

# Denise Werchan, Ph.D.

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## EMPLOYMENT

2025 – Present     **University of California, Irvine**  
Assistant Professor  
Department of Psychology

## EDUCATION & TRAINING

2020 – 2025     **NYU School of Medicine**, New York, NY  
Postdoctoral Research Fellow  
Department of Child & Adolescent Psychiatry  
Department of Population Health  
*Advisors:* Dr. Natalie Brito, Dr. Clancy Blair, Dr. Moriah Thomason

2013 - 2020     **Brown University**, Providence, RI  
Ph.D., Cognitive Science  
*Advisors:* Dr. Dima Amso, Dr. Michael J. Frank  
*Dissertation Title:* Prefrontal Cortex Contributions to Learning in Infancy

2013 - 2016     **Brown University**, Providence, RI  
M.S., Psychology

2009 - 2012     **University of Arizona**, Tucson, AZ  
B.S., Psychology with Honors, *Summa Cum Laude*, *Phi Beta Kappa*

2008 - 2009     **Pima Community College**, Tucson, AZ  
A.A., General Education Studies

## RESEARCH INTERESTS

- Early Contextual Experiences and Infant Neurocognitive Development
- Trajectories of Attention, Learning, and Self-Regulation
- Mechanisms Linking Caregiving and Sociocultural Contexts with Infant Development

## HONORS & AWARDS

2022     Early Career Award – *American Psychological Association*

2020     Student Investigator Award – *International Society for Developmental Psychobiology*

2020     Outstanding Dissertation Award – *FLUX Society for Developmental Cognitive Neuroscience*

2017	Betty R.H. and James M. Pickett Fellowship Fund – <i>Brown University</i>
2015	Friedman Family Fund Award – <i>Brown University</i>
2014	Travel Award – <i>International Society for Developmental Psychobiology</i>
2013	Sackler Developmental Psychobiology Fellowship – <i>Cornell University</i>
2012	Phi Beta Kappa Society Inductee
2012	Richard. A. Harvill Graduate Research Fellowship – <i>University of Arizona</i>
2012	Excellence in Research Award – <i>University of Arizona</i>
2012	William James Award – <i>University of Arizona</i>
2012	Galileo Circle Scholarship – <i>University of Arizona</i>
2011	Undergraduate Research Grant – <i>University of Arizona</i>
2011	William C. Dement Sleep Research Fellowship – <i>Brown University</i>

## TRAVEL AWARDS

2023	NIH/National Eye Institute Travel Grant – <i>Vision Sciences Society</i>
2021	Travel Award – <i>International Society for Developmental Psychobiology</i>
2016	Travel Award – <i>International Congress of Infant Studies</i>
2013	Travel Award – <i>Sleep Research Society</i>

## CURRENT GRANT SUPPORT

**National Institute of Mental Health U01 (pending)** 2025-2030  
*Behavioral Phenoscreening: Remote Assessment of Child Mental Health (REACH)*  
 \$6,917,697  
 Role: Co-Investigator (MPIs: Shuffrey, Thomason)

**National Institute on Drug Abuse R01 DA 059415** 2023-2027  
*Integrating eye-tracking and ECG methodologies for remote infant neurocognitive assessments in the home*  
 \$2,264,518  
 Role: Co-Investigator (PI: Brito)

## CURRENT GRANT SUPPORT

**Brain and Behavior Research Foundation NARSAD Young Investigator Award** 2023-2025  
*Ontological origins of psychopathology: intergenerational transmission through maternal programming of the developing gut microbiome in offspring*  
 \$70,000  
 Role: Principal Investigator

**Society for Research in Child Development Early Career Grant** 2022-2024  
*Naturalistic studies of infant visual attention: improving ecological validity and diversity in developmental science through innovation in remote infant eye tracking*  
 \$7,500

Role: Principal Investigator

**Robin Hood Fund for Early Learning** 2021-2022

*Connected Caregiver Network at Social Creatures (<https://www.thesocialcreatures.org/>)*

\$170,000

Role: Consulting Research Scientist (PI: Perry)

**Carney Institute Graduate Award in Brain Science** 2018-2019

*Prefrontal Contributions to Learning and Attention in Infancy*

\$70,000

Role: Principal Investigator

**The British Society Newton International Fellowship** 2018-2020

*Executive Control Over Learning and Visual Processing in Infancy*

£78,000 (declined)

Role: Principal Investigator

**National Science Foundation Graduate Research Fellowship Program** 2013-2016

*Impact of Sleep and Reward on Learning and Generalization*

\$132,000

Role: Principal Investigator

## PUBLICATIONS

Google Scholar Profile: <https://bit.ly/4d5F0AA>

29. **Werchan, D.M.**, Hume, A.M., Zhang, M., Vo, T., & Brito, N. H. (2025). From Focus to Function: Longitudinal Insights into Infant Attention and Emerging Executive Functions via Remote Webcam Eye Tracking. *Developmental Psychology*.
26. Brandes-Aitken, A., Hume, A., Braren, S., **Werchan, D.M.**, Zhang, M., & Brito, N. H. (2024). Maternal Heart Rate Variability at 3-Months Postpartum is Associated with Maternal Mental Health and Infant Neurophysiology. *Scientific Reports*, 14(1), 18766. DOI: 10.1038/s41598-024-68398-4
25. **Werchan, D.M.**, Aitken, A.B., Ku, S., & Blair, C. (2024). Naturalistic Patterns of Sustained Attention Across Early Childhood: Developmental Profiles and Longitudinal Associations with Executive Functions. *Developmental Psychology*. DOI: 10.1037/dev0001786
24. Ku, S., **Werchan, D.M.**, Feng, X., & Blair, C. (2024). Trajectories of Maternal Depressive Symptoms from Infancy Through Early Childhood: The Roles of Perceived Financial Strain, Social Support, and Intimate Partner Violence. *Development & Psychopathology*. DOI: 10.1017/S0954579424000117

23. **Werchan, D.M.**, Hendrix, C.L., Hume, A., Zhang, M., Thomason, M.E., & Brito, N.H. (2023). Effects of Prenatal Psychosocial Stress and COVID-19 Infection on Infant Attention and Socioemotional Development. *Pediatric Research*. DOI: 10.1038/s41390-023-02807-8
22. **Werchan, D.M.**, Thomason, M.E., & Brito, N.H. (2022). OWLET: An Automated, Open-Source Method for Infant Gaze Tracking using Smartphone and Webcam Recordings. *Behavior Research Methods*. DOI: 10.3758/s13428-022-01962-w
21. **Werchan, D.M.**, Brandes-Aitken, A., & Brito, N.H. (2022). Signal in the Noise: Dimensions of Predictability in the Home Auditory Environment are Associated with Neurobehavioral Measures of Early Infant Sustained Attention. *Developmental Psychobiology*. DOI: 10.1002/dev.22325
20. Hendrix, C.L., Ji, L., **Werchan, D.M.**, Majbri, A., Trentacosta, C.J., Burt, A., & Thomason, M.E. (2022). Fetal Frontolimbic Connectivity Prospectively Associates with Aggression in Toddlers. *Biological Psychiatry: Global Open Science*. DOI: 10.1016/j.bpsgos.2022.09.003
19. Hendrix, C.L., **Werchan, D.M.**, Ablow, J.C., Amstadter, A.B., Austin, A.C., Babineau, V., Bogat, G. A., Cioffredi, L., Conradt, E., Crowell, S. E., Dumitriu, D., Fifer, W., Firestein, M. R., Gao, W., Gotlib, I. H., Graham, A., Gregory, K.D., Gustafsson, H.C., Havens, K.L., ... Thomason, M.E. (2022). Geotemporal Analysis of Perinatal Care Changes and Maternal Mental Health: An Example from the COVID-19 Pandemic. *Archives of Women's Mental Health*. DOI: 10.1007/s00737-022-01252-6
18. **Werchan, D.M.**, Ku, S., Berry, D., & Blair, C. (2022). Sensitive Caregiving and Reward Responsivity: A Novel Mechanism Linking Parenting and Executive Functions Development in Early Childhood. *Developmental Science*. DOI: 10.1111/desc.13293
17. Thomason, M.E., Hendrix, C.L., **Werchan, D.M.**, & Brito, N.H. (2022). Perceived Discrimination as a Modifier of Health, Disease, and Medicine: Empirical Data from the COVID-19 Pandemic. *Translational Psychiatry*. DOI: 10.1038/s41398-022-02047-0
16. Brito, N.H., **Werchan, D.M.**, Brandes-Aitken, A., Greaves, A., Zhang, M. (2022). Paid Maternal Leave is Associated with Infant Brain Function at 3-Months of Age. *Child Development*. DOI: 10.1111/cdev.13765
15. **Werchan, D.M.**, Hendrix, C.L., Ablow, J.C., Amstadter, A.B., Austin, A.C., Babineau, V., Bogat, G.A., Cioffredi, L., Conradt, E., Crowell, S.E., Dumitriu, D., Fifer, W., Firestein, M. R., Gao, W., Gotlib, I.H., Graham, A., Gregory, K.D., Gustafsson, H.C., Havens, K.L., ... Brito, N.H. (2022). Behavioral Coping Phenotypes and Psychosocial Outcomes in a National US Sample of Pregnant and Postpartum Women During The COVID-19 Pandemic. *Nature Scientific Reports*. DOI: 10.1038/s41598-022-05299-4
14. Thomason, M.E., **Werchan, D.M.**, & Hendrix, C.L. (2022). COVID-19 Patient Accounts of

Illness Severity, Treatments and Lasting Symptoms. *Nature Scientific Data*. DOI: 10.1038/s41597-021-01103-6

13. Thomason, M.E., Palopoli, A.C., Jariwala, N.N., **Werchan, D.M.**, Chen, A., Adhikari, S., Espinoza-Heredia, C., Brito, N.H., & Trentacosta, C.J. (2021). Miswiring the Brain: Human Prenatal  $\Delta$ 9-Tetrahydrocannabinol Use Associated with Altered Fetal Hippocampal Brain Network Connectivity. *Developmental Cognitive Neuroscience*. DOI: 10.1016/j.dcn.2021.101000
12. **Werchan, D.M.** & Amso, D. (2021). All Contexts Are Not Created Equal: Social Stimuli Win the Competition for Organizing Reinforcement Learning in 9-Month-Old Infants. *Developmental Science*. DOI: 10.1111/desc.13088
11. **Werchan, D.M.**, Kim, J., & Gómez, R.L. (2021). A Daytime Nap Combined with Nighttime Sleep Promotes Learning in Toddlers. *Journal of Experimental Child Psychology*. DOI: 10.1016/j.jecp.2020.105006
10. **Werchan, D.M.** & Amso, D. (2020a). Top-Down Knowledge Rapidly Acquired Through PFC-Dependent Rule Learning Biases Visual Attention in 9-Month-Old Infants. *Developmental Cognitive Neuroscience*. DOI: 10.1016/j.dcn.2020.100761
9. **Werchan, D.M.** & Amso, D. (2020b). Adaptive Rule Learning of Event Sequences During the A-not-B Task in 9-Month-Old Infants. *Developmental Psychobiology*. DOI: 10.1002/dev.21999
8. **Werchan, D.M.**, Lynn, A., Baumgartner, H., Kirkham, N.Z., & Amso, D. (2019). The Emergence of Object-Based Visual Attention in Infancy: A Role for Family Socioeconomic Status and Competing Visual Features. *Infancy*. DOI: 10.1111/infa.12309
7. **Werchan, D.M.**, Baumgartner, H., Lewkowicz, D. & Amso, D. (2018). The Origins of Cortical Multisensory Dynamics: Evidence from Human Infants. *Developmental Cognitive Neuroscience*. DOI: 10.1016/j.dcn.2018.07.002
6. **Werchan, D.M.** & Amso, D. (2017). A Novel Ecological Model of Prefrontal Cortex Functional Development. *Psychological Review*, 24(6), 720-739. DOI: 10.1037/rev0000078
5. **Werchan, D.M.**, Collins, A.G.E, Frank, M.J., & Amso, D. (2016). Role of Prefrontal Cortex in Learning and Generalizing Hierarchical Rules in 8-Month-Old Infants. *The Journal of Neuroscience*, 36(40), 10314-10322. DOI: 10.1523/JNEUROSCI.1351-16.2016
4. Simon, K.N.S., **Werchan, D.M.**, Goldstein, M., Sweeney, L., Bootzin, R.R., Nadel, L., & Gómez, R.L. (2016). Sleep Confers a Benefit for Retention of Statistical Language Learning in 6.5-Month-Olds. *Brain & Language*, 167, 3-12. DOI: 10.1016/j.bandl.2016.05.002
3. **Werchan, D.M.**, Collins, A.G.E, Frank, M.J., & Amso, D. (2015). Eight-Month-Old Infants

Spontaneously Learn and Generalize Hierarchical Rules. *Psychological Science*, 26(6), 805-15. DOI: 10.1177/0956797615571442

2. **Werchan, D.M.** & Gómez, R.L. (2014). Wakefulness (Not Sleep) Promotes Generalization of Word Learning in 2.5-Year-Old Children. *Child Development*, 85(2), 429-436. DOI: 10.1111/cdev.12149
1. **Werchan, D.M.** & Gómez, R.L. (2013). Generalizing Memories Over Time: Reinforcement and Sleep Facilitate Transitive Inference. *Neurobiology of Learning and Memory*, 100, 70-76. DOI: 10.1016/j.nlm.2012.12.006

## OPEN-SOURCE SOFTWARE PACKAGES

### The Online Webcam-Linked Eye Tracker (OWLET)

GitHub Repository: <https://github.com/denisemw/owlet>

### Infant Eye Tracking Video Preprocessing

GitHub Repository: <https://github.com/denisemw/owlet-preprocessing>

## INVITED TALKS

June 2023	Child Development Lab, University of Maryland
July 2022	NIDA Workshop on Impact of Comorbid COVID-19 and Substance Use During Pregnancy on Fetal and Infant Development
April 2022	National Institutes of Health Social, Behavioral, and Economic (SBE) Health Impacts of COVID-19 Spring Webinar
May 2021	T32 Fellowship Seminar, Department of Psychiatry, Columbia University Irving Medical Center
November 2020	International Society for Developmental Psychobiology, Student Investigator Award talk
September 2020	FLUX Congress for Developmental Cognitive Neuroscience, Dissertation Award talk.
January 2020	Department of Psychology, University of Texas - Dallas
January 2020	Department of Psychology, University of Oregon
January 2019	Department of Psychology, Columbia University
December 2018	Department of Psychology, University of Toronto
December 2018	Department of Psychology, Carnegie Mellon University
November 2018	Department of Psychology, Stanford University
October 2018	Department of Psychology, Boston College
October 2018	Department of Psychology, Harvard University
September 2018	SaxeLab, Massachusetts Institute of Technology

## PRESENTATIONS

*Conference talks*

1. Thomason, M.E., Werchan, D.M., Ji, L., Menu, I., Hendrix, C.L., Susskind, B., Duffy, M., Brito, N.H., & McCormack, M. (2024, October). *Maternal Prenatal Sars-Cov-2 Infection and Infant Brain and Behavioral Outcomes*. Talk presented at the International Society for Developmental Psychobiology. Chicago, IL.
2. Hendrix, C.L., Bhatia, T., Forde, M., Palopoli, A., Siddiqui, S., Srinivasan, H., Werchan, D.M., McCormack, M., Ji, L., Brito, N.H., & Thomason, M.E. (2024, October). *Chronicity and Lability of Maternal Depressive Symptoms Exert Distinct Impacts On Infant Behavior*. Talk presented at the International Society for Developmental Psychobiology. Chicago, IL.
3. Werchan, D.M., Hendrix, C. L., Blair, C., Thomason, M. E., & Brito, N. H. (2022, July). *Influences of the Home Visual Environment on Infant Attention: Insights from Remote Webcam Eye Tracking*. Talk presented at the annual meeting for the Vision Sciences Society, St. Pete Beach, FL.
4. Werchan, D.M., Hendrix, C. L., Blair, C., Thomason, M. E., & Brito, N. H. (2022, July). *Blunted Reward Sensitivity as a Novel Link Between Maternal Depression and Self-Regulation Development: Convergent Evidence from Two Prospective Longitudinal Cohorts*. Talk to be presented at the International Congress of Infant Studies, Ottawa, ON.
5. Werchan, D.M., Thomason, M. E. Brito, N. H., VanTieghem, M. et al. (2021, April). *COVID-19 and Perinatal Experiences: Individual Differences in Coping Strategies Predict Emotional Wellbeing in Perinatal Women*. Talk presented at the biennial meeting for the Society for Research in Child Development, virtual meeting.
6. Hendrix, C. L., Werchan, D. M., Lenniger, C. J., Austin, A. C., Brito, N. H., & Thomason, M. E. (2021, April). *Geographic Variability in Perinatal Care Disruptions as a Consequence of COVID-19*. Talk presented at the biennial meeting for the Society for Research in Child Development, virtual meeting.
7. Werchan, D.M., Collins, A. G. E., Frank, M. J., & Amso, D. (2016, May). *8-Month-Old Infants Create Hierarchical Rules to Support Learning and Generalization in Novel Contexts*. Talk presented at the International Congress of Infant Studies, New Orleans, LA.
8. Werchan, D.M., Kim, J., & Gomez, R. L. (2016, May). *Nighttime Sleep Enhances Preschoolers' Long-Term Generalization of Word Learning*. Talk presented at the International Congress of Infant Studies, New Orleans, LA.
9. Newman-Smith, K., Werchan, D.M., Bootzin, R., Nadel, L., & Gomez, R.L. (2015, March). *Retention of Statistical Learning in 6.5-Month-Old Infants*. Talk presented at the Society for Research in Child Development biennial meeting, Philadelphia, PA.
10. Werchan, D.M., Collins, A. G. E., Frank, M. J., & Amso, D. (2014, November). *The Development of Hierarchical Rule Learning and Generalization in Infancy*. Talk presented at the Society for Neuroscience, Washington, DC.

11. Werchan, D.M., Collins, A. G. E, Frank, M. J., & Amso, D. (2014, September). *The Early Emergence of Hierarchical Rule Learning*. Talk presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Los Angeles, CA.
12. Werchan, D.M., & Gomez, R.L. (2013, April). *Wake (Not Sleep) Promotes Generalization of Word Learning in Toddlers*. Talk presented at the biennial meeting of the Society for Research in Child Development, Seattle, WA.

*Select conference posters*

1. Werchan, D.M., Brito., N.H., & Thomason, M.E. (2024, October). *Breastmilk Allopregnanolone (ALLO) Concentration May Buffer Negative Impacts of Maternal Perceived Stress on Infant Regulatory Capacity*. Poster presented at the International Society for Developmental Psychobiology. Chicago, IL.
2. Vo, T, Brito., N.H., & Werchan, D.M. (2024, October). *Longitudinal Associations Between Infant Attention and Executive Functions Evaluated Using Remote Eye Tracking Technology in Naturalistic Settings*. Poster presented at the International Society for Developmental Psychobiology. Chicago, IL.
3. Zhang, M., Werchan, D.M., & Brito., N.H. (2024, October). *Using A Novel Remote Eye-Tracking Methodology to Examine Associations Between Maternal Mental Health and Infant Memory*. Poster presented at the International Society for Developmental Psychobiology. Chicago, IL.
4. Hume, A., Brandes-Aitken, A., Zhang, M., Werchan, D.M., & Brito., N.H. (2024, October). *Remote Assessment of Physiological Synchrony: A Novel Method for Investigating Mother-Infant Heart Rate Coordination*. Poster presented at the International Society for Developmental Psychobiology. Chicago, IL.
5. Gimenez, L., Yan, L., Werchan, D.M., & Brito., N.H. (2024, October). *Exploring the Impact of Unpredictability of Household Resources on Infant Attention*. Poster presented at the International Society for Developmental Psychobiology. Chicago, IL.
6. Werchan, D.M., Brito., N.H., & Thomason, M.E. (2023, September). *Distinct Profiles of Maternal Mental Health and Household Chaos Predict Individual Differences in Infant Emotional Reactivity and Regulation*. Poster presented at the International Congress on Infant Studies, Glasgow, Scotland.
7. Werchan, D.M., Hume, A., Zhang, M., Brandes-Aitken, A., & Brito., N.H. (2023, September). *Longitudinal Associations Between the Predictability of Maternal Behavior and Infant Brain Function*. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Santa Rosa, CA.
8. Zhang, M., Werchan, D.M., Brito, N.H., & Thomason, M.E. (2023, July). *Maternal Mental Health and Maternal Sensory Input During Play with 6-Month-Old Infants*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Leiden,



The Netherlands.

9. Gaines, L., Susskind, B., Srinivasan, H., Hendrix, C., Werchan, D.M., McCormack, C., Brito, N. H., & Thomason, M. E. (2023, July). *Temperament of Infants Exposed to Sars-Cov-2 Infection and Pandemic Stress in Utero*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Leiden, The Netherlands.
10. Susskind, B., Gaines, L., Srinivasan, H., McCormack, C., Werchan, D.M., Brito, N. H., & Thomason, M. E. (2023, July). *The Impact of Maternal Sars-Cov-2 Infection on Maternal Inflammation, Maternal Depressive Symptoms, and Child Outcomes*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Leiden, The Netherlands.
11. Perez, G., Tisborn, K., Yan, L., Klein, R., Werchan, D.M., Thomason, M. E., & Brito, N. H. (2023, July). *Emotion Regulation and Associations to Maternal Mental Health: Comparing Measures of Emotion Regulation at 6 and 12 Months*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Leiden, The Netherlands.
12. Werchan, D.M., Brandes-Aitken, A., Ku, S. & Blair, C. (2021, November). *Naturalistic Patterns of Attention During Shared Book Reading in Early Childhood: Longitudinal Trajectories and Associations with Emerging Executive Functions*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Chicago, IL.
13. Werchan, D.M., Hendrix, C., Thomason, M. E., & Brito, N. H. (2021, November). *Infant Visual Attention and Maternal Depression: A Novel Remote Assessment for Examining Longitudinal Impacts of the COVID-19 Pandemic on Infant Development*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Chicago, IL.
14. Hume, A., Werchan, D.M., Hendrix, C., Thomason, M. E., & Brito, N. H. (2021, November). *COVID-19 Perinatal Care Disruptions, Maternal Depression, and Subsequent Infant Outcomes: Investigating Longitudinal Associations and Protective Factors*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Chicago, IL.
15. Zhang, M., Werchan, D.M., Thomason, M. E., & Brito, N. H. (2021, November). *Examining Infant Attention in Relation to Mother Infant Behavioral Synchrony*. Poster presented at the annual meeting for the International Society for Developmental Psychobiology, Chicago, IL.
16. Martino, R.M., Amso, D. & Werchan, D.M. (2021, April). *Acquisition of Gender STEM Stereotypes through Reinforcement Learning in School-Age Children*. Poster presented at the biennial meeting for the Society for Research in Child Development, virtual meeting.
17. Martino, R.M., Amso, D. & Werchan, D.M. (2020, September). *Acquisition of Gender STEM Stereotypes through Reinforcement Learning in School-Age Children*. Poster presented at the Flux Congress for Developmental Cognitive Neuroscience, virtual meeting.

18. Werchan, D.M., Gordon, L., & Amso, D. (2019, October). *Top-down activation in mid-level visual regions supports efficient object perception in 8-10-month-old infants*. Poster presented at the Biennial Conference of the Cognitive Development Society, Louisville, KY.
19. Werchan, D.M. & Amso, D. (2018, September). *Abstract Rule Learning Supports the Development of Visual Attentional Biases in 9-Month-Old Infants*. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Berlin, Germany.
20. Placido, D., Nketia, J., Werchan, D.M. & Amso, D. (2018, September). *Exploring the effects of emotional enrichment on components of executive functions in children of varying socioeconomic status*. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Berlin, Germany.
21. 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.
22. 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.
23. Werchan, D.M., Baumgartner, H., Martino, R., Lewkowicz, D. & Amso, D. (2017, April). *Unisensory and Multisensory Processing in Cortex*. Poster presented at the Society for Research in Child Development, Austin, TX.
24. 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 Society for Research in Child Development, Austin, TX.
25. Baumgartner, H, Werchan, D.M., Lewkowicz, D. & Amso, D. (2016, September). *Cortical Plasticity and Specialization in Response to Multimodal Events in Infancy*. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, St. Louis, MO.
26. Werchan, D.M., Collins, A. G. E., Frank, M. J., & Amso, D. (2015, September). *Activation of Prefrontal Cortex During Hierarchical Rule Learning in 8-Month-Old Infants: Data from Near-Infrared Spectroscopy*. Poster presented at the Flux Congress on Integrative Developmental Cognitive Neuroscience, Leiden, The Netherlands.
27. Werchan, D.M., Collins, A. G. E, Frank, M. J., & Amso, D. (2014, November). *Hierarchical Rule Learning and Generalization in Infancy*. Poster presented at the annual meeting of the International Society for Developmental Psychobiology, Washington, DC.
28. Newman-Smith, K., Werchan, D.M., Goldstein, M., Bootzin, R., Nadel, L., & Gomez, R.G. (2014, June). *A Nap and its Relationship to Consolidation and Retention of New Learning in*

*6.5-Month-Olds*. Poster presented at the annual meeting of the Society for Sleep Research, Minneapolis, MN.

29. Werchan, D.M., & Gomez, R.L. (2013, June). *Wake (Not Sleep) Enhances Preschool Age Children's Generalization of Word Learning*. Poster presented at the annual meeting of the Society for Sleep Research, Baltimore, MD.
30. Werchan, D.M., & Gomez, R.L. (2013, June). *Integrating Memories Over Time: Reward Mediates the Formation of Inferences During Sleep*. Poster presented at the annual meeting of the Society for Sleep Research, Baltimore, MD.
31. Werchan, D.M., & Gomez, R.L. (2013, April). *The Role of Sleep and Reinforcement in Memory Integration*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
32. Werchan, D.M., & Gomez, R.L. (2012, October). *The Effects Of Sleep and Reinforcement on Transitive Inference*. Poster presented at the annual meeting of the Society for Neuroscience, New Orleans, LA.

## TEACHING EXPERIENCE

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|---------|---|
| 2020    | Guest Lecturer, "Attention Development", Graduate Cognitive Development Seminar<br>New York University, Department of Applied Psychology                                |
| 2019    | Guest Lecturer, "fNIRS in Developmental Research", Psycholinguistics Laboratory<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences   |
| 2018    | Guest Lecturer, "fNIRS Applications in Linguistics", Psycholinguistics Laboratory<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences |
| 2016    | Teaching Assistant, Statistics for the Behavioral Sciences<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences                        |
| 2015    | Guest Lecturer, "Neurodevelopmental Disorders", Elementary Psychology<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences             |
| 2015    | Teaching Assistant, Elementary Psychology<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences   |
| 2015    | Laboratory Instructor, Elementary Psychology<br>Brown University, Department of Cognitive, Linguistics, and Psychological Sciences                                      |
| 2014    | Teaching Assistant, Introduction to Cognitive Science<br>Brown University, Cognitive, Linguistics, and Psychological Sciences Dept.                                     |
| 2011-12 | Teaching Assistant, Scientific Computing in Python  |

The University of Arizona, Department of Computer Science

2011-12 Laboratory Instructor, Scientific Computing in Python  
The University of Arizona, Department of Computer Science

## **MENTORING**

### **New York University**

2023 - 25 Jamiez (Tram) Vo, *NYU Gallatin undergraduate honors thesis mentor*  
*Awards/Honors:* American Psychological Association SUPER Fellowship

2023 - 25 Jenna John, *Hunter College undergraduate honors thesis mentor*

2024 - 25 Riya Gokhale, *undergraduate independent research project advisor*  
*Awards/Honors:* NYU Dean's Undergraduate Research Fund (DURF) Grant

2024 - 25 Bradley Susskind, *postbaccalaureate independent research project advisor*

2023 Netania Stewart, *Child & Adolescent Psychiatry summer research intern*

2020 - 23 Maggie Zhang, *postbaccalaureate independent research project advisor*

2020 - 23 Amy Hume, *postbaccalaureate independent research project advisor*

### **Brown University**

2019-20 Lily Collins, *undergraduate independent research project advisor*

2019-20 Delphine Mahos-Moros, *undergraduate honors thesis mentor*

2018-19 Rachel Martino, *undergraduate honors thesis mentor*

## **PROFESSIONAL SERVICE**

### **Ad-Hoc Reviewer – Awards & Grants**

2024 APA Division 7 Early Career Research Grant Panel

2024 Society for Research in Child Development Small Grants Program for Early Career Researchers Panel

### **Ad-Hoc Reviewing - Journals**

Child Development  
Brain Sciences  
Science Advances

Developmental Science  
Developmental Psychology  
Journal of Cognitive Neuroscience

Cognitive Development  
Child Neuropsychology  
Emotion  
Journal of Vision

Journal of Experimental Psychology – General  
Developmental Cognitive Neuroscience  
Science Translational Medicine  
Developmental Psychobiology

### **Service to School and Department**

- 2015-17 Graduate Student Representative  
Brown University Department of Cognitive, Linguistics, and Psychological Sciences
- 2012-13 Psychology Colloquium Committee Member  
The University of Arizona Psychology Department

### **Science Communication & Outreach**

- 2021-2023 Program Development & Evaluation Scientific Committee Member  
The Social Creatures Applied Research Non-Profit
- 2014-19 Annual Volunteer, Brain Week RI Brain Fair, Brown University
- 2016 Organizer, Communicating Science to Society  
Brown University Friedman Family Fund Lecture Series
- 2015 STEM Workshop Leader, The Brain 101  
Girl Scouts of America Senior Leadership Conference

### **Current Professional Memberships**

*Society for Research in Child Development*  
*FLUX Society for Developmental Cognitive Neuroscience*  
*International Society for Developmental Psychobiology*  
*International Congress of Infant Studies*

### **MEDIA COVERAGE**

- 2023 Healio - *Prenatal COVID-19, maternal stress could affect infants' attention span*
- 2023 NIH News Releases - *Combined, high maternal stress and prenatal COVID-19 infection may affect attention span in infants*
- 2022 Scientific American – *U.S. kids are falling behind global competition, but brain science shows how to catch up*
- 2022 NYU News – *Infant brain study helps make case for a universal US paid leave policy*
- 2022 APA Monitor – *The urgent necessity for paid parental leave*

- 2021      The Atlantic - *The Isolation of New Parenthood During the Pandemic*
- 2016      Science Daily - *Infants Use Prefrontal Cortex in Learning*
- 2014      Psychology Today - *Learning and Sleep in Toddlers*

#### **OTHER TRAINING**

- 2022      Designing Ambulatory Assessment Studies  
Pittsburgh Summer Stats Workshop
- 2016      Teaching Certificate: Reflective Teaching  
Brown University Sheridan Center for Teaching and Learning
- 2016      Functional Near-Infrared Spectroscopy (fNIRS) Course  
Harvard University Martinos Institute for Biomedical Engineering