

Sophie Wohltjen

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Current Position

2022 – present **Post-doctoral Research Associate**
University of Wisconsin - Madison
PI: Paula Niedenthal, Niedenthal Emotions Lab

Education

2016 – 2022 **Ph.D.**, Psychological and Brain Sciences
Dartmouth College, Hanover, NH
Dissertation: Examining Coupled Attention from Individual Differences to Dynamic Interactions

2010 – 2014 **B.A.s**, Cognitive Science, Music
University of Virginia, Charlottesville, VA
Thesis: Ambiguity and Complexity as Factors in Simultaneous Rhythm and Sentence Processing

Research Experience

2016 – 2022 **Graduate Student**
Dartmouth College, Hanover, NH
PI: Thalia Wheatley, Dartmouth Social Systems Lab

2014 – 2016 **Post-Baccalaureate Research Fellow**
National Institute of Mental Health, Bethesda, MD
PI: Alex Martin, Laboratory of Brain and Cognition

2013 **Summer Research Experience in Brain and Cognitive Science Student**
University of South Carolina, Columbia, SC
PI: Dirk-Bart den Ouden, Neurolinguistics Lab

2012 – 2014 **Distinguished Major Thesis Student**
University of Virginia, Charlottesville, VA
PI: Michael Kubovy, Kubovy Perception Lab

Publications

Published Manuscripts

- 2025 **Wohltjen, S.**, Colon, Y., Zhu, Z., Huang, A., Miller, K., Li, Y., Mutlu, B., & Niedenthal, P. (2025). Uniting theory and data: The promise and challenge of creating an honest model of facial expression. *Cognition and Emotion*, 1-15. [\[link\]](#)
- 2024 **Wohltjen, S.**, & Wheatley, T. (2024). Interpersonal eye-tracking reveals the dynamics of interacting minds. *Frontiers in Human Neuroscience –Interacting Minds and Brains*, 18. [\[link\]](#)
- 2023 Turkstra, L., Hosseini-Moghaddam, S., **Wohltjen, S.**, Nurre, S.V., Mutlu, B., & Duff, M. (2023). Facial affect recognition in context in adults with and without TBI. *Frontiers in Psychology – Emotion Science*, 14. [\[link\]](#)
- Wohltjen, S.**, Zhong, Y., Colon, I., Zhao, O., Ward, E., Li, Y., Mutlu, B., & Niedenthal, P. (2023). Discovering facial behaviors in the wild. *Affective Science: Proceedings of the Society for Affective Science 2023*.
- Wohltjen, S.**, Toth, B., Boncz, A., & Wheatley, T. (2023). Synchrony to a beat predicts synchrony with other minds. *Nature Scientific Reports*, 13(3591). [\[link\]](#) [\[data and code\]](#) Media Coverage: [Psychology Today](#)
- 2021 **Wohltjen, S.** & Wheatley, T. (2021). Eye contact marks the rise and fall of shared attention in conversation. *Proceedings of the National Academy of Sciences*, 118(37), 1-8. [\[link\]](#) [\[data and code\]](#) Media Coverage: [Scientific American](#), [Forbes](#)
- 2020 **Wohltjen, S.** & Wheatley, T. (2020). Eye contact is a marker of alignment in conversation. *Proceedings of the ACM Collective Intelligence*.
- 2018 Avery, J.A., Ingeholm, J.E., **Wohltjen, S.**, Collins, M., Riddell, C., Gotts, S.J., Kenworthy, L., Wallace, G., Simmons, K., & Martin, A. (2018). Neural correlates of taste reactivity in autism spectrum disorders. *Neuroimage Clinical*, 19, 38-46. [\[link\]](#)
- 2017 Mellem, M., **Wohltjen, S.**, Gotts, S., Ghuman, A., & Martin, A. (2017). Intrinsic frequency biases and profiles across human cortex. *Journal of Neurophysiology*. [\[link\]](#)
- 2016 Getz, L., **Wohltjen, S.**, & Kubovy, M. (2016). Competition between rhythmic and language organization: The importance of task demands. *Quarterly Journal of Experimental Psychology*, (69). [\[link\]](#)

Manuscripts under review

- Niedenthal, P. & **Wohltjen, S.** (under review). Historical migration patterns and the emergence of culture. Featured review for special issue on historical psychology in *Current Research in Ecological and Social Psychology*.

Manuscripts in prep

Colon, Y., **Wohltjen, S.**, Tong, Y., & Niedenthal, P. (in prep). Feeling, movement, meaning: Exploring the conceptual space of dynamic facial expression.

Wohltjen, S., Goldman, M., & Wheatley, T. (in prep). Hanging on to *almost* every word: Pupillary asynchrony between storytellers and listeners predicts enhanced memory for surprising, exciting story moments.

Zhu, Z*, Huang, A.*, **Wohltjen, S.**, Niedenthal, P., & Li, Y. (in prep). An unsupervised and generative approach to categorizing facial expression.

Wohltjen, S., Colon, I., Zhu, Z., Huang, A., Miller, K., Li, Y., Mutlu, B., & Niedenthal, P. (in prep). A data-driven framework for discovering facial behaviors in the wild.

Wohltjen, S. & Wheatley, T. (in prep) Rapt with attention: Spontaneous eye blink rate decreases as conversation partners become more engaged.

Talks

2024

University of Texas at Austin, Psychology Department
Austin, Texas

Building a Model of Social Coordination in Dyadic Interaction

University of Tennessee–Knoxville, Psychology Department
Knoxville, Tennessee

Building a Model of Social Coordination in Dyadic Interaction

University of Michigan, Center for Complex Systems
Virtual meeting

Building A Model of Social Coordination in Dyadic Interaction

Society for Affective Science, Invited Methods Workshop
New Orleans, LA

Capturing and assessing dyadic interactions

Society for Affective Science, What People See in Ambiguous Facial Expressions
Conference Symposium
New Orleans, LA

The promise and challenge of creating an honest model of facial expression

International Research Listening Seminar (Organizers: Guy Itzhakov and Avraham Kluger)
Virtual meeting

Eye contact marks the rise and fall of shared attention in conversation

- 2023 Facial Affect Conferences (Organizers: Joshua Correll, Debbie Ma, and Bernd Wittenbrink)
Virtual meeting
Discovering facial behaviors in the wild (co-author with Paula Niedenthal)
Bar-Ilan University, Social Neuroscience Lab (PI: Ilanit Gordon)
Virtual meeting
From “I” to “We”: Examining social interaction from individuals to dyads
Society for Affective Science, Flash Talk
Long Beach, CA
Discovering facial behaviors in the wild
- 2022 University of Wisconsin–Madison, Social Area Lab and Discussion Meeting
Madison, WI
The dance of conversation: Investigating coordinated nonverbal communication during dyadic interaction
University of Wisconsin–Madison, Social Area Lab and Discussion meeting
Madison, WI
Examining coupled attention from individual differences to dynamic interactions.
- 2021 Western Kentucky University, Psychology Research Practicum
Bowling Green, KY
Attention in the real world: From individual differences to dynamic interactions
- 2020 ACM Collective Intelligence Conference
Virtual meeting
Eye contact is a marker of alignment in conversation
- 2019 Dartmouth College, Robertson Lab (PI: Caroline Robertson)
Hanover, NH
Social attention
Society for Affective Science, Poster Spotlight Presentation
Boston, MA
Eye contact facilitates shared attention in natural conversation
Dartmouth College, Social Brain Sciences Brown Bag
Hanover, NH
Sharing attention during eye contact
- 2016 National Institutes of Health, Laboratory of Brain and Cognition
Bethesda, MD
Intrinsic frequency biases across the cortex (co-author with Monika Mellem)

2013 University of South Carolina, Department of Psychology
Columbia, SC
Comparison of neural correlates for musical and linguistic syntax

Posters

Advisees are underlined

- 2024 Miller, K., **Wohltjen, S.**, & Niedenthal, P. (2024). Conversations in synchrony: Does synchrony increase feelings of connection via emotional accuracy in dyads? Society for Affective Science, New Orleans, LA.
- 2023 **Wohltjen, S.**, Goldman, M., & Wheatley, T. (2023). Hanging on to *almost* every word: Pupillary asynchrony between storytellers and listeners predicts enhanced memory for surprising, exciting story moments. Society for Personality and Social Psychology, Atlanta, GA.
- Colon, Y. I., **Wohltjen, S.**, Zhong, Y., Li, Y., Mutlu, B., & Niedenthal, P. (2023). Faces in the wild: Clustering facial expressions using face movement trajectories. Society for Personality and Social Psychology, Atlanta, GA.
- 2022 Goldman, M., **Wohltjen, S.**, & Wheatley, T. (2022). Salience and predictability as tools for good storytelling. Society for Personality and Social Psychology, San Francisco, CA.
- 2021 **Wohltjen S.** & Wheatley, T (2021). Sharing attention during eye contact in natural conversation. Social and Affective Neuroscience Society, virtual.
- Goldman, M., **Wohltjen, S.**, & Wheatley, T. (2021). Investigating the role of salience and predictability in good storytelling. Society for Personality and Social Psychology, virtual.
- 2020 **Wohltjen, S.** & Wheatley, T. (2020). Sharing attention during eye contact in natural conversation. Social and Affective Neuroscience Society, cancelled.
- 2019 **Wohltjen, S.** & Wheatley, T. (2019). Eye contact facilitates shared attention in natural conversation. Society for Affective Science, Boston, MA.
- Wohltjen S.** & Wheatley, T. (2019). Eye contact facilitates shared attention in natural conversation. Social and Affective Neuroscience Society, Miami, FL.
- 2017 **Wohltjen, S.**, Mellem, M., Ghuman, A., Gotts, S., & Martin, A. (2017). Neural Frequency Abnormalities in Social Brain Regions in Autism Spectrum Disorders. Social and Affective Neuroscience Society, Los Angeles, CA.
- 2016 Collins, M. A., Milleville, S. C., **Wohltjen, S.**, Ingeholm, J. E., Wallace, G. L., Simmons, K., Gotts, S. J., & Martin, A. (2016). Food-Related Symptoms in Autism

Are Related to Aberrant Gustatory System Functional Connectivity. Society for Neuroscience, San Diego, CA.

Wohltjen, S., Mellem, M., Gotts, S., Ghuman, A., & Martin, A. (2016). Neural Frequency Abnormalities in Social Brain Regions of Autism Spectrum Disorder. NIH Post-bac Poster Day, Bethesda, MD.

Mellem, M., **Wohltjen, S.**, Ghuman, A., & Martin, A. (2016). The Cortex Displays Regional Intrinsic Frequency Biases. Cognitive Neuroscience Society, New York, NY.

2015 Mellem, M., Ghuman, A., **Wohltjen, S.**, & Martin, A. (2015). Intrinsic Frequency Biases across the Posterior-Anterior Cortical Hierarchy. Society for Neuroscience, Chicago, IL.

Wohltjen, S., Mellem, M., Ghuman, A., & Martin, A. (2015). Resting State MEG Reveals Intrinsic Frequency Differences between Sensory and Frontal Cortices. Presented at the NIH Post-bac Poster Day, Bethesda, MD.

2014 **Wohltjen, S.** Getz, L., & Kubovy, M. (2014). Ambiguity and Complexity as Factors in Simultaneous Rhythm and Sentence Processing. L. Starling Reid Undergraduate Psychology Research Conference, Charlottesville, VA.

Honors and Awards

2023	Society for Affective Science High Ranking Abstract Award
2022	NIH Training Program in Emotion Research Postdoctoral Training Award
2021	Social and Affective Neuroscience Society Poster Award
2019	Society for Affective Science Poster Spotlight Award
2019	Neukom Travel Grant
2017	Dartmouth Graduate Student Council Conference Grant
2014	University of Virginia Highest Distinction award in Cognitive Science
2014	University of Virginia Highest Distinction award in Music
2013	Charles S. Roberts Scholarship
2013	Raven Society Membership at University of Virginia
2010	University of Virginia Echols Scholar

Teaching experience

2023	Human Emotion: From Biology to Culture , University of Wisconsin - Madison Discussion Section Instructor • Teaching Assistant
2023	Cognitive Neuroscience , Western Kentucky University Guest lecturer

2020	Skype a Scientist , Skype a Scientist Program Guest Lecturer
2019	Introduction to Psychology , Dartmouth College Teaching Assistant • Guest Lecturer
2018	Emotion , Dartmouth College Teaching Assistant • Guest Lecturer
2017	Research Methods in Psychology , Dartmouth College Lab Instructor • Teaching Assistant • Guest Lecturer
2016	Abnormal Psychology , Dartmouth College Teaching Assistant

Selected Student Advising

2023 – present	Karina Miller '23 Niedenthal Emotions Lab Manager University of Wisconsin – Madison
2023	Obsune Osso '25 PREP undergraduate Summer Research Scholar University of Wisconsin – Madison
2018 – 2022	Maria Goldman '22 Honors Thesis student • STAMPS scholar • Presidential Research Scholar Dartmouth College
2017 – 2021	Peter Kaiser '21 Second Year Research Scholar • Presidential Research Scholar Dartmouth College
2017 – 2019	Oriana Gamper '19 Second Year Research Scholar • Third Year Research Scholar Dartmouth College
2017	Jason Dunlap '18 ASURE Program Summer Research Scholar Dartmouth College

Workshops

2024	University of Wisconsin-Madison Delta Program: Research Mentor Training
2023	University of Wisconsin-Madison Delta Program: Design an Inclusive Canvas Dream Course

2023	University of Wisconsin-Madison Waisman Center: Breaking the Bias Habit Training
2021	Dartmouth Center for the Advancement of Learning: Future Faculty Teaching Series
2020	The Love Consortium: Community Event
2020	Academics for Black Survival and Wellness

Professional Activities & Service

Professional Memberships

Social and Affective Neuroscience Society
 Society for Affective Science
 Society for Personality and Social Psychology

Service

2024 – 2025	Society for Affective Science Abstract Review Board
2023	Post-doctoral Mental Health Focus Group Member
2020 – 2021	Dartmouth Graduate Student Council
2019 – 2022	Graduate Student Peer Mentor
2019 – 2021	Social Area Graduate Student Representative
2018 – 2021	Building Inclusivity to Advance Science (BIAS) Group Member
2018 – 2019	Social Area Lab Meeting Coordinator
2017 – 2018	Graduate Research Roundtable Co-Chair

Reviewer

American Psychologist • Biological Psychology • Biotechnology and Biological Sciences Research Council • eLife Sciences • Frontiers in Psychology • Journal of Eye Movement Research • Journal of Neuroscience • Motivation and Emotion • National Science Foundation • Nature Communications Psychology • Nature Scientific Reports • NeuroImage • Psychological Science • Visual Cognition

Technical Skills

Programming Languages

Python • Matlab • R • Bash

Stimulus/Survey Presentation

Psychopy • psychtoolbox • E-Prime • Qualtrics

Data Analysis

Scientific-Python • Scikit-learn • dtw-python • lme4 • mlVAR • NLTK • PyTorch • Tensorflow

Data Visualization

Seaborn • Matplotlib • ggplot

Collaborative and Version Control Tools

Git/Github