

## Elliott Gray Johnson, PhD

Psychology Department  
Temple University  
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### EDUCATION

- 2020 PhD, University of California, Davis; Human Development  
2013 BA, Carleton College; Psychology (*Magna Cum Laude*) with a concentration in Neuroscience

### AWARDS AND HONORS

- 2020 Judy Erwin Award, Human Development Graduate Group (HDGG)  
2019 Graduate Student Travel Award, UC Davis Graduate Studies  
2019 Travel Award, UC Davis Graduate Student Association  
2016,17,19 Travel Awards, HDGG  
2016,17,18 Research Merit Fellowships, HDGG  
2014-2015 Provost's Fellowship in the Social Sciences (full support for 1<sup>st</sup> year)  
2012,13 Travel Awards, Carleton College  
2012 Carleton Independent Research Award

### SERVICE

- 2019 – 2020 Admissions Committee, HDGG  
2018 – 2019 Faculty Search Committee, HDGG  
2017 – 2018 Undergraduate Program Review Committee, HDGG  
2015 – 2018 Recruitment and Events Committee, HDGG  
2015 – 2016 Diversity and Inclusion Workgroup (K-12 Pipeline), UC Davis

### RESEARCH EXPERIENCE

- Post-Doctoral Fellow**  
2020 Department of Psychology, Temple University, Philadelphia, PA  
Drs. Nora Newcombe & Ingrid Olson  
Examining development of episodic memory in children utilizing behavioral methods and functional/structural MRI
- Graduate Student Researcher**  
2014 - 2020 Memory and Development Lab, University of California, Davis  
Principal Investigator: Simona Ghetti, Ph.D.  
Examining development of episodic memory, uncertainty monitoring, and word learning utilizing behavioral methods and functional/structural MRI.
- Undergraduate Research Assistant**  
2013 Lifetime Learning Lab, Carleton College, Northfield, MN.  
Principal Investigator: Kara Sage, Ph.D.
- 2011-2013 Behavioral Neuroscience Lab, Carleton College, Northfield, MN.  
Principal Investigator: Sarah Meerts, PhD.

### PUBLICATIONS

- Leckey, S., Selmecezy, D., Kazemi, A., **Johnson, E.G.**, Hembacher, E., & Ghetti, S. (2020). Response latencies and eye gaze provide insight on how toddlers gather evidence under uncertainty. *Nature Human Behavior*. Advance online publication. 10.1038/s41562-020-0913-y
- Johnson, E.G.**, Prabhakar, J., Mooney, L., & Ghetti, S. (2020). Neuroimaging the sleeping brain: Insight on memory functioning in infants and toddlers. *Infant Behavior and Development*, 58, 101427. <https://doi.org/10.1016/j.infbeh.2020.101427>
- Lee, J., Fandakova, Y., **Johnson, E.G.**, Cohen, N., Bunge, S., & Ghetti, S. (2020). Changes in anterior and posterior hippocampus differentially predict item-space, item-time, and item-item memory improvement. *Developmental Cognitive Neuroscience*, 41, 100741. <https://doi.org/10.1016/j.dcn.2019.100741>
- Johnson, E.G.**, Leckey, S., Davinson, K., & Ghetti, S. (2020). Associative binding in early childhood: Evidence from a preferential looking paradigm. *Developmental Psychobiology*, 60(2), 266-278. <https://doi.org/10.1002/dev.21904>
- Olsen, R.K., Carr, V.A., Daugherty, A.M., La Joie, R., ... **Johnson, E.G.**, ... Yushkevich, P.A., & Wisse, L.E.M. (2019). Progress update from the hippocampal subfields group. *Alzheimers & Dementia: Diagnosis, Assessment & Disease Monitoring*, 11, 439-449. <https://doi.org/10.1016/j.dadm.2019.04.001>
- Prabhakar, J., **Johnson, E.G.**, Nordahl, C.W., & Ghetti, S. (2018). Memory-related hippocampal activation in the sleeping toddler. *Proceedings of the National Academy of Sciences U.S.A.*, 15(25), 6500-6505. <https://doi.org/10.1073/pnas.1805572115>
- Lee, J.K., **Johnson, E.G.**, & Ghetti, S. (2017). Hippocampal development: Structure, function and implications. In D.E. Hannula & M. Duff (Eds.), *The hippocampus from cells to systems – Structure, connectivity, and functional contributions to memory and flexible cognition*. New York, NY: Springer.
- Meerts, S., Anderson, K., Farry-Thorn, M., **Johnson, E.G.**, & Taxier, L. (2017). Prepubertal ovariectomy modulates paced mating behavior but not sexual preference or conditioned place preference for mating in female rats. *Physiology & Behavior*, 171, 142-148. <https://doi.org/10.1016/j.physbeh.2017.01.012>
- Meerts, S.H., Schairer, R.S., Farry-Thorn, M.E., **Johnson, E.G.**, & Strnad, H.K. (2014). Previous sexual experience alters the display of paced mating behavior in female rats. *Hormones and Behavior*, 65, 497-504. <https://doi.org/10.1016/j.yhbeh.2013.12.015>
- MANUSCRIPTS UNDER REVIEW AND IN PREPARATION**
- Mooney, L.N., **Johnson, E.G.**, & Ghetti, S. (2020). Memory-related hippocampal activation during sleep and temporal memory in toddlers. Under review.
- Johnson, E.G.**, Mooney, L., Nordahl, C.W., & Ghetti, S. (2020) Activation for newly learned words in left medial-temporal lobe during sleep is associated with word learning in toddlers. Manuscript in preparation.
- Johnson, E.G.**, Fandakova, Y Lee, J.K., & Ghetti, S. (2020). Age and pubertal effects of hippocampal subfield development during middle childhood. Manuscript in preparation.
- Mooney, L., Fox, E., **Johnson, E.G.**, & Ghetti, S. (2020). Spatial-temporal context memory in toddlers. Manuscript in preparation.
- Leckey, S., **Johnson, E.G.**, & Ghetti, S. (2020). How do toddlers make memory decisions in the

face of novelty preference? Manuscript in preparation.

Fandakova, Y., **Johnson, E.G.**, & Ghetti, S (2020). Interactions between parietal and striatal systems contribute to subjective recollection and decision-making. Manuscript in preparation.

## CONFERENCE PRESENTATIONS

**Johnson, E.G.**, Fandakova, Y., Lee, J., & Ghetti, S. (2019, October). Longitudinal changes of hippocampal subfields predict memory improvements at the transition into adolescence. In N. Ofen (Chair), *Medial temporal lobe in learning and memory during development*. Symposium presented at the Society for Neuroscience Annual Meeting, Chicago, IL.

**Johnson, E.G.**, Fox, E., Mooney, L., & Ghetti, S. (2019, March). Remembering words during sleep: Behavioral and Neural indices. In T. Riggins & R. Spencer (Chairs), *Sleep, memory and the brain during development*. Symposium presented at the Society for Research in Child Development Biennial Meeting, Baltimore, MD.

Prabhakar, J., Leckey, S., **Johnson, E.G.**, Davinson, K., & Ghetti, S. (2019, March). Goal orientation boosts future thinking in toddlers. In T. Blankenship (Chair), *Mechanisms supporting the development of future-oriented thinking*. Symposium presented at the Society for Research in Child Development Biennial Meeting, Baltimore, MD.

Leckey, S., Selmecky, D., **Johnson, E.G.**, Kazemi, A., Hembacher, E., & Ghetti, S. (2019, March). *Toddlers' uncertainty in a perceptual decision task: Insight from drift diffusion modeling*. Poster presented at the Society for Research in Child Development Biennial Meeting, Baltimore, MD.

Ghetti, S., & **Johnson, E.G.** (2018, October). *Imaging the emergence of episodic memory*. Invited talk at the Canadian Institute for Advanced Research: Early Developmental Neuroscience Catalyst Workshop, New Haven, CT.

**Johnson, E.G.**, Leckey, S., Hembacher, E., Davinson, K., & Ghetti, S. (2017, October). *Precursors of uncertainty monitoring*. Poster presented at the Cognitive Development Society Biennial Meeting, Portland, OR.

Leckey, S., **Johnson, E.G.**, & Ghetti, S. (2017, October). *How do toddlers make memory decisions in the face of novelty preferences?* Poster presented at the Cognitive Development Society Biennial Meeting, Portland, OR.

**Johnson, E.G.**, Leckey, S., Hembacher, E., & Ghetti, S. (2017, April). Associative recognition in toddlers: Evidence from a visual comparison procedure. In T. Riggins (Chair), *Memory formation exhibits qualitative and quantitative changes across development*. Symposium presented at the Society for Research in Child Development Biennial Meeting, Austin, TX.

Prabhakar, J., **Johnson, E.G.**, Nordahl, C., & Ghetti, S. (2017, April). Hippocampal function and memory development in early childhood. In K. Ferrara and J. Prabhakar (Chairs), *The neurocognitive basis of memory in typical and atypical development*. Symposium presented at the Society for Research in Child Development Biennial Meeting, Austin, TX.

Fandakova, Y., **Johnson, E.G.**, & Ghetti, S. (2017, March). *Interactions between parietal and striatal systems contribute to subjective recollection and decision-making*. Poster presented at the Cognitive Neuroscience Society Conference, San Francisco, CA.

- Fandakova, Y., **Johnson, E.G.**, & Ghetti, S. (2015, August). *The neural underpinnings of memory monitoring and control: Evidence from a metacognitive illusion*. Poster presented at the Bay Area Memory Meeting, Davis, CA.
- Johnson, E.G.**, Taxier, L.R., Strnad, H.K. & Meerts, S.H. (2012, October). *Female rats without ovarian hormone exposure during puberty demonstrate higher sexual receptivity after subprime hormone administration*. Poster presented at MidBrains: The Undergraduate Neuroscience Conference of the Upper Midwest, Carleton College, Northfield, MN.
- Anderson, K.S., Farry-Thorn, M.E., **Johnson, E.G.**, Taxier, L.R., Schairer, R.S., & Meerts, S.H. (2013, June). *The effects of prepubertal ovariectomy on sexual reward and motivation*. Poster presented at the Society for Behavioral Neuroendocrinology Annual Meeting, Atlanta, GA.
- Schairer, R.S., Farry-Thorn, M.E., **Johnson, E.G.**, Strnad, H.K., & Meerts, S.H. (2013, June). *Effects of previous sexual experience are evident during 30-minute tests of paced mating behavior*. Poster presented at the Society for Behavioral Neuroendocrinology Annual Meeting, Atlanta, GA.
- Anderson, K.S., Farry-Thorn, M.E., **Johnson, E.G.**, Taxier, L.R., Schairer, R.S., & Meerts, S.H. (2013, April). *The effects of pubertal ovariectomy on sexual motivation and reward in female rats*. Poster presented at the Minnesota Undergraduate Psychology Conference, Macalester College, St. Paul, MN.
- Meerts, S.H., **Johnson, E.G.**, Schairer, R.S., Strnad, H.K., Taxier, L.R., Farry-Thorn, M.E. & Amofa, P.A. (2012, June). *Clitoral-vaginal lidocaine alters paced mating behavior in female rats*. Poster presented at the Society for Behavioral Neuroendocrinology Annual Meeting, Madison, WI.

## TEACHING

### Senior TA in Teaching Practicum

Psychology (PSC) 146, Development of Memory 2 Guest Lectures

### Teaching Assistant

PSC 146, Development of Memory  
 Human Development (HDE) 100A, Infancy and Early Childhood 1 Guest Lecture  
 PSC 141, Cognitive Development X3 2 Guest Lectures  
 HDE 100C, Adulthood and Aging X2  
 HDE 012, Human Sexuality