

Mirinda Whitaker

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Education

PhD, Cognition & Neural Science (in progress)

University of Utah

Salt Lake City, UT, USA

expected 2025

- Emphasis in Quantitative Psychology
- Advisors: Dr. Jeanine Stefanucci, Dr. Sarah Creem-Regehr, & Dr. Pascal Deboeck

MS, Cognition & Neural Science

University of Utah

Salt Lake City, UT, USA

March 2022

- Thesis: Space and time symmetrically influence one another and are not impacted by fibromyalgia pain

BS, Psychology/ BS, Writing & Rhetoric Studies

University of Utah

Salt Lake City, UT, USA

May 2019

- *summa cum laude*

Professional Experience

UNIVERSITY OF UTAH

2021-present **Graduate Research Assistant**, Deboeck Lab

2019-present **Graduate Research Assistant**, Pain Research Center

2019-present **Graduate Research Assistant**, Vision, Audition, & Action in Space & Time (VAAST) Lab

Fall 2021 **Statistical Consultant**, VAAST Lab/ Applied Visual Attention Lab

2019-2020 **Graduate Health Sciences Writing Fellow**, University Writing Center

2018-2020 **Research Writing Liaison**, University Writing Center/Office of Undergraduate Research

2017-2019 **Undergraduate Writing Tutor**, University Writing Center

2017-2019 **Undergraduate Research Assistant**, Visual Perception & Spatial Cognition Lab

Publications

* denotes undergraduate student author

PUBLISHED ARTICLES & BOOK CHAPTERS

Adams, H., Creem-Regehr S. H., **Whitaker, M. M.**, Stefanucci, J. K., & Bodenheimer, B. (in press). Perceiving Absolute Distance in Augmented Reality Displays with Realistic and Non-realistic Shadows. *ACM Symposium on Applied Perception 2023*.

Gill, D. M., **Whitaker, M. M.**, *Olpin, Z., & Stefanucci, J. K. (2022). The perceived duration of vast spaces is mediated by awe. *Attention, Perception, & Psychophysics*.

Whitaker, M. M., *Hansen, R., Creem-Regehr S. H., & Stefanucci, J. K. (in principal acceptance, 2022). The relationship between space and time perception: a registered replication of Casasanto and Boroditsky (2008). *Attention, Perception, & Psychophysics*.

Stefanucci, J. K., Saxon, M., & **Whitaker, M. M.** (2021). Embodied perception and Action in Real and Virtual Environments. In: Robinson M.D., Thomas L.E. (eds) *Handbook of Embodied Psychology: Thinking, Feeling, and Acting* (pp. 311-336). Springer, Cham.

Whitaker, M. M., Pointon, G. D., Tarampi, M. R., & Rand, K. M. (2020). Expertise effects on the perceptual and cognitive tasks of indoor rock climbing. *Memory & Cognition*, 1-17.

MANUSCRIPTS UNDER REVIEW

Whitaker, M. M., *Hansen, R., Creem-Regehr S. H., & Stefanucci, J. K. (accepted pending minor revisions). The relationship between space and time perception: a registered replication of Casasanto and Boroditsky (2008). *Attention, Perception, & Psychophysics*.

Whitaker, M. M., Bergeman, C. S., & Deboeck, P. R. (under review as of 07/06/2023). Summing the up and downs of life: The Bayesian Reservoir Model of Psychological Regulation. *Psychological Methods*.

Whitaker, M. M., Bruce, R. A., Burstedt, D., Mistunaga, R., Odell, D., Deboeck, P., Stefanucci, J. K., & Okifuji, A. O. (revise and resubmit request as of 08/30/2023). Increased pain variability in chronic pain patients: A role for pain catastrophizing. *The Journal of Pain*.

Shayman, C., Barhorst-Cates, E., Hullar, T., **Whitaker, M. M.**, Creem-Regehr, S. H., & Stefanucci, J. K. (under review as of 9/15/2023). A Redundant Auditory Cue Improves Spatial Updating in a Virtual Reality Navigation Task. *Target journal: Attention, Perception, & Psychophysics*

MANUSCRIPTS IN PREPARATION

Whitaker, M. M., Okifuji A. O., Creem-Regehr, S. H., & Stefanucci, J. K. (in prep). Space and time symmetrically influence one another in perception and are not impacted by chronic pain. *Target Journal: Journal of Experimental Psychology: Human Perception and Performance*

Joiner, R., Nelson, N., Deboeck, P.R., **Whitaker, M. M.**, & Bergeman, C. S. (in prep). Longitudinal reservoir model of stress dissipation and concomitant perceptions of control. *Target journal: Psychology and Aging*

Okifuji, A., Johnson, K., **Whitaker, M. M.**, Steenblik, J., Bruce, R. A., Burstedt, D., Mistunaga, R., & Odell, D. (in prep). Effect of Anxiety and Opioid Use on the Endogenous Inhibitory Pain Modulation *Target journal: Pain Reports*.

Whitaker, M. M., Finney, H., *Elston, J., *Epperson, L., Creem-Regehr, S. H., & Stefanucci, J. K. (in prep). The Perceptual Fidelity of Affordance Judgments in Real and Virtual Environments *Target journal: Transactions on Visualization and Computer Graphics*

Awards, Fellowships, & Grants

EXTRAMURAL

2023	Trainee Diversity Award , Society for Affective Science	\$200
2022	Research Highlight , Psychonomic Society's 63rd Annual Meeting	
2021	Graduate Research Fellowship: Honorable Mention , National Science Foundation	
2020	Travel Award , International Association for the Study of Pain	\$1,200

INTRAMURAL: UNIVERSITY OF UTAH

2023	Professional Development Award , Department of Psychology Excellence in Research Commendation , Department of Psychology Excellence in Service Commendation , Department of Psychology	
2022	Conference Travel Award , Graduate School	\$1000
	Virtual Conference Travel Award , Graduate School	\$200
	Travel Award , Associated Students of the University of Utah	\$600
	Excellence in Research Commendation , Department of Psychology	
2021	Clayton Excellence in Graduate Research Award , Department of Psychology	\$1000
	Klekas Outstanding Service Award: Runner-up , Department of Psychology	\$100
	Online Research Small Grant , Department of Psychology	\$250
	Excellence in Research Commendation , Department of Psychology	
	Excellence in Teaching Commendation , Department of Psychology	
	Undergraduate Research Mentorship Certificate , Office of Undergraduate Research	

2019	Pilot Research Small Grant , Department of Psychology	\$ 300
2018	Travel Award , Associated Students of the University of Utah	\$ 600
	Hagander Book Award , College of Humanities	\$ 500
2017-2018	Undergraduate Research Opportunities Grant , Office of Undergraduate Research	\$ 3200

Conference Presentations

+ *presenting author*, * *mentored undergraduate*

TALKS

- + **Whitaker, M.**, Bergeman, C. S., & Deboeck, P. R. (June, 2023). Summing the up and downs of life: The Bayesian Reservoir Model of Psychological Regulation. Talk presented at the 2023 Modern, Modeling, Methods Conference.
- + **Whitaker, M.**, Okifuji, A., Deboeck, P. R., Creem-Regehr, S. H., & Stefanucci, J. K. (April, 2023). *Modeling the dynamics of pain and emotional distress using the Bayesian Reservoir Model*. Flash talk presented at the 2023 annual meeting of the Society for Affective Science.
- + **Whitaker, M.**, Finney, H., *Elston, J., *Epperson, L., Creem-Regehr, S. H., & Stefanucci, J. K. (November, 2022). *The Perceptual Fidelity of Affordance Judgments in Real and Virtual Environments*. Presented at the 2022 annual meeting of the Psychonomics Society.
- + **Whitaker, M.**, Okifuji, A., Creem-Regehr S., & Stefanucci, J. (April, 2022). *Increased pain variability in chronic pain patients: a role for pain catastrophizing*. Flash talk presented at the 2022 annual meeting of the Society for Affective Science.
- + **Whitaker, M.** (March, 2018). *Desirable difficulties in the writing center*. Paper presented at The Rocky Mountain Writing Center Conference.

POSTERS

- + **Whitaker, M.**, Deboeck, P.R., & Okifuji, A. (June, 2023). *Derivative estimation to quantify pain variability in chronic pain patients*. Poster presented at the 2023 Modern Modeling Methods Conference.
- + Munion, A., **Whitaker, M.**, & Okifuji, A. (April, 2023). *A DSEM exploration of EMA reports of pain and emotional distress for patients with fibromyalgia*. Poster presented at the 2023 annual meeting of the Society for Affective Science.
- Whitaker, M.**, Deboeck, P., Bruce, R. A., Burstedt, D., Mistunaga, R., Odell, D. & Okifuji, A. O. (September, 2022). *Increased pain variability in chronic pain patients: A role for pain catastrophizing*. Poster presented at the 2022 IASP world congress on pain.
- + Faulkner, J., **Whitaker, M.**, & Rand, K. (November, 2022). *Effects of working memory on interference between space and time perception*. Poster presented at the 2022 annual meeting of the Psychonomics Society.
- + **Whitaker M.**, Okifuji, A., Creem-Regehr S., & Stefanucci, J. (May, 2022). *The impact of fibromyalgia on space and time perception*. Poster presented at the 2022 annual meeting of the Vision Sciences Society.
- + Konold, C., Geuss, M., Butner, J., **Whitaker, M.**, Murdock, R., Stefanucci, J., Creem-Regehr S., & Drew, T. (May, 2022). *Unintended consequences of trying to help: augmented target recognition cues bias perception*. Poster presented at the 2022 annual meeting of the Vision Sciences Society.
- +* Faulkner, J., **Whitaker, M.**, & Rand, K. (April, 2022). *Effects of Working Memory on Perception of Space and Time*. Poster presented at the 2022 Undergraduate Research Symposium.
- + **Whitaker, M.**, Gill, D., Azbill, M.S., & Stefanucci, J.K. (November, 2021). *Perceived size of objects is affected by the vastness of a scene*. Poster presented at the 2021 annual meeting of the Psychonomics Society.
- +* Hansen, R., **Whitaker, M.**, & Stefanucci, J. (November, 2021). *Practice Makes Near Perfect: The Effects of Practicing Music on Perception of Time and Space*. Poster presented at the 2021 annual meeting the Psychonomics Society.
- + **Whitaker, M.**, Stefanucci, J., Creem-Regehr S., & Okifuji, A..(September, 2020). *Perception of Action Capabilities with Experimentally Induced Pain*. Poster presented at the 2020 International Association for Pain Virtual Expo.

+Whitaker, M., Rand, K., & Pointon, G. (November, 2018) *Expertise effects on affordance perception and action in indoor rock climbing*. Poster presented at the 2018 Annual Meeting of the Psychonomics Society, New Orleans, LA.

Rand, K. M., Tarampi M. R., **+Whitaker, M.**, & Pointon, G. (November, 2017). *The effect of expertise on motor sequence and visual memory for indoor rock-climbing routes*. Poster presented at the 2017 Annual Meeting of the Psychonomics Society, Vancouver, BC.

Teaching Experience

* indicates graduate level course

UNIVERSITY OF UTAH

COURSES TAUGHT

Fall 2021 **Statistical Methods (online)**, Graduate Lab Instructor
Summer
2021 **Sensation and Perception (online)**, Graduate Instructor

TEACHING ASSISTANT-SHIPS

Fall 2023 **Honors Thesis Seminar**, Graduate Teaching Assistant
Spring
2023 ***Multi-Level Modeling II (hybrid)**, Graduate Teaching Assistant
Spring
2022 ***Multi-Level Modeling I (online)**, Graduate Teaching Assistant
Spring
2021 ***Quantitative Methods II: Generalized Linear Modeling (online)**, Graduate Teaching Assistant
Fall 2020 ***Quantitative Methods I: Correlation and Regression Basics (online)**, Graduate Teaching Assistant
Spring
2019 **Psychology as a Science and a Profession**, Undergraduate Teaching Assistant
Fall 2018 **Sensation and Perception**, Undergraduate Teaching Assistant
Spring
2018 **Memory and Cognition**, Undergraduate Teaching Assistant
Fall 2017 **Brain and Behavior**, Undergraduate Teaching Assistant

CONDUCTED WORKSHOPS

February
2020 **Undergraduate Research Opportunities Program**, *Editing a Research Proposal*
October
2019 **Undergraduate Research Opportunities Program**, *Writing a Research Proposal*

Service

AD HOC REVIEWER

* co-reviewed with advisor

Quarterly Journal of Experimental Psychology (1)
Psychonomic Bulletin and Review (1)
Attention, Perception, and Psychophysics (2)
Behavioral Brain Research (1)
Visual Cognition (1)
IEEE VR (1)
Human Movement Science (1)

Psychology of Sport and Exercise Science (2)
Plos One (1)
Journal of Pain* (1)
Journal of Behavioral Medicine* (1)
Pain Practice* (1)

OUTREACH & ADVANCEMENT OF DIVERSITY IN SCIENCE

*bulleted items indicate presentations given or awards received

Co-organizer/founder, FemmeSTEM: a quantitative reading group focused on the advancement of historically marginalized genders and identities in quantitative methods 2020-present

- *Power* (Fall 2023)
- *Model Comparison & Estimation Algorithms* (Spring 2023)
- *Intensive Longitudinal Data Analyses* (Fall 2022)
- *Simulation Methods* (Spring 2022)
- *Psychometrics & Measurement Theory* (Fall 2021)
- *Multi-level Modeling & Intensive Data Methods* (Spring 2021)
- *Bayesian Statistics* (Fall 2020)

President & Co-organizer, Diversity Graduate Application Advisory: a graduate-student run organization that matches undergraduate students interested in pursuing graduate school with graduate student mentors 2019-present

- *Topics in Mentoring and Mentee-ing for Graduate/Undergraduate Student and Post-Doctoral Scholars*, University of Utah Research Education (November 2021)
- *Applying to Graduate School*, University of Utah Asia Campus (April 2021)
- *Panelist Graduate School Information Session*, University of Utah College of Social and Behavioral Sciences Solutions Scholars (November 2020)

Member, University of Utah Psychology Department Diversity Committee 2019-present

- University of Utah: 2021 Beacons of Excellence Award
- University of Utah College of Social and Behavioral Science: 2021 Advancing Equity and Connecting Communities Award

Judge, Annual Utah Charter School Science and Engineering Fair February 2021

Member, University of Utah Psychology Department Outreach Committee 2019-2020

- *Psychology as a Science*, Bright Futures: Park City High School (November 2019)

DEPARTMENTAL SERVICE

Graduate Student Representative, Cognition & Neural Science Faculty Search Committee Fall 2022

CNS Area Representative, Professional Issues and Ethics(PIE) Committee: a departmental resource focused on professional issues and ethics with the aim of preventing serious ethical and boundary issues August 2021- May 2022

Invited Member, Klekas Outstanding Service Award Review Committee March 2022

Mentoring

UNIVERSITY OF UTAH

- 2022-2023 **Kimberly Zimmerman**, Undergraduate Research Opportunities Program: The Influence of Anxiety on the Perception of Space and Time — *Currently completing a PhD in Psychology with a specialization in Brain & Cognition at Utah State University*
- 2021-2023 **Jim Faulkner**, Undergraduate Research Opportunities Program/ Quantitative Methods Certificate: The Effects of Working Memory on Perception of Space and Time — *Currently completing a PhD in Psychology with a specialization in Cogntion & Cognitive Neuroscience at University of Michigan*
- 2019-2022 **Lucas Epperson**, Human Factors Certificate: The Perceptual Fidelity of Affordance Judgments in Real and Virtual Environments — *Currently completing a Masters in Human Factors Engineering at Embry-Riddle Aeronautical University*
- 2020-2021 **Rachael Hansen**, Undergraduate Research Opportunities Program: *The Impact of Musical Expertise on the Perception of Space and Time*

Professional Memberships

International Association for the Study of Pain
 The Society for Affective Science
 Vision Sciences Society
 Psychonomic Society

Relevant Expertise

SKILLS

Proficient in R, STAN, PsychoPy, LaTeX, Excel, general linear modeling, multilevel modeling, Bayesian statistics, structural equation modeling, generalized linear modeling (e.g. logistic/probit & Poisson regression), & copy editing

Experience with Python, JavaScript, Unity, Matlab, BUGS, JAGS, Adobe Suite Programs, Stata, SPSS, Graph Pad Prism, Qualtrics, MPlus, parallel computing, non-parametric modeling, & missing data techniques (e.g. multiple imputation & maximum likelihood)

PROFESSIONAL DEVELOPMENT

- Oct. 2022 *Intensive Longitudinal Data Analysis*, Center Stat
 Sept. 2021 *Applied Bayesian Data Analysis*, Statistical Horizons
 May 2021 *Introduction to Structural Equation Modeling*, Center Stat