

Curriculum Vitae

Kelley Elizabeth Gunther

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Education

PhD, Developmental Psychology

August 2022 (anticipated)

The Pennsylvania State University
University Park, PA
NSF Graduate Research Fellow
Advisor: Dr. Koraly Pérez-Edgar

MS, Developmental Psychology

December 2019

The Pennsylvania State University
University Park, PA
Advisor: Dr. Koraly Pérez-Edgar
Thesis: Inhibitory Control as a Risk Factor for Internalizing Behaviors in Behaviorally Inhibited Children: A Mobile Eye Tracking Investigation

BS, Major: Psychology | Minor: Neuroscience

May 2015

University of Maryland
College Park, MD
Gemstone Honors Program
Advisors: Dr. Nathan Fox, Dr. Erica Glasper

Research Experience

Research Assistant

August 2017-present

*Advisor: Dr. Koraly Pérez-Edgar
Cognition, Affect, and Temperament Lab
The Pennsylvania State University*

- Research Assistant December 2019-present
Advisor: Dr. Charles Geier
The Geier Lab for Developmental Cognitive Neuroscience
The Pennsylvania State University
- Laboratory Manager/Research Assistant June 2015-July 2017
Advisor: Dr. Dima Amso
Developmental Cognitive Neuroscience Lab
Brown University
- Undergraduate Research Assistant December 2013-May 2015
Advisor: Dr. Nathan Fox
Child Development Lab
University of Maryland
- Honors Student April 2012-May 2015
Advisor: Dr. Erica Glasper
Glasper Lab
University of Maryland
Thesis: "The Effects of Insulin-Induced Moderate Hypoglycemia on Hippocampal Plasticity."
- Maryland Summer Scholar June 2013-August 2013
Advisor: Dr. Erica Glasper
Glasper Lab
University of Maryland

Publications

Gunther, K.,⁺ Youatt, E.,⁺ & Pérez-Edgar, K. (2020). The biology of shyness and adapting to threat. In L. A. Schmidt & K. L. Poole (Co-Eds.), *Adaptive Shyness: Developmental, Comparative, and Cultural Perspectives*, Cham, Switzerland: Springer.

Publications under review

Gunther, K. E., Brown, K. M., Fu, X., MacNeill, L., Jones, M., Ermanni, B., & Pérez-Edgar, K. (revise and resubmit). Mobile Eye Tracking Captures Changes in Attention Over Time During a Naturalistic Threat Paradigm in Behaviorally Inhibited Children.

Gunther, K. E. & Pérez-Edgar, K. (revise and resubmit). Dopaminergic Associations between Behavioral Inhibition, Executive Functioning, and Anxiety in Development.

Gunther, K. E., Fu, X., MacNeill, L., Vallorani, A., Ermanni, B., & Pérez-Edgar, K. (under review). Profiles of naturalistic attentional trajectories associated with internalizing behaviors in school-age children: A mobile eye tracking study.

Gunther, K. E., Werchan, D. M., Anaya, B., Vallorani, A., Pérez-Edgar, K., & Amso, D. (under review). Maternal buffering of neural and attentional responses to emotionally valenced stimuli in infancy.

Burris, J. L., Reider, L. B., Oleas, D. S., **Gunther, K. E.**, Buss, K., Pérez-Edgar, K., Field, A. P., & LoBue, V. (under review). Moderating Effects of Environmental Stressors on the Development of Attention to Threat in Infancy.

Vallorani, A., **Gunther, K. E.**, Anaya, B., Burris, J. L., Field, A. P., Lobue, V., Buss, K. A., Pérez-Edgar, K. (under review). Bi-directional relations between maternal anxiety and infant affect-biased attention across the first 24-months of life.

Publications in prep

Gunther, K. E., Fu, X., MacNeill, L., Jones, M., Ermanni, B., & Pérez-Edgar, K. (in prep). Now it's your turn!: Eye blink rate modulated by interaction of wait times, inhibitory control, and internalizing behaviors in a Jenga-like inhibitory control task.

Amso, D., Govindarajan, L.N., Gupta, P., Baumgartner, H., Lynn A., **Gunther, K.**, ... Serre, T. (in prep). Using Computational Analysis of Behavior To Discover Developmental Change In Memory-Guided Attention Mechanisms In Childhood.

Diercks, C. M., **Gunther, K. E.**, Lunkenheimer, E., & Teti, D. M. (in prep). Parental executive functions and harsh parenting: A case for moving forward with increased ecological validity.

Vallorani, A., Anaya, B., Morales, S., MacNeill, L. A., **Gunther, K. E.**, & Pérez-Edgar, K. (in prep). Approach and Avoidance in Attention to Threat and Frontal EEG Asymmetry: Patterns of Risk Within the Context of Behavioral Inhibition Relate to Internalizing Symptoms.

Vallorani, A.,⁺ Brown, K. M.,⁺ Fu, X., **Gunther, K. E.**, MacNeill, L. A., Ermanni, B., Hallquist, M. N., & Pérez-Edgar, K. (in prep). Affect Influences Social Attention Captured via Mobile Eye-Tracking During Dyadic Play in Young Children.

Oral Presentations

Gunther, K. E., Brown, K. M., Fu, X., MacNeill, L., Ermanni, B., & Pérez-Edgar, K. (2021, April). Symposium on “Beyond the dot probe: Innovations in measuring affect-biased attention across development.” Behavioral Inhibition Significantly Relates to Attentional Orienting to High Social Threat in Kindergarteners. Paper presented at the biennial meeting of the Society for Research in Child Development, Virtual. **Symposium Chair.**

MacNeill, L., **Gunther, K. E.**, Buss, K. A., LoBue, V., & Pérez-Edgar, K. (2021, April). Symposium on “Advances in the Study of Parenting and Infant Emotional Development: Merging Modern and Traditional Measures.” Profiles of Parenting Risk Predict Infant Temperament and Attention to Threat. Paper presented at the biennial meeting of the Society for Research in Child Development, Virtual.

Vallorani, A., **Gunther, K. E.**, Anaya, B., Morales, S., Fu, X., Burris, J. L., Field, A. P., Buss, K. A., Lobue, V., Pérez-Edgar, K. (2021, April). Symposium on “Parental and Child Influences on the Transmission and Development of Anxiety.” Relations Between Affect-Biased Attention, Maternal Anxiety, and Infant Negative Affect in Cross-Sectional and Longitudinal Samples. Paper presented at the biennial meeting of the Society for Research in Child Development, Virtual.

Vallorani, A., Brown, K. M., Fu, X., **Gunther, K. E.**, MacNeill, L. A., Ermanni, B., Hallquist, M. N., & Pérez-Edgar, K. Symposium on “Timescales in the Study of Social Relationships: From Getting to Know You to Strengthening Bonds.” Affect Influences Subsequent Social Attention Captured Via Mobile Eye-Tracking During Dyadic Play in Young Children. Paper presented at the biennial meeting of the Society for Research in Child Development, Virtual.

Pérez-Edgar, K., **Gunther, K.**, & Vallorani, A. (2020, November). Symposium on “Paradigm Shifts in the Study of Attention Biases from Infancy to Adulthood.” Using Mobile Eye-Tracking to Capture Attentional Dynamics in the Context of Temperamental Risk for Internalizing Disorders. Paper presented at the Association for Behavioral and Cognitive Therapies Annual Convention, Virtual.

Pérez-Edgar, K., MacNeill, L., Burris, J. L., **Gunther, K.**, Buss, K. A., & LoBue, V. (2019, July). Emerging Patterns of Mother-Infant Relations: Maternal Anxiety, Infant Temperament, and Infant Attention Bias to Emotion. Paper presented at the 9th World Congress of Behavioural and Cognitive Therapies, Berlin, Germany.

Gunther, K. E., Fu, X., MacNeill, L. A., Ermanni, B., Vallorani, A., Buss, K. A., & Pérez-Edgar, K. (2019, March). Symposium on “The Multiple Factors Influencing Developmental Pathways of Behavioral Inhibition.” Characterizing Naturalistic Sustained Attention in Behaviorally Inhibited Children: Risk Factors for Internalizing Symptoms. Paper presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD. **2019 Travel Award Recipient.**

Vallorani, A., Brown, K. M., Fu, X., **Gunther, K.**, MacNeill, L. A., & Pérez-Edgar, K. (2019, March). Symposium on “Neurocognitive Mechanisms of Reward Processing and Social Dysfunction across Childhood and Adolescence.” Processing Social and Non-Social Rewards in the Peer Context: The Role of Temperament. Paper presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.

Haas, S. A., Amso, D., **Gunther, K. E.**, & Fox, N. A. (2015, March). Symposium on “Challenges and Innovations in the Measurement of Threat Bias in Anxious Children.” Age-Related Changes in Performance on an Emotional Priming Visual Search Task. Paper presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, PA.

Gunther, K. & Haas, S. (2014, October). Emotion and Visual Attention. Talk and discussion on background literature to Maryland Neuroscience and Cognitive Science (NACS) undergraduate seminar.

Poster Presentations

** denotes co-mentored undergraduate student

Gunther, K. E., Fu, X., MacNeill, L., Jones, M., Ermanni, B., & Pérez-Edgar, K. Now it’s your turn!: Eye blink rate modulated by interaction of wait times, inhibitory control, and internalizing behaviors in a Jenga-like inhibitory control task. Poster submitted to the Flux Congress on Integrative Developmental Neuroscience, Virtual.

Smith, C., Anaya, B., **Gunther, K.**, Pérez-Edgar, K., Buss, K., & LoBue, V. (2021, April). Trajectories of Maternal Anxiety as a Function of Infant Negative Reactivity and Perceived Daily Stress. Poster presented at the biennial meeting of the Society for Research in Child Development, Virtual.

Gunther, K. E., Petrie, D., Pearce, A. L., Fuchs, B., Keller, K. L., & Geier, C. (2020, September). Examining inhibitory control as a moderator between childhood resting state fronto-limbic connectivity and anxiety. Poster presented at the Flux Congress on Integrative Developmental Neuroscience, Virtual.

Vallorani, A.⁺, Brown, K. M.⁺, Fu, X., **Gunther, K. E.**, MacNeill, L. A., Ermanni, B., Hallquist, M. N., & Pérez-Edgar, K. (2020, September). Affect influences social attention captured via mobile eye-tracking during dyadic play in young children. Poster presented at the Flux Congress on Integrative Developmental Neuroscience, Virtual.

Gunther, K. E., Werchan, D. M., Anaya, B., Vallorani, A., Pérez-Edgar, K., & Amso, D. (2020, July). Maternal buffering of attentional and neural responses to emotionally valenced stimuli in infancy. Poster accepted to the International Congress of Infant Studies, Glasgow, Scotland.

Vallorani, A., **Gunther K. E.**, Burris, J. L., Buss, K. A., LoBue, V., & Pérez-Edgar, K. (2020, July). Modeling individual differences in developmental trajectories of orienting to emotional stimuli from 4- to 24-months. Poster accepted to the biannual meeting of The International Congress of Infant Studies, Glasgow, Scotland.

Anaya, B., **Gunther, K. E.**, Licata, S. A., & Pérez-Edgar, K. (2019, October). EEG Coherence, Behavioral Inhibition, and Risk for Anxiety in Early Adolescence. Poster presented at the International Society of Developmental Psychobiology, Chicago, IL.

Gunther, K. E., Fu, X., MacNeill, L. A., Ermanni, B., Buss, K. A., & Pérez-Edgar, K. (2019, August). Mapping Visual Attention to Levels of Inhibitory Control; A Mobile Eye Tracking Investigation. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, New York, NY.

Vallorani, A., Brown, K. M., Fu, X., **Gunther, K.**, MacNeill, L. A., Ermanni, B., Buss, K. A., & Pérez-Edgar, K. (2019, August). Naturalistic social attention across a dynamic social interaction. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, New York, NY.

Lynn, A., Govindarajan, L. N., Gupta, P., Baumgartner, H., **Gunther, K.**, Placido, D., ... Amso, D. (2019, August). Discovering Developmental Mechanisms of Memory-Guided Attention Using Computer Vision. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, New York, NY.

Gunther, K. E., Fu, X., MacNeill, L. A., Ermanni, B., Buss, K. A., & Pérez-Edgar, K. (2019, March). Low Naturalistic Attention Shifting as a Risk Factor for Internalizing Symptoms in Behaviorally Inhibited Children. Poster presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD. **2019 Travel Award Recipient.**

- VanKeuren, L. J.**, **Gunther, K.**, Fu, X., MacNeill, L. A., & Pérez-Edgar, K. (2019, March). Naturalistic Attention Biases to Social Threat Characterize Socially Withdrawn Children. Poster presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.
- Ermanni, B., **Gunther, K.**, Fu, X., Vallorani, A., MacNeill, L. A., & Pérez-Edgar, K. (2019, March). Moderating Effect of Effortful Control on the Relation between Happy Biases and Externalizing Symptoms. Poster presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD.
- Youatt, E., Vallorani, A., Morales, S., MacNeill, L. A., **Gunther, K.**, & Pérez-Edgar, K. (2019, March). High Levels of Behavioral Inhibition and Inhibitory Control Relate to Affective Responses to Peer Feedback in Young Children. Poster presented at the biennial meeting of the Society for Research in Child Development, Baltimore, MD. **2019 Student and Early Career Council Poster Competition nominee.**
- Gunther, K. E.**, Fu, X., Ermanni, B., & Pérez-Edgar, K. (2018, August). Naturalistic measures of sustained attention moderate the relation between behavioral inhibition and internalizing symptoms in kindergarteners. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Berlin, Germany.
- Gunther, K. E.**, MacNeill, L. A., Burris, J. L., LoBue, V., Buss, K. A., & Pérez-Edgar, K. (2018, June). Patterns of Maternal Threat Bias Moderate the Association between Household Chaos and Infant Regulation. Poster presented at the International Congress of Infant Studies, Philadelphia, PA.
- MacNeill, L. A., Burris, J. L., **Gunther, K. E.**, Pérez-Edgar, K., Buss, K. A., & LoBue, V. (2018, June). Attention Bias in Context: Profiles of Family Emotional Climate Contribute to Infant Temperament and Attention to Threat. Poster presented at the International Congress of Infant Studies, Philadelphia, PA.
- Novick, A. M., Werchan, D. M., Amso, D., Parade, S. H., Ackerman, L., **Gunther, K.**, Seifer, R., Philip, N. S., & Tyrka, A. R. (2018, May). Cognitive and Affective Function in School-Aged Children Experiencing Trauma and Adversity. Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry, New York, NY.
- Werchan, D.M., **Gunther, K.**, & Amso, D. (2017, September). 9-Month-Old Infants Use Higher-Order Contexts to Support Working Memory in the A-Not-B Task. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Portland, OR.

- Freier, L., **Gunther, K.**, Gupta, P., Silver, B., Badre, D., & Amso, D. (2017, April). 3- to 7-year-olds' use of working memory gating strategies in a naturalistic task. Poster presented at the biennial meeting of the Society for Research in Child Development, Austin, TX.
- Werchan, D. M., **Gunther, K.**, & Amso, D. (2017, April). 9-Month-Old Infants use Contextual Cues to Support Working Memory in the A-Not-B Task. Poster presented at the biennial meeting of the Society for Research in Child Development, Austin, TX.
- Gunther, K. E.**, Markant, J., Martino, R., & Amso, D. (2016, May). The Relation Between Attention Orienting in Infancy and Executive Functions in Early Childhood. Poster presented at the International Conference on Infant Studies, New Orleans, LA.
- Gunther, K. E.**, Haas, S. A., Bocchino, E., Gordon, L., & Fox, N. A. (2015, March). The Effects of Threat Ambiguity on Visual Search Performance in Children as a Function of Social Anxiety. Poster presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, PA.
- Gunther, K.** (2014, April). The Effect of Moderate and Severe Hypoglycemia on Anxiety-like Behaviors in Sprague-Dawley Rats. Poster presented at Maryland Undergraduate Research Day, College Park, MD.
- Frankel, J., **Gunther, K.**, Matthews, L., Plakkot, S., Ser, E., Shapiro, M., Shaw, A., Weng, P., Wilkin, D., & Xu, L. (2014, April). The Effects of Insulin-Induced Moderate Hypoglycemia on Hippocampal Plasticity. Poster presented at Maryland Undergraduate Research Day, College Park, MD.

Awards & Honors

National Science Foundation Graduate Research Fellowship	2019-2022
SRCD Graduate Student Travel Award \$300	March 2019
Graduate Scholar Award \$3600	Summer 2019
Robert and Ruth Faris Child Psychology Graduate Scholar Award \$3600	Summer 2018
Maryland Summer Scholars grant recipient \$3000	Summer 2013
Howard Hughes Medical Institute Undergraduate Research support \$4000	2013-2015

Other Related Experience

Teaching

- Graduate Teaching Assistant, topics including
 - Developmental Psychology
 - Psychology of Human Emotion
 - Social Psychology of Interpersonal/Intergroup Relationships
 - Psychology of a Sustainable World
 - Senior Seminar on Conspiracy Theories
 August 2017-May 2018
The Pennsylvania State University
- Guest lecture on Relationship Cognition, Social Psychology of Interpersonal/Intergroup Relationships
 February 2018
The Pennsylvania State University
- Guest lecture on emotional development, Developmental Psychology
 October 2018
The Pennsylvania State University
- Guest lecture on fear and anxiety, Psychology of Human Emotion
 September 2018
The Pennsylvania State University
- Undergraduate Teaching Assistant, Social Psychology
 September 2013-May 2014
Supervisor: Dr. Dylan Selterman, University of Maryland
- Tutor, Academic Support & Career Development Unit
 September 2013-May 2015
Supervisors: Sharon Staples, Courtney Hamilton, University of Maryland
- Grader, Social Psychology Laboratory
 May 2014
Supervisor: Dr. Dylan Selterman, University of Maryland

Outreach

Community outreach chair, AXONS student neuroscience society: October 2018-present

The Pennsylvania State University

Volunteer, Brain Awareness Week: March 2019

The Pennsylvania State University

Volunteer, Exploration-U: March 2018, February 2019

The Pennsylvania State University

Volunteer, ENVISION STEM Career Day for Young Women: January 2018, January 2019, February 2020

The Pennsylvania State University

Judge, Psi Chi Undergraduate Spring Research Conference: April 2018

The Pennsylvania State University

Volunteer, Brown Brain Fair: March 2017

Brown University

Volunteer, Neuroscience and Cognitive Science booth at Maryland Day: April 2014
University of Maryland

Mentorship

Gemstone CONNECT Mentor, July 2013-December 2013

Supervisor: Leah Tobin (University of Maryland)

- Involved in reach-out initiatives for incoming freshmen to honors program

Review Experience

Ad-Hoc Journal Reviews

Child Neuropsychology

Ad-Hoc Journal Co-Reviews

Developmental Psychology

Biological Psychiatry

PLOS ONE

The Journal of Child Psychology and Psychiatry

Professional Memberships

Society for Research in Child Development

January 2019-present

Flux Society

May 2018-present

International Congress of Infant Studies

January 2018-present

Psi Chi Psychology Honor Society

Fall 2013-present