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Heather A. Hansen, Ph.D.

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Education and Training

2024- **Montreal Neurological Institute-Hospital, McGill University**
Montreal, Quebec, Canada
Postdoctoral Researcher, Neurology and Neurosurgery
Advisor: Dr. Christine Tardif

2023-2024 **Concordia University**
Montreal, Quebec, Canada
Postdoctoral Fellow, Psychology
Advisors: Drs. Emily Coffey, Mickael Deroche

2017-2023 **The Ohio State University**
Columbus, Ohio, United States
Ph.D., Psychology (received 2023)
M.A., Psychology (received 2019)
Concentration: Cognitive Neuroscience
Advisors: Drs. Zeynep Saygin, Andrew Leber
Dissertation: Investigating Misophonia: Behavioral Characteristics, Cognitive Impairments, and Neural Mechanisms

2013-2016 **University of California, Los Angeles**
Los Angeles, California, United States
B.S., Psychobiology
Advisor: Dr. Alan Castel

Honors and Awards

2024 Quebec Bio-Imaging Network Postdoctoral Recruitment Scholarship ($15,000 CAD)

2023 Postdoctoral Top-Up Award, Concordia University ($5,000 CAD)

2022 soQuiet Student Research Grant ($1,200 USD)

2022 Presidential Fellowship ($36,000 USD + tuition)

2021 Graduate Student Teaching Excellence Award ($6,000 USD)

2021 Edward F. Hayes Graduate Research Forum poster award (2nd place, $150 USD)

2020 Cognitive Neuroscience Society meeting Graduate Student Award ($100 USD)

2019 College of Social and Behavioral Science Fellowship, The Ohio State University

2018 Ohio Supercomputer Center Statewide Users Conference poster award (2nd place)

2018 Discovery Themes Initiative in Chronic Brain Injury travel award ($500 USD)

2018	H. Dean and Susan Regis Gibson Research Award ($3,000 USD)
2017	University Fellowship, The Ohio State University
2016	Magna Cum Laude, University of California, Los Angeles
2013-2016	Dean's Honors List, University of California, Los Angeles

Publications (*mentored undergraduates)

1. **Hansen, H.A**., Leber, A.B., Saygin, Z.M (2024). The effect of misophonia on cognitive and social judgments. *PLOS ONE.* 19(5): e0299698. doi: 10.1371/journal.pone.0299698

2. Zhang, T., Irons, J.L., **Hansen, H.A**., Leber, A.B (2024). Joint contributions of preview and task instructions on visual search strategy selection. *Attention, Perception, and Psychophysics.* doi: https://doi.org/10.3758/s13414-024-02870-1

3. Orloff, D.M.*, Benesch, D., **Hansen, H.A.** (2023). Curation of FOAMS: A Free Open-Access Misophonia Stimuli Database. *Journal of Open Psychology Data, 11:15, pp.1-8.* doi: https://doi.org/10.5334/jopd.94

4. McKinney, M.R.*, **Hansen, H.A.,** Irons, J.L., Leber, A.B. (2022). Attentional strategy choice is not predicted by cognitive ability or academic performance. *Visual Cognition. 30*(10) 671-679. doi: 10.1080/13506285.2023.2175945

5. **Hansen, H.A**., Stefancin, P., Leber, A.B., Saygin, Z.M. (2022). Neural Evidence for Non-Orofacial Triggers in Mild Misophonia. *Frontiers in Neuroscience. 16:*880759. doi: 10.3389/fnins.2022.880759

6. **Hansen, H.A**., Leber, A.B., Saygin, Z.M. (2021). What sound sources trigger misophonia? Not just chewing and breathing. *Journal of Clinical Psychology, 77*(11) 2609-2625. doi: 10.1002/jclp.23196

7. **Hansen, H.A.**, Li, J., Saygin, Z.M. (2020). Adults vs. neonates: Differentiation in functional connectivity between the basolateral amygdala and occipitotemporal cortex. *PLOS ONE, 15*(10): e0237204. doi: 10.1371/journal.pone.0237204

8. Li, J., Osher, D.E., **Hansen, H.A.**, Saygin, Z.M. (2020). Innate connectivity patterns drive the development of the visual word form area. *Scientific Reports, 10*(18039). doi: 10.1038/s41598-020-75015-7

9. **Hansen, H.A**., Irons, J.L., Leber, A.B. (2019). Taking stock: The role of environmental appraisal in the strategic use of attentional control. *Attention, Perception, and Psychophysics, 81*(8) 2673-2684.

10. O'Donnel, M., Nelson, L., …, **Hansen, H.A.,** Susa, K. J., et al. (2018). Registered Replication Report: Dijksterhuis & van Knippenberg (1998). *Perspectives on Psychological Science, 13*(2) 268-294.

In prep

1. **Hansen, H.A.,** Ferris, C.S., Leber, A.B., Saygin, Z.M. Not just disgust: Seed-to-voxel insular connectivity distinguishes misophonia from disgust sensitivity and related clinical measures

Resources

FOAMS: A Free Open-Access Misophonia Stimuli Database
Created by Dean Orloff*, Danielle Benesch, & **Heather Hansen**.
Presented at soQuiet Science Session (September 25, 2022)
Available on Zenodo (https://doi.org/10.5281/zenodo.7130339)

Talks

Invited

1. **Heather A. Hansen** (March 2024). *Novel insights from behavioral and neuroimaging experiments towards a better understanding of misophonia, a relatively obscure auditory processing disorder.* Presented in the Cognitive Research at McGill talk series, McGill University, Montreal, QC, Canada

2. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Feb 2024). *The effect of misophonia on cognitive and social judgments*. Presented in the "Emerging Perspectives on Misophonia" symposium at the annual Association for Research in Otolaryngology conference, Anaheim, California

3. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (May 2023). *Making the Connection: Misophonia, Brains, and Non-Oral/Nasal Triggers*. Presented virtually for Conversations about Research for Everyone (CARE), 1st Annual Meeting on Misophonia

4. Lindsay Warrenburg, Psyche Loui, **Heather A. Hansen**, & Erin E. Hannon (Aug 2022). *Integrated Special Session: Misophonia, ASMR, and frisson as a window into affective responses to musical and non-musical sounds.* Presented at the Society for Music Perception and Cognition annual conference, Portland, Oregon

5. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Dec 2021). *What sound sources trigger misophonia? Not just chewing and breathing*. Presented virtually for Dr. Emily B.J. Coffey's lab meeting (Coffey Lab: Audition, Sleep, & Plasticity), Concordia University

6. **Heather A. Hansen,** Danielle Benesch, Ellie Rapp, Michael Tollefsrud (Oct 2021). *Student Research on Misophonia: Journeys & Recent Work*. Presented virtually at the 9th Annual Misophonia Convention

Applied

1. **Heather A. Hansen** (Feb 2023). *Investigating Misophonia: Behavioral Characteristics, Cognitive Impairments, and Neural Mechanisms.* Presented at the Cognitive Department Proseminar, The Ohio State University

2. **Heather A. Hansen,** Patricia Stefancin, Andrew B. Leber, & Zeynep M. Saygin (Dec 2022). *Neural Evidence for Non-Orofacial Triggers in Mild Misophonia.* Presented at the Center for Cognitive and Behavioral Brain Imaging Research Day, The Ohio State University

3. **Heather A. Hansen,** Andrew B. Leber**,** Zeynep M. Saygin (Nov 2021). *What sound sources trigger misophonia? Not just chewing and breathing*. Presented virtually at the annual Auditory Perception, Cognition, and Action Meeting

4. **Heather A. Hansen,** Jin Li, & Zeynep M. Saygin (Feb 2021). *Adults vs. neonates: How the amygdala connects to occipitotemporal cortex.* Presented at the Cognitive Department Proseminar, The Ohio State University

5. **Heather A. Hansen,** Jin Li, & Zeynep M. Saygin (Nov 2020). *Adults vs. neonates: Differentiation of functional connectivity between the basolateral amygdala and occipitotemporal cortex.* Presented at the Cognitive Neuroscience Department Proseminar, The Ohio State University

6. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Jan 2020). *Exploring individual differences in misophonia.* Presented at the Cognitive Department Proseminar, The Ohio State University

7. **Heather A. Hansen,** Jin Li, & Zeynep M. Saygin (Dec 2019). *Adults vs. neonates: Differentiation of functional connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the Center for Cognitive and Behavioral Brain Imaging Research Day, The Ohio State University

8. Jin Li, David E. Osher, **Heather A. Hansen,** & Zeynep M. Saygin (Dec 2019). *Cortical selectivity driven by connectivity: Innate connectivity patterns of the visual word form area.* Presented at the Center for Cognitive and Behavioral Brain Imaging Research Day, The Ohio State University [Best Platform Presentation Award]

9. Jin Li, David E. Osher, **Heather A. Hansen,** Micah R. Rhodes, Athena L. Howell, & Zeynep M. Saygin (Oct 2019). *Innate connectivity patterns of the visual word form area.* Presented at the annual Society for Neuroscience conference, Chicago, IL

10. **Heather A. Hansen** & Zeynep M. Saygin (Mar 2019). *Developmental changes in connectivity between the amygdala subnuclei and ventral visual cortex.* Presented at the Cognitive Brain Injury Research Day, The Ohio State University

11. **Heather A. Hansen** & Zeynep M. Saygin (Feb 2019). *Developmental changes in connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the Cognitive Department Proseminar, The Ohio State University

12. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Apr 2018). *Chewing and breathing, or more? Investigations into Misophonia.* Presented at the Cognitive Department Proseminar, The Ohio State University

Poster Presentations (*mentored undergraduates)

1. **Heather A. Hansen,** Charles S. Ferris, & Zeynep M. Saygin (Apr 2024). *Not just disgust: Network-based and seed-to-voxel insular connectivity distinguishes misophonia from*

disgust sensitivity and related clinical measures. Presented at the annual Cognitive Neuroscience Society Conference, Toronto, Ontario, Canada

2. **Heather A. Hansen,** Charles S. Ferris, & Zeynep M. Saygin (Apr 2024). *Not just disgust: Network-based and seed-to-voxel insular connectivity distinguishes misophonia from disgust sensitivity and related clinical measures.* Presented at the Centre for Research on Brain, Language, and Music symposium, Montreal Neurological Institute, Montreal, Quebec, Canada

3. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Jul 2023). *Neural evidence for non-orofacial triggers in mild misophonia.* Presented at the annual Organization for Human Brain Mapping Conference, Montreal, Quebec, Canada

4. Dean Orloff*, Danielle Benesch, **Heather A. Hansen** (Mar 2023). *Curation of FOAMS: A Free Open-Access Misophonia Stimuli Database.* Presented at the Center for Cognitive and Brain Sciences HumCog365 Conference, The Ohio State University

5. **Heather A. Hansen,** Andrew B. Leber, & Zeynep M. Saygin (Dec 2021). *Exploring neural origins of misophonia using resting-state connectivity.* Presented at the Center for Cognitive and Behavioral Brain Imaging Research Day, The Ohio State University

6. **Heather A. Hansen,** Jin Li, Zeynep M. Saygin (Apr 2021). *Adults vs. neonates: Differentiation of functional connectivity between the basolateral amygdala and occipitotemporal cortex.* Presented virtually at the 35th Annual Edward F. Hayes Graduate Research Forum, Columbus, OH

7. Dana Shaw*, **Heather A. Hansen**, Molly R. McKinney*, Jessica L. Irons, Andrew B. Leber (May 2020). *Does task switching ability predict the selection of attentional control strategies?* Presented virtually at the annual Vision Sciences Society conference

8. **Heather A. Hansen,** Zeynep M. Saygin (Mar 2020). *Adults vs. neonates: Differentiation of functional connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented virtually at the annual Cognitive Neuroscience Society conference

9. Molly R. McKinney*, **Heather A. Hansen**, Jessica L. Irons, Andrew B. Leber (Nov 2019). *An exploration of ability and personality trait variables predicting goal-directed attention in visual search.* Presented at the annual Object, Perception, and Memory conference, Montreal, Canada

10. **Heather A. Hansen** & Zeynep M. Saygin (May 2019). *Developmental changes in connectivity between the amygdala subnuclei and visual regions.* Presented at the annual Vision Sciences Society conference, St. Pete Beach, Florida

11. Carver B. Nabb*, Micah R. Rhodes, **Heather A. Hansen**, Steve Petrill, Zeynep M. Saygin (May 2019). *Predicting individual reading ability based on structural and functional neural connectivity.* Presented at the annual Vision Sciences Society conference, St. Pete Beach, Florida

12. Molly R. McKinney*, **Heather A. Hansen**, Jessica L. Irons, Andrew B. Leber (May 2019). *An exploration of trait variables predicting the goal-directed control of visual attention.* Presented at the annual Vision Sciences Society conference, St. Pete Beach, Florida

13. **Heather A. Hansen** & Zeynep M. Saygin (Mar 2019). *Developmental changes in connectivity between the amygdala subnuclei and ventral visual cortex.* Presented at the Cognitive Brain Injury Research Day, The Ohio State University

14. Carver B. Nabb*, Micah R. Rhodes, **Heather A. Hansen**, Steve Petrill, Zeynep M. Saygin (Feb 2019). *Predicting individual reading ability based on structural and functional neural connectivity.* Presented at the annual Denman Undergraduate Research Forum, The Ohio State University

15. Molly R. McKinney*, **Heather A. Hansen**, Jessica L. Irons, Andrew B. Leber (Feb 2019). *An exploration of trait variables predicting the goal-directed control of visual attention.* Presented at the annual Denman Undergraduate Research Forum, The Ohio State University

16. **Heather A. Hansen** & Zeynep M. Saygin (Nov 2018). *Adults vs. kids: Changes in connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the annual Society for Neuroscience conference, San Diego, California

17. **Heather A. Hansen** & Zeynep M. Saygin (Oct 2018). *Using the Ohio Supercomputer cluster to measure developmental changes in connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the Ohio Supercomputer Center Statewide Users Group conference, Columbus, OH [Poster contest: 2nd place]

18. Micah R. Rhodes, **Heather A. Hansen**, Zeynep M. Saygin (Oct 2018). *Exploring the development of high-level visual connectivity in infants.* Presented at the Ohio Supercomputer Center Statewide Users Group conference, Columbus, OH

19. Carver B. Nabb*, Micah R. Rhodes, **Heather A. Hansen**, Steve Petrill, Zeynep M. Saygin (Oct 2018). *Predicting individual reading ability based on structural and functional neural connectivity.* Presented at the Ohio Supercomputer Center Statewide Users Group conference, Columbus, OH

20. **Heather A. Hansen** & Zeynep M. Saygin (Sep 2018). *Adults vs. kids: Changes in connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the Center for Cognitive and Brain Sciences retreat, The Ohio State University

21. Micah R. Rhodes, **Heather A. Hansen**, Zeynep M. Saygin (Sep 2018). *Exploring the development of high-level visual connectivity in infants.* Presented at the Center for Cognitive and Brain Sciences retreat, The Ohio State University

22. **Heather A. Hansen**, Jessica L. Irons, Andrew B. Leber (May 2018). *A secondary task leads to poorer selection of attentional control strategies.* Presented at the annual Vision Sciences Society conference, St. Pete Beach, Florida

23. **Heather A. Hansen** & Zeynep M. Saygin (Apr 2018). *Adults vs. kids: Changes in connectivity between the amygdala subnuclei and occipitotemporal cortex.* Presented at the Mechanisms of Learning Forum, Emory University

24. **Heather A. Hansen**, Catherine D. Middlebrooks, Adam B. Blake, & Alan D. Castel (May 2016). *Eye recognize this: The effect of impression formation on memory for eye colors*. Presented at Undergraduate Research Week: Research Poster Day, University of California, Los Angeles

Referee

Psychiatry and Clinical Neurosciences
PLOS ONE
Philosophical Transactions of the Royal Society B
Journal of Clinical Psychology

Memberships

Misophonia Research Network
Cognitive Neuroscience Society

Public Media (selected)

2024 Aug Psychology Today
https://www.psychologytoday.com/intl/blog/noises-off/202408/expanding-what-a-trigger-sound-is-in-misophonia-research

2022 Sept All Sides with Ann Fisher, 89.7 NPR News
https://news.wosu.org/show/all-sides-with-ann-fisher/2022-09-14/wellness-wednesday-a-decline-in-life-expectancy (segment begins 36:50)

2022 Sept BioTechniques
https://www.biotechniques.com/neuroscience/10x_neuroi_sptl_hate-the-sound-of-chewing-heres-why/

2022 Sept New York Times
https://www.nytimes.com/2022/09/08/well/misophonia-chewing-noise-treatment.html

2022 Sept Medscape
https://www.medscape.com/viewarticle/980461?src=

2022 Aug HealthDay
https://consumer.healthday.com/8-24-hate-listening-to-people-chewing-you-might-have-misophonia-2657881566.html

2022 Aug Medical News Today
https://www.medicalnewstoday.com/articles/misophonia-is-more-than-just-hating-the-sound-of-chewing

2022 Aug OSU News
https://news.osu.edu/misophonia-is-more-than-just-hating-the-sound-of-chewing/

2020 Oct OSU News
https://news.osu.edu/newborn-brains-lack-maturity-to-process-emotions-as-adults-do/

Research Experience

2024- *Postdoctoral researcher, Montreal Neurological Institute-Hospital, McGill University*
Advisor: Dr. Christine Tardif
Area of interest: High-resolution (7T) MR data collection and analysis for the Quebec 1000 Families initiative, consisting of open-access multimodal data from neurodivergent individuals of all ages and their immediate families.

2023-2024 *Postdoctoral researcher, Concordia University*
Coffey Lab: Audition, Sleep, and Plasticity (Advisor: Dr. Emily Coffey)
Laboratory for Hearing and Cognition (Advisor: Dr. Mickael Deroche)
Area of interest: Developing a multimodal neuroimaging database of individuals with and without misophonia.

2017-2023 *Graduate student researcher, The Ohio State University*
Cognitive Control Lab (Advisor: Dr. Andrew Leber)
Developmental Cognitive Neuroscience Lab (Advisor: Dr. Zeynep Saygin)
Area of interest: Designing behavioral and neuroimaging experiments to better understand misophonia and other psychiatric disorders.

2016-2017 *Cognitive psychology researcher, Cal State University, Bakersfield*
Social Cognition Lab (Advisor: Dr. Kyle Susa)
Programmed experiments using Excel and MediaLab. Beta-tested other students' projects and gave advice as needed. Assisted in IRB write-ups and data collection.

2015-2016 *Cognitive psychology researcher, University of California, Los Angeles*
Memory and Lifespan Cognition Lab (Advisor: Dr. Alan Castel)
Compiled background literature, constructed an experiment, ran participants in the lab, and analyzed data. Presented results in multiple lab meetings. Worked primarily independently, but also received mentorship from graduate students.

2014-2015 *Research Assistant, Semel Institute for Neuroscience and Human Behavior, University of California, Los Angeles*
Advisors: Jennifer Forsyth, Dr. Robert Asarnow
Scheduled and phone-screened participants for a study on improving cognitive performance in patients with schizophrenia. Assisted with EEG recordings. Independently collected data for second day of testing. Processed data on Excel. Completed office work and picked up drug prescriptions from the pharmacy.

Summer 2012 *Biology research assistant, Cal State University, Bakersfield*
Advisor: Dr. Paul Smith
Ran gel electrophoresis samples from individuals of the *Megaselia sulphurizona* species. Copied DNA with PCR. Assisted in data analysis.

Teaching Experience

2020-2022 *Psych 1100*: Introduction to Psychology
Lead instructor, prepared asynchronous/synchronous remote and in-person lectures

2020-2021: Meritorious Teaching Award *(given by Dr. Melissa Beers)*

Guest Lectures

2024 Jan *Auditory Nervous System*. Guest lectured to Cognition (Prof: Dr. Signy Sheldon), McGill University.

2021 Mar *Consciousness.* Guest lectured to Introduction to Cognitive Neuroscience (Prof: Dr. Zeynep Saygin), The Ohio State University.

2020 Mar *Consciousness.* Guest lectured to Introduction to Cognitive Neuroscience (Prof: Dr. Zeynep Saygin), The Ohio State University.

2020 Jan *Intro to fMRI: Neuroimaging Scans*. Guest lectured to Introduction to Cognitive Neuroscience (Prof: Dr. Zeynep Saygin), The Ohio State University.

Mentorship Experience

Teaching

2021-2022 Hannah Lichtenstein
undergraduate Course Assistant, Psych 1100, The Ohio State University

Research

2022-2023 Dean Orloff
Undergraduate Research Assistant
soQuiet grant project

2019-2020 Dana Shaw
Undergraduate Research Assistant
Cognitive Control Lab, The Ohio State University
Current: Ph.D. student, neuroscience, Boston University

2018-2019 Carver Nabb
Undergraduate Research Assistant
Cognitive Neuroscience Lab, The Ohio State University
Current: Research Study Assistant, Northwestern Emotion and Risk Lab, Northwestern University

2018-2019 Molly McKinney
Undergraduate Research Assistant
Cognitive Control Lab, The Ohio State University
Current: Lab Manager/Research Assistant, Cognitive Control Lab, The Ohio State University

Community/Outreach

2024- *Director,* soQuiet Misophonia Research Network

2024 Jul *Diffusion MRI Guest Speaker,* Students Collaborating on Advanced Neuroimaging (SCAN) series, Psychology Department, McGill University

2024 Jun *Guest speaker,* “The effect of misophonia on cognitive and social judgments”, soQuiet Science Session

2024 Apr *Panelist,* Causes of Misophonia, 2nd annual CARE for Misophonia Day

2023 May *Guest Speaker,* Misophonia and the Brain, 1st annual CARE for Misophonia Day

2023 Jan *Guest Speaker,* Science 'N' Suds, Parsons North Brewing Company

2022 Nov *Featured "Ask Me Anything" Guest*, Reddit.com/r/IAmA

2022 Sept *Guest speaker,* "Curation of FOAMS: a Free Open-Access Misophonia Stimuli Database", soQuiet Science Session

2019-2021 *Vice President,* Center for Cognitive and Behavioral Brain Imaging student group, The Ohio State University

2021 Jun *Graduate Student Panelist*, Coding for Brain Decoding program, Center for Cognitive and Behavioral Brain Imaging's Advancing Diversity in NeuroImaging Research Initiative, The Ohio State University

2021 Apr *Diffusion MRI Guest Speaker,* Introduction to MRI series for undergraduate research assistants, Clinical Neuroscience Lab (PI: Dr. Ruchika Prakash), The Ohio State University

2018 July *Graduate Student Panelist,* "Applying to graduate school" held by the Center for Cognitive & Brain Sciences Summer Institute, The Ohio State University

2017 Nov *Psychology Honors Society Guest Speaker,* Cognitive area graduate student representative, Psi Chi monthly meeting, The Ohio State University

Additional Skills

- Programming experiments and analyzing data using Matlab, Python and bash shell scripts
- Collecting and analyzing physiological measurements through BIOPAC Systems, Inc.
- Processing neuroimaging data using freesurfer, FSL, SPM
- Editing sounds on Audacity and Adobe Audition