

# STEVEN M. WEISBERG, PHD

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## ACADEMIC APPOINTMENTS

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- 2019-Present     Assistant Professor  
Department of Psychology  
**University of Florida**  
Director: Spatial Cognition and Navigational Neuroscience Laboratory
- 2015-2019       Postdoctoral Fellow  
Center for Cognitive Neuroscience  
**University of Pennsylvania**  
Advisor: Dr. Anjan Chatterjee

## EDUCATION

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- 2015             PhD in Psychology  
Brain and Cognitive Sciences  
**Temple University**  
Advisor: Dr. Nora Newcombe
- 2008             BA in Psychology, *cum laude*  
Minor in Mathematics  
**College of William and Mary**  
Advisor: Dr. Jeanine Stefanucci

## AWARDS AND HONORS

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- 2022             Society Fellowship, Psychonomic Society
- 2018             Biomedical Postdoctoral Program Travel Award, University of Pennsylvania
- 2017             Collaborative Symposium Award, Psychonomic Society
- 2017             Postdoctoral Fellow Award, Cognitive Neuroscience Society
- 2016             Biomedical Postdoctoral Program Travel Award, University of Pennsylvania
- 2014             College of Liberal Arts Travel Award, Temple University
- 2013             Training in fMRI Fellowship, University of Michigan, NIH
- 2013             Visiting Fellowship, Martinos Center for Biomedical Imaging, Mass. Gen. Hosp.
- 2013             Collaboration Grant, Science Across Virtual Institutes, NSF
- 2012             Department of Psychology Travel Award, Temple University
- 2010-2012       University Fellowship, Temple University
- 2004-2008       Dean's List, College of William and Mary

## GRANTS

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\*Direct Costs; †Total Costs; *Trainees in italics*

### Current

2024

*Exploring Risk Tolerance and Decision-Making Across Contexts: Implications for Healthy Cognitive Aging and Alzheimer's Disease.* (Scientific Research Network on Decision Neuroscience and Aging; [SRNDNA](#)). **Mentor**, with PI *Perez*, co-I's Barnas, Ebner, Kvam, & Bowers.

2023

Critical Life Event Supplement to K01-AG070333-02 (NIH K01-AG070333-01; †\$70,000). **Principal Investigator**, with Primary Mentor Ebner, Co-Mentors DeKosky and Ding.

2023

*An fMRI real-time neurofeedback intervention to affect navigation strategy selection in older adults.* (Cognitive Aging and Memory Center Pilot Grant; \*\$12,500). **Principal Investigator**

2022 – 2025

*Novel behavioral and neural markers of Alzheimer's Disease progression.* (Ed and Ethel Moore Alzheimer's Disease Research Program – 22A12; †\$100,000). **Mentor** with PI - Barnas.

2021 – 2025

*Behavioral and neural properties of spatial direction comprehension in aging and amnesic mild cognitive impairment.* (NIH K01-AG070333-01; †\$619,849). **Principal Investigator**, with Primary Mentor Ebner, Co-Mentors DeKosky and Ding.

### Pending

2024 – 2029 (Under review)

*The role of risk perception in age-related and ADRD shifts in spatial navigation behavior.* (NIH 1R01AG089390-01). **Principal Investigator**, with co-I's Seidler, Ebner.

2024 – 2029 (Under review)

*Neural Correlates of Cognitive-Motor Interactions in ADRD Gait.* (NIH 1R01AG089050-01). **Co-Investigator**, with PI Seidler, co-I's Hill, Ebner.

2023 – 2025 (Under review)

*Determining the efficacy of a navigation intervention to remedy orientation deficits.* (NIH 1R21AG085702-01). **Principal Investigator**, with multi-PI Ekstrom, co-I's Hill, Ebner.

2024 – 2029 (Under review)

*Collaborative Research: iVisit: Situated Learning Experiences through Web-based Virtual Field Trips.* (NSF IUSE: EDU Level 3 proposal). **Co-Investigator**, with PI Eiris, co-I's Gheisari, Oprean.

2024 – 2029 (Under review)

*Expanding Research in AD/ADRD (ERA) Postbaccalaureate Research Education Program.* (NIH R25). **Mentor**, with PI Alvina, Esser, Mauer.

2024 – 2027 (Under review)

*Supporting and Enhancing Spatial Navigation Behavior in Aging and Alzheimer's Disease.* (FDOH Ed & Ethel Moore Alzheimer's Disease Research Program). **Principal Investigator**, with co-I's Ebner, Valipoor.

### **Completed**

2023

*fMRI Equipment Grant* (MBI Programmatic Research & Equipment Support Grant; †\$81,375). **Principal Investigator** (Contact PI Bodison); Co-PIs Gurka and Scott.

2021 – 2023

*Go your own way: Evaluating neurofeedback-induced plasticity to improve spatial navigation behavior in older adults at risk for Alzheimer's disease.* (Ed and Ethel Moore Alzheimer's Disease Research Program – 21A09; †\$247,613). **Principal Investigator**, with multi-PI Ebner, co-I Bowers.

2020 – 2022

*Volumetric and connectivity measures of navigation and memory skill acquisition.* (NIH R21-NS120237-01; †\$434,125). **Principal Investigator**, with multi-PI Ekstrom.

2021 – 2021

*What mind matters? Machine learning approaches to linking structural variation in the brain to individual differences in spatial behavior* (UF Research AI Catalyst – OR-DRD-AI2020; \*\$50,000). **Principal Investigator**, with co-I Zare.

2016 – 2018

*Neural representations of spatial directions in language, schemas, and images.* (NRSA F32DC015203; †\$162,642). **Principal Investigator**, with Mentors Chatterjee and Epstein.

### **PEER-REVIEWED PUBLICATIONS**

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\*After first author, authorship order is alphabetical; †Co-first authors. *Trainees in italics*

Lin, T., Rana, M., Liu, P., Polk, R., Heemskerk, A., **Weisberg, S.M.**, Bowers, D., Sitaram, R., & Ebner, N.C. (under review). Real-time fMRI neurofeedback training of selective attention in older adults.

**Weisberg, S.M.**, Barnas, A.J., Abid, H., Kumar, S., Sahoo, A.K., & Yuksel, E. (under review). Drawing down: The structure of spatial direction representations in drawing and categorization.

- Perez, E., **Weisberg, S.M.** (Stage 1 RR in principle acceptance). The role of risk tolerance in navigation strategy decisions.
- Barnas, A.J., Ebner, N.C., **Weisberg, S.M.** (2024). Allocation of Space-Based Attention is Guided by Efficient Comprehension of Spatial Direction. [[Preprint](#)] [[Paper](#)]. *Journal of Cognition*, 7, 1.
- Weisberg, S.M.**, Ebner, N.C., & Seidler, R.D. (2023). Getting LOST: A conceptual framework for supporting and enhancing navigation in aging. *WIREs Cognitive Science*. [[Preprint](#)] [[Paper](#)].
- Jaeger, A.J., **Weisberg, S.M.**, Nazareth, A., & Newcombe, N.S. (2023). A picture or a thousand words: Neither improve spatial knowledge of a complex virtual environment. *Cognitive Research: Principles and Implications*. [[Preprint](#)] [[Pre-reg](#)] [[Code and Data](#)].
- Weisberg, S.M.**, Schinazi, V.R., Ferrario, A., & Newcombe, N.S. (2023). Evaluating the effects of a programming error on a virtual environment measure of spatial navigation behavior. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 49(4), 575-589. [[Preprint](#)] [[Pre-reg](#)] [[Code and Data](#)] [[Paper](#)].
- Weisberg, S.M.**, & Ekstrom, A.D. (2021). Hippocampal volume and navigation ability: The map(ping) is not to scale. *Neuroscience and Biobehavioral Reviews*. 126, 102-112. [[Preprint](#)] [[Paper](#)].
- Weisberg, S.M.**, & Chatterjee, A. (2021). Spatial direction comprehension in images, arrows, and words in two patients with posterior cortical atrophy. *Neuropsychologia*. 151. [[Preprint](#)] [[Data](#)] [[Pre-reg](#)] [[Paper](#)]
- Weisberg, S.M.**, & Chatterjee, A. (2020). Reference frames in spatial communication for navigation and sports: An empirical study in ultimate frisbee players. *Cognitive Research: Principles and Implications*. 5, 53. [[Preprint](#)] [[Data and Pre-reg](#)] [[Paper](#)]
- Nazareth, A., Newcombe, N.S., Shipley, T.F., Velazquez, M., & **Weisberg, S.M.** (2019). Beyond small-scale spatial skills: Navigational skills and geoscience education. *Cognitive Research: Principles and Implications*. 4, 17. [[Preprint](#)] [[Paper](#)]
- Weisberg, S.M.**, Newcombe, N.S., & Chatterjee, A. (2019). Everyday taxi drivers: Do better navigators have larger hippocampi? *Cortex*. 115, 280-293. [[Preprint](#)] [[Data and Code](#)] [[Paper](#)]
- Weisberg, S.M.**, Marchette, S.A., & Chatterjee, A. (2018). Behavioral and neural representations of spatial directions across words, schemas, and images. *Journal of Neuroscience*, 38(21), 4996-5007 [[Paper](#)] [[Behavioral Data and Code](#)]
- Weisberg, S.M.**, & Newcombe, N.S. (2018). Cognitive maps: Some people make them, some people struggle. *Current Directions in Psychological Science*. 27(4), 220-226. [[Preprint](#)] [[Paper](#)]

- Weisberg, S.M.**, Badgio, D., & Chatterjee, A. (2018). Feel the way with a vibrotactile compass: Does a navigational aid aid navigation? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 44(5), 667-679. [[Paper](#)] [[Data](#)]
- Nazareth, A., **Weisberg, S.M.**, Margulis, K., & Newcombe, N.S. (2018). Charting the development of cognitive mapping. *Journal of Experimental Child Psychology*, 170, 86-106. [[Paper](#)]
- Galati, A., **Weisberg, S.M.**, Newcombe, N.S., & Avraamides, M.N. (2018). When gestures show us the way: Self-generated gestures selectively facilitate navigation and spatial memory. *Spatial Cognition and Computation*. [[Paper](#)]
- Blacker, K.J., **Weisberg, S.M.**, Newcombe, N.S., & Courtney, S.M. (2017). Navigation ability, relational and location working memory. *Visual Cognition*, 25(7-8), 691-702. [[Paper](#)]
- Weisberg, S.M.**, Badgio, D., & Chatterjee, A. (2017). A CRISPR new world: Public attitudes towards innovations in genetic modification. *Frontiers in Public Health: Public Health Policy*. [[Paper](#)]
- Atit, K., **Weisberg, S.M.**, Newcombe, N.S., & Shipley, T.F. (2016). Learning to interpret topographic maps: Understanding layered spatial information. *Cognitive Research: Principles & Implications*. [[Paper](#)]
- Cromley, J.G., **Weisberg, S.M.**, Dai, T., Newcombe, N.S., Schunn, C.D., Massey, C., & Merlino, F.J. (2016). Improving middle school science learning using diagrammatic reasoning. *Science Education* 100(6), 1184-1213. [[Paper](#)]
- Weisberg, S.M.**, & Newcombe, N.S. (2016). How do (some) people make a cognitive map? Routes, places, and working memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42(5), 768-785. [[Paper](#)]
- Ngo, C., **Weisberg, S.M.**, Newcombe, N.S., & Olson, I.R. (2016). The relation between navigation strategy and associative memory: An individual differences approach. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42(4), 663-670. [[Paper](#)]
- Holmes, C.A., Nardi, D.N., Newcombe, N.S., & **Weisberg, S.M.** (2015)\*. Children's use of slope to guide navigation: Sex differences relate to spontaneous slope perception. *Spatial Cognition and Computation*, 15(3), 170-185. [[Paper](#)]
- Weisberg, S.M.** & Newcombe, N.S. (2014). A slippery directional slope: Individual differences in using slope as a directional cue. *Memory & Cognition*, 42, 648-661. [[Paper](#)]
- Weisberg, S.M.**, Nardi, D.N., Newcombe, N.S., & Shipley, T.F. (2014). Up by upwest: Is slope like north? *Quarterly Journal of Experimental Psychology*. 67(10), 1959-1976. [[Paper](#)]

**Weisberg, S.M.**, Schinazi, V.R., Newcombe, N.S., Shipley, T.F., & Epstein, R.A. (2014). Variations in cognitive maps: Understanding individual differences in navigation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40(3), 669-682. [Paper]

## **CHAPTERS, PROCEEDINGS, COMMENTARIES, REPORTS, ETC.**

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Perez, E., & **Weisberg, S.M.** (2023). Individual differences in spatial navigation. *Encyclopedia of the Human Brain, 2nd edition*.

**Weisberg, S.M.** & Newcombe, N.S. (2017). Embodied cognition and STEM learning: Overview of a topical collection in CR:PI. *Cognitive Research: Principles and Implications*, 2(38). [Paper]

**Weisberg, S.M.**<sup>1</sup>, Newcombe, N.S.<sup>1</sup>, Atit, K., Jacovina, M.E., Ormand, C.J., & Shipley, T.F. (2015). The lay of the land: Sensing and representing topography. *Baltic International Yearbook of Cognition, Logic and Communication: Vol. 10*. [Paper]

Nardi, D.N., Holmes, C.A., Newcombe, N.S., & **Weisberg, S.M.** (2015)\*. Sex differences and errors in the use of terrain slope for navigation. *Cognitive Processing*, 16(1), 323-326. [Paper]

**Weisberg, S.M.**, & Newcombe, N.S. (2013). Are all types of vertical information created equal? *Behavioral and Brain Sciences*, 36, 568-569. [Paper]

**Weisberg, S.M.** (2012). Embodied cognition approaches in integrated science, technology, engineering, and mathematics (iSTEM) education. Commissioned report for the National Academy of Engineering Committee on Integrated STEM Education. Published in *Toward Integrated STEM Education: Developing A Research Agenda* (2014).

## **PRESS / NONACADEMIC WRITING**

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**Nature Technology** (2022). <https://www.nature.com/articles/d41586-022-00217-0>

**Ultiworld** (2020). <https://ultiworld.com/2020/11/25/how-we-communicate-on-the-ultimate-field-spatial-communication-research/>

## **INVITED TALKS**

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### 2024

**iNav** – International Navigation Conference

**Ball State University** – Departmental Brown Bag

### 2023

**University of Florida** – Department of Kinesiology Seminar (Center for Exercise Science)

**University of Pennsylvania** – Penn Center for Neuroaesthetics

**Bilingualism Matters** – Psychonomics Affiliate Conference

**University of Florida** – Cognitive Aging and Memory Center Research Day

### 2022

**CogNav** – Royal Society of Navigation

**iNAV** – International Navigation Conference: Invited talk (Conference cancelled; COVID-19)

2021

**Texas A&M** – Cognoscenti Series

**University of Florida** – AI Catalyst Series

**University of Florida** – Spring Hipergator Symposium

2020

**University of California, Irvine**

**University of Florida** – Neuromedicine Summer Seminar Series

2019

**University of Florida** – Language and Brain Symposium

**University of California - Santa Cruz**

#### **ADDITIONAL SPOKEN PRESENTATIONS**

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**Weisberg, S. M.** (2023). Symposium V Organizer Introductory Remarks: Finding the way: Advances in spatial navigation research. Psychonomics, San Francisco, CA, USA.

**Weisberg, S. M.** & Ekstrom, A.D. (2023). How Does the Brain Encode New Complex Cognitive Skills? Psychonomics, San Francisco, CA, USA.

*Perez, E., Kunath, J., Barnas, A. J., Boogaart, Z., Ebner, N. C., & Weisberg, S. M.* (2022). Neural correlates of strategy shifts in navigation behavior. Data Blitz. Florida Consortium on the Neurobiology of Cognition, Tallahassee, FL, USA.

**Weisberg, S.M.** (2020). The cognitive map is not to scale: Relating spatial navigation abilities to hippocampal volume. Talk presented at *Florida Consortium on the Neurobiology of Cognition*. (virtual).

**Weisberg, S.M.** (2020). Paradigm-based spatial navigation research as a model to enhance reproducibility in cognitive neuroscience. Talk presented at *Research Reproducibility 2020*. Gainesville, Florida (held virtually).

**Weisberg, S.M.** (2017). How to get the point: Spatial language and gesture can help teach topographic maps. Talk presented at the meeting of the *European Society for Cognitive Psychology (ESCoP)*. Potsdam, Germany.

Galati, A., **Weisberg, S.M.**, Newcombe, N.S., & Avraamides, M.N. (2015). Effects of gesturing strategies on navigation performance and spatial memory. Talk presented at *Psychonomic Society*. Chicago, IL.

**Weisberg, S.M.**, & Newcombe, N.S. (2015). It's not can but how: Navigation aptitude and strategy. Talk presented at *International Conference on Spatial Cognition*. Rome, Italy.

**Weisberg, S.M.** (2014). I get around, how do you? Individual differences in navigation aptitude. Invited Colloquium, ETH-Zurich, Switzerland.

**Weisberg, S.M.**, & Newcombe, N.S. (2014). Remembering what and where: The relation between components of navigation ability and working memory. Paper presented at the 1<sup>st</sup> annual *Pennsylvania Spatial Cognitive Symposium*. University Park, PA.

**Weisberg, S.M.**, Epstein, R.A., Newcombe, N.S., Schinazi, V.R., & Shipley, T.F. (2012). Where do you think you are: A virtual environment assessment of navigation ability. Doctoral colloquium at *Spatial Cognition 2012*. Bavaria, Germany.

**Weisberg, S.M.**, Brakoniecki, E., & Newcombe, N.S. (2012). The other side of the mountain: Slope as a cue in navigation. Paper presented at the *International Conference on Spatial Cognition*. Rome, Italy.

**Weisberg, S.M.**, Brakoniecki, E., & Newcombe, N.S. (2012). The other side of the mountain: Slope as a cue in navigation. Paper presented at *Cognitive Science Society*. Sapporo, Japan.

**Weisberg, S.M.** (2012). Structural alignment approach to contour map interpretation. Colloquium, Northwestern University. Evanston, IL.

**Weisberg, S.M.** & Newcombe, N. S. (2011). Slope and navigation: All downhill? *Graduate Fellows Research Symposium*, Temple University. Philadelphia, PA.

## POSTERS

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*Perez, E.*, *Kvam, P.*, **Weisberg, S. M.** (2023). The role of risk tolerance in navigation strategy decisions. 64th Annual Meeting of the Psychonomic Society. San Francisco, CA, USA. Awarded a J. Frank Yates Graduate Student Travel Award.

*Sahoo, A.K.*, **Weisberg, S. M.** (2023). Temporal divisions: Segmenting space through time. Poster presentation at the 64th Annual Meeting of the Psychonomic Society. San Francisco, CA.

*Yuksel, E.*, **Weisberg, S. M.** (2023). Navigating the metaverse: The relation between scale and expertise in spatial knowledge of immersive and desktop virtual reality. Poster presentation at the Symposium for Individual Differences in Cognition. San Francisco, CA.

*Yüksel, E.*, *Boogart, Z.*, **Weisberg, S.M.** (2023). This is not the way: Global directional cues do not improve spatial navigation in an immersive virtual environment. Poster presentation at the 64th Annual Meeting of the Psychonomic Society. San Francisco, CA. Awarded a Graduate Conference Award.

*Barnas, A. J.*, *Bowers, D.*, *Ebner, N. C.*, & **Weisberg, S. M.** (2023). Novel behavioral and neural markers of Alzheimer's disease progression: A case for visual orienting. Poster presentation at the 2023 Ed and Ethel Moore Alzheimer's Disease Research Symposium. Florida Department of Health, University of Central Florida.



- Barnas, A. J., Ebner, N. C., & Weisberg, S. M.* (2023). Allocating space-based attention with schemas, words, and scenes. Poster presentation at the 64th Annual Meeting of the Psychonomic Society. San Francisco, CA.
- Barnas, A. J., Bowers, D., Ebner, N. C., & Weisberg, S. M.* (2023). Individual differences in visual attention correlate with spatial navigation behavior in aging. Poster presentation at the Symposium for Individual Differences in Cognition. San Francisco, CA.
- Kunath, J., Barnas, A. J., Perez, E., Boogaart, Z., Ebner, N. C., & Weisberg, S. M.* (2023). Modifying spatial navigation strategy through task instruction in younger and older adults. Poster presentation at the 64th Annual Meeting of the Psychonomic Society. San Francisco, CA.
- Perez, E., Kvam, P., Weisberg, S. M.* (2023). The role of risk tolerance in navigation strategy decisions. Scientific Research Network on Decision Neuroscience & Aging, Santa Barbara, CA, USA.
- Perez, E., Kunath, J., Barnas, A. J., Boogaart, Z., Ebner, N. C., & Weisberg, S. M.* (2023). Neural correlates of strategy shifts in navigation behavior. Poster presentation. Organization for Human Brain Mapping. Montreal, CA.
- Yüksel, E., Boogaart, Z., Weisberg, S.M.* (2023). This is not the way: Global directional cues do not improve spatial navigation in an immersive virtual environment. Poster presentation. 13th Annual North Central Florida Society for Neuroscience Chapter Conference, Gainesville, FL, United States.
- Barnas, A. J., Ebner, N. C., & Weisberg, S. M.* (2023). Spatial navigation detriments in older adults: A role for visual attention? Poster presentation. Dallas Aging & Cognition Conference. Dallas, TX.
- Perez, E., Kunath, J., Barnas, A. J., Boogaart, Z., Ebner, N. C., & Weisberg, S. M.* (2023). Neural correlates of strategy shifts in navigation behavior. Poster presentation. Dallas Aging & Cognition Conference. Dallas, TX.
- Perez, E., Kunath, J., Barnas, A. J., Boogaart, Z., Ebner, N. C., & Weisberg, S. M.* (2022). Neural correlates of strategy shifts in navigation behavior. Poster presentation. Interdisciplinary Navigation Symposium (virtual).
- Perez, E., Weisberg, S.M.* (2021). The road less traveled: Neural and behavioral correlations between risk-taking and spatial navigation strategy choice. Poster presented at CNS, (virtual).
- Weisberg, S.M.,** Aguirre, G.K. (2020). Bayesian adaptive stimulus selection with real-time fMRI. Poster presented at VSS, (virtual). [[Abstract](#)].

- Weisberg, S.M.**, Newcombe, N.S., & Chatterjee, A. (2018). Everyday taxi drivers: Do gifted navigators have larger hippocampi? Poster presented at *iNav*, Mt. Tremblant, Canada.
- Weisberg, S.M.**, Newcombe, N.S., & Chatterjee, A. (2018). Everyday taxi drivers: Do gifted navigators have larger hippocampi? Poster presented at *Cognitive Neuroscience Society*. Boston, MA.
- Weisberg, S.M.**, Marchette, S.A., & Chatterjee, A. (2017). Which way: Neural decoding of spatial directions in images, schemas, and words. Poster presented at *Cognitive Neuroscience Society*. San Francisco, CA. Awarded the Postdoctoral Fellow Award.
- Nazareth, A., **Weisberg, S.M.**, Margulis, K., Do, A., Haj, R., & Newcombe, N.S. (2016). Age-related differences in cognitive mapping during spatial navigation. Poster presented at *Psychonomic Society*. Boston, MA.
- Weisberg, S.M.**, Badgio, D., & Chatterjee, A. (2016). Feel the way: Does a vibrotactile compass help you learn a space? Poster presented at *Interdisciplinary Navigation Symposium (iNav)*. Bad Gastein, Austria.
- Weisberg, S.M.**, Trinh, S., & Chatterjee, A. (2016). Recalculating...Processing words, schemas, and images of spatial directions. Poster presented at *Cognitive Neuroscience Society*. New York, NY.
- Weisberg, S.M.**, Atit, K., Newcombe, N.S., & Shipley, T.F. (2015). How to get the point: Spatial language interacts with gesture in learning topographic maps. Poster presented at *Psychonomic Society*. Chicago, IL.
- Blacker, K., **Weisberg, S.M.**, Newcombe, N.S., & Courtney, S.M. (2015). How working memory for spatial locations versus spatial relations predicts navigation ability. Poster presented at *Psychonomic Society*. Chicago, IL.
- Ngo, C., **Weisberg, S.M.**, Newcombe, N.S., & Olson, I.R. (2015). The relation between navigation strategy and associative memory: An individual differences approach. Poster presented at *International Conference on Spatial Cognition*. Rome, Italy.
- Weisberg, S.M.**, Beswick, M., & Chatterjee, A. (2015). Vento-medial Prefrontal Cortex and Stability in Art Preference. Poster presented at *Cognitive Neuroscience Society*. San Francisco, CA.
- Galati, A., **Weisberg, S.M.**, Newcombe, N.S., & Avraamides, M.N. (2014). Self-generated gestures selectively influence navigation performance and spatial memory. Poster presented at *Psychonomic Society*. Long Beach, CA.

- Ngo, C., Newcombe, N.S., Olson, I.R., & **Weisberg, S.M.** (2014). The relation between navigation strategy and associative memory: An individual differences approach. Poster presented at *Psychonomic Society*. Long Beach, CA.
- Weisberg S.M.** & Newcombe, N.S. (2014). Remembering what and where: The relation between components of navigation ability and working memory. Poster presented at *Psychonomic Society*. Long Beach, CA.
- Weisberg, S.M.**, & Newcombe, N.S. (2014). Remembering what and where: The relation between components of navigation ability and working memory. Poster presented at *Spatial Cognition 2014*. Bremen, Germany.
- Weisberg, S.M.**, Newcombe, N.S., & Shipley, T.F. (2013). What predicts understanding of topographic maps? Poster presented at *Psychonomic Society*. Toronto, CA.
- Holmes, C.A., Nardi, D., Newcombe, N.S., & **Weisberg, S.M.** (2013). Hitting the slopes: The strength of gradient cues in child navigation. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Seattle, WA.
- Weisberg, S.M.**, Newcombe, N.S., & Shipley, T.F. (2013). Using analogical learning to improve contour map reading. Poster presented at the 6<sup>th</sup> annual *inter-Science of Learning Center*. Philadelphia, PA.
- Holmes, C., Newcombe, N.S., **Weisberg, S.M.**, & Nardi, D.N. (2013). Hitting the slopes: Children's use of gradient cues for reorientation. Poster presented at the 6th annual *inter-Science of Learning Center*. Philadelphia, PA.
- Weisberg, S.M.**, Nardi, D., Newcombe, N.S. & Shipley, T.F. (2012). Sensing the slopes: Sensory modality effects on a goal location task. Poster presented at *Psychonomic Society*. Minneapolis, MN.
- Weisberg, S.M.**, Epstein, R.A., Newcombe, N.S., Schinazi, V.R., & Shipley, T.F. (2012). Developing a virtual environment assessment of navigation ability. Poster presented at *Association for Psychological Science Convention*. Chicago, Illinois.
- Weisberg, S.M.**, Newcombe, N.S., & Shipley, T.F. (2012). Teaching contour maps using analogical learning. Poster presented at the 5<sup>th</sup> annual *inter-Science of Learning Center Conference*. San Diego, CA.
- Weisberg, S.M.** & Newcombe, N.S. (2011). The role of slope as a navigational cue. Poster presented at the 4<sup>th</sup> annual *inter-Science of Learning Center Conference*. Washington, D.C.

## SYMPOSIA

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- 2023 Organizer and Presenter: *Finding the Way: Advances in Spatial Navigation Research*, Psychonomic Society Conference. Speakers: Nora Newcombe, Arne Ekstrom, Elizabeth Chrastil, Mary Hegarty, Denise Head, Merve Tansen.
- 2015 Organizer and Presenter: *Individual Differences in Navigating*, International Conference on Spatial Cognition, Rome, Italy. Speakers: Steven Weisberg, Steven Marchette, James Negen, Tim McNamara

## STUDENT ACHIEVEMENTS

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- 2023 Psychonomic Society Yates Conference Award, T32 Fellowship, SRNDNA award, Goldman Spring Scholarship awarded to *Eliany Perez*; Travel awards to *Eliany Perez*, *Adam Barnas*; University Scholars Program (funded undergraduate research) to *Merrill Garlington*; Graduate Conference award to *Ece Yuksel*
- 2022 Travel awards to *Eliany Perez*, *Adam Barnas*
- 2021 Goldman Spring Scholarship awarded to *Eliany Perez*

## SERVICES AND LEADERSHIP

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- 2016 Local Planning Committee, Spatial Cognition Conference, Philadelphia, PA
- 2013 Local Planning Committee, inter-Science of Learning Center Conference, Philadelphia, PA
- 2012 SILC Planning Representative: Co-Chair, Networking Committee, inter-Science of Learning Center Conference, San Diego, CA

### General Public Dissemination:

- 2014 Presenter, Quadrangle Sunrise Senior Living Services, Social Issues Committee Presentation Series
- Presenter, Philadelphia Science Festival, Spatial Intelligence and Learning Center
- 2013 Guest Lecture, Conestoga High School AP Psychology
- 2012 Presenter, Philadelphia Science Festival, Spatial Intelligence and Learning Center

### Undergraduate or post-bac students mentored (\*Honors Student; **Published Peer-reviewed work**):

*Temple University* – Ryan Barnett, Edward Brakoniecki\*, James Callahan, Chelsa Clofer, Brian Hickman, Benjamin Van Son, Kelsey Decker, Stephany Wilson, David Spain, Jon Bento, Hayley Van Duyn, Chrystyna Colon, Emily Auerbach, Dominique Losen, Vladislav Mendelson

*University of Pennsylvania* – Sam Trinh\*, **Daniel Badgio**, Antonio Nicosia

*University of Florida* – Jason Roeder, Amanda Myers, Jacob Frank, Brandi Reynolds, Madison Dobreff, Rachel Geller, Hoorish Abid\*, Sophie Jacquemin, Lachyn Almazova, Gerrica Lamothe, Merrill Garlington\*, Brooke Cordoba, Yujin Park, Yukshi Jain, Ty Roche, Yunxia Chen, Cecelia Albright, Karina LaRubbio, Jasmine Perez, Kyle Wang

### Master's students mentored:

Aaron Zygala, Manish Alluri, Shashank Kumar

### PhD students mentored:

Eliany Perez, Ece Yuksel, Ashish Sahoo, Chengsi Yi

Post-doctoral fellows mentored:

Adam Barnas

Handling Editor: *Cognitive Processing*

Review Editor: *Frontiers in Aging Neuroscience*

Ad Hoc Reviewer (peer-reviewed journals, verified record on [Publons](#)):

*American Journal of Psychology*

*Attention, Perception, & Psychophysics*

*Behavioral and Brain Sciences*

*Behavioral and Brain Research*

*Behavioral Research Methods*

*Child Development*

*Cognition*

*Cognitive Processing*

*Cognitive Psychology*

*Communications Biology*

*Cortex*

*Cognitive Research: Principles & Implications*

*European Journal of Neuroscience*

*Frontiers in Aging Neuroscience*

*Frontiers in Psychology: Developmental*

*Hippocampus*

*Intelligence*

*Journal of Experimental Education*

*Journal of Experimental Psychology: Applied*

*Journal of Experimental Psychology: General*

*Journal of Experimental Psychology: Learning, Memory, and Cognition*

*Journal of Neuroscience*

*Journal of Visualized Experiments*

*Learning and Individual Differences*

*Memory*

*Memory & Cognition*

*Nature Computational Science*

*Neuroimage*

*Quarterly Journal of Experimental Psychology*

*Spatial Cognition and Computation*

*Scientific Reports*

*Topics in Cognitive Science*

Ad Hoc Reviewer (other):

NIH Study Section (ad hoc member) – HCMF (2023)  
NIH Study Section (Early Career Researcher) – BIVT (2022)  
NSF ad hoc review (2022)  
DFG (German National Science Foundation) Grant Review (2021)  
IEEE VR 2021 (2020)  
Cognitive Science Society Conference (2018)  
International Conference of Spatial Cognition (2012, 2015)  
inter-Science of Learning Center Conference (2011, 2012)  
Spatial Cognition Conference (2016, 2018)  
Special Issue, Spatial Cognition X Proceedings (2017)

## TEACHING EXPERIENCE

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2023 Primary Instructor, Graduate seminar: Methods in Neuroimaging  
2020 Primary Instructor, Graduate level Introduction to Cognitive Neuroscience  
2019-2023 Primary Instructor, Introduction to Cognitive Neuroscience  
2014 Guest Lecturer, Spatial Cognition, Sensation & Perception  
2013 Primary Instructor, Foundations in Cognitive Psychology

## PRESENT POSITIONS

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2019-Present Assistant Professor, Department of Psychology, University of Florida

## PAST POSITIONS

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2015-2019 Post-doctoral Fellow, University of Pennsylvania  
*Advisor: Dr. Anjan Chatterjee*  
2015-2019 Digital Associate Editor, Psychonomic Society  
2016 Guest Editor, Special issue of *Cognitive Research: Principles & Implications*,  
[Embodied Cognition and STEM Education](#)  
2010-2014 Graduate Student, Temple University, Spatial Intelligence and Learning Center  
*Advisor: Dr. Nora Newcombe*  
2013 Primary Instructor, Foundations in Cognitive Psychology, Temple University  
2010 Research Assistant, Temple University, Spatial Intelligence and Learning Center  
*Advisor: Dr. Nora Newcombe*  
2007-2008 Research Assistant, College of William and Mary, Psychology Department  
*Advisor: Dr. Jeanine Stefanucci*

## PROFESSIONAL MEMBERSHIPS

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2015-Present, Member, Cognitive Neuroscience Society  
2022-Present, Fellow, Psychonomic Society  
2010-Present, Member, Spatial Intelligence and Learning Center  
2010-2012, Member, Cognitive Science Society  
2010-2012, Member, Association for Psychological Science  
2019-2022, Member, Vision Sciences Society