

L. James Smart Jr. (Jay)

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Education

Ph.D.: Experimental Psychology (Human Factors), University of Cincinnati, June 2000.

M.S.: Experimental Psychology, University of Louisiana at Monroe, May 1995.

B.S.: Psychology, Trinity College, May 1992. *Minor:* Cognitive Science.

Professional Positions

Associate Professor of Psychology, Miami University (July 2013 – present)

Assistant Professor of Psychology, Miami University (Aug., 1998 – June 2013; tenured 2004)

Teaching Philosophy

I believe that teaching is composed of four functions: providing information, knowledge, and guidance about the topic being taught, honing students' ability to evaluate this knowledge and seek further knowledge, illuminating the relevance of the course material for everyday life, and encouraging students to seek opportunities for further work in the field through research and mentoring. With these functions in mind, my approach to the classroom setting has been to set the course content in the context of questions to be answered or problems to be solved by the class with my help. My goal is to empower students by not just giving them the "answer" but helping to develop the skills that would allow them to find or generate "answers" on their own.

Courses taught: Perception, Action, & Cognition; Research Methods and Design (undergraduate and graduate); Human Factors & Ergonomics; Psychology of Virtual Environments & Gaming; Psychology of Design; Creativity, Innovation, & Design Thinking

Research Summary

The concept of perception-action coupling is at the heart of much of the research inspired by James Gibson's Ecological approach to psychology. Inherent in this idea is that the information obtained by the perceptual systems can be used to guide subsequent actions, particularly in a manner that allows for the completion or reaching of some future state or goal. What happens when the perceptual information obtained does not support action or actions that the organism is familiar with? *My research involves examining the consequences of disrupting the perception-action cycle on participants' ability to successfully regulate their behavior. In particular, I am interested in how functional relationships between perception and action are regained (adaptation) and the cost of not being able to do so (motion sickness). My research bridges interests in motor control, perception, and Human Factors.*

Dissertations Chaired: Smith, D. L. (2004), Oates, S. P. (2005), Otten, E. W. (2008), Strang, A. J. (2010), Littman, E. M. (2011), Cook, H. E. (2015), Gong, M. (2018), Hassebrock, J. (2019), Teaford (2021), Drew (current)

Professional Service

Associate Editor, Cognitive Science (Jan 2021 – present)

Guest Associate Editor, Frontiers in Emotion Science (Mar 2018 – Mar 2020)

Review Editor: Frontiers in Movement Science & Sport Psychology (Mar 2016 – present)

Ad hoc reviewer for: JEP:HPP; JEP:LMC, Motor Control, Ecological Psychology, Ergonomics, Cognition, Displays, International Journal of Applied Aviation Studies (IJAAS), Journal of Motor Behavior, Frontiers in Movement Science and Sport Psychology, Frontiers in Robotics and AI, Frontiers in Human Neuroscience, PLoS ONE, Human Movement Science, Attention, Perception, & Psychophysics, Behavioral Research Methods, Experimental Brain Research, Perception, Frontiers in Psychology: Perception Science, Experimental Psychology, Frontiers in Robotics and AI, Frontiers in Psychology: Cognitive Science, Frontiers in Emotion Science, Scientific Reports, Virtual Environments, Neuroscience Letters

Twenty-first International Conference on Perception and Action Scientific Committee member (2020-21)

6th Midwestern Cognitive Science Conference Co-organizer (2017)

Nineteenth International Conference on Perception and Action Scientific Committee member (2017)

Cognitive engineering for spatial information processes (CESIP) 2015 program committee member

NSF panelist (PAC, GRF) 2010; 2012; 2014; 2016 Member: NSF College of Reviewers (Perception, Action, & Cognition program)

Textbook reviewer (research methods): John Wiley & Sons; Sage; Nestor

Miami University Service

Director: Smart Postural Control & Coordination Laboratory

Chief Departmental Advisor - Psychology (July 2016 – present)

Steering Committee Member: Psychology (July 2016 – present)

Member: Miami University Institutional Review Board for Human Subjects (chair Jul 2013- Jul 2016)

-Member Psychology Department subcommittee (chair Jun 2009 – Jun 2013)

Summer Orientation Faculty advisor (College of Arts & Science)

Steering Committee Member: Miami Design Collaborative

Member: Miami University Center for Assistive Technology (MUCAT)

Awards & Certifications

2021 Miami University Provost's Excellence in Academic Advising Award

2020 Student Recognition of Teaching Excellence

2019 Howe Faculty Writing Fellow

2018 Distinguished Teaching Award for Excellence in Graduate Instruction and Mentoring

2016 Jahnke -White Faculty Service Award (Department of Psychology)

Miami Center for Teaching Excellence Commendation for student impact (2010 - 2021)

Level A – academic advisor status (2018)

Publications

Gong, M. & **Smart, L. J.** (2021). The anger superiority effect revisited: A visual crowding task. *Cognition and Emotion* 35 (2)214-224, [DOI: 10.1080/02699931.2020.1818552](https://doi.org/10.1080/02699931.2020.1818552) Published online (Sept 2020).

Teaford, M., Fitzpatrick, J. & **Smart, L. J.** (2021). The impact of experimentally induced limb ischemia on the rubber hand illusion. *Perception*, 50(1), 88-96. <http://doi.org/10.1177/0301006620977797> Published online (Dec 2020).

Teaford, M., McMurray, M. S., Billock, V., Filipkowski, M., & **Smart, L. J.** (2021). The somatosensory system in anorexia nervosa: A scoping review. *Journal of Experimental Psychopathology, January-March 2021, 1-19*. <https://doi.org/10.1177/2043808720987346>

Smart, L. J., Hassebrock, J. A., & Teaford, M. A. (2020). Acting is Perceiving: Experiments on perception of motion in the world and movements of the self, an update. Invited chapter; *J. Wagman & J. Blau (eds.) Perception as Information Detection: Reflections on Gibson's Ecological Approach to Visual Perception*. NY: Taylor & Francis.

Teaford, M. A., Cook, H. E., Hassebrock, J. A., Thomas, R. D., & **Smart, L. J.** (2020). Perceptual validation of nonlinear postural predictors of visually induced motion sickness. *Frontiers in Psychology*, 11, 1533.

Cook IV, H. E., Hassebrock, J. A., & **Smart, L. J.** (2018). Responding to Other People's Posture: Visually induced motion sickness from naturally generated optic flow. *Frontiers in Psychology: Movement Science and Sport Psychology*, (9) 1901, *doi: 10.3389/fpsyg.2018.01901*

Gong, M., & **Smart, L.** (2018). Scene gist gets through the bottleneck of visual crowding better than facial expression and orientation. *Journal of Vision*, 18(10), 146-146.

Gong, M., Xuan Y., **Smart, L.J.**, & Olzak, L. A. (2018). The extraction of natural scene gist in visual crowding. *Scientific Reports* (8)14073, *DOI:10.1038/s41598-018-3245*

Muth, E., Keshavarz, B., **Smart Jr, L. J.**, So, R., & Beadle, S. (2018, September). Discussion Panel: Motion Sickness in Virtual Environments. *In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 62, No. 1, pp. 2043-2046)*. Sage CA: Los Angeles, CA: SAGE Publications.

Kinsella, A., Beadle, S., Wilson, M., **Smart Jr, L. J.**, & Muth, E. (2017, September). Measuring User Experience with Postural Sway and Performance in a Head-Mounted Display. *In Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 61, No. 1, pp. 2062-2066)*. Sage CA: Los Angeles, CA: SAGE Publications.

Wolf, R. C., Thurmer, H. P., Berg, W. P., Cook IV, H. E., & **Smart, L. J.** (2017). A Pilot Feasibility Study of the Effect of the Alexander Technique on Muscle Activation, Movement Kinematics and Performance Quality in Collegiate Violinists and Violists. *Medical Problems of Performing Artists* 32 (2), 78 -84.

Hassebrock, J. A., Cook, H. E., & **Smart, L. J.** (2015). Coordinative dynamics: The role of task difficulty during interpersonal coordination. *In J. A. Weast-Knapp, M. Malone, & D. H. Abney (Eds.) Studies in Perception & Action XIII (57- 60)*, New York: Psychology Press.

Mark, L. S., Ye, L., & **Smart, L. J.** (2015). Perceiving the Nesting of Affordances for Complex Goal-Directed Actions. In Robert Hoffman, Peter Hancock, Mark Scerbo, Raja Parasuraman, and James Szalma (eds.), *Cambridge Handbook of Applied Perception Research (vol. 1)*. New York, NY: Cambridge University Press

Smart, L. J., Otten, E. W., Strang, A. J., Littman, E. M., & Cook, H. E. (2014). Influence of complexity and coupling of optic flow on visually induced motion sickness. *Ecological Psychology* 26 (4), 301-324.

Charles, E. P., & **Smart, L. J.** (eds). (2011). *Studies in Perception and Action XVI*. New York: Psychology Press.

Strang, A. J., Haworth, J., Hieronymus, M., Walsh, M., & **Smart, L.J.** (2011). Structural Changes in Postural Sway Lend Insight into Effects of Balance Training, Vision, and Support Surface on Postural Control in a Healthy Population. *European Journal of Applied Physiology*, 111, 1485-1495. DOI 10.1007/s00421-010-1770-6

Littman, E. M., Otten, E. W., & **Smart, L. J.** (2010). Consequence of self versus externally generated visual motion on postural regulation. *Ecological Psychology*, 22(2), 150 – 167.

Littman, E. M., Otten, E. W., & **Smart, L. J.** (2009). Consequence of internally versus externally generated visual motion on postural regulation in a virtual environment. In J. Wagman & C. Pagano (Eds.), *Studies in perception and action X (145-148)*. Philadelphia, PA: Taylor & Francis Group, LLC.

Otten, E. W. & **Smart, L. J.** (2009). The effect of open vs. closed-loop optic flow on visually induced motion sickness. In J. Wagman & C. Pagano (Eds.), *Studies in perception and action X (149-152)*. Philadelphia, PA: Taylor & Francis Group, LLC.

Smart, L.J., Otten, E.W., & Stoffregen, T.A. (2007). It's turtles all the way down: A comparative analysis of visually induced motion sickness. *Proceedings of the 51st Annual Meeting of the Human Factors and Ergonomics Society* 1631-1634.

Smart, L.J., Mobley, B.S., Otten, E.W., Smith, D.L., & Amin, M.R. (2004). Not just standing there: The use of postural coordination to aid visual tasks. *Human Movement Science*, 22(6), 769-780.

Stoffregen, T. A., Bardy, B. G., **Smart, L. J.**, & Pagulayan, R. J. (2003). On the nature and evaluation of fidelity in virtual environments. In L. J. Hettinger & M. W. Haas (Eds.), *Virtual & Adaptive Environments: Applications, Implications, and Human Performance Issues*, 111 - 128.

Smart, L. J., Stoffregen, T. A., & Bardy, B. G. (2002). Visually induced motion sickness predicted by postural instability. *Human Factors*, 44(3), 451-465.

Smart, L. J., & Smith, D. L. (2001). Postural Dynamics: Clinical and Empirical Implications. *Journal of Manipulative and Physiological Therapeutics*, 24 (5), 340-349.

Stoffregen, T. A., Hettinger, L. R., Haas, M. W., Roe, M., & **Smart, L. J.** (2000). Postural instability and motion sickness in a fixed-base flight simulator. *Human Factors*, 42 (3), 458-469.

Smart, L. J., Hettinger, L. J., & Stoffregen, T. A. (1999). A comparison of two forms of visually induced motion sickness. In R. S. Jensen, & J. D. Callister (eds.) *Proceedings of the 10th International Symposium on Aviation Psychology* (2), 889-895.

Stoffregen, T. A., **Smart, L. J.**, Bardy, B. G., & Pagulayan, R. J. (1999). Postural stabilization of looking. *Journal of Experimental Psychology: Human Perception & Performance*, 25 (6), 1641-1658.

Smart, L. J., Pagulayan, R. J., & Stoffregen, T. A. (1998). Self-induced motion sickness in unperturbed stance. *Brain Research Bulletin*, 47(5), 449-457.

Stoffregen, T. A. & **Smart, L. J.** (1998). Postural instability precedes motion sickness. *Brain Research Bulletin*, 47(5), 437-448.

Smart, L. J., & Pagulayan, R. J. (1997). Motion sickness without imposed motion. In M.A. Schmuckler & J. M. Kennedy (Eds.), *Studies in perception and action IV* (pp. 257-260). Hillsdale, NJ: Lawrence Erlbaum Associates.

Stoffregen, T. A., & **Smart, L. J.** (1997). Postural stabilization of visual fixation. In M.A. Schmuckler & J. M. Kennedy (Eds.), *Studies in perception and action IV* (pp. 347-350). Hillsdale, NJ: Lawrence Erlbaum Associates.

Technical Reports

Stoffregen, T. A. & **Smart, L. J.** (1996). Postural instability as an etiological factor in visually-induced motion sickness. Final Report: Naval Air Warfare Center contract #N61339-94-M-1285.

Abstracts

Stoffregen, T. A., Hettinger, L. J., Haas, M. W., Roe, M., & **Smart, L. J.** (1998). Postural instability and motion sickness in a fixed-base flight simulator. Abstract in the Proceedings of the Human Factors and Ergonomics Society 42nd annual meeting.

Data Sets

Teaford, M., Cook IV, H. E., Hassebrock, J. A., Thomas, R.D. & **Smart, L. J.** (Sept. 2019). Perceptual identification of nonlinear postural characteristics using Sort/Merge Methodology: Data set. Scholarly Commons at Miami University, <http://hdl.handle.net/2374.MIA/6538>

Digital Works

Smart, L. J. (2021, Feb 3). Method to the madness: Using human factors principles to guide remote teaching. Blog Post Miamioh.edu. <https://www.miamioh.edu/digital-learning/blog/2021/02/method-to-the-madness-using-human-factors-principles-to-guide-remote-teaching.html>.

Works in Progress

Hall, C. E., Quinn, J. J., & **Smart, L. J.** (in press). Fostering developmentally-informed collaborative writing: Bringing the team (and the instructor) across the threshold. In A. Glotfelter, C. Martin, M. Olejnik, A. Updike, & E. Wardle (eds.), *Changing Conceptions, Changing Practices: Systemic Approaches to Innovating Learning across Disciplines*. Louisville. CO: University Press of Colorado.

Smart, L. J., Drew, A. P., Hadidon, T., Teaford, M. A., & Bachman, E. (revision submitted). Using Nonlinear Kinematic Parameters as a Means of Predicting Motion Sickness in Real-Time in Virtual Environments. *Human Factors*

Smart, L. J., Von Drasek, N. P., & Teaford, M. A., & Littman, E. M. (in prep). Using postural measures to assess behavioral adaptation in a virtual environment.

Teaford, M. A., Berg, W. P., Billock, V., McMurray, M. S., Thomas, R. D., & **Smart, L. J.** (revision submitted). Muscle Activity Prior to Experiencing the Rubber Hand Illusion is Associated with How Vividly One Experiences the Illusion.

Teaford, M. A., Gilliland, J., Hodkey, O., McVeigh, T., Perry, C., Rains-Bury, L., & **Smart, L. J.** (in revision). Preliminary Evaluation of the Moving Rubber Foot Illusion in a Sample of Female University Students.

Funding

Internal

Student Technology Fee award (Miami University)

Submitted: October '18

Title: "Research grade mobile EEG recording device for use in research and teaching"

Investigators: Anthony P. Drew & **Smart, L. J.**

Amount of Award: \$4000

Student Technology Fee award (Miami University)

Submitted: December '13

Title: "Upgrading behavioral data capture technologies for use in Perception, Action, & Cognition teaching and research"

Investigator: **Smart, L. J.**

Amount of Award: \$32,495

Howe Writing Center (Miami University) grant

Submitted: April '11

Title: "Revision of statistics/research methods sequence"

Investigators: Uhler, B., Hall, C., Johnson, J., Abraham, M., Evans, C., & **Smart, L.J.**

Amount of Award: \$5000.00

CELTUA (Miami University) instructional grant

Submitted: March '11

Title: "Revision of statistics/research methods sequence"

Investigators: Uhler, B., Hall, C., Johnson, J., Abraham, M., Evans, C., & **Smart, L.J.**

Amount of Award: \$3000.00

CELTUA (Miami University) teaching grant

Submitted: May '07

Title: "Enhancing the Undergraduate Research Experience"

Investigators: **Smart LJ** & Strang, AJ

Amount of Award: \$600.00

Proctor & Gamble Interactive Media Initiative (internally administrated)

Submitted: January '01

Title: Interactivity in Virtual Environments as a Tool for Displaying Information about Complex Systems.

Investigators: Dainoff MJ, Davis NC, Mark LS, **Smart LJ**, and Thomas RD

Amount of Award: \$11,300

External

W.T. Grant Foundation

Submitted September '20

Title: Pathways to Progress

Amount Requested: \$650,000; Status: Not funded

NSF (PAC program) – collaborative with Clemson University

Submitted January '17

Title: The Impact of Varying Latency on Perception and Performance

Amount Requested: \$837,737; Status: Not funded

NSF (PAC program) – collaborative with Clemson University

Submitted August '14

Title: The Impact of Varying Visual Latency on Motor Performance and Motion Sickness

Amount Requested: \$854,402; Status: Not funded

NASA (Research and Technology Development to Support Crew Health and Performance in Space Exploration Missions) – collaborative with Clemson University

Submitted: December '12

Title: Portable Sensorimotor Adaptation System (pSAS)

Amount Requested: \$1,111,333; Status: Not funded

NSF (PAC program)

Submitted: January '08

Title: Understanding the Mechanisms Involved in the Prospective Control of Posture.

Amount Requested: \$356,000; Status: Not funded

NSF (PAC program)

Submitted: July '05

Title: Understanding the mechanisms Involved in the Prospective Control of Posture.

Amount Requested: \$227,000; Status: Not funded

Air Force Research Laboratories

Submitted: January '02

Title: Effect of Cognitive Work Analysis (CWA) on the development of a portal for information foraging.

Investigators: **Smart LJ**, Mark LS, and Dainoff MJ

Amount of Award: \$19,880

NIH (AREA program)

Submitted: January '01

Title: Age-related changes in postural coordination.

Amount requested: \$100,000; Status: Not funded

Paper Presentations

Smart, L. J. (2021, March). Progress not perfection: Writing and researching in a lab during COVID. HCWE workshop series: Writing in a Time of Crisis, Oxford, OH (virtual)

Smart, L. J., Teaford, M. A., & Von Drasek (Smith), N. J. (2020, Dec). Utility of Postural Measures for Assessing and Predicting Behavioral States in Virtual Reality. Paper presented at The 7th International Symposium on Visually Induced Motion Sensations, Hong Kong (virtual)

- Smart, L. J.**, Drew, A. P., & Smith, N. J. (2019, May). Using Postural Motion to Predict Visually Induced Motion Sickness in Real-Time. Paper presented at the 20th International Symposium on Aviation Psychology, Dayton, OH.
- Muth, E., Keshavarz, B., **Smart Jr, L. J.**, So, R., & Beadle, S. (2018, October). Discussion Panel: Motion Sickness in Virtual Environments. Panel Discussion at the 2018 Human Factors and Ergonomics Society International Annual Meeting, Philadelphia, PA.
- Smart, L. J.**, Drew, A. P., & Hassebrock, J. A. (June, 2018). "Social Posturing": Exploring coordination across actors during joint tasks. Paper presented at the 2018 North American Meeting of the International Society for Ecological Psychology, Normal, IL.
- Smart, L. J.**, Drew, A. P., Hadidon, T., & Bachman, E. (Jan. 2018). Swaying the Audience: Real-time Postural Prediction of Motion Sickness. Invited Paper given at the 1st Annual Research Symposium, Miami University Center for Assistive Technology Oxford, OH.
- Kinsella, A., Beadle, S., Wilson, M., **Smart, L.**, & Muth, E. (Oct. 2017) Measuring User Experience with Postural Sway and Performance in a Head Mounted Display. Paper presented at the Human Factors and Ergonomics Society 61st Annual Meeting Austin, TX.
- Smart, L. J.**, & Thomas, R. D. (July, 2017). Perception of non-linear characteristics of posture. Paper presented at the 6th Midwestern Cognitive Science Meeting, Oxford, OH.
- Drew, A. P., Hadidon, T., Bachmann, E. & **Smart, L. J.** (June, 2016). Real time prediction of VIMS using postural motion. Paper presented at the 2016 American meeting of the International Society for Ecological Psychology, Clemson, SC.
- Smart, L. J.** (Mar, 2016). Swaying the audience: Postural precursors of motion sickness. Paper given to the Clemson University Chapter of HFES, Clemson, SC.
- Burlew, K., Burlew, R., Johnson, L. N., Mitchell, M. J., & **Smart, L. J.** (Feb, 2016). Standing on the Shoulders of Our Predecessors: African Americans in Psychology. Panel Discussion, University of Cincinnati, Cincinnati, OH.
- Smart, L. J.** (Sep, 2015). Data Blitz: SPoCC. Talk given at the Department of Psychology, Miami University, Oxford OH.
- Cook, H. E., Hassebrock, J. A., & **Smart, L. J.** (June, 2014). People Perceiving Fractals. Paper given at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.
- Smart, L. J.**, Cook, H. E., & Littman, E. M. (June, 2014). "WM": Studies in Behavioral Adaptation to Perception-Action Distortions. Symposium paper given at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.
- Smart, L. J.** (Apr., 2012). Old Wine in a Virtual Bottle: Consequences of Altering Perception-Action Relationships. Invited paper presented at Trinity College, Hartford, CT.
- Choi, S., Jacobs, S., Fendley, M., Moroney, W., & **Smart, L. J.** (Nov., 2011). Educating Future Practitioners. Panel Discussion, 7th Annual World Usability Day, Dayton OH.

- Smart, L. J.** (April, 2011). Encouraging some cycles while breaking others: The very personal value of undergraduate research. Keynote address given at the Mid-America Undergraduate Psychology Conference, Earlham College, Richmond, IN.
- Smart, L. J.** (Jan., 2011). Breaking the cycle: Consequences of altering perception-action relationships. Invited paper presented at University of Cincinnati, Cincinnati, OH.
- Smart, L. J.** (Oct., 2010). You be the judge: Perceptual quantification of postural motion. Invited paper presented at Illinois State University, Normal, IL.
- Smart, L. J.** (Jan, 2008). Sick of standing there or sick from standing there: What posture has told me about us. Invited paper presented at Miami University, Oxford, OH.
- Smart, L.J.,** Otten, E.W., & Stoffregen, T.A. (Oct., 2007). It's turtles all the way down: A comparative analysis of visually induced motion sickness. Paper presented at the 51st Annual Meeting of the Human Factors and Ergonomics Society, Baltimore, MD.
- Smart, L.J.** (Nov, 2006). Things Learned from Watching People Stand Around or How Action can Inform Psychology. Invited paper presented at Earlham College, Richmond IN.
- Smart, L.J.** (October, 2003). Lessons from posture: Basic and applied studies. Invited paper presented at Willmington College, Willmington, OH.
- Smart, L. J.,** & Riley, M. A. (May, 2002). Virtual Study of Perception and Action: An Introduction. Paper presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.
- Richardson, A.R., Dainoff, M. J., Mark, L. S., & **Smart, L. J.** (October, 2002). Toward interactivity in virtual environments as a tool for representing complex data sets. Paper presented at the Human Factors and Ergonomics Society 46th Annual Meeting, Baltimore, Maryland.
- Smart, L. J.,** & Smith, D. L. (June, 2001). Crossing Borders: Implications for Postural Stability and Coordination. Paper presented at the 11th International Conference on Perception and Action, Storrs, CT.
- Smart, L. J.,** Hettinger, L.J., & Stoffregen, T. A. (May, 1999). A comparison of two forms of visually-induced motion sickness. Paper presented at the 10th International Symposium on Aviation Psychology, Columbus, OH.
- Smart, L. J.** (May, 1998). A comparative analysis of visually induced motion sickness. Paper presented at 1998 North American Meeting of the International Society for Ecological Psychology, Hartford, CT.
- Stoffregen, T. A. & **Smart, L. J.** (July, 1997b). Postural stabilization of vision. Paper presented at the Ninth International Conference on Perception and Action, Toronto, Canada.
- Smart, L. J.,** Pagulayan, R. J., & Stoffregen, T. A. (June, 1997). Self-induced motion sickness in unperturbed stance. Paper presented at the Faculty of Sport Sciences, University of the Mediterranean, Marseilles, France.
- Smart, L. J.** & Stoffregen T. A. (May, 1997). Postural instability and motion sickness in unperturbed stance. Paper presented at the International Workshop on Motion Sickness, Marbella, Spain

Stoffregen, T. A. & **Smart, L. J.** (May, 1997). Postural instability precedes motion sickness. Paper presented at the International Workshop on Motion Sickness, Marbella, Spain.

Stoffregen, T. A. & **Smart, L. J.** (March, 1996). Motion sickness induced through postural stabilization of vision. Paper presented at the 1996 North American Meeting of the International Society for Ecological Psychology, Hartford, CT.

Flynn, S. B., Stoffregen, T. A., & **Smart, L. J.** (July, 1995). Issues in the visual perception of caught weight. Paper presented at the 8th International Conference on Perception and Action, Marseilles, France.

Flynn, S. B., Williamson, J. D., Simpson, R., **Smart, L. J.**, & Boggs, P. (April, 1995). Relative-mass perception: Gender and geography effects. Paper presented at the 41st Annual Convention of the Southwestern Psychological Association, San Antonio, TX.

Smart, L. J., & Flynn, S. B. (April, 1995). The effect of reporting instrument on judgments of caught weight. Paper presented at the 41st Annual Convention of the Southwestern Psychological Association, San Antonio, TX.

Evans-Lewis, V., **Smart, L. J.**, & Ricks, S. P. (December, 1994). Urban Black males' perceptions of self and expectations for future life. Paper presented at the 1994 Meeting of the National Social Science Association, New Orleans, LA.

Poster Presentations

Teaford, M. A., Fitzpatrick, J., Filipkowski, M., Drew, A., Hassebrock, J., Smith, N., **Smart, L. J.** (May 2019). Peripheral Ischemia as a Means to Induce Altered Multisensory Integration. Poster presented and the 2019 Midwest Cognitive Science Meeting, Columbus, OH.

Feld, E., Tracy, B., Gray, K., Reid, T., Sprock, L., Delacruz, R., Fitzpatrick, J., Groome, A., Shoemaker, Z., Smith, N., Teaford, M., Drew, A. & **Smart, L. J.** (2019, April). Use of Social Information to Classify Human Biological Motion. Poster presented at the annual meeting of the Midwestern Psychological Association (MPA), Chicago, IL.

Wolf, R., Cook, H., Berg, W. P., **Smart, L. J.**, & Thurmer, H. P. (Aug 2018). The Effect of the Alexander Technique on Upper Body Muscle Activity and Movement Regularity in Collegiate Violin and Viola Players. International Conference on Alexander Technique, Chicago, IL.

Gong, M., Xuan Y., & **Smart, L.J.** (May 2018). The extraction of natural scene gist in visual crowding. The 18th Annual Vision Sciences Society Meeting. St. Pete Beach, FL.

Teaford, M.A., Fitzpatrick, J., Buddie, A., Chadwell, C., Frankel, J., Drew, A., Gong, M., Hassebrock, J., & **Smart, L.J.** (May 2018). Inducing Anorexia Nervosa like Multisensory Abnormalities in Healthy Individuals. Poster presented at the 7th Midwestern Cognitive Science Meeting, Bloomington, IN.

Gong, M., Smith, N., & **Smart, L. J.** (June 2017). The anger superiority effect revisited: A visual crowding task. Poster presented at the 6th Midwestern Cognitive Science Meeting, Oxford, OH.

Teaford, M., Buddie, A., Fitzpatrick, J., Frankel, J., Laane, S., Drew, A., Gong, M., Hassebrock, J., & **Smart, L. J.** (June 2017). Preliminary evaluation of a modified pressure cuff ischemia protocol. Poster presented at the 6th Midwestern Cognitive Science Meeting, Oxford, OH.

Gong, M. & **Smart, L. J.** (Aug 2016). Is there an anger superiority effect in crowding? Poster presented at the 124th annual meeting of the American Psychological Association, Denver, CO

Hassebrock, J. A., Cook, H. E., & **Smart, L. J.** (June, 2016). Other people's posture: Visually induced motion sickness from naturally generated optic flow. Poster presented at the 2016 American meeting of the International Society of Ecological Psychology, Clemson, SC

Smart, L. J., Cook, H. E., & Hassebrock, J. A (June, 2016). Getting there from somewhere else: Discovering affordances for tele-operated devices. Poster presented at the 2016 American meeting of the International Society of Ecological Psychology, Clemson, SC

Hassebrock, J. A., Cook, H. E., & **Smart, L. J.** (July, 2015). Coordinative dynamics: The role of task difficulty during interpersonal coordination. Poster presented at the International Conference of Perception and Action XVIII, Minneapolis, MN.

Hassebrock, J. A., Nagy, J., Stone, J., Tolson, B., Cook, H. E., & **Smart, L. J.** (June, 2014). Joint action synergies during a cooperative puzzle task. Poster presented at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Stone, J., Walter, H., Payne, R., Tolson, B., Gorley, D., Hassebrock, J. A., Cook, H.E., & **Smart, L. J.** (June, 2014). Task specific behavioral adaptation in a virtual environment. Poster presented at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Thurmer, H., Wolf, R., Berg, W., Cook, H. E., & **Smart, L. J.** (June, 2014). The effectiveness of the Alexander technique in reducing static upper body muscle tension in collegiate violin and viola performers. Poster presented at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Walter, H., Payne, R., Tolson, B., Fotta, L., Hassebrock, J. A., Cook, H. E., & **Smart, L. J.** (June, 2014). Sin and punishment: Behavior adaptation in a virtual environment. Poster presented at the 2014 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Cook, H. E., & **Smart, L. J.** (Nov., 2012). The Effect of Enactive-Interface Constraints on User Behavior in Virtual Environments. Poster presented at the 8th Annual World Usability Day meeting, Dayton, OH.

Smart, L. J., Cook, H. E., Kinsella, A. J., Sullivan, L. E., Amin, L. R., Rosario, S., & Braun, J. L. (Nov., 2011). Give me the wheel: Role of control and gender on postural regulation. Poster presented at the 7th Annual World Usability Day meeting, Dayton, OH.

Smart, L. J., Otten, E. W., Cook, H. E., Kinsella, A. J., Sullivan, L. E., Amin, L. R., Rosario, S., & Braun, J. L. (Nov., 2011). The sickness profile: Characterizing postural instability. Poster presented at the 7th Annual World Usability Day meeting, Dayton, OH.

Smart, L. J., & Littman, E. M. (July, 2011). Consequences of altering perception-action relationships. Poster presented at Progress in Motor Control VIII, Cincinnati, OH.

Smart, L. J., Otten, E. W., Strang, A. J., & Littman, E. M. (July, 2011). Changes in perception-action coupling influence postural sway and motion sickness. Poster presented at Progress in Motor Control VIII, Cincinnati, OH.

- Strang, A. J., **Smart, L. J.**, Harper, E., & Walsh, M. (July, 2011). Postural control developed to facilitate target shooting for stance on a dynamic surface. Poster presented at Progress in Motor Control VIII, Cincinnati, OH.
- Strang, A. J., Thoreson, J. A., **Smart, L. J.**, Littman, E. M., & Thomas, R. D. (July, 2011). Freezing degrees of freedom when faced with cognitive and target constraints in a continuous aiming task. Poster presented at Progress in Motor Control VIII, Cincinnati, OH.
- Amin, L., Andersen, A., Kinsella, A., Lukas, S., Martin, A., McCrossen, A., Palcan, M., Rosario, S., Rozenich, G., Littman, E., & **Smart, L. J.** (Nov., 2010). Adapting to dual perception-action distortions in virtual environments. Poster presented at the 6th Annual World Usability Day meeting, Dayton, OH.
- Amin, L., Andersen, A., Kinsella, A., Lukas, S., Martin, A., McCrossen, A., Palcan, M., Rosario, S., Rozenich, G., Littman, E., & **Smart, L. J.** (Nov., 2010). Consequence of internally versus externally generated visual motion on postural regulation in a virtual environment. Poster presented at the 6th Annual World Usability Day meeting, Dayton, OH.
- Strang, A.J., & **Smart, L.J.** (July, 2010). Temporal dynamics during initial acquisition of three-ball juggling. Poster presented at the 2010 International Society for Biomechanics in Sports Annual Conference, Marquette, MI.
- Littman, E. M., & **Smart, L. J.** (Nov., 2009). Adapting to perception-action distortions in virtual environments. Poster presented at the 5th Annual World Usability Day meeting, Dayton, OH.
- Littman, E. M., Otten, E. W., & **Smart, L. J.** (July, 2009). Consequence of internally versus externally generated visual motion on postural regulation in a virtual environment. Poster presented at the 15th International Conference on Perception and Action, Minneapolis, MN.
- Otten, E. W., & **Smart, L. J.** (July, 2009). The effect of open vs. closed-loop optic flow on visually induced motion sickness. Poster presented at the 15th International Conference on Perception and Action, Minneapolis, MN.
- Walsh, M., Strang, A.J., Haworth, J., Hieronymus, M., & **Smart, L.J.** (June, 2009). Balance training alters postural dynamics uniquely for stance on compliant vs. non-compliant surfaces. Poster presented at the 14th annual congress of the European College of Sport Science, Oslo, Norway.
- Smart, L.J.**, Jackson, L., Adams, N., Daffin, J., Malone A., et al. (Nov., 2008). Evaluating virtual experiences. Poster presented at the 4th Annual World Usability Day meeting, Dayton, OH.
- Strang, A. J., Littman, E. M., & **Smart, L. J.** (Nov., 2008). Visuo-Postural Coupling in a 3-D virtual moving room. Poster presented at the 4th Annual World Usability Day meeting, Dayton, OH.
- Thoreson, J. A., Strang, A. J., Skaff, B., Chambers, J., & **Smart, L. J.** (Nov., 2008). The effect of a cognitive load and physical constraints on a continuous laser pointing task. Poster presented at the 4th Annual World Usability Day meeting, Dayton, OH.
- Strang, A.J., Haworth, J.L., Hieronymus, M., Walsh, M., & **Smart L.J.** (Mar., 2008) Exploring the use of recurrence quantification analysis for identifying dynamic patterns in postural coordination: The effects of vision and support surface. Annual Symposium on Computational Research, Miami University, Oxford, OH.

- Thoreson, J. A., Vitatoe, K. N., Otten, E. W., & **Smart, L. J.** (Nov., 2007). Effect of Visual Proprioceptive Stress on Postural Control. Poster presented at the 3rd Annual World Usability Day meeting, Dayton, OH.
- Harmon, P., Coughlin, K.A., Capistrano, M., Littman, E.M., Otten, E.W., & **Smart, L.J.** (May, 2007). You're making this difficult: The effect of control and constraint on postural sway. Poster presented the 2007 Tri-State Chapter of the Human Factors and Ergonomics Society Student Poster Session, Cincinnati, OH.
- LaPlante, E.A., Luli, M.L., Matthews, D., Otten, E.W., & **Smart, L.J.** (May, 2007). Effect of simple, complex, and coupled visual motion on coordination. Poster presented the 2007 Tri-State Chapter of the Human Factors and Ergonomics Society Student Poster Session, Cincinnati, OH.
- Shinkle, J.A., Vitatoe, K., Taute, E., Burgard, R., Strang, A., & **Smart, L.J.** (May, 2007). The Effect of Visual Focus in a Virtual Environment on Postural Coordination. Poster presented the 2007 Tri-State Chapter of the Human Factors and Ergonomics Society Student Poster Session, Cincinnati, OH.
- Thoreson, J.A., Otten, E.W., & **Smart, L.J.** (May, 2007). Effect of a counting task on postural control. Poster presented the 2007 Tri-State Chapter of the Human Factors and Ergonomics Society Student Poster Session, Cincinnati, OH.
- Coughlin, K., LaPlante, E., Harmon, P., Luli, M., Littman, E., & **Smart, L. J.** (Nov., 2006). Stop this Crazy Thing: The Role of Control in Visually Induced Motion Sickness. Poster presented at the 2006 Sigma Xi national meeting and student research conference, Detroit, MI
- Coughlin, K., LaPlante, E., Harmon, P., Luli, M., Littman, E., & **Smart, L. J.** (Nov., 2006). Stop this Crazy Thing: The Role of Control in Visually Induced Motion Sickness. Poster presented at the 2nd Annual World Usability Day meeting, Dayton, OH.
- Vitatoe, K., Shinkle, J, Capistrano, M., Taute, E., Burgard, R., & **Smart, L. J.** (Nov., 2006). Why the Driver is Never Sick: The Role of Control & Gender in Visually Induced Motion Sickness. Poster presented at the 2nd Annual World Usability Day meeting, Dayton, OH.
- Vitatoe, K., Shinkle, J, Capistrano, M., Taute, E., Burgard, R., & **Smart, L. J.** (Nov., 2006). Why the Driver is Never Sick: The Role of Control & Gender in Visually Induced Motion Sickness. Poster presented at the 2006 Sigma Xi national meeting and student research conference, Detroit, MI
- Otten, E., Leitner, R., Littman, E., Harmon, P., LaPlante, E., & **Smart, L. J.** (June, 2006). Effect of Intrinsic versus Externally Generated Motion on Visually Induced Motion Sickness. Poster presented at the 2006 North American meeting of the International Society for Ecological Psychology, June 22-24, 2004. Cincinnati, OH.
- Smart, L. J.**, & Otten, E. W. (June, 2006). It's Turtles All the Way Down: A Comparative Analysis of Visually-Induced-Motion-Sickness. Poster presented at the 2006 North American meeting of the International Society for Ecological Psychology, Cincinnati, OH.
- Thoreson, J. A., Cole, R., Lennon, C., Shinkle, J. A., Capistrano, M., Coughlin, K. A., Otten, E. W., & **Smart, L. J.** (June, 2006). Effect of Task Constraints on Long Term Coordination. Poster presented at the 2006 North American meeting of the International Society for Ecological Psychology, Cincinnati, OH.
- Otten, E. W., & **Smart, L. J.** (May, 2006) Examination of Postural Adaptation Resulting from Visually-Induced-Motion-Sickness (VIMS). Poster presented at the 18th Annual Convention of the Association for Psychological Science, New York, NY.

Cole, R., Lennon, C., Shinkle, J., Capistrano, M., Coughlin, K., Thoreson, J., Otten, E., & **Smart, L. J.** (April, 2006). Effect of Task Constraints on Long Term Coordination. Poster presented at a meeting of the Tri-state Chapter of the Human Factors and Ergonomics Society, Oxford, OH

Leitner, R., Littman, E., Harmon, P., LaPlante, E., Otten, E., & **Smart, L. J.** (April, 2006). Effect of Intrinsic versus Externally Generated Motion on Visually Induced Motion Sickness. Poster presented at the a meeting of the Tri-state Chapter of the Human Factors and Ergonomics Society, Oxford, OH

Otten, E. W. & **Smart, L. J.** (Nov 2005). Examination of postural adaptation resulting from Visually-Induced-Motion-Sickness. Poster Presented at the 1st Annual World Usability Day meeting, Dayton, OH.

Otten, E. W., **Smart, L. J.**, et al (June 2004). Effect of predictability of stimulus on visually-induced-motion-sickness. Poster presented and the 2004 North American Meeting of the International Society for Ecological Psychology, Storrs, CT.

Smith, D.L., **Smart L.J.**, & Otten, E.W. (June 2004). Postural coordination dynamics during voluntary suprapostural activity. Poster presented at the XVth Congress of the International Society of Electrophysiology & Kinesiology, Boston University, Boston, MA.

Amin, M. R., & **Smart, L. J.** (April, 2004). The effect of field-of-vision on coordination in virtual environments. Poster presented at the 50th Annual Convention of the Southwestern Psychological Association, San Antonio, TX.

Amin, M., Bidwell, B., Johnson, B., McLaughlin, M., Pecorak, K., Riggs, M., Otten, E., Smith, D., & **Smart, L. J.** (July, 2003). The effect of field-of-vision on coordination in a virtual environment. Poster presented at the 12th International Conference on Perception and Action. Surfers Paradise, Gold Coast, Australia.

Otten, E., **Smart, L. J.**, Amin, M., Bidwell, B., Johnson, B., McLaughlin, M., Pecorak, K., & Smith, D. (July, 2003). Effect of predictability of stimulus on visually-induced-motion-sickness. Poster presented at the 12th International Conference on Perception and Action. Surfers Paradise, Gold Coast, Australia.

Smith, D., **Smart, L. J.**, Otten, E., Pecorak, K., Amin, M., & Bidwell, B. (July, 2003) Investigating behavioral modes of postural control and coordination. Poster presented at the 12th International Conference on Perception and Action. Surfers Paradise, Gold Coast, Australia.

Stoffregen T. A., **Smart, L. J.**, & Bardy, B. G. (November, 2002). Visually-induced motion sickness predicted by postural instability. Poster presented at a meeting of the Society for Neuroscience, Orlando, FL.

Mobley, B. S., **Smart, L. J.**, Amin, M., Graban, L., Otten, E., Hinton, K., & Smith, D. (May, 2002). Task Specific Postural Adaptation. Poster presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Smith, D., L., Otten, E. W., Hinton, K., **Smart, L. J.**, Mobley, B., Amin, M., Graban, L., Crompton, K., & Manuel, J. (May, 2002). Surface and Visual Constraints on Postural Motion. Poster presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Mark, L. S., Humphrey, A., Siefried, M., & **Smart, L. J.** (May, 2002). Coordinating Movements Used in Reaching. Poster presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Humphrey, A., Mark, L. S., & **Smart, L. J.** (May, 2002). Adapting to Changes in Reaching Capabilities. Poster presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Richardson, A., Mark, L. S., Dainoff, M. J., **Smart, L. J.**, & Otten, E. W. (May, 2002). Perceiving Size in Virtual Displays. Poster presented at the 2002 North American Meeting of the International Society for Ecological Psychology, Oxford, OH.

Smith D. L., Otten, E. W., & **Smart, L. J.** (May, 2002). Postural Control Changes with Support Surface but not Vision. Poster presented at the International Conference on Brain and Behavior, Delray Beach, FL.

Mark, L. S., Humphrey, A., Siefried, M., & **Smart, L. J.** (May, 2002). Coordination of Component Movements in Seated Reaching. Poster presented at the International Conference on Brain and Behavior, Delray Beach, FL.

Smart, L. J., & Smith, D. L. (June, 2000). Clinical utility of postural dynamics. Poster presented at the 2000 North American Meeting of the International Society for Ecological Psychology, Clemson, SC.

Stoffregen, T. A., Hettinger, L. J., Haas, M. W., Roe, M., & **Smart, L. J.** (Oct., 1998). Visually induced motion sickness in a virtual environment. Poster presented at the 42nd annual meeting of the Human Factors and Ergonomics Society, Chicago, IL.

Smart, L. J. & Pagulayan, R. J. (July, 1997). Motion sickness without imposed motion. Poster presented at the 9th International Conference on Perception and Action, Toronto, Canada.

Stoffregen, T. A. & **Smart, L. J.** (July, 1997a). Postural stabilization of visual fixation. Poster presented at the 9th International Conference on Perception and Action, Toronto, Canada.

Smart, L. J. & Stoffregen T. A. (Nov., 1996). Postural stabilization of vision. Poster presented at the 37th Annual Meeting of the Psychonomic Society, Chicago, IL.

Smart, L. J. & Flynn, S. B. (May, 1996). Effect of reporting instrument on judgments of caught weight. Poster presented at Psychology Beyond the Threshold: A Festschrift for William N. Dember, Cincinnati, OH.

Stoffregen, T. A. & **Smart, L. J.** (May, 1996). Postural sway and viewing distance. Poster presented at Psychology Beyond the Threshold: A Festschrift for William N. Dember, Cincinnati, OH.

Stoffregen, T. A. & **Smart, L. J.** (March, 1996). Postural sway and viewing distance. Poster presented at the 1996 North American Meeting of the International Society for Ecological Psychology, Hartford, CT.

Smart, L. J. & Flynn, S. B. (March, 1996). Effect of reporting instrument on judgments of caught weight. Poster presented at the 1996 North American Meeting of the International Society for Ecological Psychology, Hartford, CT.

Flynn, S. B., **Smart, L. J.**, & Hagerman, R. A. (April, 1995). Velocity effects on relative-mass perception. Poster presented at the 41st Annual Convention of the Southwestern Psychological Association, San Antonio, TX.

Anderson, T. S., & **Smart, L. J.** (May, 1992). Not quite the spitting image: Adaptation to left-right reversal of the visual field. Poster presented at the 5th Annual Trinity College Undergraduate Science Symposium, Hartford, CT

Organizations

Association for Psychological Science (APS)

Association of Black Psychologists (ABPsi, Cincinnati Chapter Treasurer 2019 - present)

Faculty advisor ABPsi Student Circle (Miami University Chapter)

Council on Undergraduate Research (CUR)

Human Factors & Ergonomics Society (HFES)

- President Tri-State Chapter (2003); Executive board member (2004-5)

- Host 2010 Annual Tri-State Chapter Student Meeting

International Society for Ecological Psychology (ISEP)

- Organizer/Host 2002 North American Meeting (May 23-25, 2002)

- Organizer/Host 2014 North American Meeting (June 5 -7, 2014)

- Diversity committee member

International Society for Motor Control

Public Responsibility In Medicine & Research (PRIM&R)

Sigma Xi

- Miami University chapter secretary 2001-2003

- Miami University chapter president-elect 2003-2006

- Miami University chapter president 2006 - 2009