

Curriculum Vitae

Gina M. Mason

Psychiatry and Human Development, E.P. Bradley Hospital Sleep Research Laboratory

Warren Alpert Medical School, Brown University

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(Last updated: April 2024)

Summary

My work explores the underpinnings of early sleep patterns, social learning, and cognitive development, both in typical and atypical populations. In prior work, I studied how social factors (e.g., bedsharing, characteristics of caregiver social interactions) predict attention and sleep in infants and children, and how sleep's neural correlates support early emotion and memory. I now work with Dr. Jared Saletin, probing links between sleep, brain, and learning in typical and atypical development (e.g. ADHD). Additionally, I have taught sleep science using a cross-species lens, to foster students' understanding of the natural world.

Education

2011-2018 Cornell University, Ithaca, New York

Ph.D., Psychology (Developmental and Cognitive Science)

Jan 2015-Aug 2018

M.A., Psychology

Aug 2011-Jan 2015

Advisor: Dr. Michael H. Goldstein

Dissertation: "Investigating Dyadic Social Coordination and Infant Attention in Typical and Atypical Development."

2006-2010 University of Arizona, Tucson, Arizona

Bachelor of Science, Magna cum Laude, Honors College

Majors: Molecular-Cellular Biology, Psychology

Minor: Spanish

Advisors: Dr. Lynn Nadel, Dr. Jamie Edgin

Honors Thesis: "The Role of Catechol-o-Methyltransferase and Dopamine Receptor D4 in ADHD symptom variation among individuals with Down syndrome."

Awards, Honors, and Recognition

Major Grants and Stipends

National Science Foundation GRFP Award 2013-18

National Defense Science and Engineering Graduate Fellowship (declined for NSF) 2013

National Science Foundation GRFP Honorable Mention 2012

NIH T32 Training Fellow, Ithaca-Manhattan Graduate Initiative in Neuroscience 2011-13

Small Grants, Travel Awards, and Scholarships

AASMF Young Investigators Research Forum Attendee Scholarship 2024

International Society for Developmental Psychobiology Symposium Travel Award 2019

Cornell Graduate School Research Travel Grant 2016

Cornell University Psychology Research Grant 2013

International Society for Developmental Psychobiology Conference Travel Award 2012

Cornell Graduate School Conference Travel Award
University of Arizona Wildcat Excellence Award

2012
2006-10

Research Positions

August 2022- Postdoctoral Researcher, E.P. Bradley Hospital Sleep Research Laboratory Present *Warren Alpert Medical School, Brown University*

Currently assisting with work probing the effects of sleep restriction (both acute and chronic) on brain connectivity, learning and behavior in preadolescent children with and without ADHD.

Supervisors: Dr. Jared Saletin, Dr. Mary Carskadon.

Sep 2018- Postdoctoral Research Associate, Somneuro Lab

August 2022 *University of Massachusetts Department of Psychological and Brain Sciences*

Exploring how sleep and its neural characteristics support emotional regulation and memory consolidation in infants and young children. Also assessing how external social and environmental factors impact child sleep patterns. Supervisor: Dr. Rebecca Spencer.

Aug 2011- Graduate Researcher, Eleanor J. Gibson Laboratory of Developmental

Aug 2018 Psychology, Cornell University Department of Psychology

Used both micro-observational and experimental methods to investigate how adult-infant social interactions in natural play settings influenced the development of attention and social learning in human infants. Supervisors: Dr. Michael Goldstein, Dr. Jennifer Schwade.

Sep 2016- Visiting Student, Centre for Brain and Cognitive Development, Birkbeck,

Feb 2017 *University of London/British Autism Study of Infant Siblings (BASIS)*

In a cohort of infants at high risk for autism, I assessed, in the context of parent-infant play, whether the visual attention patterns of 6-10-month-olds who develop autism differ from those of high-risk infants who do not develop autism. Also quantified the social responses of infants' caregivers, to determine whether certain response patterns predicted social-cognitive competencies in later childhood. Supervisors: Dr. Emily Jones, Dr. Teodora Gliga.

May 2010- Research Specialist/Coordinator, Down Syndrome Research Group (DSRG)

July 2011 *University of Arizona Department of Psychology*

Supported primary investigators in researching genetic, environmental, and health-related correlates of cognitive variability (learning, attention) in Down syndrome. Assisted with an emerging study probing the effects of several candidate genes on cognition in Down syndrome. Supervisors: Dr. Lynn Nadel, Dr. Jamie Edgin.

Dec 2008- Honors Thesis Research, Down Syndrome Research Group

May 2010 *University of Arizona Department of Psychology*

Completed an honors thesis investigating whether variants of Catechol-o-Methyltransferase (COMT) and Dopamine Receptor D4 (DRD4) contribute to differences in executive function and ADHD in children with Down syndrome. Supervisors: Dr. Lynn Nadel, Dr. Jamie Edgin.

Spring 2008 Research Assistant, University of Arizona Psycholinguistics Laboratory

University of Arizona Department of Psychology

Assisted in investigating the effects of masked priming on the speed at which participants recognized words in a lexical decision task. Supervisor: Dr. Kenneth Forster.

Publications (*Authors Contributed Equally; [^]Thesis Student Mentee; [‡]Co-Chair Author)

1. **Mason GM***, Saletin JM*, Queiroz-Campos G, Christiansen T, Dionisos VO, Moyles S, Bunge S, Dickstein DP, Carskadon MA (manuscript drafted). Effects of acute wake extension on recovery sleep electroencephalography in early adolescence: Relations to ADHD traits.
2. **Mason GM**, Cohen ZL, Obeysekare J, Saletin JM, Sharkey KM (in revision). Preliminary Report: Sleep Duration During Late Pregnancy Predicts Postpartum Emotional Responses among Parents at Risk for Postpartum Depression.
3. **Mason GM**, Goldstein MH (in revision). Dyadic social interactions organize subsequent infant attention and vigilance.
4. Lara H*, Nevarez-Brewster M*, Manning C, Reid MJ, Parade SH, **Mason GM[‡]**, Rojo-Wissar DM[‡] (under review). The role of sleep disturbances in associations between early life adversity and subsequent brain and language development during childhood. *Frontiers in Sleep*.
5. **Mason GM**, Saletin JM (2023). Insufficient sleep's impact on cognitive and emotional health in adolescence: Current advances and research needs. In Drummond (ed.), *Advances in the Psychobiology of Sleep and Circadian Rhythms*. doi: 10.4324/9781003296966-7
6. [^]Hanron O, **Mason GM**, Holmes JF, & Spencer RMC (2023). Early childhood naps initiate emotional memory processing in preparation for enhanced overnight consolidation. *Child Development*, 00, 1–13. <https://doi.org/10.1111/cdev.13890>
7. **Mason GM** & Spencer RMC (2022). Sleep and Memory in Infancy and Childhood. *Annual Review of Developmental Psychology*, 4, 89–108. <https://doi.org/10.1146/annurev-devpsych-121020>.
8. **Mason GM**, Kurdziel LBF, & Spencer RMC (2021). The memory benefits of two naps per day during infancy: A pilot investigation. *Infant Behavior and Development*, 65, 101647. <https://doi.org/10.1016/j.infbeh.2021.101647>.
9. Lokhandwala S, Holmes JF, **Mason GM**, St. Laurent CW, Delvey C, Hanron O, ... & Spencer RMC (2021). Sleep and coping in early childhood during the COVID-19 pandemic. *Frontiers in Pediatrics*, 9:716608. <https://doi.org/10.3389/fped.2021.716608>
10. **Mason GM**, Holmes JF, Andre C, & Spencer RMC (2021). Bedsharing in early childhood: frequency, partner characteristics, and relations to sleep. *Journal of Genetic Psychology*, 182(4), 269–288. <https://doi.org/10.1080/00221325.2021.1916732>
11. **Mason GM***, Lokhandwala S*, Riggins T, & Spencer RMC (2021). Sleep and human cognitive development. *Sleep Medicine Reviews*, 57, 101472. <https://doi.org/10.1016/j.smr.2021.101472>.
12. **Mason GM**, Goldstein MH, Schwade JA (2019). The role of multisensory development in early language learning. *Journal of Experimental Child Psychology*, 183, 48-64. <https://doi.org/10.1016/j.jecp.2018.12.011>.
13. **Mason GM**, Kirkpatrick F, Schwade JA, Goldstein MH (2018). The role of dyadic coordination in organizing visual attention in 5-month-old infants. *Infancy*, 24(2), 162-186. doi: 10.1111/infa.12255.

* Authors contributed equally

14. Edgin JO, Anand P, Rosser T, Pierpont EI, Figueroa C, Hamilton D, Huddleston L, **Mason G**, Spanò G, Toole L, Nguyen-Driver M, Capone G, Abbeduto L, Maslen C, Reeves RH, & Sherman S (2017). The Arizona Cognitive Test Battery for Down Syndrome: Test-retest reliability and practice effects. *American Journal on Intellectual and Developmental Disabilities*, 122:3, 215-234.
15. **Mason GM**, Spanò G, & Edgin JO (2015). Symptoms of Attention Deficit Hyperactivity Disorder in Down syndrome: effects of the dopamine receptor D4 gene. *American Journal on Intellectual and Developmental Disabilities*, 120(1), 58-71.
16. Edgin, JO, **Mason GM**, Spano, G., Fernandez, A., & Nadel, L. (2012). Human and mouse model cognitive phenotypes in Down syndrome: Implications for Assessment. *Progress in Brain Research*.
17. Edgin JO, **Mason GM**, Allman MJ, Capone GT, DeLeon I, Maslen C, Reeves RH, Sherman SL, Nadel L (2010). Development and Validation of the Arizona Cognitive Test Battery for Down syndrome. *Journal of Neurodevelopmental Disorders* 2:149–164.

Conferences and Presentations

Refereed symposia

1. Presenter: “Effects of acute wake extension on recovery sleep electroencephalography in early adolescence: Relations to Attention Deficit/Hyperactivity Disorder traits”. In Symposium: *Sleep Health in Pregnancy, Infancy, Childhood, and Early Adolescence: Implications for Brain Structure and Function*. Houston, TX: 38th Annual Meeting of the Associated Professional Sleep Societies (APSS).
2. Co-chair: “A closer look at infant eye gaze: exploring ecological influences on attention dynamics in typical and atypical development”. Austin, TX: 2017 Biennial meeting of the Society for Research in Child Development.
3. Co-chair: “The Role of Social and Sensorimotor Coordination in Communicative Development of Typical and At-Risk Infants”. Philadelphia, PA: 2015 Biennial Meeting of the Society for Research in Child Development.

Refereed paper presentations

1. **Mason GM**, Kurdziel LBF, Spencer RMC (April 2021). The structure and memory benefits of infant and toddler napping during the triphasic to biphasic transition. Flash talk presented virtually at the 2021 Biennial meeting of the Society for Research in Child Development.
2. **Mason GM**, Schwade JA, Goldstein MH (October 2019). Dyadic social interactions determine infant social attention and vigilance. Chicago, Illinois: Paper presented at the 52nd Annual Meeting of the International Society for Developmental Psychobiology.
3. **Mason GM**, Goldstein MH (2017). Using infant eye gaze to explore the neurobiology of social influences on early attention development. Austin, TX: Paper presented at the 2017 Biennial meeting of the Society for Research in Child Development.
4. **Mason GM**, Goldstein MH, Schwade JA (2016). Exploring the microstructure of early dyadic coordination and infant visual attention. New Orleans, LA: paper presented at the 20th International Congress on Infant Studies.
5. **Mason GM**, Goldstein MH (2015). Exploring the influence of social coordination on attention organization in infancy (flash talk and poster). Providence, RI: Fifth Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics.

Refereed poster presentations and published abstracts

1. Narcisse MR, Sharkey KM, **Mason GM**, Barker DH (June 2024). Associations between Parental Anxiety, Psychological Distress, and Infant Sleep Difficulties. Houston, TX: 38th Annual Meeting of the Associated Professional Sleep Societies (APSS).
2. Dionisos VO, Moyles S, **Mason GM**, Christiansen TG, Barker DH, Dickstein DP, Carskadon MA, & Saletin JM (June 2024). fMRI Neural Activation During Working Memory After 5-Nights of Sleep Restriction in Adolescents with ADHD Traits. Houston, TX: 38th Annual Meeting of the Associated Professional Sleep Societies (APSS).
3. Moyles S, Dionisos VO, **Mason GM**, Christiansen TG, Barker DH, Dickstein DP, Carskadon MA, & Saletin JM (June 2024). 5-Nights of sleep restriction and impulsivity-related fMRI brain activity in adolescents with ADHD traits. Houston, TX: 38th Annual Meeting of the Associated Professional Sleep Societies (APSS).
4. **Mason GM**, Christiansen TG, Dionisos VO, Barker DH, Dickstein DP, Carskadon MA, & Saletin JM. (June 2023). Impact of 5-night sleep restriction on actigraphy-estimated sleep in young adolescents: preliminary associations with ADHD traits. Indianapolis, IN: 37th Annual Meeting of the Associated Professional Sleep Societies (APSS).
5. Christiansen TG, Dionisos VO, **Mason GM**, Barker DH, Dickstein DP, Carskadon MA, Saletin JM (June 2023). ADHD traits and psychomotor vigilance after 5 nights of experimental sleep restriction in early adolescents: preliminary results. Indianapolis, IN: 37th Annual Meeting of the Associated Professional Sleep Societies (APSS).
6. Dionisos VO, Christiansen TG, **Mason GM**, Dickstein DP, Carskadon MA, Saletin JM (June 2023). Effect of Wake Extension and Short Recovery Sleep on Objective Vigilance and Subjective Sleepiness in Young Adolescents. Indianapolis, IN: 37th Annual Meeting of the Associated Professional Sleep Societies (APSS).
7. **Mason GM**, Dionisos VO, Christiansen TG, Dickstein DP, Carskadon MA, Saletin JM (June 2023). Changes in sleep architecture and topography of sleep EEG slow wave activity following acute wake extension in early adolescence. Indianapolis, IN: 37th Annual Meeting of the Associated Professional Sleep Societies (APSS).
8. **Mason GM**, Arno G, Spencer RMC (November 2022). Multiple naps support affective regulation in triphasic infants. Virtual poster presented at the 55th Annual Meeting of the International Society for Developmental Psychobiology.
9. Christiansen T, **Mason G**, Barker D, Dickstein D, Carskadon M, Saletin J (November 2022). Impact of ADHD status on vigilant attention following 5 nights of sleep restriction in children: Preliminary results. Virtual poster presented at the 55th Annual Meeting of the International Society for Developmental Psychobiology.
10. Lokhandwala S, Holmes J, **Mason G**, St. Laurent C, Hanron O, Andre C,... Spencer R (April 2021). Sleeping and Coping Patterns in Early Childhood in the Context of COVID-19. Poster presented virtually at the 2021 Biennial meeting of the Society for Research in Child Development.
11. St. Laurent CW, **Mason G**, Holmes J, Spencer RMC (2021, February). Relations between nap habituality and sedentary time, physical activity, and 24-hour behaviors in early childhood. Poster presentation at the International Pediatric Sleep Association Online Meeting, Virtual.
12. **Mason GM**, Kurdziel LBF, Spencer RMC (July 2020). Does polyphasic sleep benefit memory in infancy? A preliminary longitudinal investigation. Poster presented virtually at the 22nd International Congress of Infant Studies.

13. Hanron O, **Mason GM**, Holmes JF, & Spencer RM (2020). 0087 Childhood Naps Promote Short-Term Destabilization but Long-Term Consolidation of Emotional Memories. *Sleep*, 43(Supplement_1), A35–A35. <https://doi.org/10.1093/sleep/zsaa056.085>
14. Holmes, JF, Deighan, MK, Miranda, NW, **Mason, GM**, & Spencer, RM (2020). 0100 Effect of Naps on Preschoolers' Consolidation of an Emotional Storybook. *Sleep*, 43(Supplement_1), A40–A40. <https://doi.org/10.1093/sleep/zsaa056.098>
15. **Mason GM**, Kurdziel LBF, Spencer RMC (November 2019). Relative effects of morning and afternoon naps on declarative memory in 9-month-old infants. Naples, Florida: Poster presented at the 10th Biennial Conference on Pediatric Sleep Medicine.
16. **Mason GM**, Kurdziel LBF, Spencer RMC (October 2019). Comparing the physiology and memory benefits of morning and afternoon naps for 9-month-olds under typical and nap-restricted conditions. Chicago, Illinois: Poster presented at the 52nd Annual Meeting of the International Society for Developmental Psychobiology.
17. **Mason GM**, Spencer RMC (June 2019). Co-sleeping And Sleep Quality In Preschool Children: Do Consistency And Partner Matter? San Antonio, Texas: Poster presented at the 33rd Annual Meeting of the Associated Professional Sleep Societies (SLEEP).
18. **Mason GM**, Jones EJH, Gliga T, and the BASIS Team (2018). Microstructural analysis of parent-infant coordination and social attention among infants at risk for autism. Philadelphia, PA: Poster presented at the 21st International Congress on Infant Studies.
19. **Mason GM**, Goldstein MH, Schwade JA (2013). Relations between infant visual attention and caregiver sensitivity in a naturalistic social setting. La Jolla, CA: 1st Annual Learning to Attend, Attending to Learn (Neurological, Behavioral, and Computational Perspectives) workshop.
20. **Mason GM**, Spanó G, Anand P, Sampsel M, Edgin JO (2012). 21 and beyond: genetic contributions to executive function and attention in children with Down syndrome. New Orleans, LA: 45th Annual Meeting of the International Society for Developmental Psychobiology.
21. **Mason, GM**, Edgin, JO, & Nadel, L. (2010). Genetic contributions to executive function and ADHD symptom variation among individuals with Down syndrome. San Diego, CA: Society for Neuroscience Annual Meeting.
22. Spanò, G, Nadel, L, **Mason, G**, & Edgin, J. (2010). Executive function in Down syndrome: cognitive and genetic correlates. San Diego, CA: Society for Neuroscience Annual Meeting.
23. Breslin, J.H., **Mason, G.M.**, Edgin, J.O., Bootzin, R.R., Goodwin, J.L., & Nadel, L. (2010). Sleep characteristics in older children with Down syndrome. *Sleep*, 33, A341.
24. **Mason, GM**, (2010). The role of Catechol-o-Methyltransferase and Dopamine Receptor D4 in ADHD symptom variation among individuals with Down syndrome. San Diego, CA: annual meeting of the American Association for the Advancement of Science (AAAS).
25. Tandyasraya, P.M.A. & **Mason, G.M.** (2010). Parental stress and child characteristics of children with Down syndrome. San Diego, CA: annual meeting of the American Association for the Advancement of Science (AAAS).
26. Spanò, G., Nadel, L., **Mason, G.**, & Edgin, JO (2010). Set-shifting in Down syndrome: cognitive and genetic correlates. San Diego, CA: annual meeting of the American Association for the Advancement of Science (AAAS).

Teaching Positions and Mentorship

Teaching Positions

Instructor of Record, Science of Sleep (PSYCH 391AF)	SP2022
Instructor of Record, First-Year Seminar (NATSCI 191CNS33-01) (<i>Course Title: Do I really need to go to bed? How sleep helps us, babies, and other animals survive the waking world</i>)	FA2020
Section Content co-Organizer, Cell and Developmental Biology (BIOMG 1350)	SP2018
Section Instructor, Cell and Developmental Biology (BIOMG 1350)	FA2017
Teaching Assistant, Introduction to Cognitive Science (COGST 1101)	SU2017
Teaching Assistant, Developmental Psychology (PSYCH 2090)	SP2015
Teaching Assistant, Perception (PSYCH 2050)	FA2014

Guest Lectures

Providence College, BIO 360 (Neurobiology) <i>Lecture Title: "Sleep and Sleep Research"</i>	SP2023
Brown University, CLPS1196 (Sleep, Circadian Rhythms, & Behavioral Health) <i>Lecture Title: "Sleep, Learning and Memory"</i>	FA2022
Cornell University, COGST 1101 (Introduction to Cognitive Science) <i>Lecture Title: "Meta-representation, pretend play, and (mindreading...?)"</i>	SU2017

Postbaccalaureates Co-Mentored

Taylor Christiansen, 2022-2023 (current position: Graduate student in the Blumberg lab, University of Iowa)
Victoria Dionisos, 2022-present
Sinéad Moyles, 2023-present

Thesis Students Co-Mentored

Mehak Malhotra, Class of 2024 (expected)
Emily Kaye, Class of 2023 (current position: program coordinator of professional education at Harvard Graduate School of Education)
Michael Redington, Class of 2022 (current position: Fulbright fellowship, Taiwan)
Gaia Arno, Class of 2022 (current position: research assistant, Dystonia and Speech Motor Control Lab)
Mary Deighan, Class of 2020 (current position: district director, Massachusetts state senate)
Sabrina McDuffie, Class of 2020 (current position: nonprofit youth support worker)
Olivia Hanron, Class of 2019 (current position: medical school)

Special Programs/Community Interns Mentored

Smith College Praxis Program ([link](#)):
Dahlia Rodriguez

Tompkins County Learning Web ([link](#)):
Sohrab Memarzadeh
Jordan Lu

Molly Swarhout
Hae Rin Lee
Julia Bleier

Outreach, Science Communication, and Service

Diversity and Belonging

Committee Member, Warren Alpert Medical School Child Track Social Justice Subcommittee	2022-Pres
Invited Panelist, UMass OPD “Do I Belong Here?” student support event	2021
Invited Panelist, UMass OPD “Coffee Toast to Postdocs” postdoc support event	2020
Committee Member, UMass PBS Diversity Action Group #1 (info)	2020-21
Chair of Outreach, Expanding Your Horizons (info)	2013-17

Science Communication

Flash Talk Presentation, RIWHI Perinatal Mental Health Symposium	SP2024
Poster Presenter, Brown Mind Brain Research Day	SP’23,’24
Sleep Science Tabling, Brown Brain Fair & Pawtucket Brain Fair	SP’23,’24
Presenter, Social Contingency Consortium	FA2023
Invited Speaker, Brain Week Rhode Island	SP2023
Sleep for Science Tour Guide for Met High School	FA2022
Invited Speaker, UMass Developmental Science Seminar	FA2021
<u>Talk Title</u> : “Are two naps better than one? A longitudinal investigation of nap patterns and memory across infancy”	
Sleep Science Tabling, UMass “De-Stress Fest”	FA2021
Invited Speaker, UMass Neuroscience Club	2019
Sleep Science Outreach, UMass Sleep Fair	FA2018
Podcast contributor and co-editor, WRFI Locally Sourced Science (link)	2017-18
Participant, Cornell Science Communication Workshop (info)	2017
Museum exhibit co-developer, Psychology at the Sciencenter (info)	2017

Additional Service and Volunteerism

Session Moderator, Brown DPHB RA Research Day	FA2022
Session Chair, MassURC Undergraduate Research Conference	SP2022
Natural Disaster Relief Volunteer, All Hands and Hearts Yabucoa Program	WINT2019
Committee member/reviewer, TA Ryan undergraduate thesis award	2015
Intern, Child and Family Resources, Tucson AZ	2009-10
Victim Advocate, Pima County Attorney’s Office Victim Services Division	2007-11

Ad-hoc Journal Reviewer

Neuroscience and Biobehavioral Reviews, Neurobiology of Learning and Memory, Journal of Child Psychology and Psychiatry, Child Development, Sleep Medicine, Infant Behavior and Development(x2), Journal of Applied Developmental Psychology, Journal of Genetic Psychology, Journal of Experimental Child Psychology, BMC Pregnancy and Childbirth (w/mentor)

Ad-hoc Grant Reviewer

Mind Science Foundation

Media Appearances

Weissbluth, M. (2023, February 13). Blog 118: Parents and Naps; Is Skipping a Nap Harmful? *Marc's Baby and Children Sleep Blog*. <https://marcweissbluth.com/blog-post-118-is-skipping-naps-harmful/>

Venneti, S. (2021, April 5). Baby Sleep Research: Latest Findings with Gina Mason PhD & Sanna Lokhandwala M.S. *Shift With Shubra*. Available on [PodBean](#) or [YouTube](#).

Bayrak, S. (2020, March 5). UMass neuroscientist Rebecca Spencer enters the spotlight with a Netflix and NOVA feature for her groundbreaking research on sleep. *Massachusetts Daily Collegian*. <https://dailycollegian.com/2020/03/umass-neuroscientist-rebecca-spencer-enters-the-spotlight-with-a-netflix-and-nova-feature-for-her-groundbreaking-research-on-sleep/>

Netflix *Babies* (2020). Episode 5, "Sleep" (credited as assistant). Available on Netflix or via <https://youtu.be/KJCL9LR6rJI?t=2140>