

Kelsey Mankel, Ph.D.

School of Communication Sciences and Disorders
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ACADEMIC APPOINTMENTS

Assistant Professor

Institute for Intelligent Systems | School of Communication Sciences and Disorders
University of Memphis, TN – 8/2023-Present

Research Scientist, External Graduate Faculty Member

School of Communication Sciences and Disorders
University of Memphis, TN – 7/2022-8/2023

Postdoctoral Scholar

Speech Neuroengineering and Cybernetics Laboratory
University of California-Davis, CA – 9/2021-8/2023

Graduate Assistant

School of Communication Sciences and Disorders
University of Memphis, TN – 8/2016-8/2021

EDUCATIONAL BACKGROUND

Ph.D. in Communication Sciences and Disorders, Neuroscience Concentration

Cognitive Science & Professional Development Certificates
University of Memphis, TN – 8/2021

B.S. in Neuroscience, Psychology, and Music

Summa cum laude, Central Michigan University, Mount Pleasant, MI – 5/2016
Study abroad experience: Kingston University, United Kingdom

RESEARCH INTERESTS

Human auditory electrophysiology (EEG), brainstem and cortical ERPs, experience-dependent neuroplasticity, cognitive & behavioral neuroscience, auditory perception, neurobiology of speech & music processing

GRANT FUNDING

Current

1. PI: *Perceptions and practice patterns of electrophysiologic testing among U.S. audiologists*, Center for Research Initiatives and Strategies for the Communicatively Impaired Faculty Research Grant, University of Memphis, \$9,400 (4/2024 – present)

Completed

1. PI: *Neural bases of successful auditory learning*, NIH/NIDCD Predoctoral F31 NRSA Fellowship, University of Memphis, \$91,040 (6/2020-8/2021)
2. PI: *Oboe reed-making: Decoding the connection between crow and scrape using technology*, Undergraduate Summer Scholars Grant, Central Michigan University, \$3500 (5/2015-8/2015)

Other funding

1. Association for Research in Otolaryngology Virtual Travel Award, \$50 (2/2021)

2. Institute for Intelligent Systems Student Organization Dissertation Award, \$1000 (4/2021)
3. ERP Boot Camp Scholarship, UC-Davis Center for Mind & Brain, \$2500 (7/2019)
4. Deans' Research Award for conference travel, University of Memphis, \$500, 2x recipient (8/2019, 1/2020)
5. Institute for Intelligent Systems Student Organization Travel Funding Award for conference travel, University of Memphis, varies, 4x recipient (1/2018-1/2020)
6. Student Government Association Travel Funding Award for conference travel, University of Memphis, varies, 2x recipient (1/2018, 1/2020)
7. PI: *The effect of specific musical training on spatial representation: Evidence from a line bisection task*, Honors Program Vending Money Award, Central Michigan University, \$150 (4/2016)

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Corina DP, Coffey-Corina S, Pierotti E, **Mankel K**, Miller LM. (2024). Electrophysiological study of visual processing in children with cochlear implants. *Neuropsychologia*.
2. **Mankel, K.**, Shrestha, U., Tipirneni-Sajja, A., & Bidelman, G. M. (2022). Functional plasticity coupled with structural predispositions in auditory cortex shape successful music category learning. *Frontiers in Neuroscience*.
3. **Mankel, K.**, Barber, J., & Bidelman, G. M. (2020). Individual differences in listening skills modulate the auditory categorical processing of speech. *NeuroReport*.
4. Bidelman, G. M., Brown, B., **Mankel, K.**, & Price, C. N. (2019). Psychobiological responses reveal audiovisual noise differentially challenges speech recognition. *Ear and Hearing*.
5. **Mankel, K.**, & Bidelman, G. M. (2018). Inherent auditory skills rather than formal music training shape the neural encoding of speech. *Proceedings of the National Academy of Sciences of the United States of America*.

Letter to the Editor

1. Bidelman, G. M., & **Mankel, K.** (2019). Reply to Schellenberg: Is there more to auditory plasticity than meets the ear? *Proceedings of the National Academy of Sciences of the United States of America*.

Preprints (non-peer reviewed), in review, or under revision

1. **Mankel, K.**, Pavlik Jr., P. I., & Bidelman, G. M. (2020). Single-trial neural dynamics influence auditory category learning. *bioRxiv* [preprint].

PRESENTATIONS

Invited Talks

1. Long, H., Price, C. N., & **Mankel, K.** (2022, September). *How They Made It: A Panel Discussion with Successful Alumni*. CSD PhD Student Colloquium, University of Memphis, Memphis, TN.
2. Lucks Mendel, L., **Mankel, K.**, & Hasan, M. (2020, September). *Academic Conference Tips*. Graduate Student Association Graduate Professional Development Seminar, University of Memphis, Memphis, TN.

3. **Mankel, K.** (2020, February). *Categorical Perception*. Clinical Research Colloquium, University of Memphis, Memphis, TN.
4. **Mankel, K.** (2019, October). *Pupillometric Correlates of Speech Categorization*. University of Memphis Eye Tracking Workshop, Memphis, TN.

Peer-Reviewed Conferences

1. Comstock, D. C., **Mankel, K. M.**, Bormann, B. M., Das, S., & Miller, L. M. (2023, November). *Using chirped speech (Cheech) to uncover the neural, perceptual, and cognitive determinants of speech perception during a dynamic, spatial attention task*. Poster presentation presented at the Advances and Perspectives in Auditory Neuroscience 2023 conference, Washington DC.
2. **Mankel, K.**, Comstock, D., Bormann, B., Sagiv, D., Brodie, H., & Miller, L. M. (2023, February). *Hierarchical neural organization in the auditory brain revealed during naturalistic speech listening by a dynamic, spatial attention task*. Podium presentation presented at the 46th MidWinter Meeting for the Association for Research in Otolaryngology, Orlando, FL.
3. **Mankel, K.**, Comstock, D., Najm, K. A., Bormann, B., Sagiv, D., Brodie, H., & Miller, L. M. (2022, April). *The role of auditory, neural, and cognitive factors in detecting hidden hearing loss on a novel speech comprehension task*. Poster session presented at the Cognitive Neuroscience Society conference, San Francisco, CA.
4. **Mankel, K.**, & Bidelman, G. M. (2021, February). *Neural correlates of successful auditory category learning*. Poster session presented at the 44th MidWinter Meeting for the Association for Research in Otolaryngology, virtual.
5. **Mankel, K.**, & Bidelman, G. M. (2020, October). *Neural correlates of successful auditory category learning*. Poster session presented at the Advances and Perspectives in Auditory Neuroscience 2020 conference, virtual.
6. **Mankel, K.**, & Bidelman, G. M. (2020, January). *Auditory category learning and the role of individual differences*. Poster session presented at the 43rd MidWinter Meeting for the Association for Research in Otolaryngology, San Jose, CA.
7. **Mankel, K.**, & Bidelman, G. M. (2019, August). *Auditory category learning and the role of individual differences*. Poster session presented at the Biennial Meeting of the Society for Music Perception and Cognition, New York, NY.
8. **Mankel, K.**, Barber, J., & Bidelman, G. M. (2019, February). *Individual differences in listening skills modulate the auditory categorical processing of speech and music*. Poster session presented at the 42nd MidWinter Meeting for the Association for Research in Otolaryngology, Baltimore, MD.
9. Barber, J., **Mankel, K.**, & Bidelman, G. M. (2019, February). *Individual differences in listening skills modulate the auditory categorical processing of speech and music*. Poster session presented at the 49th Annual Mid-South Conference on Communicative Disorders, Memphis, TN.
10. **Mankel, K.**, & Bidelman, G. M. (2018, February). *Nonmusicians with innate musicality exhibit enhanced subcortical encoding of speech*. Poster session presented at the 41st MidWinter Meeting for the Association for Research in Otolaryngology, San Diego, CA.
11. **Mankel, K.**, Brown, B., & Bidelman, G. M. (2018, February). *Behavioral and physiological pupil responses reveal multimodal (audiovisual) noise differentially challenges speech recognition*. Poster session presented at the 41st Annual MidWinter Meeting for the Association for Research in Otolaryngology, San Diego, CA.
12. Brown, B., **Mankel, K.**, & Bidelman, G. M. (2018, February). *Behavioral and physiological pupil responses reveal multimodal (audiovisual) noise differentially challenges speech recognition*. Poster session presented at the 48th Annual Mid-South Conference on Communicative Disorders, Memphis, TN.

13. White, J. C., Rosendall, A., **Mankel, K.**, Green, A., Boyd, J., Spelde, C. (2015, January). *Developing the all-star woodwind quintet: Training musicians and leaders*. Oral and musical presentation at the Michigan Music Conference, Grand Rapids, MI.

Other Presentations

1. **Mankel, K.** (2023, November). *Introduction to the CNHL*. Oral presentation at the Institute for Intelligent Systems Research Lightning Talks, Memphis, TN.
2. **Mankel, K.**, Comstock, D., Najm, K. A., Bormann, B., Sagiv, D., Brodie, H., & Miller, L. M. (2022, April). *The role of auditory, neural, and cognitive factors in detecting hidden hearing loss on a novel speech comprehension task*. Poster session presented at the UC Davis Inaugural Neuroengineering and Medicine Research Symposium, Davis, CA.
3. **Mankel, K.** (2022, November). *Individual auditory-perceptual abilities are shaped by intrinsic and experience-driven neural factors*. Oral presentation at the Center for Mind and Brain Monday Seminar, Davis, CA.
4. **Mankel, K.** (2020, October). *Neural correlates of successful auditory category learning*. Oral presentation at the CSD PhD Colloquium, virtual.
5. **Mankel, K.**, Barber, J., & Bidelman, G. M. (2019, April). *Individual differences in listening skills modulate the auditory categorical processing of speech and music*. Poster session presented at the Institute for Intelligent Systems Student Research Fair, Memphis, TN.
6. **Mankel, K.** (2019, March). *Auditory category learning and the role of individual differences*. Oral presentation at the CSD PhD Colloquium, Memphis, TN.
7. **Mankel, K.** (2018, April). *Superior auditory skills rather than formal music training shape the neural encoding of speech*. Oral presentation at the CSD PhD Colloquium, Memphis, TN.
8. **Mankel, K.**, & Bidelman, G. M. (2018, April). *Nonmusicians with innate musicality exhibit enhanced subcortical encoding of speech*. Poster session presented at the Institute for Intelligent Systems Student Research Fair, Memphis, TN.
9. **Mankel, K.**, & Bidelman, G. M. (2018, March). *Nonmusicians with innate musicality exhibit enhanced subcortical encoding of speech*. Poster session presented at the University of Memphis Student Research Forum, Memphis, TN.
10. Long, H., **Mankel, K.**, Rogers, J., Yoo, J., & Yellamsetty, A. (2017, Sept.). *Proposal for PhD student teaching of Introduction to Neuroscience course*. Oral presentation at the CSD PhD Colloquium, Memphis, TN.
11. **Mankel, K.**, & Kitchen, J. (2016, April). *The effect of musical training on spatial representation: Evidence from a line bisection task*. Poster session presented at the Central Michigan University Student Research & Creative Endeavors Exhibition, Mt. Pleasant, MI.
12. **Mankel, K.**, & Binkley, L. (2016, April). *Oboe reed-making: Decoding the connection between crow and scrape using technology*. Poster presented at the Central Michigan University Student Research & Creative Endeavors Exhibition, Mt. Pleasant, MI.
13. **Mankel, K.**, & Kitchen, J. (2015, April). *The effect of specific musical training on spatial representation*. Poster session presented at the Central Michigan University Student Research & Creative Endeavors Exhibition, Mt. Pleasant, MI.

Supervised student presentations

1. Statema, T., Bormann, B., Das, S., **Mankel, K.**, Comstock, D., Miller, L. M. (2024, May). *Predicting ERP responses to selectively attended speech using cognition-attention interaction in mixed modeling*. Association for Psychological Science Annual Convention, San Francisco, CA.

2. Chao, M., Holloway, C. A., Miller, L. M., & **Mankel, K.** (2024, May). *Multi-level neural assessment of auditory function during speech listening: A Step Towards More Comprehensive Hearing Evaluations*. Autism Intervention Research Project (AIR-P) National Virtual LEND Trainee Research Conference Poster Symposium, Virtual.
3. Shehabi, S., Bormann, B., Das, S., **Mankel, K.**, Comstock, D., Miller, L. M. (2024, April). *Predicting Neural Responses to Speech-in-Noise through Multiple Regression Modeling of Cognitive Performance*. 35th Annual Undergraduate Research, Scholarship, and Creative Activities Conference, Davis, CA.
4. Wade, N., Bormann, B., Das, S., Comstock, D., **Mankel, K.**, Miller, L. M. (2024, April). *Analysis of the Relationship Between Outer Hair Cell Health in the Cochlea and Speech-in-Noise Perception*. 35th Annual Undergraduate Research, Scholarship, and Creative Activities Conference, Davis, CA.
5. McNaughton, Z., Bormann, B., Das, S., **Mankel, K.**, Comstock, D., Miller, L. M. (2024, April). *An EEG investigation on the relationship of selective attention and MLR ERP component morphology*. 35th Annual Undergraduate Research, Scholarship, and Creative Activities Conference, Davis, CA.
6. Statema, T., Bormann, B., Das, S., **Mankel, K.**, Comstock, D., Miller, L. M. (2024, April). *Predicting ERP Responses to Selectively Attended Speech-in-Noise Using Cognition-Attention Interaction in Mixed Effects Modeling*. 35th Annual Undergraduate Research, Scholarship, and Creative Activities Conference, Davis, CA.
7. Vargas, A., Bormann, B., Das, S., **Mankel, K.**, Comstock, D., Miller, L. M. (2024, April). *An EEG Examination of Working Memory as a Mechanism for Attentional Modulation of Neural Activity to Speech in Noise*. 35th Annual Undergraduate Research, Scholarship, and Creative Activities Conference, Davis, CA.
8. Holloway, C. A., Chao, M., & **Mankel, K.** (2023, December). *Multi-level Neural Assessment of Auditory Function During Speech Listening: A Step Towards More Comprehensive Hearing Evaluations*. 9th Annual Robyn Cox Research Symposium, Memphis, TN.

Invited Workshops

1. American Speech-Language-Hearing Association Lessons for Success Conference, virtual (4/2021)
2. ERP Boot Camp, UC-Davis Center for Mind & Brain, Davis, CA (7/2019)

TEACHING EXPERIENCE

Assistant Professor, School of Communication Sciences & Disorders, University of Memphis

- *AUSP 8118: Electrophysiologic Assessment of the Auditory System* (Aug. 2023-Present)
- *AUSP 7515/8515: Scientific Ethics and Responsible Conduct in Research* (Jan. 2024-Present)

AuD Student Research Project Supervisor, School of Communication Sciences & Disorders, University of Memphis (Aug. 2022-Present)

Guest Lecturer, School of Communication Sciences & Disorders, University of Memphis

- *Auditory Processing Across the Lifespan* (Nov. 2020)
- *Acoustic and Perceptual Phonetics* (Nov. 2018, 2019)
- *Introduction to Functional Neuroscience for Health Science Professionals* (Nov. 2018)

Teaching Assistant, *Electrophysiologic Assessment of the Auditory System*, Communication Sciences & Disorders, University of Memphis (Aug.-Dec. 2018)

- Course lab assistant (Sep.-Nov. 2019)

Course Development, *Introduction to Functional Neuroscience for Health Science Professionals*, School of Communication Sciences & Disorders, University of Memphis (May 2017-Aug. 2018)

Private Tutor, *Introduction to Statistics* (Jun. 2017)

Academic Tutor, *Music Theory and Sight Singing & Ear Training* (Aug.-Dec. 2014)

Private Oboe Instructor, (May 2013-May 2016)

AFFILIATIONS

Institute for Intelligent Systems Student Organization for University of Memphis students with interdisciplinary research interests in cognitive science

- President (May 2018-2021)
- Vice President (May 2017-May 2018)
- Eye Tracking Workshop Committee Chair (Apr. 2019-Oct. 2019)

Memphis Women+'s Mentorship Network (Aug. 2019-Aug. 2021)

University of Memphis Graduate Student Association

- Communication Sciences and Disorders Representative (Oct. 2017-May 2018)

Nu Rho Psi, National Honor Society in Neuroscience, Alpha Chapter in Michigan

- Founder and President (May 2014-May 2016)

Professional society memberships:

- **Cognitive Neuroscience Society** (Jan. 2022-Present)
- **Association for Research in Otolaryngology** (Nov. 2018-Present)
- **Nu Rho Psi, National Honor Society in Neuroscience** (May 2014-Present)
- **Cognitive Science Society** (Jul. 2020-2021)
- **Society for Music Perception and Cognition** (May 2019-2021)
- **Kappa Kappa Psi, National Honorary Band Fraternity** (Jan. 2013-May 2016)

SERVICE

Journal Manuscript Reviewer (Sep. 2019-Present)

- Frontiers in Neuroscience
- PLoS One
- Music Perception
- JASA Express Letters
- Psychomusicology
- Journal of Voice
- Applied Psycholinguistics

CSD PhD Colloquium Coordinator, University of Memphis (Aug.-Nov. 2020)

Eye Tracking Workshop Event Coordinator and Committee Chair, Institute for Intelligent Systems Student Organization, University of Memphis (Oct. 2019)

CMU Summer Music Institute Scholarship Reviewer, Central Michigan University, Mt. Pleasant, MI (Apr. 2016)

Music and the Mind Nursing Home iPod Volunteer Project, The Laurels, Mt. Pleasant, MI (Jan. 2015-May 2016)

Neuroscience Night Event Coordinator, Central Michigan University (Nov. 2014, 2015)

Lab Assistant, Field Neurosciences Institute BRAIN Lab, Central Michigan University (Aug. 2012-May 2013)

HONORS AND AWARDS

20 Under 30 Leadership Award, University of Memphis (2021)

Presser Foundation Undergraduate Scholar Award, Central Michigan University (2015)

Central Michigan University Outstanding High School Student Scholarship (2012-2015)

Louise A. Plachta Endowed Music Scholarship (2012)

CMU College of Humanities and Social and Behavioral Sciences Alumni Fund Award (2012)

Salutatorian, Lowell High School (2012)