# 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

#### **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

### **PUBLICATIONS**

Journal Articles (contributions in accordance with CRediT)

**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. (In press). Environmental influences on affect and cognition: A study of natural and commercial semi-public spaces. *Journal of Environmental Psychology*. (Contributions: conceptualization; data curation; formal analysis; investigation; methodology; visualization; writing – original draft preparation)

**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. (Contributions: conceptualization; data curation; formal analysis; investigation; methodology; validation; visualization; writing – original draft preparation)

Updated: August 2022

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). (Contributions: investigation; writing – review & editing)

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. (Contributions: writing – review & editing)

**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 (Contributions: conceptualization; data curation; formal analysis; investigation; methodology; visualization; writing – original draft preparation)

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. (Contributions: formal analysis; resources; writing – review & editing)

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 (Contributions: investigation; writing – review & editing)

**Schertz, K.E.** & Berman, M.G. (2019). Understanding nature and its cognitive benefits. *Current Directions in Psychological Science*. doi: 10.1177/0963721419854100 (Contributions: conceptualization; visualization; writing – original draft preparation)

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 (Contributions: data curation; investigation; writing – review & editing)

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

(Contributions: formal analysis; resources; writing – review & editing)

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.

(Contributions: investigation; writing – review & editing)

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

(Contributions: resources; writing – review & editing)

**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 (Contributions: conceptualization; data curation; formal analysis; investigation; methodology;

(Contributions: conceptualization; data curation; formal analysis; investigation; methodology, visualization; writing – original draft preparation)

### Submitted Manuscripts/Pre-prints

**Schertz, K.E.**, Kotabe, H.P., Layden, E.A., Bowman, J.E., Zhen, J., Lakhtakia, T., Lyu, M., Paraschos, O., Van Hedger, S.C., Vohs, K.D., Berman, M.G. (2022) Nature's path to thinking about others and the surrounding environment. *PsyArXiv*. (Contributions: conceptualization; data curation; formal analysis; investigation; methodology; visualization; writing – original draft preparation)

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) Adult neuromarkers of sustained attention and working memory predict inter- and intraindividual differences in these processes in youth. *bioRxiv*. (Contributions: investigation; visualization; writing – review & editing)

## 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.

## **Patents**

**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.

## **Book Chapters**

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.,\*** 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.

#### **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

## **INVITED TALKS**

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.**, 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**

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 Students

Senling Shu (Master's thesis)	2022
Jillian Bowman (Undergraduate, Honors thesis)	2020
Tanvi Lakhtakia (Undergraduate, Honors thesis)	2020

#### RESEARCH EXPERIENCE

# **Environmental Neuroscience Lab, University of Chicago**

2017 - 2022 Graduate Research Assistant 2015 - 2017 Lab Manager/Research Assistant

#### **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

Chicago Area Undergraduate Research Symposium

2018 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)

#### **EMPLOYMENT HISTORY**

Surface Warfare Officer, U.S. Navy 2008 – 2014

Pearl Harbor, HI / Norfolk, VA

## **PEER REVIEW ACTIVITIES**

Ad-hoc reviewer for *Scientific Reports, Psychological Reports, Ecopsychology, Journal of Environmental Psychology* 

# **ORGANIZATIONS**

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

# **REFERENCES**

Marc G. Berman, PhD
Associate Professor of Psychology
Member, Neuroscience Institute
The University of Chicago

Email: <a href="mailto:bermanm@uchicago.edu">bermanm@uchicago.edu</a>

Wilma A. Bainbridge, PhD Assistant Professor of Psychology The University of Chicago

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Luis M.A. Bettencourt, PhD
Director, Mansueto Institute for Urban Innovation
Professor of Ecology & Evolution and the College
Associate Faculty, Department of Sociology
The University of Chicago
External Professor, Santa Fe Institute

Email: bettencourt@uchicago.edu