

## Sarah Hennessy, Ph.D.

shennessy@arizona.edu | 907 792 9183 | sarahlouisehennessy.com

### TRAINING

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<b>University of Arizona</b> <i>Postdoctoral Fellow</i> Advisors: Dr. Jessica Andrews-Hanna, Dr. Matthew Grilli	2024-present
<b>University of Southern California</b> <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
<b>Occidental College</b> <i>B.A., Psychology (Honors); Minor: Ethnomusicology</i> <i>Magna cum laude, Departmental Distinction</i> Advisor: Dr. Anne Schell	2013-2017

### FUNDING

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<b>NIH/NIA Music &amp; Dementia Research Network Pilot Research Award (U24AG084436):</b> "Neural Mechanisms Supporting Music-Evoked Nostalgia in Mild Cognitive Impairment." Award: \$50,000 <i>Co-Investigator</i>	2025
<b>Arizona Alzheimer's Consortium Pilot Research Funding Award:</b> "Examining autobiographical memory integration in older adults: social functions and neural dynamics." Award: \$24,127 <i>Co-Investigator</i>	2025
<b>National Institute on Deafness and Other Communication Disorders Pre-Doctoral Fellowship Hearing and Communication Neuroscience (T32 DC009975):</b> "Neural Correlates of Music-Evoked Nostalgia Across the Lifespan." Award: \$27,144 <i>Pre-Doctoral Trainee</i>	2023-2024
<b>USC Graduate School Summer Research and Writing Grant</b> Award: \$2,000	2023
<b>Gold Family Fellowship:</b> "Music-evoked autobiographical memories in older adults from underrepresented communities" Award: \$5,000 <i>Principal Investigator</i>	2023
<b>SEMPRE 50th Anniversary Research Award:</b> "Music-evoked autobiographical memories in older adults from underrepresented communities." Award: \$16,000	2022

*Principal Investigator*

**GRAMMY Museum Scientific Research Grant:** “Music-evoked nostalgia and associated neural correlates across the lifespan.” 2022

Award: \$20,000

*Principal Investigator*

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

Award: \$1000

*Principal Investigator*

**USC Department of Psychology Doctoral Research Grant Award:** “Using machine learning methods to predict music-evoked nostalgia.” 2021

Award: \$3250

*Principal Investigator*

**Dornsife PhD Academy Research and Travel Award** 2021-2023

Award: \$1500

*Trainee*

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

Award: \$1000

*Principal Investigator*

**USC Psychology Department Travel Award** 2020-2021

Award: \$2000

*Trainee*

**USC Fellowship Bootcamp Award** 2019, 2021

Award: \$2000

*Trainee*

## **PUBLICATIONS**

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\* = trainee author (undergraduate student)

\*\* = trainee author (high school student)

12. Pluimer, B., Sridhar, A., Mawla, I., **Hennessey, S.**, Ichesco, E., Iyer, R., Kairys, A., Lulla, R., Wu, H., Harris, R., (*in press*). Evaluating AI-powered Assessments of Neuroimaging Research. *Neuroscience Informatics*.
11. Zhang, C\*\*. & **Hennessey, S.**, (*in press*). The efficacy of neurologic music therapy on children with cerebral palsy: a mini meta-analysis. *Journal of Emerging Investigators*.
10. **Hennessey, S.**, Andrews-Hanna, J. R., & Grilli, M. D. (2025). The Advantages of Aging: Greater Stability of Self-Representation in Older Adults is Linked to Higher Well-Being. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*. DOI: [10.1093/geronb/gbaf239](https://doi.org/10.1093/geronb/gbaf239)
9. Klus, J., Cohen, D., Garcia, A., **Hennessey, S.**, Mehl, M., Andrews-Hanna, J., Grilli, M., (2025). Modeling memories, predicting projections: automated scoring of autobiographical

detail narration using large language models. *Behavior Research Methods*. DOI: 10.3758/s13428-025-02767-3

8. **Hennessy, S.** & Habibi, A., (2025). Content of nostalgic music-evoked autobiographical memories. *Psychology of Aesthetics, Creativity, and the Arts*. DOI: 10.1037/aca0000777
7. **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*. DOI: 10.1002/hbm.70181
6. **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*. DOI: 10.1037/emo0001389
5. **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*. DOI: 10.1177/20592043221140524
4. **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. DOI: 10.1016/j.heares.2022.108442
3. **Hennessy, S.**, Sachs, M., Kaplan, J., & Habibi, A. (2021). Music and mood regulation during the early-stages of the COVID-19 pandemic. *PLOS One*. DOI: 10.1371/journal.pone.0258027
2. **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*. DOI: 10.18632/aging.202931
1. **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*. DOI: 10.3389/fnins.2019.01080

## **PUBLICATIONS UNDER REVIEW AND IN PREPARATION**

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\* = trainee author (undergraduate student)

Papadopoulos, J., Nowlen, F., **Hennessy, S.**, Herschel, E., Habibi, A., Goldsworthy, R., (accepted with minor revisions). Relationships between short-term choir participation, well-being, and singing abilities of adult cochlear implant users.

**Hennessy, S.**, Villanueva, J., Mack, W., Habibi, A. (under review). Exploring the role of music training in middle childhood and adolescence on executive function development: an investigation across four longitudinal and cross-sectional samples.

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.

**Hennessy, S.** and McKiddy, S., (under review). Which risks and benefits of musical memory evocation are ethically and clinically relevant?

**Hennessy, S.**, Kaplan, J., Habibi, A., (under review). Intersubject neural synchronization during a shared nostalgic music listening experience in older adults.

**Hennessy, S.**, Ishak, M.\*, Noel, C.\*, Habibi, A., (in preparation). Music-evoked nostalgia and autobiographical memory in BIPOC older adults. Preregistration: <https://aspredicted.org/3rg7-vzwc.pdf>

**Hennessy, S.**, Grilli, M., Andrews-Hanna, J. (in preparation). From Past to Present: Age-Related Differences in Memory Integration and Self-Continuity. Preregistration: <https://osf.io/es4t3/registrations>

Layous, K., **Hennessy, S.**, Wildschut, T., Sedikides, C., (in preparation). Memories, light the corners of my mind: Nostalgic music as a coping resource.

Melendres, A\*, Habibi, A., **Hennessy, S.**, (in preparation). White matter microstructure predictors of music-evoked autobiographical memories in younger and older adults.

## SOFTWARE/ TOOLS

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### SoundsLikeThis

[SoundsLikeThis.us](https://SoundsLikeThis.us)

Co-Creator (in collaboration with Timothy Greer, PhD, USC Viterbi School of Engineering)

A web-based music-matching tool that lets researchers precisely construct and validate music stimulus sets. Users input seed songs and generate matched playlists from Spotify's entire library using configurable audio features such as tempo, valence, and key. The platform integrates survey tools for stimulus evaluation and exports detailed feature data for reproducible analysis.

## PRESENTATIONS

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\* = trainee author (undergraduate student)

13. **Hennessy, S.**, Andrews-Hanna, J., Grilli, M., (September 2025). The advantages of aging: greater stability of self-representation in older adults linked to higher well-being. Symposium talk presentation at Arizona Alzheimer's Consortium. Phoenix, AZ.
12. Pluimer, B., Sridhar, A., Mawla, I., **Hennessy, S.**, Ichesco, 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.
11. 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.
10. 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.
9. **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.
8. **Hennessy, S.**, Janata, P., Habibi, A., (October 2023). Neural correlates of music-evoked nostalgia across the lifespan. Poster presentation at NeuroMusic, Hamilton, ON.
7. **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.
6. **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).
5. **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).
4. **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.
3. **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.
2. **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.

1. **Hennessey, 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

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<p>“When Music Meets Memory: Neural Pathways to Nostalgia”  <b>Occidental College:</b> Neuroscience of Music and Sound (COGS241)</p>	2025
<p>“Music in the Brain”  <b>University of Arizona:</b> Osher Lifelong Learning Institute</p>	2025
<p>“Introduction to R programming”  <b>University of Arizona:</b> Neuroscience of Emotion and Thought Lab</p>	2024
<p>“Music-evoked memory, and implications for healthy aging”  <b>University of Southern California:</b> Mind-Body Connection (PSYC 374)</p>	2023-2025
<p>“Music and Memory: Nostalgia and Health”  <b>University of Southern California:</b> Accelerated Summer Psychology Course</p>	2022-2023
<p>“Music-evoked Memory and Nostalgia”  <b>University of Southern California:</b> Music, Mind, and Brain (PSYC 215)</p>	2022
<p>“Confounds and Obscuring Variables”  <b>University of Southern California:</b> Experimental Research Methods (PSYC 314)</p>	2021
<p>“COVID-19 Vaccination: Myths and Facts”  <b>University of Southern California:</b> Drugs, Behavior, and Society (PSYC 165)</p>	2021
<p>“Music Training and Child Development”  <b>University of Southern California:</b> Reporting and Writing (JOUR 206)</p>	2019

## TEACHING

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<p><b>Training Completed</b>  <i>AI and Teaching and Learning Faculty Learning Community</i>  University of Arizona  Attended weekly workshops to gain skills in teaching students about AI, integrating AI into learning environments, and ethical use of AI.</p>	2025
<p><b>Founder, Instructor</b>  <i>Brain and Music Lab Workshop Series</i>  Monthly 2-hour workshops (e.g., R Programming, resume building, neuroanatomy, fMRI methods)</p>	2022-2024
<p><b>Teaching Assistant</b>  <i>Music, Mind, and Brain</i>, University of Southern California Department of Psychology  Mean overall rating: 3.8/4</p>	2022
<p><b>Certification Received</b>  Center for Excellence in Teaching Future Faculty Training Institute</p>	2021

University of Southern California

<b>Teaching Assistant</b> <i>Experimental Research Methods</i> , University of Southern California Department of Psychology Mean overall rating: 3.7/4	2021
<b>Teaching Assistant</b> Course: <i>Drugs, Behavior, and Society</i> , University of Southern California Department of Psychology Mean overall rating: 3.9/4	2021
<b>Teaching Assistant</b> <i>Introduction to Psychology</i> , University of Southern California Department of Psychology Mean overall rating: 3.9/4	2020

## MENTORSHIP

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<b>Brain and Music Lab Research Assistants</b> 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).	2017-2024
<b>Aanya Agarwal, Cognitive Science Honors, Undergraduate</b> University of Southern California “Priming in autobiographical narratives”	2024-2025
<b>Michael Ishak, Independent Research Project</b> University of Southern California “Exploring the Role of Lyrics in Shaping Emotional Responses to Music”	2024-2025
<b>Ashley Melendres, Neuroscience Honors, Undergraduate</b> University of Southern California “White Matter Predictors of Autobiographical Memory Recall from Music”	2024-2025
<b>Kylie Meng-Lin, Neuroscience Honors, Undergraduate</b> University of Southern California “Hippocampal Volume Predictors of Autobiographical Memory Recall from Music in Younger and Older adults”	2023-2025
<b>Mark Feng, Neuroscience Honors, Undergraduate</b> University of Southern California “Bodily maps of nostalgia evoked by music”	2024-
<b>Alisha Huang, Independent Research Project, Neuroscience</b> University of Southern California “Culturally-tailored music therapy for older adults with dementia: a systematic literature review”	2024-
<b>Grace Lee, Independent Research Project, Neuroscience</b>	2024-

University of Southern California

“Differences in the content diversity and narrative coherence of nostalgic music-evoked memories between young adults and older adults”

**Jasmine Shapiro, Athena Fong, Speech and Language Pathology Capstone, Masters**

2024

University of Southern California Keck School of Medicine

“Music and autobiographical memory in aging”

**Talia Ginsberg, Neuroscience Honors, Undergraduate**

2023-2024

University of Southern California

“Age-related changes in neural activation associated with semantic details of music-evoked autobiographical memories”

**Edalyn Cayetano, Nona Hovhannisyan, Speech and Language Pathology Capstone, Masters**

2023

University of Southern California Keck School of Medicine

“Music-evoked Autobiographical Memories”

**Samhita Swamy, Neuroscience Honors, Undergraduate**

2018-2019

University of Southern California

“Community Music Training and Neural Correlates of Emotional Well-being”

**High School Student Research Mentor  
(names not provided to protect minor student privacy)**

2023-

*Polygence Inc.*

Mentored 15+ high school students on original research project and review papers.

Outcomes include conference presentations (*Symposium for Rising Scholars*) and publications in peer-reviewed high school journals (*American Journal of Student Research, Journal of Emerging Investigators, Curieux*).

## INVITED PEER REVIEW

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*Scientific Reports*

*Nature Communications*

*Psychological Science*

*Current Opinion in Behavioral Sciences*

*Emotion*

*European Journal of Personality*

*Psychology of Music*

*Frontiers in Psychology*

*Music & Science*

## HONORS & SCHOLARSHIPS

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- Best Data Blitz Award, UofA Psychology Department (2024)
- *Excellence in Scientific Writing Award*, USC Psychology Department (2024)
- University of Washington NeuroHackademy (2020)
- USC Dornsife/ Graduate School Fellowship (2019-)
- Occidental College Departmental Distinction, Psychology (2017)
- Occidental College Departmental Honors, Psychology (2017)

- Occidental College InternAway Summer Funding (\$3000) (2016)
- Occidental College Dean's List (2014)
- Occidental College Presidential Scholarship (\$20,000/yr) (2013- 2017)

## PRE-DOCTORAL RESEARCH POSITIONS

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

## INDUSTRY EXPERIENCE

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<b>Science Consultant</b> <i>Music and health startup</i>	2024-
<b>Research and Data Scientist</b> <i>Rubato Life (AI-powered music recommendation for older adults with dementia)</i> Los Angeles, CA	2022-2023

## COMMUNITY OUTREACH AND SERVICE

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<b>Postdoctoral Committee Member</b> Diversity, Equity, and Inclusion (DEI) Advocacy Committee University of Arizona Department of Psychology	2025-
<b>High School Competition Judge</b>	2025

*Southern Arizona Research, Science, and Engineering Foundation*

**High School Competition Judge** 2023  
*National STEM Challenge*

**Personal Statement Editor** 2020-2024  
*CAPTURE Increase Student Diversity Committee, University of Southern California*

**PhD Application Mentor** 2020-2024  
*Next Gen Scholars Program, University of Minnesota*

**Lecture Series Organizer** 2019-2022  
*Brain and Cognitive Sciences Area, USC Psychology*

**Research Mentor** 2018-2019  
*USC Diversity, Inclusion, and Access (DIA) JumpStart program*

**Education and Public Outreach Volunteer** 2018-  
*Alzheimer's Association, Southern California Southland Chapter*