

Lauren Fink

Wissenschaftliche Mitarbeiterin | Postdoctoral Researcher

+49 69 8300479-205 | lauren.fink@ae.mpg.de

Max Planck Institute for Empirical Aesthetics | Grünebergweg 14

60322 Frankfurt am Main, Germany

<https://lkfink.github.io>

Curriculum Vitae – Jul. 2020

1. EDUCATION AND DEGREES

2014 - 2019 Ph.D. in Neuroscience at the University of California, Davis (UCD), CA, USA

2013 - 2014 M.Phil. in Music Studies at the University of Cambridge, England, UK

2009 - 2013 B.M. in Percussion Performance (major) and Psychology (minor) at the University of Cincinnati College Conservatory of Music, Ohio, USA, *summa cum laude*

2. RESEARCH CAREER

01/2020 – **Wissenschaftliche Mitarbeiterin** (Postdoctoral Researcher) in the Music Department, Max Planck Institute for Empirical Aesthetics.

09/2015 – 10/2019 **Researcher** in the Janata Lab, Center for Mind & Brain, at the University of California, Davis, for the research projects: 1) “Predicting sensorimotor synchronization and attention to music using a linear oscillator model, eye-tracking, and electroencephalography,” and 2) “Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals,” directed by Prof. Dr. Petr Janata, funded by *The University of California Music Experience Research Community Initiative* and the *National Academies Keck Futures Initiative*.

08/2017 **Gastforscher** (Guest Researcher) in the Max-Planck-Institute for Empirical Aesthetics, Frankfurt, Germany, for the project: “Comparing Pupil Labs and SMI mobile eye-tracking glasses in the concert hall,” directed by Dr. Elke Lange.

08/2016 **Visiting Researcher** in the Swartz Center for Computational Neuroscience at the University of California, San Diego, for the project: “Simultaneous eye-tracking and electroencephalography during an auditory deviance detection task,” directed by Dr. John Iversen.

07/2016 – 08/2016 **Visiting Researcher** in the Center for Computer Research in Music and Acoustics, Stanford University, for the project: “Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals,” directed by Prof. Dr. Petr Janata and Prof. Dr. Jonathan Berger, funded by the *National Academies Keck Futures Initiative*.

- 03/2015 – 06/2015 **Visiting Researcher** in the Geng Lab, Center for Mind & Brain, University of California, Davis, for the research project: “Characterization of eyeblinks and pupil diameter during an auditory deviance detection task,” directed by Prof. Dr. Joy Geng.
- 01/2015 – 03/2015 **Visiting Researcher** in the Dynamic Memory Lab, Center for Neuroscience, University of California, Davis, for the research project: “Goal relevance in temporal contexts: the role of the fronto-striatal-hippocampal circuit,” directed by Prof. Dr. Charan Ranganath and Dr. Matthias Gruber.
- 09/2014 – 12/2014 **Visiting Researcher** in the Janata Lab, Center for Mind & Brain, for the research project: “Attention mapping via amplitude modulated sounds,” directed by Prof. Dr. Petr Janata.
- 04/2011 – 05/2013 **Intern** at the Archives & Rare Books Library, University of Cincinnati (<http://libapps.libraries.uc.edu/liblog/?s=lauren+fink>)

3. PUBLICATIONS

- Sharma, N., Krishnamohan, V., Ganapathy, S., Gangopadhyay, A. & **Fink, L.** (2020). On the impact of language familiarity in talker change detection. *Proceedings of the 2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, Barcelona, Spain*, pp. 6249 – 6253. DOI: 10.1109/ICASSP40776.2020.9054294.
- Fink, L.** & Lange, E., Groner, R. (2019). The application of eye-tracking in music research. *Journal of Eye Movement Research*, 11(2):1. DOI: 10.16910/jemr.11.2.1.
- Fink, L.**, Hurley, B., Geng, J. & Janata, P. (2018). A linear oscillator model predicts dynamic temporal attention and pupillary entrainment to rhythmic musical patterns. *Journal of Eye Movement Research*, 11(2):12. DOI: 10.16910/jemr.11.2.12.
- Hurley, B., **Fink, L.**, & Janata, P. (2018). Mapping the dynamic allocation of attention in musical patterns. *Journal of Experimental Psychology: Human Perception & Performance*, 44(11), 1694-1711. DOI: 10.1037/xhp0000563
- Fink, L.** (2017). Chance operations in neuroscience. In Lane, J. and L. Fink (Eds.), *Allen Otte Folio*, pp. 17-20.
- Fink, L.** (2016). The Greatest. *Pulse Special Issue of Ethnomusicology Review/ Sounding Board*.

4. EDITED VOLUMES

- Fink, L.** & Lange, E., Eds. (2018). *Special Issue on Music & Eye-Tracking*. Journal of Eye Movement Research. Vol. 11(2).
- Fink, L.**, Ed. (2017). *Explorations: The UC Davis Undergraduate Research Journal* (vol. 19). The Regents of the University of California.
- Lane, J. & **L. Fink**, Eds. (2017). *Allen Otte Folio*.

5. TEACHING CAREER (University of California, Davis)

Classes (conducted)

| | |
|--------------|--|
| Summer, 2019 | Introduction to Research Methods |
| Fall, 2018 | Visual Rhetoric |
| Winter, 2017 | Popular Science and Technology Writing |
| Fall, 2016 | Neurobiology |
| Spring, 2016 | Cultural History of the Blues |

Classes (assisted teaching)¹

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|--------------|---|
| Fall, 2017 | Psychology of Music |
| Spring, 2017 | Human Brain & Disease (led anatomy lab for dissecting sheep brains) |
| Fall, 2015 | Psychology of Music |
| Winter, 2015 | Research Methods |
| Spring, 2015 | Neurobiology of Speech |

Mentoring Programs

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|-------------------|---|
| 01 – 09 / 2019 | Graduate coordinator for UC LEADS (Leadership Excellence through Advanced Degrees) <ul style="list-style-type: none"> Assisted under-represented undergraduates in preparing for graduate school by offering one-on-one mentorship Helped students successfully find and complete summer research experiences |
| 09/2015 – 06/2019 | Graduate Writing Fellow for the University Writing Program <ul style="list-style-type: none"> Held one-on-one consultations, group writing retreats, and writing workshops Conducted research on graduate student writing |
| 09/2017 – 09/2019 | Graduate mentor, Janata Lab <ul style="list-style-type: none"> Mentored four undergraduate research assistants (2 from Psychology; 1 from Neurobiology, Physiology, & Behavior; 1 from Musicology) |
| 01 – 06/2017 | Graduate mentor for the Undergraduate Research Center <ul style="list-style-type: none"> Mentored undergraduate Psychology student in lab-based research methods |

Invited Lecturer

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| Fall, 2017 | “How to publish as an undergraduate.” <i>Undergraduate Research Center</i> |
| Summer, 2017 | “Introduction to literature reviews.” <i>Pre-College Program: Mind & Brain</i> |
| Winter, 2017 | “Music & science research methods for undergraduates.” <i>Musicology Department</i> |
| Spring, 2016 | “Forming & maintaining writing groups.” <i>University Writing Program</i> |

¹ assisted teaching by holding weekly office hours, proctoring and grading all exams, and maintaining student records.

“The first abstract: Teaching undergraduates to summarize their research.
Professors for the Future Program

“Mentoring scientific writing: How to give effective, time-efficient
feedback.” *Professors for the Future Program*

“Music & visual motor behavior.” *Musicology Department*

Fall 2015 “Expectation, Syntax, and Tension in Music” *Psychology Department*

6. GRANTS / SCHOLARSHIPS / FELLOWSHIPS

| | |
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| 2017-19 | ARCS Foundation Achievement Research Award for College Scientists (\$22,000) |
| 2016-19 | Lead Graduate Writing Fellowship, UCD (\$11,000) |
| 2016-19 | University Writing Program Travel Award, UCD (\$1,900) |
| 2018 | Graduate Student Association Special Projects Award (\$700) |
| 2017-18 | Graduate Student Association Travel Award (\$1000) |
| 2018 | Lesbians Who Tech Summit Scholarship (\$250) |
| 2017 | UC Davis Diversity Inclusion and Innovation Grant. “SOMA: Seminar Outreach for Minority Advocacy.” PI: Lauren Fink (\$5,000) |
| 2016-17 | UC Davis & Humanities Graduate Research Award (\$3,000) |
| 2016 | University of California Music Experience Research Community Initiative: Research Exchange Grant – UC San Diego (\$3,500) |
| 2016 | Ling-Lie Chau Student Award for Brain Research, UCD (\$1,000) |
| 2015 | University of California Music Experience Research Community Initiative Symposium Travel Award (\$1,200) |
| 2015-16 | Graduate Writing Fellowship, UCD (\$3,000) |
| 2014-15 | Neuroscience Graduate Group Fellowship, UCD (\$28,680) |
| 2014 | William Barclay Squire Fund/Wolfson College Travel Grant, U. Cambridge (£600) |
| 2013-14 | Cambridge Overseas Trust, Wolfson Cambridge Scholarship, U. Cambridge (£7000) |
| 2012-13 | U. of Cincinnati Marshall Scholarship Finalist |
| 2012-13 | Undergraduate Research Council Grant, U. Cincinnati (\$3,000) |
| 2012 | Summer Undergraduate Research Fellowship, U. Cincinnati (\$4,000) |
| 2011 | Summer Undergraduate Mentored Research Grant, U. Cincinnati (\$3,000) |
| 2009-13 | Cincinnati Scholarship, U. Cincinnati (\$32,000) |
| 2009-13 | College-Conservatory of Music Scholarship, U. Cincinnati (\$4,000) |
| 2009-13 | Fouces M. Luley Music Scholarship (\$8,000) |

7. CONFERENCE PRESENTATIONS

Fink, L., Howlin, C., Randell, W., Warrenburg, L., Hansen, N.C., Wald-Fuhrmann, M. (2020, Sept.)
Music as a tool for emotional coping during the Coronavirus crisis. *Talk (virtual) presented at
the Society for Education, Music, and Psychology Research.*

Howlin, C., Randell, W., Warrenburg, L., **Fink, L.,** Wald-Fuhrmann, M., Hansen, N.C. (2020, Sept.)
Can music engagement provide a sense of social cohesion or social surrogacy during times of
physical distancing? *Talk (virtual) presented at the Society for Education, Music, and Psychology
Research.*

- Czepiel, A., Merrill, J., **Fink, L.**, Egermann, H., Wald-Fuhrmann, M. (2020, Sept.) Tempo and key clarity synchronise physiology in classical concert audiences. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- Lange, E., Zweck, F., Sinn, P., Thiel, D., **Fink, L.**, & Kuipers, M. (2020, Sept.) Eye-tracking as method to investigate experiences of aesthetic absorption. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- Fink, L.**, Hurley, B., Geng, J., Lange, E., & Janata, P. (2019, Aug.). A computational model of rhythmic auditory attention predicts the pupillary response to music. *Talk presented at the European Conference on Eye Movements, Alicante, Spain.*
- Lange, E., Thiele, D., **Fink, L.**, & Kuipers, M. (2019, Aug.). Narrative aesthetic absorption into audiobooks: Acoustics, cross-modal coupling and subjective states are related. *Poster presented at the European Conference on Eye Movements, Alicante, Spain.*
- Fink, L.**, Alexander, P., Janata, J. (2019, March). Bringing groups of people into greater temporal and psychological synchrony using a multi-person adaptive metronome. *Poster presented at the Cognitive Neuroscience Society Meeting, San Francisco, CA.*
- Mikovits, M., Sperber, L., **Fink, L.** & Prebel, J. (2019, March). Writing Fellows as Agents of Transfer: Training in Threshold Concepts to Support Campus-Wide Sites of Writing. *Symposium presented at the College Composition and Communication Convention, Pittsburgh, PA.*
- Fink, L.**, Lange, E., Janata, P. (2018, July). The pupil entrains to prominent periodicities in music. *Talk presented at the International Conference on Music Perception & Cognition, Graz, Austria.*
- Fink, L.**, Hurley, B., Geng, J., & Janata, P. (2018, May). Predicting attention and motor responses to musical patterns. *Poster presented at the Stanford Music & Brain Symposium, Palo Alto, CA.*
- Fink, L.**, Ribeiro, J., & White, V. (2018, March). Transforming graduate writing experiences: A new Writing Across the Curriculum (WAC) certificate program. *Symposium presented at the College Composition and Communication Convention, Kansas City, MO.*
- Lange, E. & **Fink, L.** (2017, August). Symposium: Using eye-tracking and pupillometry to study rhythmic processing in music and dance. *European Conference on Eye Movements, Wuppertal, Germany.*
- Fink, L.**, Hurley, B., Geng, J., & Janata, P. (2017, August). Predicting attention to auditory rhythms using a linear oscillator model and pupillometry. *Talk presented at the Conference on Music & Eye-Tracking, Frankfurt, Germany.*
- Fink, L.**, & Alexander, P., & Janata, P. (2017, July). Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals. *Demonstration presented at the National Academies Keck Futures Initiative Art, Science, Engineering, and Medicine Mid-Cycle Grant Meeting, Boston, MA.*
- Hurley, B., **Fink, L.**, & Janata, P. (2017, March). A resonator model predicts temporal orienting in rhythmic music. *Proceedings of the Cognitive Neuroscience Society Annual Meeting.*
- Bright, A., Singleton, J., **Fink, L.**, & Rodger, K. (2017, March). Cultivating a Rhetorical Consciousness: Supporting Graduate Student Writers Across the Curriculum. *Symposium presented at the College Composition and Communication Convention, Portland, OR.*

- Fink, L.,** Hurley, B., Geng, J. & Janata, P. (2016, July). Pupillary and eyeblink responses to auditory stimuli index attention and sensorimotor coupling. *Proceedings of the 14th International Conference for Music Perception & Cognition*, pg. 788.
- Hurley, B., **Fink, L.,** & Janata, P. (2016, July). Predicting temporal attention in music with a damped oscillator model. *Proceedings of the 14th International Conference for Music Perception & Cognition*, pg. 782.
- Fink, L.** & Rodger, K. (2016, June). Mapping neuroscience through professional writing. *Talk presented at the International Writing Across the Curriculum Conference, Ann Arbor, MI.*
- Fink, L.** (2015, July). Eyeblinks as biomarkers of temporal coordination during music cognition. *Poster presented at the Rhythm Perception & Production Workshop, Amsterdam, Netherlands.*
- Fink, L.** & Mazman, A. (2013, July). False belief attribution: An investigation of the neural pattern account. *Poster presented at the Society for Philosophy and Psychology Conference, Providence, RI.*

8. SERVICE

- 2016 – Ad-hoc Reviewer for:
Brain and Cognition
Cortex
Journal of Eye Movement Research
Journal of Vision
Music & Science
Quarterly Journal of Experimental Psychology
Society for Music Perception and Cognition
Vision Research
- 2017 & 2021 Scientific Chair. Conference on Music & Eye-Tracking, Frankfurt, Germany
- 2018-20 Peer-review panelist. California Arts Council
- 2017-19 Guest Editor of Special Issue. *Journal of Eye Movement Research*
- 2017-18 Founder and coordinator. Seminar Outreach for Minority Advocacy, UCD
- 2017 Selection Committee. Neuroscience Initiative to Enhance Diversity, UCD
- 2017 Graduate Student Coordinator. Neuroscience Initiative to Enhance Diversity, UCD
- 2016-17 Editor-in-Chief. *Explorations: The UC Davis Undergraduate Research Journal*
- 2015-16 Editor. *Explorations: The UC Davis Undergraduate Research Journal*
- 2014-16 Neuroscience Retreat Organizing Committee, UCD

9. PROFESSIONAL TRAINING

- 2020 Neuromatch Academy, *online*
- 2019 Telluride Neuromorphic Cognition Engineering Workshop, *Telluride, CO*
- 2018 Mini Event-Related Potential Bootcamp, *Steve Luck, UCD Center for Mind & Brain*
- 2018 Women in Music Information Retrieval Mentoring Program
- 2017 Certificate: AAAS Science Communication Program
- 2017 Certificate: Thoughtful Pedagogy for Diverse Learning Environments, *UCD Center for Educational Effectiveness*
- 2016 Certificate: Foundations in Teaching, *UCD Center for Educational Effectiveness*
- 2014 Interdisciplinary Kollege: Social Cognition. *Günne, Germany*
- 2009-10 Racial Awareness Pilot Program. *U. of Cincinnati*

10. AFFILIATIONS / MEMBERSHIPS

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| 2018 – | Cognitive Neuroscience Society |
| 2017 – | Women in Music Information Retrieval |
| 2016 – | Society for Music Perception & Cognition |
| 2015 – | Association of Women in Science |
| 2007 – | Percussive Arts Society |
| 2013-14 | Society for Philosophy & Psychology |

11. INVITED TALKS

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| Feb. 2019 | “Modeling pupillary entrainment to music and absorptive music listening experiences.” Center for Computer Research in Music and Acoustics, Stanford University. |
| Sept. 2018 | “Pupillometry as an auditory research tool.” UC Davis Neuroscience Retreat, Bodega Bay Marine Laboratory, Bodega Bay, CA. |
| Apr. 2018 | “The Groove Enhancement Machine.” Center for Computer Research in Music and Acoustics, Stanford University. |
| Mar. 2018 | “Seeing in time: Rhythmic music systematically alters pupil dynamics.” Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany. |
| Oct. 2017 | “Stage presence.” Ladies Rock Sacramento. Sacramento, CA. |
| Apr. 2017 | “Writing a personal statement.” Neuroscience Initiative to Enhance Diversity, UC Davis. |
| Nov. 2016 | “Predicting audiovisual attention over time.” Davis Entrepreneurs Meet-Up, Davis Roots, Davis, CA. |
| July 2016 | “Assessing attention to music using eye-tracking.” Stanford Summer Arts Institute, Stanford University. |
| Apr. 2016 | “The importance of synchronization and the power of music.” Sunday Assembly, Sacramento, CA. |
| Oct. 2013 | “It’s all in the mind.” Cambridge Festival of Ideas, Cambridge, UK. |

12. PROFESSIONAL MUSIC EXPERIENCE

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| Nov. 2014 | Percussion Quartet: Lauren Fink, Tyler Niemeyer, Shane Jones, Zach Larabee. Premiere of “Oscillator Etudes” by Paul Schuette at the <i>Percussive Arts Society International Convention, Indianapolis, IN</i> |
| Feb. 2013 | Drum set player. “Science! The Musical.” World Premiere. Corpus Playroom, <i>Cambridge, UK</i> |
| Apr. 2013 | Senior Recitalist. “Matriculaphony: A Percussive Circus on Van Meter Ames’ <i>A Book of Changes</i> .” Patricia Corbett Theater, <i>Cincinnati, OH</i> |
| 07-08/2013 | Drum Line Instructor. Liberty High School, <i>Youngstown, OH</i> |

- 2012-13 Percussion Accompanist. Dance Division, *U. of Cincinnati College-Conservatory of Music*.
- 2010 – 2011 Percussion Coach. Cincinnati Youth Wind Ensemble. *Cincinnati, OH*.
- 06-07/2010 Orchestral Percussionist. Symphony Orchestra Academy of the Pacific. *British Columbia, Canada*
- 2008 – 2014 Private Percussion Teacher. *Youngstown & Cincinnati, OH*

13. REFERENCES

- Dr. Elke Lange:** Scientific Researcher, Max Planck Institute for Empirical Aesthetics
Phone: +49 69-8300479-210 E-Mail: elke.lange@aesthetics.mpg.de
- Dr. Petr Janata:** Professor of Psychology, Center for Mind & Brain, UC Davis
Phone: +1 (530) 297 4471 E-Mail: pjanata@ucdavis.edu
- Dr. Joy Geng:** Associate Professor of Psychology, Center for Mind & Brain, UC Davis
Phone: +1 (530) 297-4486 E-Mail: jgeng@ucdavis.edu
- Dr. Ian Cross:** Professor of Music and Science, Faculty of Music, U. of Cambridge, UK
Phone: +44 (0)1223 335185 E-Mail: ic108@cam.ac.uk
- Prof. Allen Otte:** Professor of Percussion, U. of Cincinnati College-Conservatory of Music
Phone: +1 (513) 556 9423 E-Mail: allen.otte@uc.edu