

Curriculum Vitae of Hugo Bruggeman, Ph.D.

I. Personal Information

Department of Cognitive and Linguistic Sciences
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II. Education

- 2004** Doctor of Philosophy (Ph.D.)
Department of Psychology, University of Minnesota, USA.
Advisor & mentor: Dr. Herbert L. Pick Jr.
- 1996** Doctoraal (B.Sc.)
Human Movement Sciences, Vrije Universiteit, Amsterdam, the Netherlands.

III. Academic Positions

- 2004–today** Post Doctoral Fellow, Perception Action Laboratory, Brown University, USA. Supervisor: Dr. William H. Warren, Jr.
- 2001–2004** Research Assistant, Spatially Coordinated Behavior Laboratory, University of Minnesota, USA. Supervisor: Dr. Herbert L. Pick, Jr.
- 1999–2002** Research Assistant, Human Sensorimotor Control Laboratory, University of Minnesota, USA. Supervisor: Dr. Jürgen Konczak.
- 1996–1997** Visiting Scholar, Minnesota Laboratory for Low Vision Research, University of Minnesota, USA. Supervisor: Dr. Gordon E. Legge.

IV. Publications, Manuscripts & Papers

a) Peer Reviewed Publications

Bruggeman, H., Zosh, W.D., and Warren, W.H. (2007). Optic flow drives human visuo-locomotor adaptation. *Current Biology*, 17(23), 2035–2040.

Bruggeman, H., Yonas, A., & Konczak, J. (2007). The processing of linear perspective and binocular information for action and perception. *Neuropsychologia*, 45(7), 1420–1426.

Bruggeman, H., Pick Jr., H.L., & Rieser, J.J. (2005). Learning to throw on a rotating carousel: Recalibration based on limb dynamics and projectile kinematics. *Experimental Brain Research*, 163(2), 188–197.

Bruggeman, H., Legge, G.E. (2002). Psychophysics of reading XIX. Hypertext search and retrieval with low vision. *Proceedings of the IEEE*, 90, 94–103.

Bruggeman, H., & den Brinker, B.P.L.M. (1998). The effect of window width and window height on

reading connected text with a CCTV magnifier. *Proceedings VISION'96, International Conference on Low Vision*, 1, 282–296.

den Brinker, B.P.L.M., & Bruggeman, H. (1996). Visual requirements for reading: The importance of a large field of view in reading with a magnifier. *Journal for Videology*, 1, 27–38.

b) Book Chapters

Bruggeman, H., & Warren, W.H. (2005). Integrating target interception and obstacle avoidance. In H.Heft & K.L. Marsh (Eds.), *Studies in Perception and Action VIII* (pp. 65–68). New Jersey: Lawrence Erlbaum

c) Submitted Manuscripts

Bruggeman, H., Pick Jr., H.L. & Rieser, J.J. Biomechanical Capture in Rotational Locomotion without Vision. *Journal of Experimental Psychology: Human Perception and Performance*, resubmitted.

d) Manuscripts in Preparation

Bruggeman, H., Pick Jr., H.L., & Rieser, J.J. (in preparation) Directional recalibration in underhanded throws generalizes to other acts of throwing but not to pointing and walking, *Experimental Brain Research*.

Cohen, J.A., Bruggeman, H., & Warren, W.H. (in preparation) Behavioral dynamics of avoiding a moving obstacle, *Journal of Experimental Psychology: Human Perception and Performance*.

Bruggeman, H., Cohen, J.A., & Warren, W.H. (in preparation) Predicting locomotor paths through novel complex environments, *Journal of Experimental Psychology: Human Perception and Performance*.

e) Invited Presentations

Rieser, J.J., Pick, H.L., Bruggeman, H. & Riecke, B. (2008, 17–18 April) *Information to Perceive Locomotion in Physical and Virtual Environments*. Workshop cyberwalk, Max-Planck-Institut für biologische Kybernetik, Tübingen, Germany.

Bruggeman, H. (2008, April 10). *Optic flow: a step in the right direction*. Host: Zsuzsa Kaldy, Department of Psychology, UMass Boston, Massachusetts, USA.

Bruggeman, H. (2007, January 23). *Visual control of locomotion; learning to walk with a displacement in optic flow*. Host: Karen Adolph, Department of Psychology, NYU, New York, USA.

Bruggeman, H. (2005, July 9). *Learning to throw on a rotating carousel*. Talk at symposium: Perceptual learning and the control of action, ICPA, Monterey, California, USA.

Bruggeman, H. (2005, 25 March). *Intercepting a moving target in the presence of an obstacle*. Host: Claire Michaels, Department of Psychology, University of Connecticut, USA.

Bruggeman, H. (2003, 9 June). *Learning to throw on a rotating carousel; Towards a theory of Action Systems*. Host: Alan Wing, Sensory Motor Neuroscience, University of Birmingham, United Kingdom.

Bruggeman, H. (2003, 3 June). *Throwing on a rotating carousel; Towards a theory of Action Systems*. Host: Harold Nefs, Department Physics of Man, Helmholtz Institute, Utrecht, the

Netherlands.

Bruggeman, H. (2003, 27 May). *Investigating hurling movements; Towards a theory of Action Systems*. Hosts: Eli Brenner & Jeroen Smeets, Department of Neuroscience, Rotterdam, the Netherlands.

Bruggeman, H. (2001, 9 May). *Directional Recalibration in throwing*. Keynote speaker at the annual retreat of the Center for Cognitive Sciences, University of Minnesota, Minneapolis, Minnesota, USA.

f) Presentations at Meetings

Bruggeman, H., & Warren, W.H. (2008, May 19–14). *Optic flow recalibrates the direction of walking but not throwing*. VSS, Sarasota, Florida, USA.

Warren, W.H., Bruggeman, H., & Zosh, W. (2007, May 11–16). *Optic flow serves as a teaching signal for visual-locomotor adaptation*. VSS, Sarasota, Florida, USA.

Bruggeman, H., Rothman, D., & Warren, W.H. (2006, May 5–10). *Is obstacle avoidance controlled by perceived distance or time-to-contact?* VSS, Sarasota, Florida, USA.

Cohen, J.A., Bruggeman, H., & Warren, W.H. (2006, May 5–10). *Combining moving targets and moving obstacles in a locomotion model*. VSS, Sarasota, Florida, USA.

Bruggeman, H., & Warren, W.H. (2005, July 5–10). *Integrating target interception and obstacle avoidance*. ICPA, Monterey, California, USA.

Cohen, J.A., Bruggeman, H., & Warren, W.H. (2005, May 6–11). *Switching behavior in moving obstacle avoidance*. VSS, Sarasota, Florida, USA.

Bruggeman, H., & Warren, W.H. (2005, May 6–11). *Integrating target interception and obstacle avoidance*. VSS, Sarasota, Florida, USA.

Bruggeman, H., Rieser, J.J., & Pick, H.L. Jr. (2004, 30 April–5 May). *An action system analysis of visuomotor learning*. VSS, Sarasota, Florida, USA.

Bruggeman, H., Eid, C.E., Rieser, J.J., & Pick, H.L. Jr. (2003, 22–24 May). *Perturbing throwing movements; Multiple processes of adaptation*. EWOMS, Münster, Germany.

Bruggeman, H., Eid, C.E., Rieser, J.J., & Pick, H.L. Jr. (2003, 9–14 May). *Alteration of the direction of throwing; Multiple processes of adaptation*. VSS, Sarasota, Florida, USA.

Yonas, A., Bruggeman, H., & Konczak, J. (2002, 10–15 May). *The role of binocular information in the control of perception and action*. VSS, Sarasota, Florida, USA.

Bruggeman, H., Pick, H.L. Jr., & Rieser, J.J. (2001, 24–29 June). *Directional recalibration in throwing*. ICPA, Storrs, Connecticut, USA.

Bruggeman, H., Pick, H.L. Jr. Rieser, J.J. , & Wagner, D.G. (2000, 16–19 November). *Directional recalibration in locomotion and throwing*. Psychonomics, New Orleans, Louisiana, USA.

Bruggeman, H., Guidice, N., Stankiewicz, B.J., Legge, G.E. (2000, 30 April–May 5). *Distal target localization by the blind*. ARVO2000, Fort Lauderdale, Florida, USA.

Bruggeman, H., & Legge, G.E. (1999, 12–16 July). *Searching hypertext with low vision*. VISION'99,

International Conference on Low Vision, New York, New York, USA.

Bruggeman, H., & Littman, B. (1998, 13–17 September). *Getting to know your users: The need for usability testing of web-based applications*. WebdevShare, Indiana University, Bloomington, Indiana, USA.

Bruggeman, H., & Legge, G.E. (1997, 2–4 October). *Searching for information in hypertext with simulated low vision*. Minnesota Conference on Vision for Reach and Grasp. Minneapolis, Minnesota, USA.

den Brinker, B.P.L.M., & Bruggeman, H. (1995, 15 September). *The effect of window height and window width on reading with a CCTV magnifier*. Workshop Videology, Visio, Hilversum, the Netherlands.

den Brinker, B.P.L.M., & Bruggeman, H. (1994, 19–20 May). *Motor aspects of the use of reading aid by people with low vision*. NWO-conference, Maastricht, the Netherlands.

g) Presentations at Universities

Bruggeman, H. (2006, 4 December). *Motor Control and Psychology: Engaged NOT to be married?* Department of Cognitive & Linguistic Sciences, Brown University, Providence, RI, USA.

Bruggeman, H. (2004, 8 November). *Learning to throw on a rotating carousel*. Department of Cognitive & Linguistic Sciences, Brown University, Providence, RI, USA.

Bruggeman, H. (2004, 13 May). *Learning to throw on a rotating carousel*. Public presentation Ph.D. defense, Center for Cognitive Sciences, Minneapolis, USA.

Bruggeman, H. (2003, 11 June). *Learning to throw on a rotating carousel; Towards a theory of Action Systems*. Host: Harold Beckering, NICI, Nijmegen, the Netherlands.

Bruggeman, H. (2003, 10 June). *Throwing on a rotating carousel; Towards a theory of Action Systems*. Hosts: Geert Savelsberg & Rob Withagen, Free University, Amsterdam, the Netherlands.

Bruggeman, H. (2002, 24 October). *Why rotating people on a carousel makes my head spin!* Center for Cognitive Sciences, University of Minnesota, USA.

Bruggeman, H. (2001, 22 October). *Effect of mono- and binocular vision on pointing movements to a trapezoidal display: Evidence for an interaction of dorsal and ventral stream visual processing?* Vision Sciences, University of Minnesota, USA.

Bruggeman, H. (2001, 9 January). *Directional recalibration in throwing*. Hosts: Claire Michaels & Rob Withagen, Free University, Amsterdam, the Netherlands.

V. Teaching & Mentoring

a) Teaching Assistant

2001 Introduction to Research Methods and Statistics, Instructor: Bryan Dik, Department of Psychology, University of Minnesota, USA.

2000 Introduction to Cognitive Science, Instructor: Brian Sundermeier, Department of Psychology, University of Minnesota, USA.

2000 Introduction to Biomechanics, Instructor: Dr. Jürgen Konczak, School of Kinesiology, University of Minnesota, USA.

b) Guest Lectures

2007 Perception, Instructor: Dr. Fulvio Domini, Department of Cognitive and Linguistic Sciences, Brown University, USA.

2002 Perceptual Development, Instructor: Dr. Herbert L. Pick, Jr., Institute of Child Development, University of Minnesota, USA.

1998 Motor Control Learning and Development, Instructor: Dr. Peter Hancock, School of Kinesiology, University of Minnesota, USA.

c) Student Mentoring

2005–today Graduate Student: Jeffrey J. Hutchison. Project: *Metabolic cost as a control parameter in the formation of locomotor behavior*. Department of Cognitive and Linguistics Sciences, Brown University.

2004–today Graduate Student: Jon Cohen. Project: *Behavioral dynamics of avoiding a moving obstacle*. Department of Cognitive and Linguistics Sciences, Brown University.

2002–2004 Undergraduate Student: Vadzim Piuneu. Project: *Circular treadmill stepping captures perception of self-locomotion*. Department of Psychology, University of Minnesota.

2002–2003 Undergraduate Student: Christine Eid. Project: *Alteration of the direction of throwing*. Department of Psychology, University of Minnesota.

2002–2003 Undergraduate Student: Charles Lambert. Project: *The preferred speed for stepping on a circular treadmill*. Department of Psychology, University of Minnesota.

2002 Undergraduate Student: Angela Pawlak. Project: *Distance perception in wheelchair locomotion*. Research Experience for Undergraduates in the Behavior and Cognitive Sciences, University of Minnesota.

2001 Undergraduate Student: Amy Diesch. Project: *Stability of the perceptual recalibration of turning*. Department of Psychology, University of Minnesota.

VI. Service

a) University Service

2001–2002 Elected Student Representative of the Governing Council of the Center for Cognitive Sciences, University of Minnesota, USA.

1998–2002 Member and Chair, External Colloquium Committee, Center for Cognitive Sciences, University of Minnesota, USA.

2000 Member, Committee Welcome Weekend, Department of Psychology, University of Minnesota, USA.

1999 Member, Millennium Project, Center for Cognitive Sciences, University of Minnesota, USA.

b) Professional Service

- 2008 Ad hoc reviewer Developmental Science
- 2007 Ad hoc reviewer National Science Foundation (NSF)
- 2006 Ad hoc reviewer Brain Research
- 2006 Ad hoc reviewer Transactions on Applied Perception
- 2001 Ad hoc reviewer Proceedings of the IEEE

VII. Memberships

- 2003–today Vision Sciences Society
- 1999–today International Society for Ecological Psychology

VIII. Other Professional Experience

- 1998–1999 Usability tester. User Centered Design Team, Web Development, University of Minnesota, USA. Main projects: UMN, UMN One Stop, and ISEEK

IX. Awards

- 2002 *J.J. Jenkins Award*; Award for outstanding Center participation, Center for Cognitive Sciences, University of Minnesota, USA.
- 2001 *The Turtle Award*; Keynote speaker at the annual spring retreat of the Center for Cognitive Sciences, University of Minnesota, USA.
- 2000 *Eva O. Miller Fellowship*; Fellowship for the duration of one academic year in recognition of an outstanding graduate student research program, Graduate School, University of Minnesota, USA.
- 1996 *VSB-beurs*; Research Scholarship to study abroad for the duration of one year, VSB Foundation, the Netherlands.

X. Research Funding Awards

Equipment Awards

- 2002 Minigrant for equipment, Center for Cognitive Sciences, University of Minnesota, USA.
- 2000 Minigrant for equipment, Center for Cognitive Sciences, University of Minnesota, USA.

Travel Awards

- 2003 Gough Award to present poster at EWOMS 2003 (Münster, Germany), Department of Psychology, University of Minnesota, USA.
- 2003 Award to present poster at VSS 2003 (Sarasota, Florida), Center for Cognitive Sciences, University of Minnesota, USA.
- 2001 Gough Award to present poster at ICPA 2001 (Storrs, Connecticut), Department of Psychology, University of Minnesota, USA.
- 2000 Award to present poster at Psychonomics 2000 (New Orleans, Louisiana), Center for

Cognitive Sciences, University of Minnesota, USA.

2000 Gough Award to present poster at ARVO 2000 (Fort Lauderdale, Florida), Department of Psychology, University of Minnesota, USA.

1999 Gough Award to present poster at VISION 1999 (New York, New York), Department of Psychology, University of Minnesota, USA.
