

Sophie Wohltjen

University of Wisconsin – Madison
Department of Psychology

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Current Position

Post-doctoral Research Associate

2022 – *present*

University of Wisconsin - Madison

Niedenthal Emotions Lab

PI: Paula Niedenthal

Education

Dartmouth College, Hanover, NH

2016 – 2022

Ph.D., Psychological and Brain Sciences

Dartmouth Social Systems Lab

PI: Thalia Wheatley

Thesis: [Examining Coupled Attention from Individual Differences to Dynamic Interactions](#)

University of Virginia, Charlottesville, VA

2010 – 2014

B.A., Cognitive Science

B.A., Music

Thesis: [Competition Between Rhythmic And Linguistic Meaning Revisited: The Importance of Task Demands](#)

Employment

Post-Baccalaureate Research Fellow

2014 - 2016

National Institute of Mental Health – Bethesda, MD

Laboratory of Brain and Cognition

PI: Alex Martin

Research Experience

University of Virginia, Charlottesville, VA

2012 – 2014

PI: Michael Kubovy

Research assistant / Honors thesis student

University of South Carolina, Columbia, SC

2013

Summer Research Experience in Brain and Cognitive Sciences

PI: Dirk-Bart den Ouden

Research assistant

Awards

NIH Training Program in Emotion Research Postdoctoral Trainee

2022-2023

Society for Affective Science High Ranking Abstract Award

2023

Social and Affective Neuroscience Society Poster Award

2021

Society for Affective Science Poster Spotlight Award

2019

Neukom Travel Grant

2019

Dartmouth Graduate Student Council Conference Grant

2017

Highest Distinction in Cognitive Science at University of Virginia

2014

Highest Distinction in Music at University of Virginia

2014

Charles S. Roberts Scholarship

2013-2014

Raven Society Membership at University of Virginia

2013-2014

University of Virginia Echols Scholar

2010-2014

Manuscripts

Published

Wohltjen, S., & Wheatley, T. (2024). Interpersonal eye-tracking reveals the dynamics of interacting minds. *Frontiers in Human Neuroscience – Interacting Minds and Brains*, 18. [\[link\]](#)

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., Toth, B., Boncz, A., & Wheatley, T. (2023). Synchrony to a beat predicts synchrony with other minds. *Nature Scientific Reports*, 13(3591). [\[link\]](#) [\[data and code\]](#)
Coverage: [Psychology Today](#)

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. [\[link\]](#) [\[data and code\]](#)
Coverage: [Scientific American](#), [Forbes](#)

Wohltjen, S. & Wheatley, T. (2020). Eye contact is a marker of alignment in conversation. *Proceedings of the ACM Collective Intelligence*.

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. [\[link\]](#)

Mellem, M., **Wohltjen, S.**, Gotts, S., Ghuman, A., & Martin, A. (2017). Intrinsic frequency biases and profiles across human cortex. *Journal of Neurophysiology*. [\[link\]](#)

Getz, L., **Wohltjen, S.**, & Kubovy, M. (2016). Competition between rhythmic and language organization: The importance of task demands. *Quarterly Journal of Experimental Psychology*, (69). [\[link\]](#)

Under review/In press

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

In prep

Wohltjen, S., Zhong, Y., Colon, I., Zhao, O., Ward, E., Li, Y., Mutlu, B., & Niedenthal, P. (in prep). A data-driven model for discovering facial behaviors in the wild.

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.

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

Talks & Presentations

Capturing and assessing dyadic interactions. 2024

Invited methods workshop at the Society for Affective Science Annual Conference, New Orleans, LA.

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

Symposium presentation at the Society for Affective Science Annual Conference, New Orleans, LA.

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

Invited talk, International Research Listening Seminar, virtual.

Discovering facial behaviors in the wild. 2023

Invited talk (co-author with Paula Niedenthal), Facial Affect Conference, virtual.

From “I” to “We”: Examining social interaction from individuals to dyads.

Invited talk, Bar Ilan University, Ramat Gan, Israel.

Discovering facial behaviors in the wild.

Flash talk at the Society for Affective Science Annual Conference, Long Beach, CA.

The dance of conversation: Investigating coordinated nonverbal communication during dyadic interaction. 2022

Presentation at the Social Area Lab and Discussion meeting, University of Wisconsin – Madison, Madison, WI

Examining coupled attention from individual differences to dynamic interactions.

Invited talk, University of Wisconsin – Madison, Madison, WI.

Examining coupled attention from individual differences to dynamic interactions.

Public dissertation defense, Dartmouth College, Hanover, NH.

Attention in the real world: From individual differences to dynamic interactions. 2021

Invited talk, Western Kentucky University, Bowling Green, KY.

Eye contact is a marker of alignment in conversation. 2020

Presentation at the Social Area Lab Meeting, Dartmouth College, Hanover, NH.

Eye contact is a marker of alignment in conversation.

Presentation at the ACM Collective Intelligence Conference, virtual.

(Not so) social attention.

Presentation at the Social Area Lab Meeting, Dartmouth College, Hanover, NH.

Social attention. 2019

Invited talk, Dartmouth College, Hanover, NH.

Eye contact and learning to communicate.

Guest lecture in the Introduction to Psychology course, Dartmouth College, Hanover, NH.

Learning language.

Guest lecture in the Introduction to Psychology course, Dartmouth College, Hanover, NH.

Eye contact facilitates shared attention in natural conversation.

Presentation at the Annual Meeting of the Society for Affective Science, Boston, MA.

Sharing attention during eye contact.

Presentation at the Social Brain Sciences Brown Bag Series, Dartmouth College, Hanover, NH.

Defining predictability. 2018

Presentation at the Social Area Lab Meeting, Dartmouth College, Hanover, NH.

Love and Rejection.

Guest lecture in the Emotion psychology course, Dartmouth College, Hanover, NH.

How do people share attention?

Qualifying exam presentation, Dartmouth College, Hanover, NH.

Predicting attention to natural speech with individual models of pupil dilation. 2017

Presentation at the Social Area Lab Meeting, Dartmouth College, Hanover, NH.

Intrinsic frequency biases across the cortex.

2016

Presentation at the National Institutes of Mental Health, Bethesda, MD.

Comparison of neural correlates for musical and linguistic syntax.

2013

Presentation at the University of South Carolina, Columbia, SC.

Posters and Conference Proceedings

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.

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: SAS 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.

Goldman, M., **Wohltjen, S.**, & Wheatley, T. (2022). Salience and predictability as tools for good storytelling. Society for Personality and Social Psychology, San Francisco, CA.

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.

Wohltjen, S. & Wheatley, T. (2020). Sharing attention during eye contact in natural conversation. Social and Affective Neuroscience Society, cancelled.

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.

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.

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.

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, April). Resting State MEG Reveals Intrinsic Frequency Differences between Sensory and Frontal Cortices. Presented at the NIH Post-bac Poster Day, Bethesda, MD.

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.

Teaching

Human Emotion: From Biology to Culture TA and Discussion Section Instructor University of Wisconsin - Madison	2023
Design An Inclusive Canvas Dream Course Semester-long teaching course Delta Program at UW - Madison	2023
Future Faculty Teaching Series Multi-week teaching workshop Dartmouth Center for the Advancement of Learning	2021
Skype a Scientist Guest Lecturer Skype a Scientist program	2020
Introduction to Psychology TA and Guest Lecturer Dartmouth College	2019
Emotion TA and Guest Lecturer Dartmouth College	2018

Research Methods in Psychology TA, Guest Lecturer, Lab Discussion Leader Dartmouth College	2017
Abnormal Psychology TA Dartmouth College	2016

Mentorship

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

Professional Activities & Service

Professional Memberships

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

Service

Post-doc mental health focus groups	2023
Volunteer, UW – Madison	
Dartmouth Graduate Student Council	2020 – 2021
Council member, Dartmouth College	
Graduate Student Peer Mentor Program	2019 – 2022
Peer mentor, Dartmouth College	
Social Area Graduate Student Representative	2019 – 2021
Graduate representative, Dartmouth College	
Building Inclusivity to Advance Science (BIAS) group	2018 – 2021
Graduate student member, Dartmouth College	
Social Area Lab Meeting	2018 – 2019
Meeting coordinator, Dartmouth College	
Graduate Research Roundtable	2017 – 2018
Co-Chair, Dartmouth College	

Reviewer

Biotechnology and Biological Sciences Research Council
eLife Sciences
Frontiers in Psychology
Journal of Eye Movement Research
Journal of Neuroscience
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, fastdtw, lme4, mlVAR

Data Visualization

Seaborn, Matplotlib, ggplot

Collaborative and Version Control Tools

Git/Github