

## CV

C. Shawn Green

Current Position:  
Assistant Professor  
Department of Psychology  
University of Wisconsin-Madison

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### EDUCATION

Ph.D. in Brain and Cognitive Sciences, 2008  
University of Rochester: Rochester, NY  
M.A. in Brain and Cognitive Sciences, 2005  
University of Rochester: Rochester, NY  
B.A. in Brain and Cognitive Sciences, 2001  
University of Rochester: Rochester, NY  
A.S. in Math/Science Studies, 1998  
Genesee Community College: Batavia, NY

### RESEARCH EXPERIENCE

2011-Present	Assistant Professor, University of Wisconsin-Madison
2011	Research Associate, University of Minnesota
2008-2011	Post-Doctoral Associate <i>Laboratory of Daniel Kersten, University of Minnesota</i>
2003 – 2008	Graduate Student <i>Laboratory of Daphne Bavelier, University of Rochester</i>
2001 – 2003	Research Assistant <i>Laboratory of Daphne Bavelier, University of Rochester</i>
1999 – 2001	Student Research Assistant <i>Laboratory of Daphne Bavelier, University of Rochester</i>

## **AFFILIATE MEMBERSHIP**

Games Learning Society, University of Wisconsin  
Eye Research Institute, University of Wisconsin

## **TEACHING EXPERIENCE**

University of Wisconsin

2013 Instructor PSY 711: Learning and Transfer  
2013 Instructor PSY 211: Vision – From Biology to Culture  
2012 Instructor PSY 411: The Psychology of Technology  
2012 Instructor PSY 386: Topics in Psychology for Honors  
2011 Instructor PSY 411: The Psychology of Technology

University of Minnesota

2010 Co-instructor  
PSY 8036 Adaptation: Theory, Behavior and Neural Systems  
2009 Co-instructor  
PSY 8036 Causal models, learning & video games

## **PROFESSIONAL ORGANIZATIONS**

Cognitive Neuroscience Society  
Vision Sciences Society

## **AD HOC REVIEWER FOR:**

Acta Psychologica; Aging, Neuropsychology, and Cognition; Applied Cognitive Psychology; Attention, Perception, and Psychophysics; Canadian Journal of Behavioural Science; Canadian Journal of Experimental Psychology; Cognition; Cognitive Brain Research; Communication Research, Computers in Human Behavior; Consciousness and Cognition; Current Biology; Cyberpsychology and Behavior; Developmental Psychology; Developmental Review; Experimental Brain Research; Experimental Psychology; Frontiers in Cognition; Games for Health Journal; Human Factors; International Journal of Human-Computer Studies; International Journal of Comparative Psychology; Journal of Applied Cognitive Psychology; Journal of Clinical and Experimental Neuropsychology; Journal of Cognitive Neuroscience; Journal of Cognitive Psychology; Journal of Experimental Psychology: Applied; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Social Psychology; Journal of Neuroscience; Journal of Vision; Memory and Cognition; Nature; Nature Neuroscience; Pediatrics; Perception and Psychophysics; PLoS Computational Biology; PLoS One, Psychological Bulletin; Psychonomic Bulletin and Review; Psychological Research; Psychological Science; Quarterly Journal of Experimental Psychology; Topics in Cognitive Sciences; Vision Research

**GRANTS:**

2013 – NSF; Directorate for Social, Behavioral, and Economic Sciences  
2013 – Agence Nationale de la Recherche (France); Human development and cognition  
2013 – University of Leuven (Belgium) Research Council  
2012 – NSF; Directorate for Computer & Information Science & Engineering

**EXPERT TESTIMONY:**

American Amusements Co. & Greater America Distributing, Inc v. Nebraska Department of Revenue

**PUBLICATIONS**

**Articles**

Bavelier D., Green C.S., Seidenberg M.S. (2013) Cognitive development: gaming your way out of dyslexia? *Current Biology*, 23, R282-3.

Bavelier, D., Green, C.S., Pouget, A., & Schrater, P. (2012). Brain plasticity through the life span: learning to learn and action video games. *Annual Review of Neuroscience*, 35, 391-416.

Green, C.S. & Bavelier, D. (2012). Learning, attentional control, and action video games. *Current Biology*, 22, R197-R206.

Green, C.S., Sugarman, M.A., Medford, K., Klobusicky, E., & Bavelier, D. (2012). The effect of action video game experience on task-switching. *Computers in Human Behavior*, 28, 984-994.

Bavelier, D., Green, C.S., Han, D.H., Renshaw, P.F., Merzenich, M.M. & Gentile, D.A. (2011). Brains on video games. *Nature Reviews Neuroscience*, 12, 763-768.

Bavelier, D. & Green, C.S. (2011). Neuroscience: Browsing and the brain. *Nature*, 470, 37-38.

Hubert-Wallander, B., Green, C.S., & Bavelier, D. (2011). Stretching the limits of visual attention: The case of action video game players. *WIREs Cognitive Science*, 2, 222-230.

Hubert-Wallander, B., Green, C.S., Sugarman, M. & Bavelier, D. (2011). Changes in search rate but not in the dynamics of exogenous attention in action videogame players. *Attention, Perception, and Psychophysics*.

73, 2399-412

- Green, C.S., Benson, C., Kersten, D. & Schrater, P. (2010). Alterations in choice behavior by manipulations of world-model. *PNAS*, 107, 16401-16406.
- Green, C.S., Pouget, A., & Bavelier, D. (2010). Improved probabilistic inference as a general mechanism for learning with action video games. *Current Biology*, 23, 1573-1579.
- Bavelier, D., Green, C.S. & Dye, Matthew, W. G. Dye. (2010). Children, wired – for better and for worse. *Neuron*. 67, 692-701.
- Green, C.S., Li, R., & Bavelier, D. (2010). Perceptual learning during action video game playing. *Topics in Cognitive Science*, 2, 202-216.
- Dye, M.W.G., Green, C.S., & Bavelier, D. (2009). Increasing speed of processing with action video games. *Current Directions in Psychological Science*, 18, 321-326.
- Dye, M.W.G., Green, C.S., & Bavelier, D. (2009). The development of attention skills in action video game players. *Neuropsychologia*, 47, 1780-1789.
- Green, C.S. & Bavelier, D. (2008). Exercising your brain: A review of human brain plasticity and training-induced learning. *Psychology and Aging*, 23(4), 692-701.
- Achtman, R., Green, C.S., & Bavelier, D. (2008). Video games, visual system damage, and plasticity. *Restorative Neurology and Neuroscience*, 26, 435-446.
- Hauser, P.C., Dye, M.W.G., Boutla, M., Green, C.S., & Bavelier, D. (2007). Deafness and visual enumeration: Not all aspects of attention are modified by deafness. *Brain Research*, 1153, 178-187.
- Green, C.S. & Bavelier, D. (2007). Action video game experience alters the spatial resolution of attention. *Psychological Science*, 18(1), 88-94.
- Green, C.S. & Bavelier, D. (2006). Effect of action video games on the spatial distribution of visuospatial attention. *JEP:HPP*, 32(6), 1465-1478.
- Green, C.S. & Bavelier, D. (2006). Enumeration versus multiple object tracking: the case of action video game players. *Cognition*, 101(1), 217-245.
- Green, C.S. & Bavelier, D. (2003). Action video game modifies visual selective attention. *Nature*, 423, 534 –538.

## **Book Chapters**

- Bavelier, D., Green, C.S., & Dye, M.W.G. (2009). Exercising your brain: Training-related brain plasticity in *The Cognitive Neurosciences, 4<sup>th</sup> Edition*. Gazzagina, M. (ed).
- Bavelier, D. & Green, C.S. (2009). "Video Games" in *SAGE Encyclopedia of Perception*. Goldstein, E.B. (ed).
- Green, C.S. & Bavelier, D. (2006). "The Cognitive Neuroscience of Video Games" in *Digital Media: Transformations in Human Communication*. Messaris, P. & Humphreys, L. (eds). New York, Peter Lang.
- Cohen, J.E., Green, C.S., & Bavelier, D. (2008). "Training visual attention with video games: Not all games are created equal" in: *Computer Games and Team and Individual Learning*. O'Neil, H.F. & Perez, R.S. (eds). Amsterdam, Elsevier.

## **Conference Presentations**

- Fulvio, J.M., Green, C.S., & Schrater, P. (2013). Specificity in perceptual learning: Blame the paradigm. *VSS*, Naples, FL.
- Zhang, R., Bejjanki, V.R., Lu, Z., Green, C.S., & Bavelier, D. (2013). Speeding up learning: Action video games and perceptual learning. *VSS*, Naples, FL.
- Bejjanki, V.R., Sims, C.R., Green, C.S., & Bavelier, D. (2012). Evidence for action video-game induced "learning to learn" in a perceptual decision making task. *VSS*, Naples, FL.
- Zhang, R., Bejjanki, V.R., Lu, Z., Green, C.S., & Bavelier, D. (2012). Action video game playing improves learning to learn in perceptual learning. *VSS*, Naples, FL.
- Fulvio, J.M., Green, C.S., & Schrater, P. (2012). Control allows confidence learning, *CoSyNe*, Salt Lake City, UT.
- Green, C.S., Fulvio, J.M., Siegel, M., Kersten, D., & Schrater, P. (2011). Action selection requires predicting future uncertainty. *VSS*, Naples, FL.
- Fulvio, J.M., Green, C.S., & Schrater, P. (2011). Optimality predicts transition to specificity in perceptual learning. *VSS*, Naples, FL.
- Medford, K., Sugarman, M., Green, C.S., Klobusicky, L., & Bavelier, D. (2011). Reducing task switch cost with action video games. *VSS*, Naples, FL.

- Green, C.S., Kersten, D., & Schrater, P. (2011). Model-based decision making in human observers. *CoSyNe*, Salt Lake City, UT.
- Fulvio, J.M., Green, C.S., & Schrater, P. (2011). Control limits model learning. *CoSyNe*, Salt Lake City, UT.
- Green, C.S., Kersten, D., & Schrater, P. (2010). Transfer in perceptual learning as extrapolation. *VSS*, Naples, FL.
- Fulvio, J.M., Green, C.S., & Schrater, P. (2010). Promoting generalization by hindering policy learning. *VSS*, Naples, FL.
- Anderson, A.F., Green, C.S., & Bavelier, D. (2010). Speed-accuracy tradeoffs in cognitive tasks in action game players. *VSS*, Naples, FL.
- Hubert-Wallander, B., Green, C.S., Sugarman, M., & Bavelier, D. (2010). Altering the rate of visual search through experience: The case of action video game players. *VSS*, Naples, FL.
- Acuna, D., Green, C.S., & Schrater, P. (2010). The rational control of aspiration in learning. *CoSyNe*, St. Lake City, UT.
- Green, C.S., Zhang, P., Daw, N.D., Kersten, D., He, S., & Schrater, P. (2010). Activity in the ventral striatum consistent with model-based, rather than model-free prediction errors. *CoSyNe*, St. Lake City, UT.
- Acuna, D., Green, C.S., Schrater, P. (2010). Decision-making in unbounded environments using nonparametric Bayesian Reinforcement Learning', *NIPS 2010 Workshop on Bounded-rational analyses of human cognition: Bayesian models, approximate inference, and the brain*, Vancouver, B.C. Canada.
- Green, C.S., Benson, C., Kersten, D., & Schrater, P. (May 2009). Promoting Optimal Decision Making By Reducing Unexplained Variability in Outcome. *VSS*, Naples, FL.
- Benson, C., Green, C.S., Kersten, D., & Schrater, P. (May 2009). The effect of reward structure on sequential decision-making. *VSS*, Naples, FL.
- Schrater, P., Green, C.S., Benson, C., & Kersten, D. (Feb 2009). Causal model attribution in sequential decision-making. *CoSyNe*, St. Lake City, UT.
- Dye, M. & Green, C.S. (August 2007). Brain plasticity and multiple object tracking. *British Psychological Society Cognitive Section Conference*, Aberdeen, Scotland.
- Green, C.S., Pouget, A., & Bavelier, D. (May 2007). Action video game

- playing improves Bayesian inference for perceptual decision-making. *VSS*, Sarasota, FL.
- Green, C.S. & Bavelier, D. (May 2006). Ability to task-switch in action video game players. *VSS*, Sarasota, FL.
- Green, C.S. & Bavelier, D. (May 2005). Effects of video game playing on visual processing across space. *VSS*, Sarasota, FL.
- Cohen, J., Green, C.S., & Bavelier, D. (April 2005). Training visual attention with video games: Are all games created equal? *CNS*, New York, NY.
- Green, C.S. & Bavelier, D. (October 2004). The effect of action video game playing on the Useful Field of View. *CVS Fall Vision Meeting*, Rochester, NY.
- Bavelier, D. & Green, C.S. (October 2004). Effects of video game playing on visual functions. *CVS Fall Vision Meeting*, Rochester, NY.
- Green, C.S. & Bavelier, D. (May 2004). Does action video game play really enhance the number of items that can be simultaneously attended? *VSS*, Sarasota, FL.
- Bavelier, D. & C.S. Green (May, 2003). When video game playing expands your mind's eye. *VSS*, Sarasota, FL.
- Ginchereau, F., Green, C.S., Cohen, J., Merigan, W., & Bavelier, D. (March 2003). Does video game playing improve visual performance by altering visual attention or sensory thresholds? *Cognitive Neuroscience Society*, New York, NY.
- Green, C.S. & Bavelier, D. (April 2002). Video Game Playing: Rot your brain or expand your mind? *Cognitive Neuroscience Society*, San Francisco, CA.

### **Invited Conference/Meeting Presentations**

- Green, C.S. (2013). Action video games and learning to learn. American Psychological Association Annual Conference. Honolulu, HI.
- Green, C.S. (2013). Games for Learning to Learn. Entertainment Software and Cognitive Neurotherapeutics Annual Conference. University of Southern California, Los Angeles, CA.
- Green, C.S. (2013). Neuroscience of games and designing games for learning about learning to learn. Games Learning Society Annual Conference. University of Wisconsin, Madison, WI.

- Green, C.S. (2012). Inter-individual differences in video game play and player types. Conference on Enhancing Well-being and Attentional Control through Games and Interactive Media: A Neuroscientific Approach, White House, Washington, DC.
- Green, C.S. (2012). Action video games and learning to learn. New Directions in Brain Training: Effectiveness, methodology, and application of cognitive interventions. Humboldt University, Berlin, Germany.
- Green, C.S. (2012). Video games, learning to learn, and brain plasticity. International Society for Neurofeedback and Research. Orlando, FL.
- Green, C.S. (2012). Video games as training environments. Telemedicine and Advanced Technology Research Center/Office of Naval Research Workshop: The development of a roadmap for use of games and simulation during medical education and training, UCLA, Los Angeles, California.
- Green, C.S. (2012). Video games as exceptional learning tools. National Alliance of Community and Technical Colleges Conference, Minneapolis, MN.
- Green, C.S. (2012). Video games, transfer, and learning to learn. SharpBrains Virtual Summit.
- Green, C.S. (2012). Depression, neural plasticity, and video games. Innovative Therapeutics for Depression Symposium, Johnson & Johnson, Philadelphia, PA.
- Green, C.S. (2011). Transfer and Learning with Action Video Game Play. First International Workshop on Cognitive and Working Memory Training, University of Maryland, Center for the Advanced Study of Language, College Park, MD.
- Green, C.S. (2011). Transfer and Learning to Learn in Perceptual Learning. Asia-Pacific Conference on Vision, Hong Kong University, Hong Kong.
- Green, C.S. (2010). What is learned when playing action video games? Academic Lessons from Video Game Learning Conference, Fordham University, New York, NY.
- Green, C.S. (2010). Learning, video games, and brain plasticity. International Conference on Teaching and Learning. Jacksonville, FL.
- Green, C.S. (2010). Complex learning and skill transfer with video games. International Conference on Teaching and Learning, Jacksonville, FL.



Green, C.S. & Bavelier, D. (December 2004). Playing video games enhances visual attention. *Power Users of Technology Summit*, United Nations, NYC, NY.

**Invited Talks**

(2013). Illinois State University. Brains raised on video games.

(2013). University of Geneva (Switzerland). Transfer and Learning to Learn in Perceptual Learning

(2011). Leiden University. Video games as a tool to broadly train perceptual skills.

(2009). Iowa State University. Improving perceptual decision making with action video game play.