Nicole M. Long, Ph.D. September 2017
University of Oregon
Department of Psychology
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## Education

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

## Academic Positions and Research Experience

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

## Teaching Experience

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

## Honors and Awards

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| 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 |

## Professional Memberships

Society for Neuroscience

# 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*. In preparation.

**Long, N. M.** and Kuhl, B. A. Bottom-up and top-down attention differentially influence stimulus representations across large-scale brain networks. Submitted.

## Refereed Journal Articles

**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, 1-6

**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. (2017). 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 presentations

**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.**, 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.

**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.

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.

**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.

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.