissertation, Department of Human Physiology, University of Oregon, Eugene. Behavioral studies of alerting, orienting, and allocation of attention in healthy young adults and individuals with mild traumatic brain injury. Use of TMS and functional magnetic resonance imaging (fMRI) to investigate the role of the specific cortical sites in the production of smooth pursuit eye movements.

2003-2005: Research Assistant, Department of Human Physiology, University of Oregon, Eugene. Worked as part of a research team on a study funded by the Center for Disease Control investigating the effects of concussion in healthy young adults. Helped develop testing paradigms used to assess the effects of concussion on an individuals' ability to spatially and temporally allocate attention.

1999-2003: Research Assistant, Department of Human Physiology, University of Oregon, Eugene. Conducted research funded by the National Science Foundation examining eye-hand coordination in humans. Experimental apparatus used in the collection of data included TMS, fMRI, and an infrared corneal reflection device used to record the position of the eyes.

1999-2001: Master's Degree Research Project, Department of Exercise and Movement Science, University of Oregon, Eugene. Study of how attention is spatially allocated during smooth pursuit eye movements of different velocity. Use of TMS to assess spatial and temporal dynamics of attentional allocation. Measurement of kinematic and temporal variables of smooth pursuit eye movements through use of infrared corneal reflection device.

1998-1999: Research Assistant, Center for Human Motor Research, Division of Kinesiology, University of Michigan, Ann Arbor. Worked as part of a research team on a sensory facilitation study funded by the National Institutes of Health. Worked with healthy young and elderly subjects, and with Parkinson's disease patients, during data acquisition sessions. Analyzed the effects of sensory facilitation on the performance of upper limb movements. Responsible for the delivery of results during weekly meetings with research team.

1997-1998: Senior Honors Thesis, Center for Human Motor Research, Division of Kinesiology, University of Michigan, Ann Arbor. Designed and implemented year-long study for senior honors thesis. Analyzed differences in the kinematics of both eye and arm movements when subjects tracked a visual stimulus moving at different velocities. Wrote scientific report on

the results for thesis: The Role of Limb Proprioceptive Feedback on the Transition from Smooth Pursuit to Saccadic Tracking.

AWARDS & HONORS:

1998: Stan Kemp Memorial Award, Division of Kinesiology, University of Michigan. For high character, integrity, idealism, achievement, and scholarship. Chosen by the Kinesiology awards committee in conjunction with the Stan Kemp memorial committee.

1998: Outstanding Senior Leader, University of Michigan. For outstanding leadership and contribution to the University community. Awarded by the Alumni Council of the Alumni Association of the University of Michigan.

1998: Senior Honors Thesis, Center for Human Motor Research, Division of Kinesiology, University of Michigan.

1997-1998: Dean's List, Division of Kinesiology, University of Michigan.

PUBLICATIONS:

Articles Published in Refereed Journals:

1. **Drew, A.S.**, Langan, J., Halterman, C., Osternig, L.R., Chou, L.-S., & van Donkelaar, P. (2007). Attentional disengagement dysfunction following mTBI assessed with the gap saccade task. Neuroscience Letters, 417(1):61-65.

2. **Drew, A.S.** & van Donkelaar, P. (2007). The contribution of the human FEF and SEF to smooth pursuit initiation. Cerebral Cortex, 17(11):2618-2624.

3. **Drew, A.S.** & van Donkelaar, P. (2007). The contribution of the human PPC to the orienting of visuospatial attention during smooth pursuit. Experimental Brain Research, 179(1):65-73.

4. DeHaan, A., Halterman, C., Langan, J., **Drew, A.S.**, Osternig, L.R., Chou, L.-S. & van Donkelaar, P. (2006). Cancelling planned actions following mild traumatic brain injury. Neuropsychologia, 45(2):406-411.

5. McIntire, A., Langan, J., Halterman, C., **Drew, A.S.**, Osternig, L.R., Chou, L.-S. & van Donkelaar, P. (2006). The influence of mild traumatic brain injury on the temporal distribution of attention. Experimental Brain Research, 174(2):361-366.

6. Halterman, C., Langan, J., **Drew, A.S.**, Rodriguez, E., Osternig, L.R., Chou, L.-S., & van Donkelaar, P. (2005). Tracking the recovery of visuospatial attention deficits in mild traumatic brain injury. Brain, 129(Pt 3):747-753.

7. van Donkelaar, P., Langan, J., Rodriguez, E., **Drew, A.S.**, Halterman, C., Osternig, L.R., & Chou, L.-S. (2005). Attentional deficits in concussion. Brain Injury, 19(12), 1031-1039.

8. van Donkelaar, P., Lee, J.-H., & **Drew, A.S.** (2002). Eye-hand interactions differ in the premotor

and parietal cortices. Human Movement Science, 21(3), 377-386.

9. van Donkelaar, P. Lee, J.-H., & **Drew, A.S.** (2000). Transcranial magnetic stimulation disrupts eye-hand interactions in the posterior parietal cortex. Journal of Neurophysiology, 84(3), 1677-1680.

Book Chapters:

1. van Donkelaar, P., & **Drew, A.S.** (2002). The allocation of attention during smooth pursuit eye movements. Progress in Brain Research. Jukka Hyönä, Doug Munoz, Wolfgang Heide, & Ralph Radach (Eds), 140: 267-277.

2. van Donkelaar, P., Lee, J.-H., & **Drew, A.S.** (2002). Cortical frames of reference for eye-hand coordination. Progress in Brain Research. Jukka Hyönä, Doug Munoz, Wolfgang Heide, & Ralph Radach (Eds), 140: 301-310.

CONFERENCE PRESENTATIONS

1. "Transcranial magnetic stimulation of the human frontal eye fields: Effects on smooth pursuit initiation." November 2004, Society for Neuroscience, New Orleans, Louisiana.

2. "Covert orienting of attention produces smooth pursuit eye movement latency asymmetries." July 2003, International Brain Research Organization. Prague, Czech Republic.

3. "Infusion of cholinergic and noradrenergic agents into rat posterior parietal cortex modifies orienting and alerting components of covert visual attention, respectively." November 2002, Society for Neuroscience, Orlando, Florida.

4. "The allocation of attention changes with increases in smooth pursuit velocity." October 2002 Cognitive Neuroscience Society, San Francisco, California.

5. "The allocation of attention changes with increases in smooth pursuit velocity." November 2001, Society for Neuroscience, San Diego, California.

6. "Allocation of attention during smooth pursuit eye movements" July 2001, Cognitive Science Association for Interdisciplinary Learning, Hood River, Oregon.