# KATHRYN E. SCHERTZ Curriculum Vitae

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#### ACADEMIC APPOINTMENTS

**2022 Postdoctoral Research Fellow** University of Michigan, Department of Psychology Emotion & Self Control Lab, Director: Ethan Kross, PhD

### **EDUCATION**

- **2022** University of Chicago Ph.D., Psychology (Integrative Neuroscience concentration) Certificate in Urban Science & Sustainable Development
- **2019** University of Chicago M.A., Psychology
- **2008 University of Pennsylvania** B.A., Cognitive Science (Cognitive Neuroscience concentration) Magna cum laude

# **EMPLOYMENT HISTORY**

2008–2014 Surface Warfare Officer, U.S. Navy Norfolk, VA / Pearl Harbor, HI

#### **GRANTS & AWARDS**

- 2022 Norman H. Anderson Travel Grant, University of Chicago
- 2020 Norman H. Anderson Travel Grant, University of Chicago
- 2019 Norman H. Anderson Travel Grant, University of Chicago
- 2018 National Science Foundation Graduate Research Fellowship
- 2018 University of Chicago App Challenge First Place

# PUBLICATIONS

# <u>Patents</u>

**Schertz, K.E.,** Kardan, O., Berman, M.G., & Kompare, T.N. Routing in Navigation Applications based on Restorative Score. (2019). *U.S. Patent Accepted No. 16/418,522.* Washington, DC: U.S. Patent and Trademark Office.

### Journal Articles and Chapters

**Schertz, K.E.**, Kotabe, H.P., Meidenbauer, K.L., Layden, E.A., Zhen, J., Bowman, J.E., ... & Berman, M.G. (2023). Nature's path to thinking about others and the surrounding environment. *Journal of Environmental Psychology*, *89*, 102046.

**Schertz, K.E.**, Bowman, J.E., Kotabe, H.P., Layden, E.A., Zhen, J., Lakhtakia, T., Lyu, M., Paraschos, O., Van Hedger, S.C., Vohs, K.D., & Berman, M.G. (2022). Environmental influences on affect and cognition: A study of natural and commercial semi-public spaces. *Journal of Environmental Psychology*, *83*, 101852.

Kardan, O., Stier, A.J., Cardenas-Iniguez, C., **Schertz, K.E.**, Pruin, J.C., Deng, Y.,... & Rosenberg, M.D. (2022). Differences in the functional brain architecture of sustained attention and working memory in youth and adults. *PLoS Biology*, *20*(12): e3001938.

Akcelik, G.N., **Schertz, K.E.,** & Berman, M.G. (2022). The influence of low- and mid-level visual features on the perception of streetscape qualities. In B. Ionescu & W. Bainbridge, *Human perceptions of visual information: Psychological and computational perspectives*. Springer.

**Schertz, K.E.**, Saxon, J., Cardenas-Iniguez, C., Bettencourt, L.M.A., Ding, Y., Hoffmann, H., & Berman, M.G. (2021). Neighborhood street activity and greenspace usage uniquely contribute to predicting crime. *npj Urban Sustainability*, *1*, 19.

Stier, A.J., **Schertz, K.E.**, Rim, N.W., Cardenas-Iniguez, C., Lahey, B.B., Bettencourt, L.M.A., & Berman, M.G. (2021). Evidence and theory for lower rates of depression in larger US urban areas. *Proceedings of the National Academy of Sciences*, 118 (31).

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.

**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, *Nature and Health: Physical activity in nature*. Rutledge.

**Schertz, K.E.**, Kardan, O., & Berman, M.G. (2020). Visual features influence expressed thoughts in the absence of overt semantic content. *Attention, Perception, & Psychophysics*. doi: 10.3758/s13414-020-02121-z

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, 101498.

Layden, E.A., Li, H., **Schertz, K.E.**, Berman, M.G., & London, S.E. (2020). Experience selectively alters functional connectivity within a neural network to predict learned behavior in juvenile songbirds. *NeuroImage.* doi: 10.1016/j.neuroimage.2020.117218

**Schertz, K.E.** & Berman, M.G. (2019). Understanding nature and its cognitive benefits. *Current Directions in Psychological Science*. doi: 10.1177/0963721419854100

Stenfors, C.U.D., Van Hedger, S.C., **Schertz, K.E**., Meyer, F.A., Smith, K.E.L., Norman, G.J., ... & Berman, M.G. (2019). Positive effects of nature on cognitive performance across multiple experiments: Test order but not affect modulates the cognitive effects. *Frontiers in Psychology*. doi: 10.3389/fpsyg.2019.01413

Meidenbauer, K.L., Stenfors, C.U.D., 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*. doi: 10.1016/j.jenvp.2019.101328

Layden, E.A., **Schertz, K.E.**, London, S.E., & Berman, M.G. (2019). Interhemispheric functional connectivity in the zebra finch brain, absent the corpus callosum in normal ontogeny. *NeuroImage*, *195*, 113-127. doi: 10.1016/j.neuroimage.2019.03.064.

Van Hedger, K., Keedy, S.K., **Schertz, K.E.**, Berman, M.G., & de Wit, H. (2019). Effects of methamphetamine on neural responses to visual stimuli. *Psychopharmocology*,1-8. doi: 10.1007/s00213-018-5156-5

**Schertz, K.E.**, Sachdeva, S., Kardan, O., Kotabe, H.P., Wolf, K.L., & Berman, M.G. (2018). A thought in the park: The influence of naturalness and low-level visual features on expressed thoughts. *Cognition*, *174*, 82-93. doi: 10.1016/j.cognition.2018.01.011

#### Submitted Manuscripts/Pre-prints

**Schertz, K.E.,** Sachdeva, S., Kross, E., & Berman, M.G. (2023). Let's talk about nature: Understanding multifaceted nature experiences using social media. (Under review at *People & Nature*)

Kardan, O., Sereeyothin, C., **Schertz, K.E.**, Angstadt, M., Weigard, A., Berman, M.G., & Rosenberg, M.D. (2023). Neighborhood air pollution is negatively associated with neurocognitive maturation in early adolescence. (Under review at *Nature Communications*)

#### Manuscripts in Preparation

Lyu, M., **Schertz, K.E**., Choe, K.W., Chamberlain, B.C., Qin, X., Meitner, M.J., & Berman, M.G. Taking the Scenic Route: Exploring Aesthetic Preference Using GIS-Modeled Highway Environments.

#### Conference Proceedings

**Schertz, K.E.**, Kardan, O., & Berman, M.G. (2019). Visual features influence expressed thoughts in the absence of overt semantic content. [Abstract]. *Abstracts of the Psychonomic Society*, 24(p. 124). Madison, WI: Psychonomic Society.

**Schertz, K.E.**, Kardan, O., & Berman, M.G. (2018). ReTUNE: Restoring Through Urban Nature Experience. [Abstract]. *Abstracts of the Psychonomic Society*, 23(p. 284). Madison, WI: Psychonomic Society.

**Schertz, K.E.**, Sachdeva, S., Kardan, O., Kotabe, H.P., Wolf, K.L., & Berman, M.G. (2017). A thought in the park: The influence of naturalness and low-level visual features on expressed thoughts. [Abstract]. *Abstracts of the Psychonomic Society*, 22(p. 101). Madison, WI: Psychonomic Society.

Chrysikou, E.G., **Schertz, K.**, & Thompson-Schill, S.L. (2007). Influencing the lingering garden path effect through tasks of executive control. [Abstract]. *Abstracts of the Psychonomics Society*, 12 (p. 129). Austin, TX: Psychonomic Society.

# **INVITED TALKS**

Social impacts of visits to natural spaces (2023, April). Wayne State University, Social Area Workshop, Detroit, MI.

The Benefits of Urban Greenspace for Cognition and Behavior. (2022, April). College of Lake County Sustainability Council Earth Week, Chicago, IL.

The Benefits of Urban Greenspace for Cognition and Behavior. (2019, April). University of Chicago-Tel Aviv University Workshop on Cities and Urbanism, Tel Aviv, Israel.

A thought in the park: The influence of naturalness and low-level visual features on expressed thoughts. (2017, August). University of Chicago Wisdom Research Forum, Chicago, IL.

# **CONFERENCE PARTICIPATION**

**Schertz, K.E.** & Kross, E. (2023, June). A tale of two paths to low effort emotion regulation. Talk presented at the International Organization of Psychophysiology, Geneva, CH.

**Schertz, K.E.**, Bowman, J.E., Kotabe, H.P., Layden, E.A., Zhen, J., Lakhtakia, T., Lyu, M., Paraschos, O., Van Hedger, S.C., Vohs, K.D., Berman, M.G. (2022, May). Natural public spaces increase social and environmental thought content. Poster presented at the Association for Psychological Science Annual Meeting, Chicago, IL.

**Schertz, K.E.**, Bowman, J.E., Kotabe, H.P., Layden, E.A., Zhen, J., Lakhtakia, T., Lyu, M., Paraschos, O., Van Hedger, S.C., Vohs, K.D., Berman, M.G. (2022, February). Socially and environmentally focused thoughts are influenced by the surrounding physical environment. Poster presented at the Society for Personality and Social Psychology Annual Meeting, San Francisco, CA.

Kardan, O., Stier, A.J., Cardenas-Iniguez, C., Pruin J.C., **Schertz, K.E.**, Deng, Y., Chamberlain, T., Meredith, W.J., Zhang, X., Bowman, J.E., Lakhtakia, T., Tindel, L., Avery, E.W., Lin, Q., Yoo, K.; Chun, M.M., Berman, M.G., Rosenberg, M.D. (2021, November). Adult functional connectivity models differentially predict sustained attention and working memory in youth. Poster presented at the Society for Neuroscience Annual Meeting, Chicago, IL.

Wohlrab, C., Restrepo, A., **Schertz, K.E.,** Berman, M.G., & Norman, G.J. (2020, October). Autonomic correlates relating mental and physical fatigue. Poster presented at the Society for Psychophysiological Research Annual Meeting, Vancouver, BC.

**Schertz, K.E.**, Kardan, O., & Berman, M.G. (2019, November). Visual features influence expressed thoughts in the absence of overt semantic content. Poster presented at the 60<sup>th</sup> Annual Meeting of the Psychonomic Society, Montreal, QC.

**Schertz, K.E.**, Cardenas-Iniguez, C., Saxon, J., & Berman, M.G. (2019, May). Environmental and Social Engagement Contribute Uniquely to Predicting Crime. Poster presented at the 31<sup>st</sup> Annual Convention of the Association for Psychological Science, Washington, D.C.

**Schertz, K.E.**, Kardan, O., & Berman, M.G. (2018, November). ReTUNE: Restoring Through Urban Nature Experience. Poster presented at the 59<sup>th</sup> Annual Meeting of the Psychonomic Society, New Orleans, LA.

Layden, E.A., **Schertz, K.E.**, Berman, M.G., & London, S.E. (2018, November). Functional connectivity signatures accurately distinguish male zebra finches who have been isolated from song during the sensitive period for vocal learning. Poster presented at the 48<sup>th</sup> Annual Meeting of the Society for Neuroscience, San Diego, CA.

Lyu, M., **Schertz, K.E.**, Choe, K.W., Chamberlain, B.C., Qin, X, Meitner, M.J., & Berman, M.G. (2018, May). Low-Level and semantic visual features predict preference in virtual environments. Poster presented at the 30<sup>th</sup> Annual Convention of the Association for Psychological Science, San Francisco, CA.

**Schertz, K.E.**, Sachdeva, S., Kardan, O., Kotabe, H.P., Wolf, K.L., & Berman, M.G. (2017, November). A thought in the park: The influence of naturalness and low-level visual features on expressed thoughts. Poster presented at the 58<sup>th</sup> Annual Meeting of the Psychonomic Society, Vancouver, BC.

Layden, E.A., **Schertz, K.E.**, Berman, M.G., & London, S.E. (2017, November). Telencephalic song nuclei of the anesthetized zebra finch brain exhibit functional homotopy in the absence of known direct white matter projections. Poster presented at the 47<sup>th</sup> Annual Meeting of the Society for Neuroscience, Washington, DC.

Cardenas-Iniguez, C., **Schertz, K.E.**, & Berman, M.G. (2017, June). The Role of Neighborhood Greenspace on Healthcare Utilization in an Urban US Multiracial Sample. Poster presented at the AHRQ NRSA Annual Conference 2017, New Orleans, LA.

**Schertz, K.E.**, Layden, E.A., London, S.E., & Berman, M.G. (2016, November). Functional connectivity and brain morphometry across development in zebra finches. Poster presented at the 46<sup>th</sup> Annual Meeting of the Society for Neuroscience, San Diego, CA.

Meyer, F., **Schertz, K.E.**, & Berman, M. G. (2016, May). Does interacting with nature in virtual reality restore directed attention? Poster presented at the 28<sup>th</sup> Annual Convention of the Association for Psychological Science, Chicago, IL.

Chrysikou, E.G., **Schertz, K.**, & Thompson-Schill, S.L. (2007, November). Influencing the lingering garden path effect through tasks of executive control. Poster presented at the 48<sup>th</sup> Annual Meeting of the Psychonomic Society, Long Beach, CA.

# CAMPUS/DEPARTMENTAL TALKS

This is your mind on nature. (2022, September). Social Psychology Brown Bag, University of Michigan.

Environmental influences on thought content and connectedness. (2020, November). Cognition Workshop, University of Chicago.

Environmental and Social Engagement Contribute Uniquely to Predicting Crime. (2019, March). Cognition Workshop, University of Chicago.

ReTUNE: Restoring Through Urban Nature Experience. (2017, March). Cognition Workshop, University of Chicago.

# **TEACHING & MENTORSHIP**

Behavioral Science & Public Policy (grad) – Teaching Assistant	Spring 2021
Big Data in the Psychological Sciences – Teaching Assistant	Winter 2021
Experimental Design I/II (grad) – Teaching Assistant	Spring & Fall 2020
Psychology and Neurobiology of Stress – Teaching Assistant	Fall 2019
Mentor for Thesis Students Sofia Micale (Undergraduate, Honors thesis, UMichigan) Ethan Driscoll (Undergraduate, Honors thesis, UMichigan) Senling Shu (Master's thesis, UChicago) Jillian Bowman (Undergraduate, Honors thesis, UChicago) Tanvi Lakhtakia (Undergraduate, Honors thesis, UChicago)	2023 2023 2022 2020 2020

### SERVICE

University of Chicago Psychology Graduate Student Organization

2021-2022	Grad Cross Talks Workshop, Organizer
2018-2019 / 2020-2021	Mentorship Program Coordinator
2018-2021	Travel & Research Committee Head
2017-2022	Travel & Research Committee Member

Undergraduate Research Symposiums

2018	Chicago Area Symposium (Judge for posters)
2023	University of Michigan Symposium (Judge for posters)

### SKILLS

**Languages:** Expert in R. Familiar with SAS, Matlab, Python. **Data:** Behavioral studies of non-clinical adult subjects; Qualtrics-based Amazon Mechanical Turk; U.S. Census data; Cell phone mobility data **Analytics:** Regression (Mixed Effects, CCA), Bayesian methods, Spatial/GIS Analysis (R, Geoda)

# PEER REVIEW ACTIVITIES

Ad-hoc reviewer for *PNAS, Science Advances, Journal of Experimental Psychology: General, Journal of Environmental Psychology, Environment & Behavior, Scientific Reports, Experimental Psychology, Psychological Reports, Ecopsychology* 

### ORGANIZATIONS

Society for Personality & Social Psychology Association for Psychological Science Society for Environmental, Population, & Conservation Psychology (APA Div 34)

#### REFERENCES

Ethan Kross, PhD Professor of Psychology, University of Michigan Professor of Management & Organizations, Ross School of Business Email: <u>ekross@umich.edu</u>

Marc G. Berman, PhD Associate Professor of Psychology Member, Neuroscience Institute The University of Chicago Email: <u>bermanm@uchicago.edu</u>

Wilma A. Bainbridge, PhD Assistant Professor of Psychology The University of Chicago Email: <u>wilma@uchicago.edu</u>