Alexa Tompary

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Academic History

2023 – present	**Drexel University** Assistant Professor Department of Psychological and Brain Sciences
2017 – 2023	**University of Pennsylvania** Post-Doctoral Fellow Advisor: Sharon Thompson-Schill
2012 – 2017	**New York University** Ph.D., Psychology Advisor: Lila Davachi
2010 – 2012	**Princeton University** Research Specialist/Lab Manager Advisor: Nicholas Turk-Browne
2006 – 2010	**University of Chicago** B.A., Psychology Thesis advisor: Jean Decety

Research Grants

2023 – 2026	NIH R00 MH126427 BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity, *Disentangling hippocampal and cortical contributions to episodic memory* Total: $733,905 Role: PI
2021 – 2023	NIH K99 MH126427, BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity, *Disentangling hippocampal and cortical contributions to episodic memory* Total: $105,815 Role: PI Co-Sponsors: Sharon Thompson-Schill, Anna Schapiro
2019 – 2020	NIH F32 NS108511, National Research Service Award, *Semantic contributions to episodic memory* Total: $72,234 Role: PI Co-Sponsors: Sharon Thompson-Schill, H. Branch Coslett

2015 – 2016   Pilot Research Grant, NYU Center for Brain Imaging, *Stress and associative memory throughout the memory cycle*
Total: $15,000
Role: Co-PI (with Elizabeth Goldfarb)
Co-Sponsors: Lila Davachi, Elizabeth Phelps

Manuscripts in Preparation

Tompary A & Davachi L (2022) Consolidation-dependent behavioral integration of sequences related to mPFC neural overlap and hippocampal-cortical connectivity. *BioRxiv*

Tompary A, Xia A, Thompson-Schill SL (2022) Disruption of anterior temporal lobe reduces distortions in memory from category knowledge. *BioRxiv*

Peer-Reviewed Publications

Houser TM, **Tompary A**, Murty VP (2022) Agency enhances temporal order memory in an interactive exploration game. *Psychon Bull Rev.*

Zeng T, **Tompary A**, Schapiro AC, Thompson-Schill SL (2021) Tracking the relation between gist and item memory over the course of long-term memory consolidation. *eLife.*

Callaghan B, Gasser C, Silvers J, Vantieghem M, Choy T, O'Sullivan K, **Tompary A**, Davachi L, Tottenham N (2021) Age-related increases in posterior hippocampal granularity are associated with remote detailed episodic memory in development. *J Neurosci* 41, 1738-1754.

Tompary A & Thompson-Schill SL (2021) Semantic influences on memory distortions. *Journal of Experimental Psychology: General* 150, 1800-1824.

Tompary A, Zhou W, Davachi L (2020) Schematic memories develop quickly, but are not expressed unless necessary. *Scientific Reports* 10, 16968.

Goldfarb EV, **Tompary A**, Davachi L, Phelps EA (2018) Acute stress throughout the memory cycle: Diverging effects on associative and item memory. *Journal of Experimental Psychology: General* 148, 13-19.

Tompary A, Al-Aidroos N, Turk-Browne NB (2018) Attending to what and where: Background connectivity integrates category-based and spatial attention. *Journal of Cognitive Neuroscience* 14, 1281-97.

Bein O, Reggev N, **Tompary A** (2018) Working with schemas, predicting with schemas. *Journal of Neuroscience* 38, 1608-10.

FeldmanHall O, Dunsmoor J, **Tompary A**, Hunter LE, Lackovic SF, Todorov A, Phelps EA (2018) Stimulus generalization as a mechanism for learning to trust. *PNAS* 7, E1690-E1697.

Tompary A & Davachi L (2017) Consolidation promotes the emergence of representational overlap in the hippocampus and medial prefrontal cortex. *Neuron* 96, 228-241.e5*.*

Murty VP, **Tompary A**, Adcock RA, Davachi L (2017) Selectivity in post-encoding connectivity with high-level visual cortex is associated with reward-motivated memory. *Journal of Neuroscience* 37, 537-45.

Danker J, **Tompary A**, Davachi L (2017) Trial-by-trial hippocampal encoding activation predicts the fidelity of cortical reinstatement during subsequent retrieval. *Cerebral Cortex* 7, 3515-3524.

Córdova NI, **Tompary A**, Turk-Browne NB (2016) Attentional modulation of background connectivity between ventral visual cortex and the medial temporal lobe. *Neurobiology of Learning & Memory* 134 Pt A, 155-22.

Tompary A, Duncan K, Davachi L (2016) High-resolution investigation of memory-specific reinstatement in the hippocampus and perirhinal cortex. *Hippocampus* 26, 995-1007.

Tompary A*, Duncan K*, Davachi L (2015) Consolidation of associative and item memory is related to post-encoding functional connectivity between the ventral tegmental area and different medial temporal lobe subregions during an unrelated task. *Journal of Neuroscience* 35, 7326-31.

Yushkevich PA, Amaral RSC, … **Tompary A** … for the Hippocampal Subfields Group (2015) Quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal cortical subregions in *In Vivo* MRI: Towards developing a harmonized segmentation protocol. *NeuroImage* 111, 526-41.

Duncan K*, **Tompary A***, Davachi L (2014) Associative encoding and retrieval are predicted by functional connectivity in distinct hippocampal area CA1 pathways. *Journal of Neuroscience* 34, 11188–98.

* Denotes equal contribution

Peer-Reviewed Conference Proceedings

Zeng T, **Tompary A**, Schapiro AC, Thompson-Schill SL (2020) The relation between gist and item memory over a month. *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Tompary A & Thompson-Schill SL (2019) Semantic influences on episodic memory distortions. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society.* Austin, TX: Cognitive Science Society.

Honors and Awards

2021	*Cermak-Corkin Award*, Memory Disorders Research Society
2016	*Fellowship,* Kavli Summer Institute in Cognitive Neuroscience
2012	*Graduate Research Fellowship*, National Science Foundation
2008	*Metcalf Fellowship*, University of Chicago

Mentoring Experience at Drexel

Sep 2023 – present	Devayani Joshi	ACBS graduate student
Aug 2023 – present	Kate Cliver	ACBS graduate student
Aug 2023 – present	Ryan O'Donnell	Postdoctoral researcher
Aug 2023 – present	Weijia Cao	Research specialist/lab manager
Mar 2023 – present	Riya Raina	High school volunteer

Prior Mentoring Experience

Sep 2022 – May 2023	Chloe Katz	Undergraduate research assistant
Sep 2020 – Jun 2023	Vanessa Ewing	Undergraduate research assistant
Jan 2020 – Sep 2020	Margaret Cheng	Undergraduate research assistant
Jan 2019 – May 2019	Hye In Kim	Masters student
Jun 2018 – Aug 2019	Zoe Schwingel-Sauer	Undergraduate research assistant
Dec 2015 – Sep 2017	WenXi Zhou	Masters student
Jun 2015 – Sep 2015	Max Bluestone	Undergraduate research assistant
Jan 2014 – Dec 2014	Yuri Jiao	Undergraduate research assistant
Jun 2014 – Aug 2014	Kevin Dowling	Undergraduate research assistant

Teaching Experience at Drexel

* Course evaluations are on a 1-5 scale, with 1 = least satisfied and 5 = most satisfied

Course	Term/Year	# Enrolled	Course Evaluation	Instructor Evaluation
PSY463: Memory	Spring 2023	17	4.18	4.91
PSY512: Cognitive Psychology	Fall 2023	25	TBD	TBD

Prior Teaching Experience

2020	*Guest Lecturer,* Neuromodulation of Learning and Memory, Temple University
2018	*Guest Lecturer*, Psychology Brownbag, Rutgers-Camden
2013	*Teaching Assistant*, Cognitive Neuroscience, NYU

Invited Talks

Department of Psychology Colloquium, Rutgers-Newark, February 2023
Neuroscience Seminar Series, Temple University, November 2022
Language and Brain Talk Series, University of Florida, October 2021 (virtual)
Center for Lifespan Psychology, Max Planck Institute for Human Development,
    April 2021 (virtual)

Cognitive Psychology Forum, UCLA, March 2021 (virtual)
Ebbinghaus Empire Meeting, University of Toronto, September 2019
Psychology Department, New York University, December 2019

Service

Panel speaker, Princeton Workshop: How to write a teaching statement, 2023
Panel speaker, BPP/ BPC CET Virtual Event: Roadmap for a successful K99, 2022
Mentor, mindCORE Step-Ahead Mentorship Program, 2020 – 2022
Co-organizer, Manhattan Area Memory Meeting, 2016
Exhibitor, Science & Engineering Expo, The School at Columbia University, 2016
Judge, Master of Arts Research Poster Conference, NYU, 2014 – 2016
Judge, New York City Science and Engineering Fair, 2014
Ad hoc reviewer, Cognition, Psychonomic Bulletin & Review, Psychological Reports,
Journal of Neuroscience, Cerebral Cortex, Cortex, Behavioral Neuroscience

Graduate Coursework

Fall 2015	fMRI Pattern Analysis
Fall 2013	Learning & Memory
January 2013	Neuroanatomy
Spring 2013	Functional Magnetic Resonance Imaging Lab; Behavioral & Cognitive Neuroscience; Seminar in Perception
Fall 2012	Math Tools for Neural and Cognitive Science; Memory Reactivation

Conference Presentations

Tompary A, Clements A, Thompson-Schill SL (November 2023) A neural basis of distortions in episodic memories due to semantic knowledge. Talk to given at *Society for Neuroscience*, Washington, DC.

Tompary A, Clements A, Thompson-Schill SL (May 2023) A neural basis of distortions in episodic memories due to semantic knowledge. Poster presented at the *9th Annual BRAIN Initiative Meeting*, Washington, DC.

Tompary A, Clements A, Thompson-Schill SL (April 2023) A neural basis of distortions in episodic memories due to semantic knowledge. Poster presented at the *2023 International Conference on Learning and Memory*, Huntington Beach, CA.

Tompary A, Xia A, Coslett HB, Thompson-Schill SL (April 2022) Disruption of anterior temporal lobe reduces distortions in memory from category knowledge. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Tompary A, Xia A, Coslett HB, Thompson-Schill SL (March 2022) Disruption of anterior temporal lobe reduces distortions in memory from category knowledge. Talk to be given at the *37th Annual Mahoney Institute for Neurosciences Symposium*, Philadelphia, PA.

Tompary A & Thompson-Schill SL (Nov 2021) Recent experiences shift concept knowledge. Talk to be given at *Psychonomic Society 62nd Annual Meeting,* virtual.

Tompary A & Thompson-Schill SL (Oct 2021) A causal role for the anterior temporal lobe in memory distortion. Talk to be given at *Memory Disorders Research Society*, virtual.

Tompary A, Smith C, Thompson-Schill SL (Mar 2021) Neural sensitivity to low- and high-level context-dependent contingencies. Poster presented at *Cognitive Neuroscience Society*, virtual.

Tompary A, Thompson-Schill SL (Mar 2020) Semantic knowledge distorts episodic memory: Behavioral and neural investigations. Talk given at *Cognitive Neuroscience Society*, Boston, MA.

Tompary A, Xia A, Thompson-Schill SL (Oct 2019) Semantic knowledge distorts episodic memory: Behavioral and neural investigations. Poster presented at *Society for Neuroscience*, Chicago, IL.

Callaghan BL, Gasser C, Silvers J, VanTieghem M, Fields A, Choy T, Bloom P, Harmon C, **Tompary A**, Davachi L, Tottenham N (Oct 2019) Hippocampal multivoxel encoding signatures predict long-term memory across middle childhood and adolescence in humans. Talk given at *Flux Congress,* New York City, NY.

Tompary A & Thompson-Schill SL (July 2019) Semantic influences on episodic memory distortions. Talk given at the *41st Annual Meeting of the Cognitive Science Society,* Montreal, Canada.

Kennett Y, **Tompary A** & Thompson-Schill SL (July 2019) How the organization of autobiographical memories changes over time. Poster presented at the *41st Annual Meeting of the Cognitive Science Society,* Montreal, Canada.

Tompary A & Thompson-Schill SL (May 2019) Quantifying semantic influences on distortions in episodic memory. Poster presented at *Context and Episodic Memory Symposium,* Philadelphia, PA.

Tompary A & Thompson-Schill SL (Mar 2019) Semantic influences on episodic memory distortions. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Gasser C, **Tompary A**, Davachi L (Mar 2019) How memory reinstatement changes over time. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Tompary A & Thompson-Schill SL (May 2018) Semantic influences on memory distortions. Poster presented at the *15th Annual Concepts, Actions, and Objects Conference*, Rovereto, Italy.

Tompary A & Davachi L (May 2017) Using sequence learning to investigate the restructuring of related memories over time. Talk given at *Context and Episodic Memory Symposium,* Philadelphia, PA.

Tompary A, Goldfarb EV, Phelps EA, Davachi L (Apr 2017) How does the timing of acute stress modulate hippocampal connectivity following associative encoding? Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Goldfarb EV, **Tompary A**, Zhou W, Davachi L, Phelps EA (Apr 2017) Influence of acute stress throughout the memory cycle on associative memory. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Tompary A & Davachi L (Nov 2016) Time-dependent restructuring of memory representations strengthens associations between overlapping memories. Poster presented at *Society for Neuroscience*, San Diego, CA.

Tompary A & Davachi L (May 2016) Shared representations for overlapping memories emerge with time, despite pattern separation at encoding. Talk given at *Manhattan Area Memory Meeting,* New York, NY.

Tompary A & Davachi L (May 2016) The emergence of structured memory representations over time. Talk given at *Context and Episodic Memory Symposium,* Philadelphia, PA.

Tompary A & Davachi L (Apr 2016) Associative memories benefit from distinctiveness at encoding, while feature-based integration emerges over time. Poster presented at *Cognitive Neuroscience Society*, New York, NY.

Reggev N, **Tompary A**, Yakoby A, Bein O, Davachi L, Maril A (Apr 2016) Schema-consistency modulates post-encoding neural connectivity in the hippocampus and cortical regions. Poster presented at *Cognitive Neuroscience Society*, New York, NY.

Tompary A & Davachi L (Oct 2015) How does consolidation influence neural and behavioral integration? Poster presented at *Society for Neuroscience*, Chicago, IL.

Murty VP, **Tompary A**, Zeng B, Wang J, Goff DC, Davachi L (Oct 2015) First-episode schizophrenia is associated with disrupted network connectivity across separable hippocampal sub-systems. Poster presented at *Society for Neuroscience*, Chicago, IL.

Tompary A & Davachi L (May 2015) Feature-based integration of associative memories emerges with time. Talk given at *Manhattan Area Memory Meeting,* Princeton, NJ.

Tompary A & Davachi L (Mar 2015) Consolidation-dependent changes in associative memory representations. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Tompary A, Duncan K, Davachi L (Nov 2013) High-resolution investigation of trial-level and state-level similarity in hippocampal subfields and MTL cortex. Poster presented at *Society for Neuroscience*, San Diego, CA.

Córdova NI, **Tompary A**, Turk-Browne NB (Nov 2013) Attention modulates background connectivity between ventral visual cortex and the medial temporal lobe. Poster presented at *Society for Neuroscience*, San Diego, CA.

Jackson-Hanen VE, **Tompary A**, deBettencourt MT, Turk-Browne NB (Nov 2013) Training of category selectivity through real-time fMRI neurofeedback. Poster presented at *Society for Neuroscience*, San Diego, CA.

Al-Aidroos N, **Tompary A**, Turk-Browne NB (May 2013) Attending to what and where: Background connectivity integrates category-based and spatial attention. Talk given at *Vision Sciences Society*, Naples, FL.

Tompary A, Duncan K, Davachi L (May 2013) What counts as 'rest'? Low-frequency correlations within the medial temporal lobe during an unrelated task predict memory. Poster presented at *Cognitive Neuroscience Society,* San Francisco, CA.

Tompary A, Al-Aidroos N, Turk-Browne NB (Oct 2012) Modulation of background connectivity in human visual cortex by spatial attention. Poster presented at *Society for Neuroscience*, New Orleans, LA.