

Kimberly Lewis Meidenbauer

Curriculum Vita

CONTACT INFO

Washington State University
Department of Psychology
Johnson Tower 319
P.O. Box 664820
Pullman, WA 99164-4820

Email: k.meidenbauer@wsu.edu
Web: [WSU Faculty Page](#) | [Personal Website](#)
[Research Gate Profile](#) | [OSF Profile](#)
[Twitter](#) | [Google Scholar](#)

ACADEMIC APPOINTMENTS

- | | |
|-----------------------|--|
| 2023 – present | <i>Assistant Professor</i>
Washington State University, Department of Psychology
WSU Health Equity Research Center |
| 2021 – 2022 | <i>Postdoctoral Scholar</i>
University of Chicago, Department of Psychology
Environmental Neuroscience Lab, Director: Marc Berman |
| 2020 – 2021 | <i>Postdoctoral Teaching Fellow in the Social Sciences</i>
University of Chicago, Department of Psychology |

EDUCATION

- | | |
|-------------|--|
| 2020 | The University of Chicago, Department of Psychology
Ph.D. in Psychology (Integrative Neuroscience Program)
<i>Dissertation: The Role of Preference in the Affective and Cognitive Benefits of Nature</i>
Committee: Marc Berman, Alex Shaw, Ed Vogel, & Christine Larson |
| 2016 | The University of Chicago, Department of Psychology
M.A. in Psychology (Integrative Neuroscience Program)
<i>Thesis: Distinct Components of Empathy and their Neurophysiological Markers</i>
Committee: Jean Decety, Marc Berman, Jennifer Kubota |
| 2012 | University of Wisconsin-Milwaukee
B.A. in Psychology with Honors, <i>summa cum laude</i>
<i>Senior Thesis: Does Attention Play a Mediating Role in Affective Empathy?</i>
Advisor: Christine Larson |

RESEARCH OVERVIEW

My research spans the fields of ***environmental, social, and cognitive psychology***. I am broadly interested in how elements of the physical environment can influence our brains and affect our behavior. I ***combine behavioral and neuroimaging methods*** (fNIRS, EEG, and fMRI) to study psychological processes at multiple levels. I'm also very interested in ***task development***, adapting existing methods for use in online experiments, and using ***multivariate approaches*** in statistical analysis.

GRANT SUPPORT

CURRENT***NSF Strengthening American Infrastructure (SAI)***

September 2023 – 2026

Project title: “Identifying Features of Healthy and Equitable Public Spaces”Grant PI: Dr. Kimberly QuinnRole: Co-PITotal Award Amount: \$750,000***HERC Research Pilot Funds***

July 2023 – 2024

Role: PIAmount: \$10,000COMPLETED***Center for Health Administration Studies (CHAS) Seed Grant***

July 2020 – 2022

Grant PI: Marc BermanRole: Co-InvestigatorAmount: \$10,000**AWARDS & FELLOWSHIPS**

WASHINGTON STATE UNIVERSITY***NIA Behaviorome Faculty Fellow Program***

September 2023-2025

Grant PIs: Maureen Schmitter-Edgecombe & Diane CookAmount: \$25,000WSU STUDENT & TRAINEE AWARDS

- Tiara Freeman (PhD student): WSU GSPA Expo 3rd Place Poster for the Social and Physical Sciences, March 2024
- Isabella Santiago (Undergraduate RA): James A. Weir Undergraduate Research Fellowship, Fall 2024
- Tiara Freeman (PhD Student): 2023 Graduate Diversity Advancement Pathways Program (GDAPP)

UNIVERSITY OF CHICAGO***NSF SBE Postdoctoral Research Fellowship***

2022

Application rated as Highly Competitive, withdrew from consideration upon accepting faculty position at WSU

William Rainey Harper Dissertation Year Fellowship

2019 – 2020

Highly competitive fellowship (1 awarded for all applicants in Social Sciences Division) providing full tuition and stipend for additional year of PhD work

Norman Anderson Award

Spring 2020

Research Funding, Amount: \$1000

Norman Anderson Award

Winter 2017

Conference Travel Funding, \$800

Norman Anderson Award

Fall 2015

Conference Travel Funding, \$400

PUBLICATIONS & PRESENTATIONS

* indicates co-first authorship

^ indicates mentored student

PEER-REVIEWED ARTICLES

1. Akcelik, G. N., Choe, K. W., Rosenberg, M. D., Schertz, K. E., **Meidenbauer, K. L.**, Zhang, T., Talen, E., & Berman, M.G. (2024) [Quantifying Urban Environments: Aesthetic Preference Through the Lens of Prospect-Refuge Theory](#). *Journal of Environmental Psychology*.
2. Lyu, Y., Su, Z., Neumann, D., **Meidenbauer, K. L.**, & Leong, Y. C. (2024). [Hostile attribution bias shapes neural synchrony in the left ventromedial prefrontal cortex during ambiguous social narratives](#). *Journal of Neuroscience*.
3. Schertz, K. E., Kotabe, H. P., **Meidenbauer, K. L.**, Layden, E. A., Zhen, J., Bowman, J. E., Lakhtakia, T., Lyu, M., Paraschos, O. A., Janey, E. A., Samtani, A. L., Stier, A. J., Gehrke, K., Van Hedger, S. C., Vohs, K. D., & Berman, M. G. (2023). [Nature's path to thinking about others and the surrounding environment](#). *Journal of Environmental Psychology*, 89, 102046.
4. **Meidenbauer, K. L.**, Choe, K., Bakkour, A., Inzlicht, M., Meidenbauer, M. L., & Berman, M. G. (2023). [Characterizing the role of impulsivity in costly, reactive aggression using a novel paradigm](#). *Behavior Research Methods*.
5. **Meidenbauer, K. L.***, Niu, T.*, Choe, K. W., Stier, A. J., & Berman, M. G. (2023). [Mouse movements reflect personality traits and task attentiveness in online experiments](#). *Journal of Personality*, 91(1), 413-425.
6. Zhuang, C.*^, **Meidenbauer, K. L.***, Kardan, O., Stier, A. J., Choe, K. W., Cardenas-Iniguez, C., Huppert, T. J., & Berman, M. G. (2022). [Scale Invariance in fNIRS as a Measurement of Cognitive Load](#), *Cortex*, 154, 62-76.
7. Talen, E., Choe, K. W., Akcelik, G. N., Berman, M. G., & **Meidenbauer, K. L.** (2022). [Street design preference: an on-line survey](#). *Journal of Urban Design*, 1-24.
8. **Meidenbauer, K. L.**, Choe, K. W., Cardenas-Iniguez, C., Huppert, T.J., & Berman, M. G. (2021) [Load-dependent relationships between frontal fNIRS activity and performance: A data-driven PLS approach](#). *NeuroImage*. 117795.
9. Berman, M.G., Stenfors, C.U.D., Schertz, K.E., & **Meidenbauer, K.L.** (2021). [Response to "Conceptual replication study and meta-analysis suggest simulated nature does not reliably restore pure executive attention measured by the Attention Network Task."](#) *Journal of Environmental Psychology*, 78, 101719.
10. **Meidenbauer, K. L.**, Stenfors, C. U. D., Bratman, G. N., Gross, J. J., Schertz, K. E., Choe, K. W., & Berman, M. G. (2020). [The affective benefits of nature exposure: What's nature got to do with it?](#) *Journal of Environmental Psychology*, 72.
11. **Meidenbauer, K. L.**, Stenfors, C. U. D., Ingram, M. P., & Berman, M. G. (2019). [A tablet-based task for assessing environmental preferences in children and adults](#). *MethodsX*, 6, 1901-1906.
12. **Meidenbauer, K. L.**, Stenfors, C., Young, J., Layden, E. A., Schertz, K. E., Kardan, O., Decety, J., & Berman, M. G. (2019). [The gradual development of the preference for natural environments](#). *Journal of Environmental Psychology*, 65.
13. **Meidenbauer, K. L.**, Cowell, J. M., & Decety, J. (2018). [Children's neural processing of moral scenarios provides insight into the formation and reduction of in-group biases](#). *Developmental Science*, e12676.

14. Decety, J., **Meidenbauer, K. L.**, & Cowell, J. M. (2017). [The development of cognitive empathy and concern in preschool children: A behavioral neuroscience investigation](#). *Developmental Science*, e12570.
15. **Meidenbauer, K. L.**, Cowell, J. M., Killen, M., & Decety, J. (2016) [A developmental neuroscience study of moral decision-making regarding resource allocation](#). *Child Development*, 89, 1177-1192.
16. Decety, J., **Lewis, K. L.**, & Cowell, J. M. (2015). [Specific electrophysiological components distinguish affective sharing and empathic concern in psychopathy](#). *Journal of Neurophysiology*, 114(1), 493-504.
17. **Lewis, K. L.**, Taubitz, L. E., Duke, M. W., Steuer, E. L., & Larson, C. L. (2015) [State rumination enhances elaborative processing of negative material as evidenced by the late positive potential](#). *Emotion*, 15(6), 687-693.
18. Humphries, C., Sabri, M., **Lewis, K.** & Liebenthal, E. (2014). [Hierarchical organization of auditory cortex in speech perception](#). *Frontiers in Neuroscience*, 8:406.

MANUSCRIPTS UNDER REVIEW

19. Sahni, P.S., Rajyaguru, C., Narain, K., **Meidenbauer, K. L.**, Jyoti, K., Schonert-Reichl, K. A. (2022, June 17). Neural Dynamics of Nature Empathy in Children: An EEG/ERP study. <https://psyarxiv.com/c3hrm/>
20. **Meidenbauer, K. L.**, Schertz, K. E., Janey, E., Stier, A., Samtani, A. L., Gehrke, K., Tucker, R., Hasan, M., & Berman, M. G. (2023, October 31). Evidence for environmental influences on impulsivity and aggression. <https://osf.io/preprints/psyarxiv/epkru>
21. Shin, W., Choe, K. W., Ahn, J., Sul, S., & **Meidenbauer, K. L.** (2024) The rich get richer: How economic affluence influences challenge-seeking behavior.
22. **Meidenbauer, K. L.**, Schertz, K. E., Li, P., Sharma, A., Freeman, T. R., Stier, A., ... Berman, M. (2024, April 30). Variable and dynamic associations between hot weather, thermal comfort, and individuals' emotional states during summertime. <https://doi.org/10.31234/osf.io/fhd3z>

BOOK CHAPTERS

23. Schertz, K. E.*, **Meidenbauer, K. L.***, & Berman, M. G. (2021) Understanding the Affective Benefits of Interacting with Nature. In E. Brymer, M. Rogerson, & J. Barton (Ed.) *Nature, Physical Activity and Health*. London, UK: Routledge. DOI: 10.4324/9781003154419-2
24. Berman, M. G., Cardenas-Iniguez, C., & **Meidenbauer, K. L.** (2021) *An Environmental Neuroscience Perspective on the Benefits of Nature*. Proceedings from the 67th Nebraska Symposium on Motivation--Nature and Psychology. https://link.springer.com/chapter/10.1007%2F978-3-030-69020-5_4

INVITED TALKS & SYMPOSIA

1. *The effects of heat on emotion, cognition, and more*. Talk given at the June meeting of the NeuroClimate Working Group, June, 24, 2024.
2. *Evaluating the neurocognitive benefits of attending a nature-based Chicago school*. Talk given at the UChicago fNIRS User Group Meeting, April 18, 2024
3. *Environmental predictors of trait impulsivity and aggression: Associations and potential mechanisms*. Talk given at the APA Division 34 (Society for Environment, Population, and Conservation Psychology) Annual Conference, October 20, 2023.

4. *Assessing and Addressing Environmental Disparities to Improve Psychological Well-being*. Talk given at Nature & Health Community Dinner, University of Washington Center for Urban Horticulture, January 26, 2023.
5. *Mapping Environmental Disparities in Chicago: Implications for Crime and Psychological Well-being*. Talk given at DePaul University, October 28, 2022.
6. *Links between Environmental Disparities, Socioeconomic Disadvantage, and Crime in Chicago: Preliminary Results and Future Directions*. Talk given at the APA Division 34 Inaugural Online Conference, June 17, 2022.
7. *Is nature only good for us because we like it?* Elmhurst College Psychology Club Research Talk, Feb 27, 2020, Elmhurst, IL.
8. *Children's environmental preferences*. 3rd annual Wolf Lake Watershed Advisory Committee Meeting, Nov 1, 2019, Whiting, IN.

POSTERS & PRESENTATIONS

1. Freeman, T. R.[^], **Meidenbauer, K. L.**, Schertz, K. E., Janey, E. A., Santiago, I., & Berman, M. G. (2024). *"Where can I launch my boat?" The effects of racialization and SES on access to (and perceptions of) quality urban parks*. Presented at the Community Research In Action in the West (CRA-W) Conference, Tacoma, WA, April 2024.
2. Freeman, T. R.[^], **Meidenbauer, K. L.**, Schertz, K. E., Janey, E. A., & Berman, M. G. (2024). *Is it me or just the heat? Examining personality factors and negative emotions due to heat stress*. Presented at the GPSA Expo, Washington State University, March 2024.
3. **Meidenbauer, K. L.**, Freeman, T. R.[^], Schertz, K. E., Li, P., Sharma, A., & Berman, M. G. (2024). *"Too hot? Feels fine to me!" Feelings of thermal discomfort but not actual or perceived temperature predict negative emotional states*. Presented at the Emotion Preconference of the Society for Personality and Social Psychology (SPSP) Annual Convention, San Diego, CA, February 2024.
4. Freeman, T. R.[^], **Meidenbauer, K. L.**, Schertz, K. E., Janey, E. A., & Berman, M. G. (2024). *Is it me or just the heat? Examining personality factors and negative emotions due to heat stress*. Presented at the GPSA Expo, Washington State University, March 2024.
5. **Meidenbauer, K. L.**, Schertz, K. E., Janey, E. A., & Berman, M. G. (2024). *"Racial and economic disparities in access to emotionally restorative urban greenspaces*. Presented at the Society for Personality and Social Psychology (SPSP) Annual Convention, San Diego, CA, February 2024.
6. Freeman, T. R.[^], **Meidenbauer, K. L.**, Schertz, K. E., Janey, E. A., & Berman, M. G. (2024). *Is it me or just the heat? Examining personality factors and negative emotions due to heat stress*. Presented at the Society for Personality and Social Psychology (SPSP) Annual Convention, San Diego, CA, February 2024.
7. Janey, E. A., **Meidenbauer, K. L.**, Schertz, K. E., Oishi, S., & Berman, M. G. (2024). *Predicting experienced affect in public parks cross ethnicities*. Presented at the Society for Personality and Social Psychology (SPSP) Annual Convention, San Diego, CA, February 2024.
8. **Meidenbauer, K. L.** (2022). *Overview and introduction to functional near-infrared spectroscopy (fNIRS)*. Presented at the UChicago Center for Advanced Studies fNIRS Workshop, Chicago, IL, October 2022.
9. Seccia, A., **Meidenbauer, K. L.**, Guo, X., Janey, E. A., Berman, M. G., & Goldin-Meadow, S. (2022). *The neurobiological mechanisms underlying gesture's role in mathematical learning*. Presented at Society for Functional Near-Infrared Spectroscopy (sfNIRS), Boston, MA, October 2022.

10. **Meidenbauer K. L.**, Schertz, K.E., & Berman, M.G. (2022) *Identifying the Psychological Mechanisms Linking Urban Greenspace Use and Reduced Violent Crime*. Presented at the Annual Convention for the Association of Psychological Science, Chicago, IL, June 2022.
11. Stevenson C., **Meidenbauer K. L.**, Choe, K. W., & Berman, M.G. (2022). *The Importance of Social Context in Vengeance: Personal Aggression Against Oneself Prompts People to Rate Retaliation for Strangers More Favorably Than Retaliation for Friends*. Presented at the Annual Convention for the Association of Psychological Science, Chicago, IL, June 2022.
12. Janey, E., McConnell, K., Schertz, K.E., **Meidenbauer K. L.**, & Berman, M.G. (2022) *The Potential Effects of Preference on the Cognitive Benefits of Natural Environments*. Presented at the Annual Convention for the Association of Psychological Science, Chicago, IL, June 2022.
13. McConnell, K., Janey, E., Schertz, K.E., **Meidenbauer K. L.**, & Berman, M.G. (2022) *Attention Restoration Theory: Restoration Potential of Various Cognitive Tasks*. Presented at the Annual Convention for the Association of Psychological Science, Chicago, IL, June 2022.
14. Stevenson, C., **Meidenbauer K. L.**, Choe, K. W., Shaw, A., & Berman M.G. (2022). *Aggression Against Oneself Evokes Greater Evaluations of Praiseworthiness for Retaliation on Behalf of Strangers vs. Friends*. Presented virtually at the 2022 Social Affective Neuroscience Society (SANS) Annual Conference.
15. Stevenson, C., **Meidenbauer K. L.**, Choe, K. W., Shaw, A., & Berman M.G. (2022). *Having Your Friend's Back: Evaluations of Retaliation on Behalf of Self vs. Friends vs. Strangers*. Presented virtually at the 2022 Society for Personality and Social Psychology (SPSP) Annual Convention, San Francisco, CA.
16. Letourneau-Freiberg, L. R., **Meidenbauer, K. L.**, Denson, A. M., Tian, P., Choe, K. W., Berman, M. G., Greely, S. A. W. (2020). *Use of Functional Near-infrared Spectroscopy (fNIRS) To Assess Cognitive Effort In KATP-Related Neonatal Diabetes (KATP-NDM)*. Presented at the American Diabetes Association 80th Scientific Session, June 2020.
17. **Meidenbauer, K. L.**, Choe, K. W., Cardenas-Iniguez, C., Huppert, T.J., & Berman, M. G. (2020). *Frontal fNIRS Activity Predicts Performance Differently Across Levels of Cognitive Load*. Poster presented at the Association for Psychological Science Annual Meeting Virtual Poster Showcase, June 2020.
18. **Meidenbauer, K. L.** (2019) *Task-evoked fNIRS activity during an n-back task*. Talk given at the winter meeting of the University of Chicago fNIRS User Interest Group, Jan 2020.
19. **Meidenbauer, K. L.** (2019) *Using fNIRS activation as a neural index of cognitive effort*. Talk given at the University of Chicago Cognition Workshop, May 2019.
20. **Meidenbauer, K. L.** (2019) *Fundamentals of Functional Near-Infrared Spectroscopy*. Talk given at the first meeting of the University of Chicago fNIRS User Interest Group, February 2019.
21. **Meidenbauer, K. L.** (2018) *The Gradual Development of Nature Preferences*. Talk given at the University of Chicago Cognition Workshop, November 2018.
22. Young, J., **Meidenbauer, K.L.**, Choe, KW., Berman, M.G. (2018). *Functional Near-Infrared Spectroscopy Imaging of Auditory and Visual Cortex*. Presented at the Annual University of Chicago Neuroscience Retreat, New Buffalo, MI, September 2018.
23. **Meidenbauer, K. L.**, Cowell, J. M. & Decety, J. (2017). *Neurophysiological Indices of Conflicting Group Attitudes and Incongruent Moral Behaviors*. Presented at Biennial Meeting of the Society for Research in Child Development, Austin, April 2017.
24. **Meidenbauer, K. L.**, Cowell, J. M., & Decety, J. (2017). *Developmental Changes in the Neural Processing of Equity and Equality in Resource Allocation*. Presented at the Biennial Meeting of the Society for Research in Child Development, Austin, April 2017.

25. **Lewis, K. L.**, Cowell, J. M., & Decety, J. (2015). *Neural Correlates of Contextualized Moral Decision Making in Children and Adolescents*. Presented at Society for Social Neuroscience Annual Meeting, Chicago, October 2015.
26. **Lewis, K. L.**, Cowell, J. M., & Decety, J. (2015). *Electrophysiological Signatures of Distinct Facets of Empathy and Their Relation to Trait Empathy and Psychopathy*. Presented at Society for Neuroscience Annual Meeting, Chicago, October 2015.
27. Sabri, M., **Lewis, K.**, Humphries, C. J., & Liebenthal, E. (2014). *Differential neural adaptation of spectral transition and steady-state features in speech and nonspeech*. Presented at Society for Neuroscience Annual Meeting, Washington D.C., November 2014.
28. Humphries, C., Sabri, M., Heugel, N., **Lewis, K.** & Liebenthal, E. (2013). *Pattern Specific Adaptation to Speech and Nonspeech Sounds in Human Auditory Cortex*. Presented at the Society for Neuroscience Annual Meeting, San Diego, November 2013.
29. **Lewis, K. L.**, Robinson, J.S., & Larson, C. L. (2012). *ERPs during Emotion Regulation Task Affected by Symptoms of Dissociation in PTSD Patients*. Presented at the Society for Psychophysiological Research Conference, New Orleans, September 2012 and the International Neuropsychology Society (INS) Conference, Montreal, Canada, February 2012.
30. Taubitz, L. E., **Lewis, K. L.**, & Larson, C. L. (2012). *Emotion Modulation of the P2 ERP Component in Dysphoric and Non-Dysphoric Subjects and its Modification by SSRI Treatment*. Presented at the Society of Biological Psychiatry Annual Scientific Convention & Program, Philadelphia, May 2012.
31. Taubitz, L. E., **Lewis, K. L.**, & Larson, C. L. (2011). *Elaborating the Time Course of Attentional Bias in Dysphoria: Combining Event-Related Potential and Behavioral Measures*. Presented at the Society for Psychophysiological Research Conference, Boston, September 2011.
32. **Lewis, K. L.**, Steuer, E. L., Duke, M. W., Taubitz, L. E., Belleau, E. L., & Larson, C. L. (2011). *Frontal Late Positive Potential Predicts Subsequent Memory for Pleasant Pictures*. Presented at the Society for Psychophysiological Research Conference, Boston, September 2011.

RESEARCH POSITIONS

Environmental Neuroscience Lab (Dr. Marc G. Berman) <i>Graduate Research Assistant & Postdoctoral Scholar</i> University of Chicago	2017 – 2022
Social Cognitive Neuroscience Lab & Child Neurosuite (Dr. Jean Decety) <i>Graduate Research Assistant</i> , University of Chicago	2014 – 2016
Affective Neuroscience Lab (Dr. Christine L. Larson) <i>Undergraduate Researcher & Post-Baccalaureate Research Technician</i> University of Wisconsin-Milwaukee	2010 – 2014
Speech Perception Lab (Dr. Merav Sabri & Dr. Einat Liebenthal) <i>Lab Manager</i> , Medical College of Wisconsin	2012 – 2014
Brain Injury Research Lab (Dr. Michael McCrea) <i>Research Technician</i> , Medical College of Wisconsin	2012

Inquiries in Affective Science Lab (Dr. Nakia Gordon) 2012
Research Technician, Marquette University

F.E.A.R. Lab (Dr. Shawn Cahill) 2010
Undergraduate Research Assistant, University of Wisconsin-Milwaukee

TEACHING

Assistant Professor at Washington State University
 Cognition & Affective Bases of Behavior (Psych 592) Spring 2023, Spring 2024
 Environmental Psychology (Psych 466) Fall 2023, Spring 2024

Teaching Fellow at University of Chicago
 Social Psychology Fall 2020
 Mind-I (Social Sciences Core class) Fall 2020
 Mind-II Winter 2021
 Mind-III Spring 2021

Graduate Student Instructor at University of Chicago Summer 2019
 Cognitive Psychology

Graduate Teaching Assistant at University of Chicago
 Cognitive Psychology Spring 2018, Spring 2019
 Intro to Developmental Psychology Spring 2017
 Violence in the Early Years (Public Policy Course) Winter 2017, Winter 2018
 Social Psychology Fall 2016, Fall 2017

Teaching Intern at UW-Milwaukee
 Introduction to Psychology Fall 2010

WORKSHOPS & PROFESSIONAL DEVELOPMENT

ELEVATE Teaching Workshop August 16, 2023
 Washington State University

Rethinking Mentoring Workshop April 26, 2023
How to Build Communities of Inclusion, Support, and Accountability
 ADVANCE at WSU

WSU New Faculty Grant Workshop AY 2022-2023
 Attended monthly meeting and received \$500 for completing all workshop activities

NSF Smart & Connected Communities PI Meeting October 10-12, 2022
 Arlington, VA

Advances in fNIRS Methods and Analysis Workshop April 24-27, 2022
 University of Nebraska-Omaha & Boystown Hospital

Longitudinal Structural Equation and Latent Growth Modeling

January 19-21, 2022

Virtual course through Univ Maryland, led by Greg Hancock, PhD

Structural Equation Modeling: From Beginner to Intermediate

January 3-5, 2022

Virtual course through Univ Maryland, led by Greg Hancock, PhD

RepliCATS (Collaborative Assessment for Trustworthy Science)

Facilitator, pre-AIMOS repliCATS workshop

Nov 18 – 23, 2021

Discussant, pre-SIPS repliCATS workshop

June 22 – 25, 2021

Array of Things Workshop

August 29 – 30, 2018

Argonne National Laboratory, Chicago

Advanced fNIRS Data Analysis Workshop

May 24 – 25, 2018

University of Pittsburgh, Course led by Ted Huppert, PhD

SERVICE

COMMUNITY STEM. OUTREACH***MAPSCorps Research Advisor***

June – August 2022

- Guided student researchers at [MAPSCorps](#) Kenwood High School site to develop a research question and analyze data on the park quality disparities between Chicago neighborhoods

MAPSCorps 14th Scientific Symposium Panelist

August 12, 2022

- Provided feedback on High School and College MAPSCorps student researchers' projects about social and environmental inequities in Chicago neighborhoods

High School Research Outreach

May 18, 2023

- Talked to AP Psych students at Washington Park High School in Racine, WI (alma mater) about psychology research as a career and getting involved in research in college and graduate school

SERVICE TO SCIENTIFIC COMMUNITY**Federal Grant Review**Reviewer for *NIEHS Exploratory Grants for*

Aug 1-3, 2023

*Climate Change and Health Research Center Development***Ad-Hoc Manuscript Review ([Web of Science Profile](#))**

2017 – present

*Scientific Reports**Child Development**Biological Psychology**Journal of Environmental Psychology**Society & Natural Resources**Applied Psychology: Health and Well-Being**Applied Science**International Journal of Environmental Research and Public Health**Psychophysiology*

Neuropsychologia
Ecopsychology
Landscape & Urban Planning
NeuroImage
JAMA Psychiatry
Developmental Review
PLOS One
Brain Connectivity

WASHINGTON STATE UNIVERSITY

University Service

Judge, 2024 SURCA (Showcase for Undergraduate Research and Creative Activities)	March 25, 2024
Judge, 2023 SURCA (Showcase for Undergraduate Research and Creative Activities)	March 27, 2023
Reviewer, Spring 2023 ADARP Grants	April 2023

Departmental Service

Committee in Psychology for Inclusion and Equity (CPIE)	AY 2023-2024
Graduate Student Travel Awards Committee	AY 2023-2024
Search Committee, Career Track Faculty Member	AY 2023-2024

UNIVERSITY OF CHICAGO

Center for Advanced Studies fNIRS Workshop

Autumn 2022

- Co-organized CAS-sponsored fNIRS workshop pilot quarter
- Recruited and developed speaker schedules

U Chicago fNIRS User Interest Group

2019 – 2022

- Co-organized monthly meeting/workshop for University of Chicago labs interested in using fNIRS
- Provided overviews and demos on general principles of fNIRS, data acquisition, experimental design, and analysis

Psychology Graduate Student Organization (U Chicago PGSO) Service

- | | |
|---|-------------|
| ▪ Health & Wellness Committee Founder and Chair | 2017 – 2020 |
| ▪ PGSO President | 2016 – 2017 |
| ▪ Graduate Student Mentorship Coordinator | 2015 – 2016 |
| ▪ Social Committee Member | 2014 – 2016 |

MENTORSHIP

WSU Experimental Psychology PhD students

- Tiara Rose Freeman (2023-present)

WSU Student Committees

- Aria Petrucci (Psychology, Preliminary Exam)
- Robin Rubey (Psychology, Thesis)
- Skylar Nicholson (Psychology, Thesis)
- Sarah Elder (Psychology, Preliminary Exam)
- Nicole Michol (Agriculture/Agricultural Education, M.S. Committee)

External Student Committees

- Gaby Akcelik (University of Chicago, Dissertation Committee Reader) [2024]

WSU Undergraduate Research Assistants

- Isabella Santiago (*Gerontechnology-Focused Student Undergraduate Research Experience; GSUR Student Spring 2024-Summer 2024*) [2023-present]
- PJ Stilson (*GSUR Student Summer 2024*) [2024-present]
- Darren Caruso [2023-present]
- Jack Hermanson [2023-present]
- Kaylee Gibbs [2023-present]
- Abigail Wilkinson [2023-present]
- Yanin Duarte-Acosta [2024-present]
- Amanda Doyle [2024-present]
- Garima Shukla [2024-present]

University of Chicago

- Anya Samtani (UChicago Undergrad RA, 2022-2023) Mentored research project on transportation and easy of accessibility in predicting park assessments.
- Elizabeth Janey (UChicago Post-bac RA, 2021-2023) Mentored research projects on belongingness in public spaces, biodiversity, and well-being. Elizabeth joined the University of Chicago Psychology PhD program in 2023.
- Gracie Fischer (UChicago Environmental Health Sciences Trainee, Summer 2021) Mentored research project on perceptions of air quality and crime in Chicago cities. Gracie was accepted into a PhD program in 2023.
- Annie Li (MAPSS Student, 2020-2021). Mentored M.A. thesis on development of online, bonus-based Stop Signal Task.
- Selina Liu (MACSS Student, 2019-2021). Co-mentored M.A. thesis on Mouse Movement and Personality and assisted with turning thesis into a manuscript.
- Nak Won Rim (MACSS Student, 2019-2021). Co-mentored M.A. thesis on Eyetracking Point of Interest Analysis and assisted with PhD program applications. Nak Won joined the U Chicago Psychology PhD program in Sept 2021.
- Siyi Fan (MACSS Student, 2018-2020). Co-mentored M.A. thesis on Reliable Preference Rating Through Multiple Image Presentation.
- Chu Zhuang (MAPSS Student, 2019-2020). Mentored M.A. Thesis on Scale Invariance in fNIRS as a Measurement of Cognitive Effort. Supervised and co-wrote Chu's first-author manuscript based on her thesis. Chu was accepted into a PhD program in 2023.
- Jillian Bowman (Undergraduate RA, 2017-2020). Provided mentorship and data analysis assistance on B.A. thesis project, assisted with professional development. Jillian was accepted to medical school in 2020.
- Tanvi Lahktakia (Undergraduate RA, 2017-2020). Provided mentorship and data analysis assistance on B.A. thesis project, mentored on research job and PhD application process. Tanvi was accepted to a PhD program in Clinical Psychology in 2024.
- Jaime Young (Post-MA Research Assistant, 2017-2019). Mentored on research projects and PhD program applications. Jaime was accepted into a PhD program in psychology in 2019.

MEDIA COVERAGE

General:

- **Psychology Today** [Verified contributor](#): Creator of [Environ-Mentality Blog](#)
 - 2024 posts:
 - [What Can We Do to Protect Our Brains From Heat?](#)
 - [What Does Body Temperature Have to Do with Depression?](#)
 - 2023 posts:
 - [How Much Nature Exposure is Enough?](#)
 - [The Promise of Studying Human Aggression in the Wild](#)
 - [Visiting Parks Makes Us Happier, so Why Don't We Do It More?](#)
 - [Feeling Disconnected from Others? Time in Nature Can Help](#)
 - [How Concerned Should We Be About Heat Waves?](#)
 - [Should Changing your Environment Be Your New Years Resolution?](#)

Podcast Interviews

- The [Nature & Nurture Podcast](#) (Episode 68) and [Psychology Today](#)
- [Something Offbeat Podcast](#) (Ukuleles on a plane: How surroundings control our mood)
- [Doing Well: The Wellbeing Science Insights Podcast](#) (Episode 19: Barriers to Connecting with Nature)
- [Speak of Psychology Podcast](#) (Episode 291: Mental Health in a Warming World)

Interviews on Heat Stress and the Brain

- *New York Times* [How heat affects the brain](#)
- *CNN* [Why some scientists think extreme heat could be the reason people keep disappearing in Greece](#)
- *APA Monitor* June 2024 Cover Story: [How heat affects the mind](#)
- *NPR Los Angeles Air Talk* [With a weekend heat wave rolling in, how does heat affect our brain?](#)
- *The Seattle Times*: [New count of WA's past heat wave deaths gives a 'warning to the PNW'](#)

SCeNe Lab Research

- WSU Insider: [Feeling hot triggers impulsive behavior and irritability](#)
- WSU Insider: [Doctoral student Tiarã Freeman connects the environment to mental health](#)
- Real Simple Magazine (April 2024 issue): A natural connection

NSF Grant on Healthy and Equitable Public Spaces

- [Mapping Emotions: Researchers to Track Psychology, Equity of Public Spaces](#)
- [Chicago Tribune: How do public spaces make you feel? DePaul University measuring equity by tracking how people respond to urban design](#)

The RC-RAGE reactive aggression task:

- [Psychonomic society featured content: *Feel my rage! Studying reactive aggression*](#)

Children's environmental preferences:

- UChicago News: *Children don't like nature as much as adults—but preferences change with age.*
<https://news.uchicago.edu/story/children-dont-nature-much-adults-preferences-change-age>
- Research also covered by the Times, London and Talk Radio London.

TECHNICAL SKILLS

- **Statistical Analysis** using R (Frequentist & Bayesian statistics) and Matlab (multivariate analysis)

- **Neuroimaging** expertise in multiple modalities (EEG, fNIRS, fMRI), designing, collecting, and analyzing data
- **Experimental design** and programming (E-prime, Qualtrics, JavaScript, PsychoPy)

COMMITMENT TO OPEN SCIENCE PRACTICES

- [Open Science Framework \(OSF\) Profile](#)
- Member of University of Chicago chapter of ReproducibiliTea 2019-2022 ([OSF site](#)) ([Twitter](#))
- [Templates for collaborative pre-registrations on OSF](#)

Presentations:

- “How to Conduct a Preregistration” Demo presented at UChicago ReproducibiliTea meeting, March 3, 2022

Shared Datasets:

- Reactive aggression and impulsivity experiment data (MTurk) data from Meidenbauer, Choe et al. (*Behavior Research Methods*, 2023) <https://osf.io/796rs/>
- Mouse movements & personality data in Meidenbauer, Niu, et al., (*J Personality*, 2022): <https://osf.io/fr74q/>
- fNIRS and behavior data (N-back task) in Meidenbauer et al. (*NeuroImage*, 2021): <https://osf.io/sh2bf/> and scale-invariance data in Zhuang, Meidenbauer et al. (*Cortex*, 2022): <https://osf.io/kt5cx/>
- Nature exposure, aesthetic preferences, and affect change (MTurk) data from Meidenbauer et al. (*J. Environmental Psychology*, 2020): <https://osf.io/ehk9/>

Shared Study Materials

- Nature and Urban picture stimuli from Meidenbauer et al. (*J. Environmental Psychology*, 2019) and Meidenbauer et al., (*MethodsX*, 2019): <https://osf.io/xj3pk/>
- Picture stimuli with ratings of preference and naturalness from Meidenbauer et al. (*J. Environmental Psychology*, 2020): <https://osf.io/ehk9/>

Shared Task Code

- N-back PsychoPy experiment from Meidenbauer et al. (*NeuroImage*, 2021): <https://osf.io/m6brz/>
- Tablet-based image rating task used to evaluate child nature preferences from Meidenbauer et al. (*J. Environmental Psychology*, 2019) and Meidenbauer et al. (*MethodsX*, 2019): <https://osf.io/hc2ne/>

Neuroimaging and Statistical Analysis Code

- Matlab code for fNIRS data Analysis using Brain AnalyzIR toolbox + Running Behavioral PLS in fNIRS and R code for behavior analysis (from Meidenbauer et al., *NeuroImage*, 2021): <https://osf.io/sh2bf/>
- Matlab code for preprocessing and running PLS analysis on fNIRS scale-invariance data (from Zhuang, Meidenbauer et al., *Cortex*, 2022): <https://osf.io/kt5cx/>
- R code for statistical analysis of reactive aggression study in Meidenbauer, Choe et al. (*Behavior Research Methods*, 2023): <https://osf.io/czn43>
- Matlab & R code for running PLS on mousetracking and personality data in Meidenbauer, Niu, et al. (*J Personality*, 2022): <https://osf.io/fr74q/>

Preregistrations

- Preregistration for confirmatory study of reactive aggression and impulsivity study in Meidenbauer, Choe et al. (*Behavior Research Methods*, 2023): <https://osf.io/czn43>
- Preregistrations for effects of nature and preference on affect change in Meidenbauer et al. (*J. Environmental Psychology*, 2020): <https://osf.io/u5r4c>, <https://osf.io/u2e6n>