Jonathan W. Kelly, Ph.D. CURRICULUM VITAE

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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:

- Professor, Iowa State University, 2020-present
  Associate professor, Iowa State University, 2015-2020
  Assistant professor, Iowa State University, 2009-2015
  Department Chair, 2023-present
  Director of Graduate Education, 2018-2023
  Department of Psychology
  Human Computer Interaction graduate program
  Neuroscience graduate program

- Postdoctoral research associate, Vanderbilt University, 2007-2009
  Advisor: Dr. Timothy McNamara

GRANTS:

External:

- National Science Foundation, Cyber-Human Systems program (award number 2309990):
  Kelly, J. W., Gilbert, S. B., & Dorneich, M. C. "HCC: Small: Understanding Situational and
  Individual Factors in Adaptation to Cybersickness." $600,000; 6/2023-6/2026. Role: PI.

- National Science Foundation, Perception, Action & Cognition (award number 2217890):
  Kelly, J.W. "Collaborative Research: Decision Processes in Human Navigation." $229,455;
  8/2022-7/2025. Role: PI.

- National Science Foundation, Cyber-Human Systems program (award number 1816029): Kelly, J.W. & Gilbert, S.B. "CHS: Small: A Spatial Cognitive Framework for Personalizing Locomotion in Virtual Environments." $547,772; 8/2018-7/2022. Role: PI.

- Army Research Lab STTC: Gilbert, S., Oliver, J. & Winer, E. "Advanced Live, Virtual, and Constructive Training systems." $55,000 in 2011 research expenditures awarded to J.W. Kelly (Total award amount: $2,686,000; 9/29/10 – 9/28/13). Role: Senior personnel.

Internal:

- Iowa State University Liberal Arts and Sciences Seed Grant for Social Sciences: Kelly, J.W. "Adaptation to cybersickness." $7,962; 7/2021-6/2022.

- Iowa State University Presidential Initiative for Interdisciplinary Research in Data-Driven Science: Lawrence-Dill, Andorf, Friedberg, Ganapathy-Subramanian, & Kelly. "G2P: The Association of Large Scale Genomic and Phenomic Data." $825,000; 8/15-6/18.

- Iowa State University Liberal Arts and Sciences Seed Grant for Social Sciences: Kelly, J.W. "Connecting animal neuroscience with human navigation." $8,941; 8/2016-8/2017.

- University of Cyprus: Avraamides, M.N., Kelly, J.W., Galati, A., Panayiotou, Pantelidou, & Adamou. "Integration of spatial information across modalities." $0 in research expenditures to J.W. Kelly due to funding restrictions for foreign collaborators (Total award amount: $90,629; 1/1/2013-1/1/2015).

EDITORIAL RESPONSIBILITIES:

Associate editor:

- *ACM Transactions on Applied Perception* (2019-2023)

- *Frontiers in Virtual Reality* (2022-2023)

- *Frontiers in Virtual Reality* (Special issue guest editor, 2022): Human Spatial Perception, Cognition, and Behaviour in Extended Reality

Editorial boards:

- *Journal of Experimental Psychology: Learning, Memory, & Cognition* (2013 – 2023)

- National Science Foundation "College of Reviewers," Perception, Action, and Cognition Program (2015-2018)

HONORS AND AWARDS:

- Outstanding Achievement in External Funding Award, Iowa State University, Psychology, 2023

- Mid-Career Achievement in Research Award, Iowa State University, College of Liberal Arts and Sciences, 2022

- Nickerson Award for best paper in the Journal of Experimental Psychology: Applied, 2020

- Association for Psychological Science Fellow

- Psychonomic Society Fellow

- Excellence in Mid-Career Research Award, Iowa State University, Psychology, 2018

- Excellence in Graduate Student Mentorship Award, Iowa State University, Psychology, 2017

- Excellence in Teaching Award, Iowa State University, Psychology, 2016

- Early Career Achievement in Research Award, Iowa State University, College of Liberal Arts and Sciences, 2014

- Faculty Member of the Year Award, Iowa State University, HCI Graduate Program, 2013

- Faculty Member of the Year Award, Iowa State University, HCI Graduate Program, 2012

- Excellence in Early Career Research Award, Iowa State University, Psychology, 2012

PEER-REVIEWED JOURNAL ARTICLES (* GRADUATE STUDENT CO-AUTHOR; † UNDERGRADUATE STUDENT CO-AUTHOR):

65. ***Doty, T. A., Kelly, J. W.**, Gilbert, S. B., & Dorneich, M. C. (in press). Cybersickness abatement from repeated exposure to VR with reduced discomfort. *IEEE Transactions on Visualization and Computer Graphics.*

64. **Kelly, J. W.**, ***Doty, T. A.**, Gilbert S. B., & Dorneich, M. C. (in press). Field of view restriction and snap turning as cybersickness mitigation tools. *IEEE Transactions on Visualization and Computer Graphics.*

63. **Kelly, J. W.**, Hayes, N. L., ***Doty, T. A.**, Gilbert, S. B., & Dorneich, M. C. (in press). Profiles of cybersickness symptoms. *Displays.*

62. ***Sanaei, M.**, Gilbert, S. B., **†Perron, A. J.**, Dorneich, M. C., & **Kelly, J. W.** (in press). An examination of scene complexity's role in cybersickness. *Ergonomics.*

61. **Kelly, J. W.** (2023). Distance perception in virtual reality: A meta-analysis of the effect of head-mounted display characteristics. *IEEE Transactions on Visualization and Computer Graphics, 12*(9), 4978-4989.

60. ***Cherep, L. A., Kelly, J. W.**, ***Miller, A. J.**, ***Lim, A. F.**, & Gilbert, S. B. (2023). Individual differences in teleporting through virtual environments. *Journal of Experimental Psychology: Applied, 29*(1), 111–123.

59. **Kelly, J. W.**, **†Powell, N.**, ***Hoover, M.**, & Gilbert S. B. (2023). Teleporting through virtual environments: Benefits of navigational feedback and practice. *Virtual Reality, 27*, 1315–1326.

58. ***Jasper, A.**, ***Sepich, N. C.**, Gilbert, S. B., **Kelly, J. W.**, Dorneich, M. C. (2023). Predicting cybersickness using individual and task characteristics. *Computers in Human Behavior, 146*: 107900.

57. **Kelly, J. W.**, ***Doty, T. A.**, & **†Ambourn, M**, & ***Cherep, L. A.** (2022). Distance perception in the Oculus Quest and Oculus Quest 2. *Frontiers in Virtual Reality, 3*, 850471:1-7.

56. **Kelly, J. W.**, *Doty, T. A., *Cherep, L. A., & Gilbert, S. B. (2022). Boundaries reduce disorientation in virtual reality. *Frontiers in Virtual Reality, 3*, 882526:1-9.

55. **Kelly, J. W.**, *Hoover, M., *Doty, T. A., *Renner, A., †Zimmerman, M., †Knuth, K., *Cherep, L. A., & Gilbert, S. B. (2022). Remote research on locomotion interfaces for virtual reality: Replication of a lab-based study on teleporting interfaces. *IEEE Transactions on Visualization and Computer Graphics, 28*(5), 2037-2046.

54. **Kelly, J.W.**, *Lim, A.F., & Carpenter, S.C. (2022). Turn-by-turn route guidance does not impair route learning. *Journal of Applied Research in Memory and Cognition, 11*(1), 76-84.

53. *Sepich, N. C., *Jasper, A, †Fieffer, S., Gilbert, S. B., Dorneich, M. C., & **Kelly, J. W.** (2022). The impact of task workload on cybersickness. *Frontiers in Virtual Reality, 3*, 943409.

52. Fauville, G., Queiroz, A.C.M., Woolsey, E.S., **Kelly, J.W.**, & Bailenson, J.N. (2021). The effect of water immersion on vection in virtual reality. *Scientific Reports, 11:1022*, 1-13.

51. *Cherep, L.A., *Lim, A.F., **Kelly, J.W.**, Acharya, D., Velasco, A., Bustamante, E., *Ostrander, A., & Gilbert, S.B. (2020). Spatial cognitive implications of teleporting through virtual environments. *Journal of Experimental Psychology: Applied, 26*(3), 480-492.

2020 Nickerson Award for best paper in the journal.

50. **Kelly, J.W.**, *Ostrander, A., *Lim, A.F., *Cherep, L.A., & Gilbert, S.B. (2020). Teleporting through virtual environments: Effects of path scale and environment scale on spatial updating. *IEEE: Transactions on Visualization and Computer Graphics, 26*(5), 1841-1850.

Best paper nominee at 2020 IEEE Virtual Reality meeting.

49. **Kelly, J.W.**, †Klesel, B., & *Cherep, L.A. (2019). Visual stabilization of balance in virtual reality using the HTC Vive. *ACM: Transactions on Applied Perception, 16*(2), 8:1-11.

48. He, Q., McNamara, T.P., & **Kelly, J.W.** (2018). Reference frames in spatial updating when body-based cues are absent. *Memory & Cognition, 46*, 32-42.

47. **Kelly, J.W.**, *Cherep, L.A., †Klesel, B., †George, S., & *Siegel, Z.D. (2018). Comparison of two methods for improving distance perception in virtual reality. *ACM Transactions on Applied Perception, 15*(2), 11:1-11.

46. **Kelly, J.W.**, Costabile, K.A. & *Cherep, L.A. (2018). Social effects on reference frame selection. *Psychonomic Bulletin & Review, 25*(6), 2339-2345.

45. **Kelly, J.W.**, *Siegel, Z.D., *Sjolund, L.A., & Avraamides, M.N. (2018). Selection of macroreference frames in spatial memory. *Memory & Cognition, 46*, 1278-1286.

44. *Sjolund, L.A., **Kelly, J.W.** & McNamara, T.P. (2018). Optimal combination of environmental cues and path integration during navigation. *Memory & Cognition, 46*, 89-99.

43. *Zhou, N., *Siegel, Z.D., Zarecor, S., *Lee, N., Campbell, D.A., Andorf, C.M. Nettleton, D., Lawrence-Dill, C.J., Ganapathysubramanian, B., **Kelly, J.W.**, & Friedberg, I. (2018). Crowdsourcing image analysis for plant phenomics to generate ground truth data for machine learning. *PLOS Computational Biology,* 14(7): e1006337.

42. Chen, X., McNamara, T.P., **Kelly, J.W.**, & Wolbers, T. (2017). Cue combination in human spatial navigation. *Cognitive Psychology, 95*, 105-144.

41. **Kelly, J.W.**, *****Cherep, L.A., & *****Siegel, Z.D. (2017). Perceived space in the HTC Vive. *Transactions on Applied Perception, 15(1), 2:1-16.*

40. *****Siegel, Z.D. & **Kelly, J.W.** (2017). Walking through a virtual environment improves perceived size within and beyond the walked space. *Attention, Perception, & Psychophysics, 79*(1), 39-44.

39. *****Siegel, Z.D., **Kelly, J.W.**, & *****Cherep, L.A. (2017). Rescaling of perceived space transfers across virtual environments. *Journal of Experimental Psychology: Human Perception and Performance, 43*(10), 1805-1814.

38. Pantelides, S.N., Avraamides, M.N., & **Kelly, J.W.** (2016). Integration of spatial information across vision and language. *Journal of Cognitive Psychology, 28*(2), 171-185.

37. Chen, X., He, Q., **Kelly, J.W.**, Fiete, I.R., McNamara, T.P. (2015). Bias in human path integration is predicted by properties of grid cells. *Current Biology, 25*(13), 1771-1776.

36. **Kelly, J.W.**, Carpenter, S.K., & *****Sjolund, L.A. (2015). Retrieval enhances route knowledge acquisition, but only when movement errors are prevented. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 41*(5), 1540-1547.

35. **Kelly, J.W.**, **†**Hammel, W., *****Siegel, Z.D., & *****Sjolund, L.A. (2015). Frontal extents in virtual environments are not immune to underperception. *Attention, Perception, & Psychophysics, 77*, 1848-1853.

34. Adamou, C., Avraamides, M.N. & **Kelly, J.W.** (2014). Integration of visuo-spatial information encoded from different viewpoints. *Psychonomic Bulletin & Review, 21*(3), 659-665.

33. Avraamides, M.N., Sarrou, M. & **Kelly, J.W.** (2014). Cross-sensory reference frame transfer in spatial memory: the case of proprioceptive learning. *Memory & Cognition, 42,* 496-507.

32. **Kelly, J.W.**, **†**Hammel, W., *****Siegel, Z.D., & *****Sjolund, L.A. (2014). Recalibration of perceived distance in virtual reality occurs rapidly and transfers asymmetrically across scale. *IEEE Transactions on Visualization & Computer Graphics, 22,* 588-595.

31. *****Marsh, W.E., **Kelly, J.W.**, Dickerson, J., & Oliver, J.H. (2014). Fuzzy navigation engine: Mitigating the cognitive demands of semi-natural locomotion. *Presence: Teleoperators and Virtual Environments, 23*(3), 300-319.

30. *****Sjolund, L.A., *****Erdman, M., & **Kelly, J.W.** (2014). Collaborative inhibition in spatial memory retrieval. *Memory & Cognition, 42*, 876-885.

29. Greenauer, N., Mello, C., **Kelly, J.W.** & Avraamides, M.N. (2013). Integrating spatial information across experiences. *Psychological Research, 77*(5), 540-554.

28. **Kelly, J.W.**, *****Burton, M., *****Pollock, B., *****Rubio, E., *****Curtis, M., de la Cruz, J., Gilbert, S., & Winer, E. (2013). Space perception in virtual environments: Displacement from the center of projection causes less distortion than predicted by cue-based models. *ACM Transactions on Applied Perception, 10*(4), 18:1-23.

27. **Kelly, J.W.**, **†**Donaldson, L.S., *****Sjolund, L.A., & **†**Freiberg, J.B. (2013). More than just perception-action recalibration: Walking through a virtual environment causes rescaling of perceived space. *Attention, Perception, & Psychophysics, 75*, 1473-1485.

26. **Kelly, J.W.**, *****Sjolund, L.A. & Sturz, B.R. (2013). Geometric cues, reference frames, and the equivalence of experienced-aligned and novel-aligned views in human spatial memory. *Cognition, 126*, 459-474.

25. *****Marsh, W.E., **Kelly, J.W.**, Dark, V.J., Oliver, J.H. (2013). Cognitive demands of semi-natural virtual locomotion. *Presence: Teleoperators and Virtual Environments, 22,* 216-234.

24. Carpenter, S.K. & **Kelly, J.W.** (2012). Tests enhance retention and transfer of spatial learning. *Psychonomic Bulletin & Review, 19*(3), 443-448.

23. *****Pollock, B., *****Burton, M., **Kelly, J.W.**, Gilbert, S. & Winer, E. (2012). The right view from the wrong location: Depth perception in stereoscopic multi-user virtual environments. *IEEE Transactions on Visualization & Computer Graphics*, 18(4), 581-588.

22. **Kelly, J.W.** (2011). Head for the hills: The influence of environmental slant on spatial memory organization. *Psychonomic Bulletin & Review, 18*, 774-780.

21. **Kelly, J.W.** & Avraamides, M.N. (2011). Cross-sensory transfer of reference frames in spatial memory. *Cognition, 118*, 444-450.

20. **Kelly, J.W.**, Avraamides, M.N. & Giudice, N.A. (2011). Haptic experiences influence visually-acquired memories: Reference frames during multimodal spatial learning. *Psychonomic Bulletin & Review, 18*(6), 1119-1125.

19. **Kelly, J.W.** & McNamara, T.P. (2010). Reference frames during the acquisition and development of spatial memories. *Cognition, 116*(3), 409-420.

18. Avraamides, M.N. & **Kelly, J.W.** (2010). Multiple systems of spatial memory: Evidence from described scenes. *Journal of Experimental Psychology: Learning, Memory & Cognition, 36*(3), 635-645.

17. **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.

16. **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.

15. Avraamides, M.N. & **Kelly, J.W.** (2008). Multiple systems for spatial memory and action. *Cognitive Processing, 9*, 93-106.

14. **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.

13. **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.

12. **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.

11. **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.

10. 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.

9. **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.

8. 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.

7. 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.

6. **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.

5. 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.

4. 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.

3. **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.

2. **Kelly, J.W.**, Loomis, J.M. & Beall, A.C. (2004). Judgments of exocentric direction in large-scale space. *Perception, 33*(4), 443-454.

1. **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.

PEER-REVIEWED CONFERENCE PROCEEDINGS (*GRADUATE STUDENT CO-AUTHOR; †UNDERGRADUATE STUDENT CO-AUTHOR):

28. *****Sanaei, M., Gilbert, S. B., *****Javadpour, N., *****Sabouni, H., Dorneich, M. C., & **Kelly, J. W.** (2024). The correlations of scene complexity, workload, presence, and cybersickness in a task-based VR game. *Proceedings of HCI International 2024.*

27. *****Doty, T. A., **Kelly, J. W.**, Dorneich, M. C., & Gilbert, S. B. (2023). Does interpupillary distance (IPD) relate to immediate cybersickness? *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW).*

26. **Kelly, J. W.**, Gilbert, S. B., Dorneich, M. C., & Costabile, K. A. (2023). Gender differences in cybersickness: Clarifying confusion and identifying paths forward. *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW).*

25. Gilbert, S. B., *****Jasper, A., *****Sepich, N. C., *****Doty, T., **Kelly, J. W.**, & Dorneich, M. C. (2021). Individual Differences & Task Attention in Cybersickness: A Call for a Standardized

Approach to Data Sharing. *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops: Workshop on Immersive Sickness Prevention (WISP)*, Virtual, 161-164.

24. *****Jasper, A., *****Doty, T., *****Sepich, N., Dorneich, M. C., Gilbert, S. B., & **Kelly, J. W.** (2021). The relationship between personality, recalled cybersickness severity, and recalled cybersickness recovery time. *Proceedings of the Human Factors and Ergonomics Society 2021 Annual Meeting*, Baltimore, MD.

23. *****Kalu, C. U., Gilbert, S. B., & **Kelly, J. W.** (2021). Translating Virtual Reality Research into Practice as a Way to Combat Misinformation: The DOVE Website. *Proceedings of HCI International 2021: 23rd International Conference on Human-Computer Interaction*, Virtual.

22. **Kelly, J.W.**, *****Cherep, L.A., *****Lim, A.F., *****Doty, T., & Gilbert, S.B. (2021). Who are virtual reality headset owners? A survey and comparison of headset owners and non-owners. *2021 IEEE Virtual Reality and 3D User Interfaces (VR)*, Virtual, 687-694. (23% acceptance rate)

21. **Kelly, J.W.** & Gilbert, S.B. (2021). The effectiveness of locomotion interfaces depends on self-motion cues, environmental cues, and the individual. *IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops*, Virtual, 391-392.

20. **Kelly, J. W.**, Terrill, J., Zimmerman, M., Doty, T. A., Cherep, L. A., Hoover, M. T., Powell, N. R., Perrin, O. J., & Gilbert, S. B. (2021). Boundaries facilitate spatial orientation in virtual environments. *ACM Symposium for Spatial User Interaction (SUI '21)*, Online.

19. *****Lim, A.F., **Kelly, J.W.**, *****Sepich, N., *****Cherep, L.A., **†**Freed, G. & Gilbert, S.B. (2020). Rotational self-motion cues improve spatial learning when teleporting in virtual environments. *SUI '20: Symposium on Spatial User Interaction*, 8:1–7. (35% acceptance rate)

18. *****Cherep, L.A., *****Lim, A.F., **Kelly, J.W.**, *****Miller, A., & Gilbert, S.B. (2020). Individual differences in teleporting through virtual environments: A latent profile analysis. *Proceedings of IEEE Virtual Reality Annual Meeting*, Atlanta, GA, 725-726.

17. He, Q., McNamara, T.P., & **Kelly, J.W.** (2017). Environmental and idiothetic cues to reference frame selection in path integration. In T. Barkowsky, H. Burte, C. Hölscher, H. Schultheis (Eds.), *Spatial Cognition X: Lecture Notes in Computer Science, vol 10523* (pp. 137-156). Springer.

16. *****Curtis, M. K., Dawson, K., Jackson, K., Litwin, L., *****Meusel, C., Dorneich, M.C., Gilbert, S. B., **Kelly, J. W.**, Stone, R., Winer, E. (2015). Mitigating visually induced motion sickness: A virtual hand-eye coordination task. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 1839-1843.

15. *****Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2014). Using Relative Head and Hand–Target Features to Predict Intention in 3D Moving-Target Selection. *Proceedings of IEEE Virtual Reality*, 51-56.

14. Gilbert, S., **†**Civitate, A., **Kelly, J.W.**, *****Thompson, F., **†**Smith, A., *****Kopecky, K., Winer, E., & de la Cruz, J. (2013). Comparing training performance with vibrotactile hit alerts versus audio alerts. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference*.

13. **Kelly, J.W.**, Winer, E., Gilbert, S., *****Curtis, M., *****Rubio, E., *****Kopecky, K, *****Holub, J., & de la Cruz, J. (2013). Assessing multiple participant view positioning in virtual reality-based training. *Proceedings of the Interservice/Industry Training, Simulation and Education Conference*.

12. ***Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2013). Towards a model for predicting user intention in 3D moving-target selection tasks. In D. Harris (Ed.), *Proceedings of HCI International: Lecture Notes in Artificial Intelligence, 8019* (pp. 13–22). Berlin: Springer.

11. Avraamides, M.N., Adamou, C., Galati, A. & **Kelly, J.W.** (2012). Integration of spatial relations across perceptual experiences. In C. Stachniss, K. Schill, D. Uttal (Eds.), *Spatial Cognition VIII: Lecture Notes in Artificial Intelligence* (pp. 416-430). Berlin: Springer.

10. ***Boonsuk, W., Gilbert, S.B. & **Kelly, J.W.** (2012). The impact of three interfaces for 360-degree video on spatial cognition. *CHI 2012, Proceedings of the Conference on Human Factors in Computing Systems* (pp. 2579-2588).

9. ***Burton, M.B., *Pollock, B.B., **Kelly, J.W.**, Gilbert, S.B., Winer, E. & de la Cruz, J. (2012). Diagnosing perceptual distortion present in group stereoscopic viewing. *Proceedings of the SPIE 8291*, 82910P.

8. Gilbert, S.B., ***Boonsuk, W. & **Kelly, J.W.** (2012). Virtual displays for 360-degree video. *Proceedings of the SPIE, 8291*, 82911L.

7. ***Marsh, W.E., **Kelly, J.W.**, Dark, V.J., Oliver, J.H. (2012). The cognitive implications of virtual locomotion with a restricted field of view. *Proceedings of the SPIE, 8289*, 82890I.

6. ***Marsh, W.E., Putnam, M., **Kelly, J.W.**, Dark, V.J. & Oliver, J. (2012). The cognitive implications of semi-natural virtual locomotion. *Proceedings of IEEE Virtual Reality 2012*, 47-50.

5. ***Marsh, W.E., **Kelly, J.W.**, Dark, V.J. & Oliver, J. (2011). Assessing the use of cognitive resources in virtual reality. *Proceedings of HCI International, 174*, 120-124.

4. **Kelly, J.W.**, Avraamides, M.N. & McNamara, T.P. (2010). Reference frames influence spatial memory development within and across sensory modalities. In C. Holscher, T.F. Shipley, M.O. Belardinelli, J.A. Bateman, N.S. Newcombe (Eds.), *Spatial Cognition VII: Lecture Notes in Artificial Intelligence* (pp. 222-233). Berlin: Springer.

3. **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.

2. 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.

1. Loomis, J.M., Beall, A.C., **Kelly, J.W.** & Macuga, K.L. (2005). Importance of perceptual representation in the visual control of action. *Proceedings of the SPIE, 5666*, 356-361.

OTHER PUBLICATIONS:

3. Zhao, J., Riecke, B. E., Kelly, J. W., Stefanucci, J., & Klippel, A. (2023). Editorial: Human spatial perception, cognition, and behaviour in extended reality. *Frontiers in Virtual Reality, 4*:1257230.

2. Creem-Regehr, S. H., **Kelly, J. W.**, Bodenheimer, B., & Stefanucci, J. K. (in press). Virtual reality as a tool to understand spatial navigation. *Encyclopedia of the Brain.*

1. **Kelly, J.W.** & McNamara, T.P. (2009). Spatial memory. In B. Goldstein (Ed.), *Encyclopedia of Perception* (pp. 916-918). Thousand Oaks, CA: SAGE Publications.

MANUSCRIPTS UNDER REVIEW (*GRADUATE STUDENT CO-AUTHOR; †UNDERGRADUATE STUDENT CO-AUTHOR):

1.

INVITED PRESENTATIONS:

Kelly, J.W. (2024). The influence of individual characteristics and adaptation on cybersickness. Workshop on Immersive Sickness Prevention, IEEE Virtual Reality 2024, Orlando, FL.

Kelly, J.W. (2022). Navigating through virtual environments. Department of Computer Science, Mississippi State University.

Cherep, L. A. & Kelly, J. W. (2021). Hop, skip, and a jump: exploring the spatial cognitive costs of teleporting in virtual reality. Nickerson Award Lecture, APA 2021.

Kelly, J.W. (2021). Navigating through virtual environments. Department of Psychology, Oregon State University.

Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Department of Psychology, University of Iowa.

Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Center for Cognitive Sciences, University of Minnesota.

Kelly, J.W. (2019). Spatial cognitive implications of teleporting through virtual environments. Talk presented at the annual meeting of the *Midwestern Psychological Association*, Chicago, IL.

Kelly, J.W. (2018). Teleporting through virtual environments. Talk presented at the *2018 Interdisciplinary Navigation Symposium*, Quartier Tremblant, Canada.

Kelly, J. W. (2016). "Crowdsourcing for plant phenotypes." Talk presented at workshop on "Phenotypic prediction: image acquisition and analysis." Ames, IA.

Kelly, J.W. (2013). "Lost in virtual space: Navigation, grid cells, and space perception." Department of Psychology, University of Iowa.

Kelly, J.W. (2010). "The influence of body-based and environment-based cues on spatial memory and spatial orientation." Department of Psychology, University of Cyprus.

CONFERENCE PRESENTATIONS (* INDICATES GRADUATE STUDENT CO-AUTHOR; † INDICATES UNDERGRADUATE STUDENT CO-AUTHOR):

98. **Kelly, J. W.**, McNamara, T. P., *****Doty, T. A., *****Newman, P. M., & *****Sanei, M. (2024). The influence of prior knowledge on memory for spatial locations. Poster presented at the *Psychonomic Society Annual Meeting*.

97. **Kelly, J. W.**, McNamara, T. P., *****Doty, T. A., *****Newman, P. M., *****Sanei, M., & Gilbert, S. B. (2023). The influence of prior experience on causal inference in navigation. Poster presented at the *Psychonomic Society Annual Meeting*.

96. *Doty, T. A., **Kelly, J. W.**, Dorneich, M. C., & Gilbert, S. B. (2023). Does interpupillary distance (IPD) relate to immediate cybersickness? Poster presented at the *IEEE Virtual Reality*, Shanghai.

95. **Kelly, J. W.**, Gilbert, S. B., Dorneich, M. C., & Costabile, K. A. (2023). Gender differences in cybersickness: Clarifying confusion and identifying paths forward. Talk presented at the *2023 Workshop on Immersive Sickness Prevention*, Virtual conference.

94. **Kelly, J. W.**, *Hoover, M., *Doty, T. A., *Renner, A., †Zimmerman, M., †Knuth, K., *Cherep, L. A., & Gilbert, S. B. (2022). Remote research on locomotion interfaces for virtual reality: Replication of a lab-based study on teleporting interfaces. Talk presented at *IEEE Virtual Reality*, Virtual conference.

93. *Cherep, L. A. & **Kelly, J. W.** (2021). Individual differences in the integration of vertical spaces. Talk presented at the 62nd Annual Meeting of the Psychonomic Society, New Orleans, LA.

92. *Doty, T. A., **Kelly, J. W.**, & †Ambourn, M. (2021). Distance perception in virtual reality: Comparing modern headsets to the real world. Talk presented at the annual *APA Technology, Mind, and Society Conference*, Virtual.

91. *Jasper, A., *Doty, T., *Sepich, N., Dorneich, M. C., Gilbert, S. B., & **Kelly, J. W.** (2021). The relationship between personality, recalled cybersickness severity, and recalled cybersickness recovery time. Talk presented at the *Human Factors and Ergonomics Society Annual Meeting*, Baltimore, MD.

90. *Kalu, C. U., Gilbert, S. B., & **Kelly, J. W.** (2021). Translating Virtual Reality Research into Practice as a Way to Combat Misinformation: The DOVE Website. Poster presented at *HCI International*, Virtual.

89. **Kelly, J. W.**, Terrill, J., Zimmerman, M., Doty, T. A., Cherep, L. A., Hoover, M. T., Powell, N. R., Perrin, O. J., & Gilbert, S. B. (2021). Boundaries facilitate spatial orientation in virtual environments. Poster presented at the *ACM Symposium for Spatial User Interaction (SUI '21)*, Online.

88. Gilbert, S. B., *Jasper, A., *Sepich, N. C., *Doty, T., **Kelly, J. W.**, & Dorneich, M. C. (2021). Individual Differences & Task Attention in Cybersickness: A Call for a Standardized Approach to Data Sharing. Talk presented at the "Workshop on immersive sickness prevention (WISP) at the *IEEE Conference on Virtual Reality and 3D User Interfaces*, Virtual.

87. *Hoover, M., *Cherep, L.A., **Kelly, J.W.** & Gilbert, S.B. (2021). Ensuring the reliability of remote VR research data. Talk presented at the "XR Remote Research" workshop at *CHI 2021*, Virtual.

86. **Kelly, J.W.**, *Cherep, L.A., *Lim, A.F., *Doty, T., & Gilbert, S.B. (2021). Who are virtual reality headset owners? A survey and comparison of headset owners and non-owners. Talk presented at the *2021 IEEE Virtual Reality and 3D User Interfaces* annual meeting, Virtual.

85. **Kelly, J.W.** & Gilbert, S.B. (2021). The effectiveness of locomotion interfaces depends on self-motion cues, environmental cues, and the individual. Talk presented at the "Finding a way forward in VR locomotion" workshop at the *IEEE Conference on Virtual Reality and 3D User Interfaces*, Virtual.

84. *Cherep, L.A., *Lim, A.F., **Kelly, J.W.**, *Miller, A., & Gilbert, S.B. (2020). Individual differences in teleporting through virtual environments: A latent profile analysis. Poster presented at the *IEEE Virtual Reality Annual Meeting*, Atlanta, GA.

83. **Kelly, J.W.**, *Lim, A.F., *Cherep, L.A., *Ostrander, A., & Gilbert, S.B. (2020). Teleporting through virtual environments: Effects of path scale and environment scale on spatial updating. Talk presented at the *IEEE Virtual Reality Annual Meeting*, Atlanta, GA.

82. *Lim, A.F., **Kelly, J.W.**, *Sepich, N., *Cherep, L.A., †Freed, G. & Gilbert, S.B. (2020). Rotational self-motion cues improve spatial learning when teleporting in virtual environments. Talk presented at the *Symposium on Spatial User Interaction*, Virtual.

81. *Cherep, L.A., **Kelly, J.W.**, *Lim, A.F., †Acharya, D., †Velasco, A., †Bustamante, E., *Ostrander, A., Gilbert, S.B. (2019). Boundaries plus landmarks mitigate limited self-motion in virtual reality. Talk presented at the annual meeting of the *Midwestern Psychological Association*, Chicago, IL.

80. **Kelly, J.W.**, *Cherep, L.A., *Lim, A.F., *Ostrander, A., & Gilbert, S. (2019). Teleporting through virtual environments. Talk presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, Quebec.

79. *Lim, A.F., *Cherep, L.A., **Kelly, J.W.**, *Ostrander, A., & Gilbert, S. (2019). The effect of spatial scale when teleporting through virtual environments. Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, Quebec.

78. *Cherep, L.A., **Kelly, J.W.**, & McNamara, T.P. (2018). Effect of spatial and non-spatial environmental changes on human perception of self-location. Poster presented at the *59th Annual Meeting of the Psychonomic Society*, New Orleans, LA.

77. *Lim, A.F, **Kelly, J.W.**, & Carpenter, S.K. (2018). Effect of testing on route learning using GPS navigation. Poster presented at the *59th Annual Meeting of the Psychonomic Society*, New Orleans, LA.

76. *Cherep, L., Kelly, J.W., & McNamara, T.P. (2018). Human perception of self-location. Poster presented at the *2018 Interdisciplinary Navigation Symposium*, Quartier Tremblant, Canada.

75. *Cherep, L., Kelly, J., †Acharya, D., †Bustamante, E., †Velasco II, A. (2018). Body-Based Cues Improve Spatial Updating in Virtual Reality. Talk presented at the 2018 meeting of the *Midwestern Psychological Association*, Chicago, IL.

74. *Lim, A., *Cherep, L., †Acharya, D., †Bustamante, E., †Velasco II, A., Kelly, J. (2018). Sex Differences in Navigation When Teleporting through Virtual Environments. Talk presented at the 2018 meeting of the *Midwestern Psychological Association*, Chicago, IL.

73. *Cherep, L.A., **Kelly, J.W.**, & Costabile, K.A. (2017). Social effects on reference frame selection. Poster presented at the *58th Annual Meeting of the Psychonomic Society*, Vancouver, Canada.

72. *Cherep, L.A., **Kelly, J.W.**, *Siegel, Z.D. (2017). Walking interaction improves distance judgments in virtual reality. Poster presented at the 2017 meeting of the *Midwestern Psychological Association*.

71. †Klesel, B., *Cherep, L.A., **Kelly, J.W.**, & *Siegel, Z.D. (2017). Rescaling of perceived space transfers across virtual environments. Poster presented at the 2017 meeting of the *Midwestern Psychological Association.*

70. *Lee, N., *Zhou, N., *Siegel, Z., Zarecor, S., Srinivasan, S., Nettleton, D., Lawrence-Dill, C., Freidberg, I., **Kelly, J.**, Schnable, P., & Ganapathysubramanian, B. (2017). High throughput plant phenotyping in the field: Machine learning enabled by data from crowdsourcing. Talk presented at *International Plant and Animal Genome XXV*, San Diego, CA.

69. He, Q., McNamara, T.P., & **Kelly, J.W.** (2016). Difficult spatial updating relies on the initial facing orientation as the reference direction in path integration. Poster presented at *Spatial Cognition 2016*, Philadelphia, PA.

68. *Siegel., Z.D., **Kelly, J.W.**, †George, S., †Huney, J., & †Klesel, B. (2016). Impact of environment preview on distance perception in virtual reality. Poster presented at the *57th Annual Meeting of the Psychonomic Society*, Boston, MA.

67. *Sjolund, L.A. & **Kelly, J.W.** (2016). Optimal integration of geometric and optic flow cues to navigation. Poster presented at the *57th Annual Meeting of the Psychonomic Society*, Boston, MA.

66. *Curtis, M. K., Dawson, K., Jackson, K., Litwin, L., *Meusel, C., Dorneich, M.C., Gilbert, S. B., **Kelly, J. W.**, Stone, R., Winer, E. (2015). Visually induced motion sickness: A virtual hand-eye coordination task. Presented at the *Human Factors and Ergonomics Society Annual Meeting*, Los Angeles, CA.

65. He, Q., McNamara, T. P., & **Kelly, J.W.** (2015). Difficult spatial updating relies on an environmental reference direction. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.

64. *Siegel, Z.D. & **Kelly, J.W.** (2015). Rescaling of perceived space in virtual reality. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.

63. *Sjolund, L.A., **Kelly, J.W.**, & McNamara, T.P. (2015). Cue integration during navigation. Poster presented at the *Psychonomic Society Annual Meeting*, Chicago, IL.

62. *Siegel, Z.D. & **Kelly, J.W.** (2014). Distance perception in virtual environments improves with visual feedback and transfers across environments. Poster presented at the *Psychonomic Society Annual Meeting*, Long Beach, CA.

61. *Sjolund, L.A., **Kelly, J.W.**, & McNamara, T.P. (2014). Cue integration during navigation. Poster presented at the *Psychonomic Society Annual Meeting*, Long Beach, CA.

60. *Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2014). Using Relative Head and Hand–Target Features to Predict Intention in 3D Moving-Target Selection. Talk presented at *IEEE Virtual Reality,* Minneapolis, MN.

59. **Kelly, J.W.**, †Hammel, W., *Siegel, Z.D., & *Sjolund, L.A. (2014). Recalibration of perceived distance in virtual reality occurs rapidly and transfers asymmetrically across scale. Talk presented at *IEEE Virtual Reality,* Minneapolis, MN.

58. Adamou, C., Avraamides, M.N., & **Kelly, J.W.** (2013). Integration of spatial information across visual experiences. Poster presented at the *European Society for Cognitive Psychology Annual Conference*, Budapest, Hungary.

57. Carpenter, S.K., **Kelly, J.W.**, & *****Sjolund, L.A. (2013). The effects of retrieval practice on visuospatial learning. Talk presented at the *10th annual meeting of the Society for Applied Research in Memory and Cognition (SARMAC)*, Rotterdam.

56. *****Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2013). Towards a model for predicting user intention in 3D moving-target selection tasks. Poster presented at *HCI International*, Las Vegas, NV.

55. Gilbert, S., **†**Civitate, A., **Kelly, J.W.**, *****Thompson, F., **†**Smith, A., *****Kopecky, K., Winer, E., & de la Cruz, J. (2013). Comparing training performance with vibrotactile hit alerts versus audio alerts. Talk presented at the 2013 *Interservice/Industry Training, Simulation and Education Conference*, Orlando, FL.

54. **Kelly, J.W.**, *****Sjolund, L.A. & McNamara, T.P. (2013). Cue integration during navigation. Talk presented at *Spatial Memory: Bayes and Beyond*, Richmond, VA.

53. **Kelly, J.W.**, Winer, E., Gilbert, S., *****Curtis, M., *****Rubio, E., *****Kopecky, K, *****Holub, J., & de la Cruz, J. (2013). Assessing multiple participant view positioning in virtual reality-based training. Talk presented at the 2013 *Interservice/Industry Training, Simulation and Education Conference*, Orlando, FL.

52. Pantelides, S.N., Avraamides, M.N., & **Kelly, J.W.** (2013). Integrating spatial information across vision and language. Poster presented at the *European Society for Cognitive Psychology Annual Conference*, Budapest, Hungary.

51. *****Siegel, Z.D., *****Sjolund, L.A., **Kelly, J.W.**, & Avraamides, M.N. (2013). Macro-reference frame selection. Poster presented at the *Psychonomic Society Annual Meeting*, Toronto.

50. Sturz, B.R., *****Sjolund, L.A. & **Kelly, J.W.** (2013). Geometric cues, reference frames, and the equivalence of experienced-aligned and novel-aligned views in human spatial memory. Talk presented at the *20th Annual Conference on Comparative Cognition*, Melbourne, FL.

49. Adamou, C., Avraamides, M.N., Galati, A. & **Kelly, J.W.** (2012). Integration of spatial relations across perceptual experiences. Talk presented at *Spatial Cognition 2012* in Bavaria, Germany.

48. *****Boonsuk, W., Gilbert, S.B. & **Kelly, J.W.** (2012). The impact of three interfaces for 360-degree video on spatial cognition. Talk presented at *CHI 2012,* Austin, TX.

47. *****Burton, M.B., *****Pollock, B.B., **Kelly, J.W.**, Gilbert, S.B., Winer, E. & de la Cruz, J. (2012). Diagnosing perceptual distortion present in group stereoscope viewing. Talk presented at *Human Vision and Electronic Imaging XVII, SPIE*, San Francisco, CA.

46. *****Casallas, J.S., Oliver, J., **Kelly, J.W.**, Merienne, F. & Garbaya, S. (2012). Predicting user intention to enhance interaction in a virtual environment. Poster presented at the *9th Annual Emerging Technologies Conference*, Ames, IA.

45. *****Erdman, M., *****Sjolund, L.A., & **Kelly, J.W.** (2012). Collaborative inhibition in spatial memory retrieval. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.

44. Gilbert, S.B., *****Boonsuk, W. & **Kelly, J.W.** (2012). Virtual displays for 360-degree video. Poster presented at *Human Vision and Electronic Imaging XVII, SPIE*, San Francisco, CA.

43. ***Marsh, W.E., Kelly, J.W.**, Dark, V.J., Oliver, J.H. (2012). The cognitive implications of virtual locomotion with a restricted field of view. Talk presented at *The Engineering Reality of Virtual Reality 2012, SPIE*, San Francisco, CA.

42. McNamara, T.P., Chen, X. & **Kelly, J.W.** (2012). Grid cells and human path integration. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.

41. Pantalides, S.N., Avraamides, M.N. & **Kelly, J.W.** (2012). Integrating spatial information across vision and language. Talk presented at the *13th European Workshop on Imagery and Cognition*, Bochum, Germany.

40. ***Pollock, B., *Burton, M., Kelly, J.W.**, Gilbert, S. & Winer, E. (2012). The right view from the wrong location: Depth perception in stereoscopic multi-user virtual environments. Talk presented at *IEEE Virtual Reality 2012*, Irvine, CA.

39. ***Sjolund, L.A., Kelly, J.W.** & McNamara, T.P. (2012). Cue integration during navigation. Poster presented at the *Psychonomic Society 53rd Annual Meeting*, Minneapolis, MN.

38. Adamou, C.D., Avraamides, M.N. & **Kelly, J.W.** (2011). Integration of visuo-spatial information encoded from different viewpoints. Poster presented at the *European Congress of Psychology*, Istanbul, Turkey.

37. ***Boonsuk, W.**, Gilbert, S.B. & **Kelly, J.W.** (2011). Usability study for 360-degree view interfaces. Poster presented at the *8th Annual Emerging Technologies Conference*, Ames, IA.

36. ***Burton, M.**, Gilbert, S.B., **Kelly, J.W.**, ***Pollock, B.** & ***Jose, S.** (2011). Multiview image blending in the C6. Poster presented at the *8th Annual Emerging Technologies Conference*, Ames, IA.

35. Gilbert, S., **Kelly, J.W.**, ***Burton, M.**, ***Pollock, B.**, de la Cruz, J. (2011). What does your brain do with bad stereoscopic 3D? Talk presented at *I/ITSEC*, Orlando, FL.

34. Greenauer, N., Mello, C., Avraamides, M.N. & **Kelly, J.W.** (2011). The influence of existing knowledge structures on the formation of integrated spatial memories. Poster presented at the *Psychonomic Society 52nd Annual Meeting*, Seattle, WA.

33. **Kelly, J.W.** Sturz, B.R. & ***Hughes, L.A.** (2011). Environmental Cues to Reference Frame Selection: Room Axes and Surfaces. Poster presented at the *Psychonomic Society 52nd Annual Meeting*, Seattle, WA.

32. ***Marsh, W.E.**, Oliver, J., Dark, V.J. & **Kelly, J.W.** (2011). The cognitive implications of semi-natural locomotion. Poster presented at the *8th Annual Emerging Technologies Conference*, Ames, IA.

31. ***Marsh, W.E., Kelly, J.W.**, Dark, V.J. & Oliver, J. (2011). Assessing the use of cognitive resources in virtual reality. Poster presented at *HCI International*, Orlando, FL.

30. **Kelly, J.W.** & Avraamides, M.N. (2010). Cross-modal influence of reference frames in spatial memory. Talk presented at the *Psychonomic Society 51st Annual Meeting*, St. Louis, MO.

29. **Kelly, J.W.** & ***Khounlavouth, A.** (2010). Reference frames influence landmark selection: Evidence from overshadowing. Talk presented at *Spatial Cognition 2010*, in Mt. Hood, OR.

28. **Kelly, J.W.**, Avraamides, M.N. & McNamara, T.P. (2010). Reference frames influence spatial memory development within and across sensory modalities. Talk presented at *Spatial Cognition 2010*, in Mt. Hood, OR.

27. *****Marsh, W.E., Oliver, J., Dark, V.J. & **Kelly, J.W.** (2010). The cognitive implications of semi-natural locomotion. *World Conference on Innovative Virtual Reality*, Ames, IA.

26. **Kelly, J.W.** & McNamara, T.P. (2009). Reference directions during the development of spatial memories. Poster presented at the *Psychonomic Society 50ᵗʰ Annual Meeting*, Boston, MA.

25. **Kelly, J.W.** & McNamara, T.P. (2009). Use of geometric and non-geometric cues to maintain orientation during locomotion. *Annual Interdisciplinary Conference*, Jackson, WY.

24. **Kelly, J.W.**, Calderwood, M., McNamara, T.P. & Bodenheimer, B. (2009). The contributions of self-motion cues and room shape during navigation through virtual environments. Poster presented at the *Symposium on Applied Perception in Graphics and Visualization*, Crete.

23. Calderwood, M., **Kelly, J.W.**, McNamara, T.P. & Bodenheimer, B. (2009). Adding head tracking to desktop virtual reality with the Wii remote as an aid to spatial cognition. Poster presented at the *Symposium on Applied Perception in Graphics and Visualization*, Crete.

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

21. 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.

20. 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.

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

18. **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 *Psychonomic Society 49ᵗʰ Annual Meeting*, Chicago, IL.

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

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

15. **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 *Psychonomic Society 47ᵗʰ Annual Meeting*, Houston, Texas.

14. 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.

13. 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.

12. 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.

11. 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.

10. 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.

9. **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.

8. 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.

7. Avraamides, M.N. & **Kelly, J.W.** (2004). Imagined perspective-changing within and across novel environments. Talk presented at *Spatial Cognition*, Frauenchiemsee, Germany.

6. **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.

5. Avraamides, M.N & **Kelly, J.W.** (2003). Spatial representations from perception and language. *Young Scientist Forum, International Spatial Cognition Summer Institute*, Bad Zwischenahn, Germany.

4. **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.

3. 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.

2. **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.

1. Olmstead, R.E., **Kelly, J.W.**, Iwamoto-Schaap, P.N., Madsen, D.C., Huerta, L. & Chhin, C.S. (1999). Acute tolerability of mecamylamine and bupropion combination treatment for smoking cessation. Poster presented at the *Society for Research on Nicotine and Tobacco* meeting, San Diego, CA.