Michael James Starrett, M.A.

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EDUCATION

2018 – **University of Arizona**
Ph.D. Candidate, Psychology | Minor: Cognitive Science
Advisor: Arne D. Ekstrom, Ph.D.

2015 – 2018 **University of California, Davis**
M.A. Psychology (December 15, 2017)
Advisor: Arne D. Ekstrom, Ph.D.

2007 – 2011 **University of Wisconsin-Madison**
B.A. Psychology (December 24, 2011)

RESEARCH EXPERIENCE

2018 – Graduate Assistant, Research, Human Spatial Cognition Laboratory
University of Arizona; PI: Arne Ekstrom, Ph.D.

2015 – 2018 Graduate Student Researcher, Human Spatial Cognition Laboratory
University of California, Davis; PI: Arne Ekstrom, Ph.D.

2012 – 2015 Associate Research Specialist (Lab Manager), Postlab
University of Wisconsin-Madison; PI: Brad Postle, Ph.D.

2010 – 2012 Undergraduate Research Assistant, Postlab
University of Wisconsin-Madison; PI: Brad Postle, Ph.D.

PUBLICATIONS (citations: 397; h-index: 7, i10-index: 6; source: Google Scholar)

*equal contributions** *mentored/supervised †*

Refereed Journal Articles

in press Sheldon, A. D., Saad, E., Sahan, M. I., Meyering, E., **Starrett, M. J.**, LaRocque, J. J., Rose, N. S., & Postle, B. R. (*in press*). Attention biases competition for visual representation via enhancement of targets and inhibition of nontargets. *Journal of Cognitive Neuroscience.*

2020 Preciado, C. E. †, **Starrett, M. J.**, & Ekstrom, A. D. (2020). Assessment of a Short, Focused Training to Reduce Symptoms of Cybersickness. *PRESENCE: Virtual and Augmented Reality*, 1–40. https://doi.org/10.1162/pres_a_00335

Starrett, M. J., McAvan, A. S., Huffman, D. J., Stokes, J. D., Kyle, C. T., Smuda, D. N., Kolarik, B. S., Laczko, J., & Ekstrom A. D. (2020). Landmarks: A solution for spatial navigation and memory experiments in virtual reality. *Behavior Research Methods*. Advance online publication. https://doi.org/10.3758/s13428-020-01481-6

Hejtmanek, L., **Starrett, M. J.**, Ferrer, E., & Ekstrom, A. D. (2020). How much of what we learn in virtual reality transfers to real-world navigation? *Multisensory Research*, 1-25. Advance online publication. https://doi.org/10.1163/22134808-20201445

2019 **Starrett, M. J.**, Stokes, J. D., Huffman, D. J., Ferrer, E., & Ekstrom, A. D. (2019). Learning-dependent evolution of spatial representations in large-scale virtual environments. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 45*(3), 497-514. https://doi.org/10.1037/xlm0000597

2018 **Starrett, M. J.**, & Ekstrom, A. D. (2018). Perspective: Assessing the Flexible Acquisition, Integration, and Deployment of Human Spatial Representations and Information. *Frontiers in Human Neuroscience, 12*, 281. https://doi.org/10.3389/fnhum.2018.00281

Liang, M., **Starrett, M. J.**, & Ekstrom, A. D. (2018). Dissociation of frontal-midline delta-theta and posterior alpha oscillations: A mobile EEG study. *Psychophysiology, 55*(9), e13090. https://doi.org/10.1111/psyp.13090

Gosseries, O., Yu, Q., LaRocque, J. J., **Starrett, M. J.**, Rose, N. S., Cowan, N., & Postle, B. R. (2018). Parietal-occipital interactions underlying control- and representation-related processes in working memory for nonspatial visual features. *Journal of Neuroscience, 38*(18), 4357-4366. https://doi.org/10.1523/JNEUROSCI.2747-17.2018

2017 Ekstrom, A. D., Huffman, D. J., & **Starrett, M.** (2017). Interacting networks of brain regions underlie human spatial navigation: A review and novel synthesis of the literature. *Journal of Neurophysiology, 188*(6), 3328-3344. https://doi.org/10.1152/jn.00531.2017

2016 Rose, N. S., LaRocque, J. J., Riggall, A. C., Gosseries, O., **Starrett, M. J.**, Meyering, E. E., & Postle, B. R. (2016). Reactivation of latent working memories with transcranial magnetic stimulation. *Science, 354*(6316), 1136-1139. https://doi.org/10.1126/science.aah7011

2015 LaRocque, J. J., Eichenbaum, A. S.*, **Starrett, M. J.***, Rose, N. S., Emrich, S. M., & Postle, B. R. (2015). The short- and long-term fates of memory items retained outside the focus of attention [Special issue]. *Memory and Cognition, 43*(3), 453-468. https://doi.org/10.3758/s13421-014-0486-y

CONFERENCE PROCEEDINGS

Talks

2017 **Starrett, M. J.**, Stokes, J. D., & Ekstrom, A. D. (2017, August 3-7). *Dynamic evolution of spatial representations during free ambulation of novel large-scale virtual environments* [Conference session]. Cognitive Science Association for Interdisciplinary Learning Annual Meeting, Hood River, OR, United States.

2015 Saad, E., **Starrett, M. J.**, LaRocque, J. J., Rose, N. S., & Postle, B. R. (2015, October 17-21). Multivariate assessment of biased competition in human visual attention. In C. Gray (Chair), *Assessment and Modulation of Human Working Memory* [Nanosymposium]. Society for Neuroscience Annual Meeting, Chicago, IL, United States.

2014 Riggall, A. C., Rose, N. S., **Starrett, M. J.**, & Postle, B. R. (2014, November 15-19). Frontoparietal contributions to the short-term retention of motion and color. In A. C. Nobre (Chair) *Working Memory* [Nanosymposium]. Society for Neuroscience Annual Meeting, Washington, D.C., United States.

First-Authored Posters

2021 **Starrett, M. J.**, Huffman, D. J., & Ekstrom, A. D. (2021, January 11-13). *Spatial learning through interaction: A hybrid "route" to a cognitive map* [Poster presentation]. Society for Neuroscience Global Connectome: A Virtual Event.

2016 **Starrett, M. J.**, Stokes, J. D., Kreylos, O., & Ekstrom, A. D. (2016, November 12-16). *Navigation in virtual reality with vestibular and proprioceptive input diminishes orientation-dependent spatial representations* [Poster presentation]. Society for Neuroscience Annual Meeting, San Diego, CA, United States.

Starrett, M. J., Stokes, J. D., & Ekstrom, A. D. (2016, August 2-5). *Vestibular and proprioceptive contributions to human spatial learning and memory during free-navigation of virtual reality environments* [Poster presentation]. Spatial Cognition 2016, Philadelphia, PA, United States.

Starrett, M. J., Stokes, J. D., & Ekstrom, A. D. (2016, May 17-18). *Vestibular and proprioceptive contributions to human spatial learning and memory during free-navigation of virtual reality environments* [Poster presentation]. Experiential Technology & Neurogaming Conference and Expo, San Francisco, CA, United States.

Starrett, M. J., Stokes, J. D., & Ekstrom, A. D. (2016, March 4). *Head- and body- based information contribute to immersive experience during virtual reality navigation* [Poster presentation]. Northern California Consciousness Meeting, Davis, CA, United States.

2015 **Starrett, M. J.**, Gosseries, O., LaRocque, J. J., Saad, E., Cowan, N., & Postle, B. R. (2015, October 17-21). *Delay-period activity of the parietal cortex depends on working memory load, not interference representations*

[Poster presentation]. Society for Neuroscience Annual Meeting, Chicago, IL, United States.

Starrett, M. J., Rose, N. S., Riggall, A. C., Samaha, J., & Postle, B. R. (2015, March 28-31). *EEG and behavioral effects of delay-period rTMS* [Poster presentation]. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA, United States.

2014 **Starrett, M. J.**, Rose, N. S., Riggall, A. C., & Postle, B. R. (2014, November 15-19). *Behavioral and EEG effects of rTMS on recall of items inside versus outside the focus of attention representations* [Poster presentation]. Society for Neuroscience Annual Meeting, Washington, D.C., United States.

Starrett, M. J., LaRocque, J. J., Rose N. S., & Postle, B. R. (2014, April 5-8). *In short-term memory but outside the focus of attention: A role for long-term memory?* [Poster presentation]. Cognitive Neuroscience Society Annual Meeting, Boston, MA, United States.

AWARDS AND FELLOWSHIPS

2020 Centennial Achievement Graduate Student Award (Nominated)
University of Arizona

2017 Psychology Professional Development Travel Fellowship ($500)
University of California, Davis

2016 Duke's Travel Award ($500)
University of California, Davis

2015 Psychology Department Fellowship ($18,167)
University of California, Davis

2010 – 2011 Undergraduate Research Scholar Award ($500)
University of Wisconsin-Madison

2010 Dean's List, College of Letters and Sciences – Fall Semester
University of Wisconsin-Madison

PROFESSIONAL SERVICE

Mentorship Professional Development Committee Mentorship Program (Fall 2020)
Department of Psychology, University of Arizona

Mentor-Mentee Program in Humanities, Arts, Cultural Studies and Social Sciences (Winter & Spring 2018)
University of California, Davis

UC Davis Young Scholars Program (Summer 2017)
University of California, Davis

Mentorships for Undergraduate Research in Agriculture, Letters and Science (MURALS) program (Winter & Spring 2017)
University of California, Davis

UC Davis Young Scholars Program (Summer 2016)
University of California, Davis

Outreach — Poster presenter, 2nd annual Neuroscience Initiative to Enhance Diversity, Apr 21-22, 2016; Center for Neuroscience, Davis, CA.

Poster presenter, Brain Awareness Week Neuroscience Public Seminars: The Healthy Aging Brain, Mar 12, 2016; Center for Neuroscience, Davis, CA.

Conferences — Organizing committee, *UC Davis 3D Imaging and Visualization Conference (ucd3d)*, January 22-23, 2018; Davis, CA.

Ad hoc reviewer — *Behavior Research Methods, Transactions on Applied Perception, Scientific Reports, PLOS Computational Biology, Psychological Research*

TEACHING EXPERIENCE

UC, Davis — **Teaching Assistant**
Cognitive Neuroscience (Fall 2017), Arne Ekstrom, Ph.D.
Advanced Cognitive Neuroscience (Spr. 2017), Arne Ekstrom, Ph.D.
Introduction to Cognitive Psychology (Sum. 2016), Branden Kolarik
Development of Memory (Spr. 2016), Simona Ghetti, Ph.D.
General Psychology (Win. 2016), Erin Freed

UW-Madison — **"Pre-Lab" Meeting Facilitator**
Cognitive Neuroscience of Working Mem. (2012-15), Brad Postle, Ph.D.

TECHNICAL EXPERIENCE

Languages — MATLAB, *R*, C#, Python, bash, (some) C++

Software — Unity 3D (SteamVR, VRTK, Landmarks*), MATLAB (EEGlab, Fieldtrip, PsychToolBox), *R* (various packages), MPlus, SPSS, Git, Visual Studio, Blender
* *Maintainer (github.com/mjstarrett/)*

Hardware — EEG (Nexstim, Brain Vision), TMS (Magstim, Nexstim), Virtual reality head-mounted displays (Oculus DK2, Oculus Go, Oculus Quest, HTC Vive, HTC Vive Pro), Virtual reality omnidirectional treadmills (Cyberith Virtualizer, Cyberith Virtualizer Elite, Cyberith Virtualizer Elite 2, KatVR Kat Walk), Eye tracking (Pupil Labs, Tobii Pro)

Trainings — Fieldtrip Bootcamp: ECoG/sEEG FieldTrip toolkit course at UC, Davis Lectures and hands-on experience covering preprocessing, frequency analysis, connectivity, and various statistical methods. UC, Davis Medical Center, Sacramento, CA.

AFFILIATIONS

2014 – 2021	Society for Neuroscience
2013 – 2015	Cognitive Neuroscience Society