

Sarah Hennessy, Ph.D.

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TRAINING

University of Arizona <i>Postdoctoral Fellow</i> Advisors: Dr. Jessica Andrews-Hanna, Dr. Matthew Grilli	2024-present
University of Southern California <i>Ph.D., Psychology, M.A., Psychology</i> Emphasis: <i>Brain and Cognitive Sciences</i> Advisors: Dr. Assal Habibi, Dr. Antonio Damasio Dissertation: <i>Behavioral and Neural Correlates of Music-Evoked Nostalgia Across the Lifespan</i>	2019-2024
Occidental College <i>B.A., Psychology (Honors); Minor: Ethnomusicology</i> <i>Magna cum laude, Departmental Distinction</i> Advisor: Dr. Anne Schell	2013-2017

FUNDING

NIH/NIA Music & Dementia Research Network Pilot Research Award (U24AG084436): "Neural Mechanisms Supporting Music-Evoked Nostalgia in Mild Cognitive Impairment." Award: \$50,000 <i>Co-Investigator</i>	2025
Arizona Alzheimer's Consortium Pilot Research Funding Award: "Examining autobiographical memory integration in older adults: social functions and neural dynamics." Award: \$24,127 <i>Co-Investigator</i>	2025
National Institute on Deafness and Other Communication Disorders Pre-Doctoral Fellowship Hearing and Communication Neuroscience (T32 DC009975): "Neural Correlates of Music-Evoked Nostalgia Across the Lifespan." Award: \$27,144 <i>Pre-Doctoral Trainee</i>	2023-2024
USC Graduate School Summer Research and Writing Grant Award: \$2,000	2023
Gold Family Fellowship: "Music-evoked autobiographical memories in older adults from underrepresented communities" <i>Principal Investigator</i> Award: \$5,000	2023
SEMPRE 50th Anniversary Research Award: "Music-evoked autobiographical memories in older adults from underrepresented communities." <i>Principal Investigator</i>	2022

Award: \$16,000

GRAMMY Museum Scientific Research Grant: “Music-evoked nostalgia and associated neural correlates across the lifespan.” 2022
Principal Investigator
Award: \$20,000

USC Department of Psychology Doctoral Research Grant Award: “Music-evoked autobiographical memories in older adults from underrepresented communities.” 2022
Principal Investigator
Award: \$1000

USC Department of Psychology Doctoral Research Grant Award: “Using machine learning methods to predict music-evoked nostalgia.” 2021
Principal Investigator
Award: \$3250

Dornsife PhD Academy Research and Travel Award 2021-2023
Award: \$1500

USC Psychology Research Continuity Award (\$1000): “Music and emotion regulation during the COVID-19 pandemic.” 2020
Principal Investigator
Award: \$1000

USC Psychology Department Travel Award 2020-2021
Award: \$2000

USC Fellowship Bootcamp Award 2019, 2021
Trainee
Award: \$2000

PUBLICATIONS

* = trainee author (undergraduate student)

Klus, J., Cohen, D., Garcia, A., **Hennessy, S.**, Mehl, M., Andrews-Hanna, J., Grilli, M., (2025). Modeling memories, predicting prospections: automated scoring of autobiographical detail narration using large language models. *Behavior Research Methods*.

Hennessy, S. & Habibi, A., (2025). Content of nostalgic music-evoked autobiographical memories. *Psychology of Aesthetics, Creativity, and the Arts*.

Hennessy, S., Kaplan, J., Ginsberg, T.*, Janata, P., Habibi, A., (2025). Music-evoked nostalgia activates default mode and reward networks across the lifespan. *Human Brain Mapping*.

Hennessy, S., Greer, T., Narayanan, S., Habibi, A., (2024). Unique affective profile of nostalgic music: An extension and conceptual replication of Barrett et al., 2010. *Emotion*.

- Hennessy, S.,** Herschel, E., Goldsworthy, R., Cahn, R., Habibi, A. (2022). Effects of online choir or mindfulness interventions on auditory perception and well-being in middle- and older-aged adults during the COVID-19 pandemic: a randomized controlled trial. *Music and Science*.
- Hennessy, S.,** Mack, W. J., & Habibi, A. (2022). Speech-in-noise perception in musicians and non-musicians: a multi-level meta-analysis. *Hearing Research*, 108442.
- Hennessy, S.,** Sachs, M., Kaplan, J., & Habibi, A. (2021). Music and mood regulation during the early-stages of the COVID-19 pandemic. *PLOS One*.
- Hennessy, S.,** Wood, A., Wilcox, R., & Habibi, A. (2021). Neurophysiological improvements in speech-in-noise task after short-term choir training in older adults. *Aging*.
- Hennessy, S.,** Sachs, M., Ilari, B., & Habibi, A. (2019). Effects of Music Training on Inhibitory Control and Associated Neural Networks in School-Aged Children: A Longitudinal Study. *Frontiers in Neuroscience: Auditory Cognitive Neuroscience*.

PUBLICATIONS UNDER REVIEW AND IN PREPARATION

- Hennessy, S.,** Andrews-Hanna, J., Grilli, M., (*under review*). The advantages of aging: greater stability of self-representation in older adults linked to higher well-being.
- Herschel, E., Bell, S., **Hennessy, S.,** Habibi, A., (*under review*). Soundscape of the mind: feasibility and therapeutic impact of music and audiobooks for older adults with cognitive impairment.
- Hennessy, S.,** Greer, T., Habibi, A., Narayanan, S., (*under review*). What Makes Music Nostalgic? A validation of a music recommendation tool.
- Papadopoulos, J., Nowlen, F., **Hennessy, S.,** Herschel, E., Habibi, A., Goldsworthy, R., (*under review*). Relationships between short term choir participation, well-being, and singing abilities of adult cochlear implant users.
- Hennessy, S.,** Kaplan, J., Habibi, A., (*in preparation*). “We read the news today, oh boy”: Intersubject neural synchronization during a shared nostalgic music listening experience.
- Hennessy, S.,** Ishak, M.*, Noel, C.*, Habibi, A., (*in preparation*). Music-evoked nostalgia and autobiographical memory in BIPOC older adults.

PRESENTATIONS

* = trainee author (undergraduate student)

- Pluimer, B., Sridhar, A., Mawla, I., **Hennessy, S.,** Ichescio, E., Iyer, R., Kairys, A., Lulla, R., Wu, H., Harris, R., (June 2025). Evaluating AI-powered Assessments of Neuroimaging Research. Poster presentation at Organization for Human Brain Mapping in Brisbane, Australia.
- Ishak, M.*, **Hennessy S.,** Habibi, A., (July 2024). Exploring the Role of Lyrics in Shaping Emotional Responses to Music. Poster presentation at Society for Music Perception and Cognition, Banff, AB.

Ginsburg, T*, **Hennessy S.**, Habibi, A., (July, 2024). Age-related changes in neural activation associated with semantic details of music-evoked autobiographical memories. Symposium talk presentation at Society for Music Perception and Cognition, Banff, AB.

Hennessy, S., Janata, P., Ginsberg, T., Kaplan, J., Habibi, A., (June 2024). Neural correlates of music-evoked nostalgia across the lifespan. Poster presentation at Neurosciences of Music, Helsinki, Finland.

Hennessy, S., Janata, P., Habibi, A., (October 2023). Neural correlates of music-evoked nostalgia across the lifespan. Poster presentation at NeuroMusic, Hamilton, ON.

Hennessy, S., Mack, W. J., & Habibi, A. (August 2022). Speech-in-noise perception in musicians and non-musicians: a multi-level meta-analysis. Post presentation Society for Music Perception and Cognition, Portland, OR.

Hennessy, S., Wood, A., Wilcox, R., & Habibi, A., (November 2021). *Short-Term Music Training on Auditory Processing in Older Adults*. Poster presentation at Society for Neuroscience (virtual).

Hennessy, S., Wood, A., & Habibi, A., (June 2021). *Short-Term Music Training on Auditory Processing in Older Adults*. Poster presentation at Neuroscience and Music VII: Connecting with music across the lifespan, Aarhus, Denmark (virtual).

Hennessy, S., Sachs, M., Ilari, B., & Habibi, A., (September 2019). *Effects of Music Training on Inhibitory Control and Associated Neural Networks in School-Aged Children: A Longitudinal Study*. Symposium presentation at the Society for Music Perception and Cognition, New York City, NY.

Hennessy, S., Perez, P., & Habibi, A., (September 2018). *Longitudinal effects of music training on inhibitory control in school-aged children*. Poster presented at The International Mind, Brain, and Education Society, Los Angeles, CA.

Hennessy, S., & Schell, A. (October 2017). *Psychophysiological responses during music-induced nostalgia in younger and older adults*. Poster presented at Society for Psychophysiological Research Convention, Vienna, Austria.

Hennessy, S., & Schell, A. (May 2017). *Psychophysiological responses during music-induced nostalgia in younger and older adults*. Poster presented at the Psychology Undergraduate Research Conference of the University of California Los Angeles, Los Angeles, CA.

INVITED TALKS

"Introduction to R programming" 2024
University of Arizona, Neuroscience of Emotion and Thought Lab

"Music-evoked memory, and implications for healthy aging" 2023-2024
University of Southern California: Mind-Body Connection (PSYC 374)

"Music and Memory: Nostalgia and Health" 2022-2023
University of Southern California: Accelerated Summer Psychology Course

"Music-evoked Memory and Nostalgia" 2022
University of Southern California: Music, Mind, and Brain (PSYC 215)

"Confounds and Obscuring Variables" 2021

University of Southern California: Experimental Research Methods (PSYC 314)

"COVID-19 Vaccination: Myths and Facts" 2021

University of Southern California: Drugs, Behavior, and Society (PSYC 165)

"Music Training and Child Development" 2019

University of Southern California: Reporting and Writing (JOUR 206)

TEACHING

Training Completed 2025

AI and Teaching and Learning Faculty Learning Community

University of Arizona

Attended weekly workshops to gain skills in teaching students about AI, integrating AI into learning environments, and ethical use of AI.

Founder, Instructor 2022-2024

Brain and Music Lab Workshop Series

Monthly 2-hour workshops (e.g., R Programming, resume building, neuroanatomy, fMRI methods)

Teaching Assistant 2022

Music, Mind, and Brain, University of Southern California Department of Psychology

Mean overall rating: 3.8/4

Certification Received 2021

Center for Excellence in Teaching Future Faculty Training Institute

University of Southern California

Teaching Assistant 2021

Experimental Research Methods, University of Southern California Department of Psychology

Mean overall rating: 3.7/4

Teaching Assistant 2021

Course: *Drugs, Behavior, and Society*, University of Southern California Department of Psychology

Mean overall rating: 3.9/4

Teaching Assistant 2020

Introduction to Psychology, University of Southern California Department of Psychology

Mean overall rating: 3.9/4

MENTORSHIP

Brain and Music Lab Research Assistants 2017-2024

Trained, managed, and mentored over 80 undergraduate and masters-level researcher assistants. Led monthly workshops on statistical methods, research methods,

coding, post-baccalaureate career paths. Mentored independent projects and theses (see below).

Grace Lee, Neuroscience Honors, Undergraduate University of Southern California “Using Natural Language Processing to Identify Content Diversity in Nostalgic Music-evoked Narratives”	2024-
Aanya Agarwal, Cognitive Science Honors, Undergraduate University of Southern California “Priming in autobiographical narratives”	2024-
Mark Feng, Neuroscience Honors, Undergraduate University of Southern California “Bodily maps of nostalgia evoked by music”	2024-
Alisha Huang, Independent Research Project, Neuroscience University of Southern California “Culturally-tailored music therapy for older adults with dementia: a systematic literature review”	2024-
Michael Ishak, Independent Research Project University of Southern California “Exploring the Role of Lyrics in Shaping Emotional Responses to Music”	2024-
Ashley Melendres, Neuroscience Honors, Undergraduate University of Southern California “White Matter Predictors of Autobiographical Memory Recall from Music”	2024-
Kylie Meng-Lin, Neuroscience Honors, Undergraduate University of Southern California “Hippocampal Volume Predictors of Autobiographical Memory Recall from Music in Younger and Older adults”	2023-
Jasmine Shapiro, Athena Fong, Speech and Language Pathology Capstone, Masters University of Southern California Keck School of Medicine “Music and autobiographical memory in aging”	2024
Talia Ginsberg, Neuroscience Honors, Undergraduate University of Southern California “Age-related changes in neural activation associated with semantic details of music-evoked autobiographical memories”	2024
Edalyn Cayetano, Nona Hovhannisyan, Speech and Language Pathology Capstone, Masters University of Southern California Keck School of Medicine “Music-evoked Autobiographical Memories”	2023
Samhita Swamy, Neuroscience Honors, Undergraduate University of Southern California “Community Music Training and Neural Correlates of Emotional Well-being”	2019

INVITED PEER REVIEW

Scientific Reports
Psychological Science
Current Opinion in Behavioral Sciences
Emotion
European Journal of Personality
Psychology of Music
Frontiers in Psychology

HONORS & SCHOLARSHIPS

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| ○ Best Data Blitz Award, UofA Psychology Department (2024) | ○ Occidental College Departmental Distinction, Psychology (2017) |
| ○ <i>Excellence in Scientific Writing Award</i> , USC Psychology Department (2024) | ○ Occidental College Departmental Honors, Psychology (2017) |
| ○ University of Washington NeuroHackademy (2020) | ○ Occidental College InternAway Summer Funding (\$3000) (2016) |
| ○ USC Dornsife/ Graduate School Fellowship (2019-) | ○ Occidental College Dean's List (2014) |
| | ○ Occidental College Presidential Scholarship (\$20,000/yr) (2013- 2017) |

PRE-DOCTORAL RESEARCH POSITIONS

NIH T32 Pre-Doctoral Research Fellow <i>Hearing and Communication Neuroscience Program</i> University of Southern California; Fellowship Committee: Dr. Assal Habibi, Dr. Jonas Kaplan, Dr. Shrikanth Narayanan	2023-2024
Research Coordinator <i>Brain and Creativity Institute</i> University of Southern California; Supervisor: Dr. Assal Habibi	2017- 2019
Research Coordinator <i>Brain and Creativity Institute</i> University of Southern California; Supervisors: Dr. Assal Habibi, Dr. Beatriz Ilari, Dr. Matthew Sachs	2015- 2017
Research Assistant <i>Department of Psychology, Psychophysiology</i> Occidental College; Supervisor: Dr. Anne Schell	2017
Research Assistant <i>Department of Psychology, Thinking Lab</i> Occidental College; Supervisor: Dr. Andrew Shtulman	2016
Research Assistant <i>Department of Psychology, Cognitive Psychology</i> University of Alaska Anchorage; Supervisor: Dr. Yasuhiro Ozuru	2015
Research Assistant <i>Department of Psychology, Rat Lab</i> Occidental College; Supervisor: Dr. Nancy Dess	2015

INDUSTRY EXPERIENCE

Research and Data Science Intern <i>Rubato Life</i> Los Angeles, CA	2022-2023
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COMMUNITY OUTREACH AND SERVICE

Postdoctoral Committee Member Diversity, Equity, and Inclusion (DEI) Advocacy Committee University of Arizona Department of Psychology	2025-
High School Competition Judge <i>Southern Arizona Research, Science, and Engineering Foundation</i>	2025
High School Competition Judge <i>National STEM Challenge</i>	2023
High School Student Research Mentor <i>Polygence Inc.</i>	2023-
Personal Statement Editor <i>CAPTURE Increase Student Diversity Committee, University of Southern California</i>	2020-2024
PhD Application Mentor <i>Next Gen Scholars Program, University of Minnesota</i>	2020-2024
Lecture Series Organizer <i>Brain and Cognitive Sciences Area, USC Psychology</i>	2019-2022
Education and Public Outreach Volunteer <i>Alzheimer's Association, Southern California Southland Chapter</i>	2018-

RELEVANT SKILLS

Data Collection	EEG (Neuroscan, BrainVision), f/MRI (Seimens), skin conductance, heart rate, blood volume (Biopac), Qualtrics, RedCap
Imaging Analysis	Univariate functional analysis (FSL), functional connectivity, MVPA (pymvpa), ISC/ISFC (brainiak), voxel-based morphometry (FSL), mask tracing (BrainSuite), ERP analysis (EEGLab, erplab), DTI (BrainSuite, DSI Studio)
Statistics	R statistics, IBM SPSS, MSAccess, SASViya, Tableau, QuickSight
Programming	Python, MATLAB, PsychToolbox, SuperLab, SQL, NoSQL, MongoDB