Nicole M. Long, Ph.D. May 2018
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Department of Psychology
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Education

2010 - 2015	University of Pennsylvania, Philadelphia Ph.D. Psychology Advisor: Michael Kahana
2005 - 2008	New York University, New York B.A. Psychology, High Honors, Summa Cum Laude Advisor: Lila Davachi

Academic Positions and Research Experience

2015 - present	Post-doctoral Research Associate University of Oregon, Department of Psychology Advisor: Brice Kuhl
2008 - 2010	Research Assistant/Lab Manager Brown University, Department of Cognitive & Linguistic Sciences Advisor: David Badre
2007 - 2008	Undergraduate Research Assistant Advisors: Lila Davachi, Bernhard Staresina

Teaching Experience

Spring 2012	Teaching Assistant Cognitive Neuroscience (PSYC-121) Course Instructor: Russell Epstein
Fall 2011	Teaching Assistant Learning (PSYC-149) Course Instructor: Robert Rescorla

Honors and Awards

2018	Early Career Award, Society for Experimental Psychology and Cognitive Science (Div 3)
2017	SfN Trainee Professional Development Award
2010	NIH Computational Neuroscience Training Grant
2008	NYU Undergraduate Research Conference poster winner
2008	Awarded membership to Phi Beta Kappa Society

Publications

Work in progress

Halderman, L., Finn, B., **Long, N. M.**, Lockwood, J. R. and Kahana, M. J. EEG Correlates of Engagement During Assessment. Under Review.

Healey, M. K., **Long, N. M.**, and Kahana, M. J. Contiguity in Episodic Memory. Under Review.

Long, N. M. and Kahana, M. J. Hippocampally-mediated contextual associations support temporal order memory. Invited Review. *Hippocampus*. Under Review.

Long, N. M. and Kuhl, B. A. Signatures of successful encoding depend on the state of the memory system. In preparation.

Refereed Journal Articles

Long, N. M. and Kuhl, B. A. (2018) Bottom-up and top-down factors differentially influence stimulus representations across large-scale brain networks. *Journal of Neuroscience*, 38 (10), 2495–2504

Long, N. M., Sperling, M. R., Worrell, G. A., Davis, K. A., Lucas, T. H., Lega, B. C., Jobst, B. C., Sheth, S. A., Zaghloul, K., Stein, J. M., Das., S. R., Gorniak, R., and Kahana, M. J. (2017) Contextually mediated spontaneous retrieval is specific to the hippocampus. *Current Biology*, 27, 1074–1079

Long, N. M. and Kahana, M. J. (2017) Modulation of task demands suggests that semantic processing interferes with the formation of episodic associations. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 43, 167-176

Long, N. M., Lee, H. and Kuhl, B. A. (2016) Hippocampal mismatch signals are modulated by the strength of neural predictions and their similarity to outcomes. *Journal of Neuroscience*, 36 (50), 12677-12687

Long, N. M. and Kahana, M. J. (2015) Successful memory formation is driven by contextual encoding in the core memory network. *NeuroImage*, 119, 332-337, doi:10.1016/j.neuroimage. 2015.06.073

Long, N. M., Danoff, M. S., and Kahana, M. J. (2015) Recall dynamics reveal the retrieval of emotional context. *Psychonomic Bulletin and Review*, 22(5), 1328-1333.

Badre, D., Lebrecht, S., Pagliaccio, D., **Long, N. M.**, and Scimeca, J. M. (2014). Ventral striatum and the evaluation of memory retrieval strategies. *Journal of Cognitive Neuroscience*, 26 (9), 1928-1948, doi:10.1162/jocn_a_00596

Long, N. M., John F. Burke, and Michael J. Kahana (2014). Subsequent memory effect in intracranial and scalp EEG. *NeuroImage*, 84, 488-494, doi:10.1016/j.neuroimage.2013.08.052

Burke, J. F., **Long, N. M.**, Zaghloul, K. A., Sharan, A. D., Sperling, M. R., and Kahana, M. J (2013). Human intracranial high-frequency activity maps episodic memory formation in space and time. *NeuroImage*, 85 Pt. 2, 834-843. doi: 10.1016/j.neuroimage.2013.06.067

Badre, D., Doll, B. B., **Long, N. M.**, and Frank, M. J. (2012). Rostrolateral prefrontal cortex and individual differences in uncertainty-driven exploration. *Neuron*, 73, 595-607.

Kang, H., Ombao, H., Linkletter, C., **Long, N.M.**, and Badre, D. (2012). Spatiospectral mixed effects model for functional Magnetic Resonance Imaging data. *Journal of the American Statistical Association*, 107(498), 568-577.

Long, N.M., Öztekin, I., and Badre, D. (2010) Separable prefrontal cortex contributions to free recall. *Journal of Neuroscience*, 30, 10967-10976.

Öztekin, I., **Long, N.M.**, and Badre, D. (2010) Optimizing design efficiency of free recall events for fMRI. *Journal of Cognitive Neuroscience*, 22, 2238-2250.

Invited Reviews and Chapters

Kuhl, B. A. and **Long, N. M.** (2017) Sampling memory to make profitable choices. *Nature Neuroscience (News and Views)*, 20 (7), 903-904.

Long, N. M., Kuhl, B. A., and Chun, M. M. (2018). Memory and Attention. In J. T. Wixted, E. Phelps & L. Davachi (Eds), The Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience (4th Edition, Volume 1: Learning & Memory). New York: Wiley.

Conference talks

Long, N. M. and Kuhl, B. A. (May, 2018) Signatures of successful encoding depend on the state of the memory system. Talk given at Context and Episodic Memory Symposium.

Long, N. M., Sperling, M. R., Worrell, G. A., Davis, K. A., Lucas, T. H., Lega, B. C., Jobst, B. C., Sheth, S. A., Zaghloul, K., Stein, J. M., Das., S. R., Gorniak, R., and Kahana, M. J. (May, 2017) Contextually mediated spontaneous retrieval is specific to the hippocampus. Talk given at Context and Episodic Memory Symposium.

Long, N. M., Lee, H., Chun, M. M., Kuhl, B. A. (May, 2016) Hippocampal mismatch signals are modulated by the similarity between predicted and realized outcomes. Talk given at Context and Episodic Memory Symposium.

Long, N. M., Kahana, M. J. (May, 2015) Contextual encoding mechanisms in hippocampus and left lateral cortex support successful memory formation. Data blitz talk given at Context and Episodic Memory Symposium.

Conference posters

Long, N. M., Drascher, M. L., & Kuhl, B. A. (November, 2017) Spatiotemporal neural activity dissociates encoding and retrieval states. Poster presented at the 47th Society for Neuroscience meeting.

Long, N. M., Kuhl, B. A. (November, 2016) Fronto-parietal regions represent both abstract goals and goal-relevant feature information. Poster presented at the 46th Society for Neuroscience meeting.

Favila, S. E. **Long, N. M.**, Kuhl, B. A. (November, 2016) Stimulus-specific memory representations in lateral parietal cortex. Poster presented at the 46th Society for Neuroscience meeting.

Finn, B., Halderman, L., **Long, N. M.**, Lockwood, J. R., Kahana, M. J. (April, 2016) High gamma predicts engagement ratings but not mental effort ratings. Poster presented at 23rd Cognitive Neuroscience Society Meeting.

Long, N. M., Kahana, M. J. (October, 2015) Modulation of task demands suggests that semantic processing interferes with the formation of episodic associations. Poster presented at the 45th Society for Neuroscience meeting.

Halderman, L., Finn, B., **Long, N. M.**, Pedisich, I., Crutchley, P., Kahana, M. J. (March, 2015) EEG correlates of engagement in an assessment context. Poster presented at 22nd Cognitive Neuroscience Society Meeting.

Long, N. M., Kahana, M. J. (November, 2014) Spectral correlates of contextual processing during memory encoding. Poster presented at the 44th Society for Neuroscience meeting.

Long, N. M., Kahana, M. J. (November, 2013) Neural correlates of memory encoding as a function of practice. Poster presented at the 43rd Society for Neuroscience meeting.

Long, N. M., Kahana, M. J. (October, 2012) The neural correlates of temporal and semantic clustering during retrieval. Poster presented at the 42nd Society for Neuroscience meeting.

Long, N. M., Kahana, M. J. (April, 2012) The encoding and retrieval neural mechanisms supporting temporal and semantic clustering in free recall. Poster presented at the 19th Cognitive Neuroscience Society meeting.

Long, N. M., Miller, J. F., Sederberg, P. B., Kahana, M. J. (November, 2011) Neural correlates of temporal and semantic clustering in free recall. Poster presented at the 41st Society for Neuroscience meeting.

Long, N. M., Miller, J. F., Sederberg, P. B., Kahana, M. J. (May, 2011) Neural correlates of temporal and semantic clustering in free recall. Poster presented at Context and Episodic Memory Symposium.

Long, N. M., Doll, B. B., Frank, M. J., Badre, D. (March, 2010). The neurocomputational mechanisms of exploratory and exploitative behavior. Poster presented at the 17th Cognitive Neuroscience Society meeting.

Long, N. M., Öztekin, I., Badre, D. (October, 2009). An fMRI investigation of the neural mechanisms that support free recall. Poster presented at the 39th Society for Neuroscience meeting.

Lebrecht, S.F., Pagliaccio, D., **Long, N. M.**, Badre, D. (October, 2009). Ventrolateral prefrontal cortex contributions to rule-guided memory retrieval. Poster presented at the 39th Society for Neuroscience meeting.

Öztekin, I., **Long, N. M.**, and Badre, D. (March, 2009). Distinguishing events during free recall with fMRI. Poster presented at the 16th Cognitive Neuroscience Society meeting.

Long, N. M., and Badre, D. (March, 2009). Testing hierarchical interactions in frontal cortex during cognitive control. Poster presented at the 16th Cognitive Neuroscience Society meeting.

Professional Memberships

Psychonomic Society
Society for Experimental Psychology and Cognitive Science
Society for Neuroscience