

Department of Psychology
Iowa State University
W112 Lagomarcino Hall
Ames, IA 50011-3180
jonkelly [at] iastate [dot] edu
<http://www.psychology.iastate.edu/~jonkelly/>

AUGUST 24, 2009

EDUCATION:

- Ph.D. in Psychology: Cognition, Perception, and Cognitive Neuroscience, 2006
University of California, Santa Barbara
- M.A. in Psychology: Cognition, Perception, and Cognitive Neuroscience, 2004
University of California, Santa Barbara
- B.A. in Psychology, 1998
University of California, Los Angeles

PROFESSIONAL EXPERIENCE:

- Assistant professor, Iowa State University, 2009-present
Department of Psychology and member of the Human Computer Interaction program
- Postdoctoral research associate, Vanderbilt University, 2007-2009
Advisor: Dr. Timothy McNamara

PEER-REVIEWED JOURNAL ARTICLES:

- Avraamides, M.N. & **Kelly, J.W.** (in press). Multiple systems for spatial memory: Evidence from described scenes. *Journal of Experimental Psychology: Learning, Memory & Cognition*.
- Kelly, J.W.** & McNamara, T.P. (2009). Facilitated pointing to remembered objects in front: Evidence for egocentric retrieval or spatial priming? *Psychonomic Bulletin & Review*, 16(2), 295-300.
- Kelly, J.W.**, McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2009). Individual differences in using geometric and featural cues to maintain spatial orientation: Cue quantity and cue ambiguity are more important than cue type. *Psychonomic Bulletin & Review*, 16(1), 176-181.
- Avraamides, M.N. & **Kelly, J.W.** (2008). Multiple systems for spatial memory and action. *Cognitive Processing*, 9, 93-106.
- Kelly, J.W.** & McNamara, T.P. (2008a). Response mode differences in perspective taking: Differences in representation or differences in retrieval? *Memory & Cognition*, 36(4), 863-872.

- Kelly, J.W.** & McNamara, T.P. (2008b). Spatial memories of virtual environments: How egocentric experience, intrinsic structure, and extrinsic structure interact. *Psychonomic Bulletin & Review*, 15(2), 322-327.
- Kelly, J.W.**, McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2008). The shape of human navigation: How environmental geometry is used in maintenance of spatial orientation. *Cognition*, 109, 281-286.
- Kelly, J.W.**, Riecke, B., Loomis, J.M. & Beall, A.C. (2008). Visual control of posture in real and virtual environments. *Perception & Psychophysics*, 70(1), 158-165.
- Loomis, J.M., **Kelly, J.W.**, Pusch, M., Bailenson, J.N. & Beall, A.C. (2008). Psychophysics of perceiving eye-gaze and head direction with peripheral vision: Implications for the dynamics of eye-gaze behavior. *Perception*, 37(9), 1443-1457.
- Kelly, J.W.**, Avraamides, M.N. & Loomis, J.M. (2007). Sensorimotor alignment effects in the learning environment and in novel environments. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 33(6), 1092-1107.
- Macuga, K.L., Beall, A.C., **Kelly, J.W.**, Smith, R. & Loomis, J.M. (2007). Changing lanes: Inertial cues and explicit path information facilitate steering performance when visual feedback is removed. *Experimental Brain Research*, 178(2), 141-160.
- Zahorik, P. & **Kelly, J.W.** (2007). Accurate vocal compensation for sound intensity loss with increasing distance in natural environments. *Journal of the Acoustical Society of America*, 122(5), EL143-EL150.
- Kelly, J.W.**, Loomis, J.M., Beall, A.C, Smith, R.S. & Macuga, K.L. (2006). Simultaneous measurement of steering performance and perceived heading on a curving path. *ACM: Transactions on Applied Perception*, 3(2), 83-94.
- Loomis, J.M., Beall, A.C., Macuga, K.L., **Kelly, J.W.** & Smith, R. (2006). Visual control of action without retinal optic flow. *Psychological Science*, 17(3), 214-221.
- Macuga, K.L., Loomis, J.M., Beall, A.C. & **Kelly, J.W.** (2006). Perception of heading without retinal optic flow. *Perception & Psychophysics*, 68(5), 872-878.
- Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2005). The importance of perceived relative motion in the control of posture. *Experimental Brain Research*, 161(3), 285-292.
- Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2004). Judgments of exocentric direction in large-scale space. *Perception*, 33(4), 443-454.
- Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2004). Perception of shared visual space: Establishing common ground in real and virtual environments. *Presence: Teleoperators and Virtual Environments*, 13(4), 442-450.

CHAPTERS AND CONFERENCE PROCEEDINGS:

Kelly, J.W. & McNamara, T.P. (in press). Spatial memory. In B. Goldstein (Ed.), *Encyclopedia of Perception*. Sage.

Kelly, J.W. & McNamara, T.P. (2008). Spatial memory and spatial orientation. In C. Freksa (Ed.), *Spatial Cognition VI: Lecture Notes in Artificial Intelligence* (pp. 22-38). Berlin: Springer.

Avraamides, M.N. & **Kelly, J.W.** (2005). Imagined perspective-changing within and across novel environments. In C. Freksa, B. Nebel, M. Knauff, B. Krieg-Brückner (Eds.), *Spatial Cognition IV - Reasoning, Action, Interaction: Lecture Notes in Artificial Intelligence* (pp. 246-259). Berlin: Springer.

Loomis, J.M., Beall, A.C., **Kelly, J.W.** & Macuga, K.L. (2005). Importance of perceptual representation in the visual control of action. In B.E. Rogowitz, T.N. Pappas, S.J. Daly (Eds.), *Human Vision and Electronic Imaging X, Proceedings of the SPIE*, Volume 5666 (pp. 356-361).

CONFERENCE PRESENTATIONS (TALKS AND POSTERS):

Avraamides, M.N., **Kelly, J.W.** & Shimi, A. (2008). Alignment effects in linguistically-encoded environments. Poster presented at the *Psychonomics Society 49th Annual Meeting*, Chicago, IL.

Avraamides, M.N., **Kelly, J.W.** & Kyranidou, M. (2008). Alignment effects in spatial reasoning about described scenes. Poster presented at the *International Congress of Psychology 29th Annual Meeting*, Berlin, Germany.

Avraamides, M.N. & **Kelly, J.W.** (2008). Sensorimotor interference in spatial reasoning. Talk presented at the *International Congress of Psychology 29th Annual Meeting*, Berlin, Germany.

Kelly, J.W. & McNamara, T.P. (2008). Spatial memory and spatial orientation. Talk presented at *Spatial Cognition 2008*, Freiburg, Germany.

Kelly, J.W., McNamara, T.P., Bodenheimer, B., Carr, T.H. & Rieser, J.J. (2008). Geometric and featural cues to maintaining spatial orientation. Poster presented at the *Psychonomics Society 49th Annual Meeting*, Chicago, IL.

Kelly, J.W. & McNamara, T.P. (2007). Response mode differences in perspective taking: Differences in interference or differences in strategy? Poster presented at the *Psychonomics Society 48th Annual Meeting*, Long Beach, CA.

Kelly, J.W. & McNamara, T.P. (2007). Spatial memories of virtual environments. Poster presented at the *Cognitive Sciences Society 29th Annual Meeting*, Nashville, TN.

Kelly, J.W., Avraamides, M.N. & Loomis, J.M. (2006). Sensorimotor alignment effects when reasoning about immediate and non-immediate environments. Poster presented at the *Psychonomics Society 47th Annual Meeting*, Houston, Texas.

Avraamides, M.N., **Kelly, J.W.** & Kyranidou, M.N. (2006). The effects of sensorimotor cues on spatial reasoning performance. Talk presented at *Spatial Cognition 2006*, Bremen, Germany.

- Avraamides, M.N. & **Kelly, J.W.** (2006). The effects of sensorimotor cues on spatial reasoning performance. Talk presented at the *International Conference on Spatial Cognition*, Rome, Italy.
- Macuga, K.L., Loomis, J.M., Beall, A.C., Smith, R. & **Kelly, J.W.** (2005). In steering without visual feedback, subjects can properly initiate return phase of a "lane change" maneuver. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- Avraamides, M.N. & **Kelly, J.W.** (2005). Memory organization for spatial layouts learned in virtual reality. Talk presented at the *European Conference for Research on Learning and Instruction*, Nicosia, Cyprus.
- Loomis, J.M., Beall, A.C., **Kelly, J.W.** & Macuga, K.L. (2005). Perceiving and acting in real and virtual environments. Talk presented at the *SPIE Human Vision and Electronic Imaging Conference*, San Jose, California.
- Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2004). Accurate steering performance with large heading errors on a curving path. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- Loomis, J.M., **Kelly, J.W.**, Beall, A.C. & Bailenson, J.N. (2004). Sensing eye gaze with eccentric viewing. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- Avraamides, M.N. & **Kelly, J.W.** (2004). Imagined perspective-changing within and across novel environments. Talk presented at *Spatial Cognition*, Frauenchiemsee, Germany.
- Kelly, J.W.**, Beall, A.C. & Loomis, J.M. (2003). Postural control without optic flow. Poster presented at the *Vision Sciences Society* meeting, Sarasota, Florida.
- Avraamides, M.N. & **Kelly, J.W.** (2003). Spatial representations from perception and language. *Young Scientist Forum, International Spatial Cognition Summer Institute*, Bad Zwischenahn, Germany.
- Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2002). Accurate judgments of exocentric direction in large-scale space. Talk presented at the *Vision Sciences Society Meeting*, Sarasota, Florida.
- Caskey, N., Olmstead, R.E., Jarvik, M.E., Madsen, D.C., Iwamoto-Schaap, P.N., Terrace, S.M., **Kelly, J.W.**, Griffith, T. & Wirshing, W.C. (2001). The acute effects of low dose naltrexone in normal heavy smokers. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, Savannah, GA.
- Kelly, J.W.**, Madsen, D.C., Olmstead, R.E., Jarvik, M.E., Iwamoto-Schaap, P.N. & Shapiro, D. (2000). Prevalence of perceived environmental smoking cues. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, Washington, D.C.
- Olmstead, R.E., **Kelly, J.W.**, Iwamoto-Schaap, P.N., Madsen, D.C., Huerta, L. & Chhin, C.S. (1999). Acute tolerability of mecamlamine and bupropion combination treatment for smoking cessation. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, San Diego, CA.

INVITED TALKS:

- Kelly, J.W.** (2009). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Barnard College.
- Kelly, J.W.** (2009). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Department of Psychology, University of Notre Dame.
- Kelly, J.W.** (2009). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Department of Psychology, McGill University.
- Kelly, J.W.** (2008). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Department of Psychology, Rice University.
- Kelly, J.W.** (2008). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Departments of Psychology and Human Computer Interaction, Iowa State University.
- Kelly, J.W.** (2008). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Department of Psychology, University of Utah.
- Kelly, J.W.** (2008). Lost in virtual space: How the body and the environment influence spatial memory and spatial orientation. Department of Psychology, University College London.
- Kelly, J.W.** (2008). Separate spatial memories for reasoning and action. Psychology department, The Ohio State University.
- Kelly, J.W.** (2008). Separate spatial memories for reasoning and action. Psychology department, University of California, Santa Cruz.
- Kelly, J.W.** (2004). Perception and action without optic flow. University of Texas at Austin.
- Kelly, J.W.** (2003). Perception and action without optic flow. Max Planck Institute for Biological Cybernetics, Germany.

PROFESSIONAL AFFILIATIONS:

- Cognitive Science Society
- Psychonomic Society (Associate member)

PROFESSIONAL SERVICE:

- Assistant program chair: Society for Computers in Psychology conference, 2009
- Conference program committee member:
 - Association for Applied Graphics and Visualization conference, 2009
 - Cognitive Sciences Society conference, 2007, 2008

EDITORIAL REVIEWER (AD-HOC):

- *Journals:* ACM: Transactions on Applied Perception, Acta Psychologica, Cognition, Evolution and Human Behavior, Experimental Brain Research, Journal of the Acoustical Society of America, Journal of Experimental Psychology: Human Perception & Performance, Journal of Experimental Psychology: Learning, Memory & Cognition, Journal of Neuroscience Methods, Presence: Teleoperators and Virtual Environments, Spatial Cognition & Computation
- *Conferences:* CHI (Computer/Human Interaction) Annual Conference, Cognitive Science Society Annual Conference