Serra E. Favila

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EDUCATION

2019	Ph.D.	New York University	Cognition and Perception
2011	B.A.	Stanford University	Human Biology, with Distinction and Honors

RESEARCH TRAINING

2019–	Postdoctoral Scientist	Department of Psychology, Columbia University PI: Mariam Aly and Joshua Jacobs
2013–2019	Graduate Researcher	Department of Psychology, New York University PI: Brice Kuhl and Jonathan Winawer
2011–2013	Research Assistant	Department of Psychology, Stanford University PI: Anthony Wagner

FUNDED RESEARCH

2019–2023 **NIH Blueprint Diversity (D–SPAN) K00 Award | NEI**
K00 EY031607 – *Neural mechanisms for memory-guided visual behavior in humans*
$272,400 total direct costs approved

2017–2019 **NIH Blueprint Diversity (D–SPAN) F99 Award | NINDS**
F99 NS105223 – *Spatiotemporal dynamics of episodic memory retrieval*
$73,050 total direct costs awarded

2013–2016 **NSF Graduate Research Fellowship**

AWARDS AND HONORS

2016 NIH NEI Visual Neuroscience Traineeship T32 EY007136
2014 Dean's Student Travel Grant, New York University
2013 Opportunity Fellowship, New York University
2011 Joshua Lederberg Award for Academic Excellence in Human Biology, Stanford University
2011 Chicano/Latino Community Scholar Prize for Academic Excellence, Stanford University
2010 Undergraduate Advising and Research Major Grant, Stanford University
2007 National Merit Scholar

PUBLICATIONS

Favila SE, Samide R, Sweigart SC, & Kuhl BA (2018). Parietal representations of stimulus features are amplified during memory retrieval and flexibly aligned with top-down goals. *Journal of Neuroscience*, 38, 7809–7821.

Carr VA, Bernstein JD, **Favila SE**, Rutt BK, Kerchner GA, & Wagner AD (2017). Individual differences in associative memory among older adults explained by hippocampal subfield structure and function. *Proceedings of the National Academy of Sciences, USA*, 114, 12075–12080.

Chanales AJH, Oza A, **Favila SE**, & Kuhl BA (2017). Overlap among spatial memories triggers repulsion of hippocampal representations. *Current Biology*, 27, 2307–2317.e5.

Brown TI, Carr VA, LaRocque KF, **Favila SE**, Gordon AM, Bowles B, Bailenson JN, & Wagner AD (2016). Prospective representation of navigational goals in the human hippocampus. *Science*, 352, 1323–1326.

Favila SE, Chanales AJH, & Kuhl BA (2016). Experience-dependent hippocampal pattern differentiation prevents interference during subsequent learning. *Nature Communications*, 7, 11066.

Favila SE & Kuhl BA (2014). Stimulating memory consolidation. *Nature Neuroscience (News and Views)*, 17, 151–152.

PREPRINTS

Favila SE, Kuhl BA, & Winawer J (2019). Spatial perception and memory have distinct activation profiles in human visual cortex. *bioRxiv*, 811331.

CONFERENCE PRESENTATIONS

Favila SE & Winawer J (2019). Incidental spatial encoding in human visual memory. Poster presented at *Society for Neuroscience*, Chicago, IL.

Guo W, Kim G, **Favila SE**, & Kuhl BA (2019). Repulsion of competing hippocampal representations parallels learning-related reductions in memory interference. Poster presented at *Society for Neuroscience*, Chicago, IL.

Favila SE, Kuhl BA, & Winawer J (2019). Long-term spatial memory representations in human visual cortex. Talk presented at *Vision Sciences Society*, St Pete Beach, FL.

Favila SE, Kuhl BA, & Winawer J (2018). Neural encoding of spatial information during visual perception and memory retrieval. Poster presented at *Society for Neuroscience*, San Diego, CA.

Long NM, **Favila SE**, & Kuhl BA (2018). The cortical locus of stimulus representations is influenced by the state of the memory system. Poster presented at *Society for Neuroscience*, San Diego, CA.

Wang S-F, Carr VA, **Favila SE**, Bailenson JN, Brown TI, Jiang J, & Wagner AD (2018). Representations of local information in human medial temporal lobe during memory-guided spatial navigation. Poster presented at *International Conference on Learning & Memory*, Huntington Beach, CA.

Favila SE, Long NM, & Kuhl BA (2016). Stimulus-specific memory representations in lateral parietal cortex. Poster presented at *Society for Neuroscience*, San Diego, CA.

Chanales AJH, **Favila SE**, & Kuhl BA (2016). Overlap between real-world spatial routes triggers divergence of their hippocampal representations. Talk presented at *Society for Neuroscience*, San Diego, CA.

Brown TI, LaRocque KF, Carr VA, **Favila SE**, Gordon AM, Bowles B, Bailenson JN, & Wagner AD (2016). Mechanisms of prospective navigation in the human brain. Talk presented at *Society for Neuroscience*, San Diego, CA.

Wang S-F, Carr VA, **Favila SE**, Bailenson JN, & Wagner AD (2016). Functional connectivity in the human medial temporal lobe during memory-guided spatial navigation. Poster presented at *Society for Neuroscience*, San Diego, CA.

Favila SE, Samide R, & Kuhl BA (2016). Distributed cortical representations of visual features and items in perception and memory. Poster presented at *Cognitive Neuroscience Society*, New York, NY.

Favila SE, Samide R, & Kuhl, BA (2015). Distributed cortical representations of visual features in perception and memory. Poster presented at *Society for Neuroscience*, Chicago, IL.

Brown TI, LaRocque KF, **Favila SE**, Carr VA, Gordon AM, Bowles B, & Wagner AD (2015). Prospective representation of navigational events in the human hippocampus. Poster presented at *Society for Neuroscience*, Chicago, IL.

Favila SE, Chanales AJH, & Kuhl BA (2015). Hippocampal pattern separation is tuned by experience for the benefit of future learning. Talk presented at *Manhattan Area Memory Meeting*, Princeton, NJ.

Brown TI, LaRocque KF, **Favila SE**, Carr VA, Gordon AM, Bowles B, & Wagner AD (2015). Prospective representation of navigational goals in the human MTL. Poster presented at *Cognitive Neuroscience Society*, San Francisco, CA.

Favila SE, Chanales AJH, & Kuhl BA (2014). High discrimination demands reduce interference during later learning. Poster presented at *Society for Neuroscience*, Washington, DC.

Carr VA, Bernstein JD, **Favila SE**, Wagner AD, & Kerchner GA (2013). Individual differences in associative memory among older adults predicted by high-resolution MRI metrics of hippocampal structure and function. Talk presented at *Society for Neuroscience*, San Diego, CA.

Carr VA, Bernstein JD, **Favila SE**, Wagner AD, & Kerchner GA (2013). High-resolution imaging of medial temporal lobe subfield structure and function in Mild Cognitive Impairment. Poster presented at *Alzheimer's Association International Conference*, Boston, MA.

Carr VA, **Favila SE**, Arena D, Bailenson JN, & Wagner AD (2012). Modulation of medial temporal lobe activity by reward value during virtual navigation: A high-resolution fMRI study. Talk presented at *Society for Neuroscience*, New Orleans, LA.

Carr VA, **Favila SE**, Bernstein JD, Wagner AD, & Kerchner GA (2012). Successful associative memory formation and retrieval in healthy older adults is associated with hippocampal subfield activation. Poster presented at *Alzheimer's Association International Conference*, Vancover, BC.

Carr VA, **Favila SE**, & Wagner AD (2010). High-resolution investigation of relational pattern separation in the medial temporal lobe using a rapid fMR-adaptation approach. Poster presented at *Society for Neuroscience*, San Diego, CA.

Carr, VA, **Favila SE**, & Wagner AD (2010). High-resolution fMRI of relational pattern separation in the human medial temporal lobe. Poster presented at *Cognitive Neuroscience Society*, Montreal, QC.

INVITED TALKS

Dec 2018	Columbia University	Memory, Attention, & Navigation Meeting
Dec 2018	Yale University	Visual Cognitive Neuroscience Lab Meeting

TEACHING

Fall 2016	Teaching Assistant	Cognitive Neuroscience (NYU PSYCH–UA 25)
Fall 2015	Teaching Assistant	Perception (NYU PSYCH–UA 22)

SERVICE AND OUTREACH

2019	MRI lab tours for Intrepid Museum GOALS for Girls Summer Intensive
2017–2018	NYU Graduate School of Arts and Sciences Mentorship Program
2008–2011	Palo Alto Unified School District Achievement Gap Tutor

PROFESSIONAL SOCIETIES

2018–	Vision Sciences Society
2013–	Cognitive Neuroscience Society
2010–	Society for Neuroscience

REVIEWING

Cerebral Cortex | *eLife* | *Journal of Cognitive Neuroscience*