

Curriculum Vitae

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Joshua K. Lee

Post-Doctoral Scholar
Department of Psychology &
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Education

2016 Ph.D., Psychology, University of California, Davis
2007 B.A., Psychology, University of California, Davis

Positions

2016-Present Post-Doctoral Scholar, M.I.N.D. Institute, University of California, Davis
2007-2008 Junior Specialist, Center for Mind and Brain, University of California, Davis

Fellowships

2015 Psychology Spring Dissertation Fellowship, University of California, Davis

Publications

Articles in Peer Reviewed Journals

Lee, J. K., Wendelken, C., Bunge, S. A., & Ghetti, S. (2015). A time and a place for everything: Building blocks of episodic memory. *Child Development*, Advance Online publication. doi:10.1111/cdev.12447

Lee, J. K., Nordahl, C. W., Amaral, D. G., Lee, A., Solomon, M., & Ghetti, S. (2015). Assessing hippocampal development and language in early childhood: Evidence from a new application of the automatic segmentation adapter tool. *Human Brain Mapping*, 36, 4483-4496. doi:10.1002/hbm.22931

Lee, J. K., Ekstrom, A. D., Ghetti, S (2014). Volume of hippocampal subfields and episodic memory in childhood and adolescence. *NeuroImage*, 94C, 162-171. doi:10.1016/j.neuroimage.2014.03.019.

- Sastre, M., Wendelken, C., **Lee, J. K.**, Bunge, S. A., & Ghetti, S. (2016). Age-and performance-related differences in hippocampal contributions to episodic retrieval. *Developmental Cognitive Neuroscience*, 19, 42-50. doi:10.1016/j.dcn.2016.01.003
- Wendelken, C., **Lee, J. K.**, Pospisil, J., Sastre III, M., Ross, J. M., Bunge, S. A., & Ghetti, S. (2015). White matter tracts connected to the medial temporal lobe support the development of mnemonic control. *Cerebral Cortex*, 25, 2574-2583. doi:10.1093/cercor/bhu059
- Stratmann, G., **Lee, J. K.**, Sall, J. W., Alvi, R., Shih, J., Yonelinas, A. P., & Ghetti, S. (2014). Effect of general anesthesia in infancy on long-term recognition memory in humans and rats. *Neuropsychopharmacology*, 39, 2275–2287. doi:10.1038/npp.2014.134
- DeMaster, D., Pathman, T., **Lee, J. K.**, & Ghetti, S. (2014). Structural development of the hippocampus and episodic memory: Developmental dissociations along the anterior/posterior axis. *Cerebral Cortex*, 24, 3036-3045. doi: 10.1093/cercor/bht160
- Ghetti, S., **Lee, J. K.**, Sims, C. E., DeMaster, D. M., & Glaser, N. S. (2010). Diabetic ketoacidosis and memory dysfunction in children with type 1 diabetes. *The Journal of Pediatrics*, 156, 109-114. doi:10.1016/j.jpeds.2009.07.054.

Articles under Review

- Fandakova, Y., Bunge, S. A., Wendelken, C., Desutels, P., Hunter, L., **Lee, J.K.**, & Ghetti., S. (2016). Knowing when you don't remember: Neural activity during uncertainty predicts episodic memory development.

Articles in Preparation

- Lee, J. K.** Fandakova, Y., Wendelken, C., Desutels, P, Bunge, S. A., & Ghetti (2016). Longitudinal development of the hippocampus and item-space, item-Time and Item-Item Relational Episodic Memory.
- Lee, J. K.**, Desutels, P, Coughlin, C., Fandakova, Y., Wendelken, C., Bunge, S. A., & Ghetti (2016). Longitudinal development of the hippocampus and item-context relational memory.
- Lee, J. K.** Fandakova, Y., Ekstrom, A., & Ghetti (2016). Hi-Resolution Functional Magnetic Resonance Imaging of Pediatric Hippocampal Subfields during Episodic Retrieval.
- Lee, J. K.**, Coughlin, C., & Ghetti (2016). Evaluating hippocampal development in middle childhood: Application of a new high-resolution T1 pediatric multi-atlas of the hippocampus.

Coughlin, C., Pospisil, J., Lee, J. K., & Ghetti, S. (2016). A naturalistic investigation of episodic-like memory across development.

Chapters

Ghetti, S. & Lee, J. K. (2013). Development of recollection and familiarity during childhood: Insight from studies of behavior and brain. In P.J. Bauer & R. Fivush (Eds). *Handbook on the development of children's memory*. Hoboken, NJ: Wiley-Blackwell.

Ghetti, S., & Lee, J. K. (2011). Children's episodic memory. *Wiley Interdisciplinary Reviews: Cognitive Science*. Wiley.

Chapters in Preparation

Lee, J. K., Elliott Johnson, & Ghetti (2015). Hippocampal Development in Childhood; Chapter to Appear in *Hippocampus: Cells to Systems*.

Chaired Symposia

Lee, J. K., & Ghetti, S. (March, 2015). *Heterogeneous Hippocampal Development from Childhood into Adolescence: Implications for Memory and Cognition*. Symposium presented at the Biennial Conference of Society for Research in Child Development, Philadelphia, PA.

Conference Presentations

Lee, J. K., & Ghetti, S. (July, 2016). *Eye Movements during Spatial Pattern Separation and Completion: Associations with Behavior and Hippocampal Volume*. Symposium to be presented at the International Conference on Memory, Budapest, Hungary.

Lee, J. K., Wendelken, C., Bunge, S., & Ghetti, S. (March, 2015). *Developmental Change in Item-Space, Item-Time, and Item-Item Relational Binding in Episodic Memory and Hippocampal Structure*. Symposium presented at the Biennial Conference of Society for Research in Child Development, Philadelphia, PA.

Lee, J. K., Wendelken, C., Bunge, S., & Ghetti, S. (March, 2015). *Developmental Change in Relational Binding and Hippocampal Structure*. Poster presented at the Cognitive Neuroscience Society, San Francisco, CA.

Lee, J. K., Wendelken, C., Bunge, S., & Ghetti, S. (April, 2013) *White-Matter Integrity in Uncinate Fasciculus and Fornix is associated with Age-Related Differences in Hippocampal*

BOLD Activity during Episodic Retrieval. Poster presented at the Cognitive Neuroscience Society, San Francisco, CA.

Lee, J. K., Ekstrom, A., & Ghetti, S. (April, 2013) *Heterogeneous Development and Contribution of Hippocampal Subfields to Episodic Memory.* Paper Session presented at the Biennial Meeting Society for Research in Child Development, Seattle, Washington.

Wendelken, C., **Lee, J. K.,** Bunge, S., & Ghetti, S. (April, 2013) *Increasing White Matter Coherence Between MTL and PFC Supports Improving Mnemonic Control in Children.* Paper Session presented at the Biennial Meeting Society for Research in Child Development, Seattle, Washington.

Sastre, M., **Lee, J. K.,** Wendelken, C., Bunge, S., & Ghetti, S. (April, 2013) *Developmental Differences in Medial Temporal Lobe Recruitment During Episodic Recollection.* Poster presented at the Biennial Meeting Society for Research in Child Development, Seattle, Washington.

Popisil, J., Coughlin, C., **Lee, J. K.,** & Ghetti, S. (April, 2013) *Of Popsicles and Crackers: How Preschoolers Integrate Information About Spatio-Temporal Context in Their Memories.* Poster presented at the Biennial Meeting Society for Research in Child Development, Seattle, Washington.

Ghetti, S., **Lee, J. K.,** Holtpatrick, C., DeMaster, D., & Glaser, N. (2007, October) *Type-1 Diabetes and Development of Memory.* Poster presented at the Biennial Meeting of the Cognitive Development Society, Santa Fe, NM.

Ghetti, S., **Lee, J. K.,** Holtpatrick, C., DeMaster, D., & Glaser, N. (2008, April) *Memory Impairment Associated with Type-1 Diabetes in Childhood.* Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Neuroimaging and Analysis Skillset

- Multi-Atlas Class of Segmentation Methods
- Automatic Segmentation Adapter Tool (ASAT)
- FreeSurfer Software Suite
- FMRIB Software Library
- Advanced Normalization Tools (ANTs)
- Medical Image Processing, Analysis and Visualization (MIPAV) by CIT of the NIH
- Hi-Resolution Segmentation of Hippocampal Subfields