

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

- 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

Wohltjen, S., Colon, Y., Zhu, Z., Huang, A., Miller, K., Li, Y., Mutlu, B., & Niedenthal, P. (under revision). Uniting theory and data: The promise and challenge of creating an honest model of facial expression. *Cognition and Emotion*.

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 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 Department of Psychology, University of South Carolina
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 Personality and Social Psychology
Society for Affective Science

Service

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

Biotechnology and Biological Sciences Research Council
eLife Sciences
Frontiers in Psychology
Journal of Eye Movement Research
Journal of Neuroscience
National Science Foundation
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