

# Melissa Thye

PHD STUDENT · PSYCHOLOGY

7 George Square, Edinburgh EH8 9JZ

✉ m.thye@ed.ac.uk | 🏠 mthye.github.io | 🐦 @MelissaThye

## Education

---

2019 - **Ph.D., Psychology**, *University of Edinburgh*

- Supervisors: Daniel Mirman & Paul Hoffman

2015 - 2017 **M.A., Developmental Psychology**, *University of Alabama at Birmingham*

- Supervisor: Rajesh Kana

2010 - 2014 **B.S., Psychology** (Summa Cum Laude), *University of Central Florida, Burnett Honors College*

- Cognitive Sciences Minor

## TRAINING

---

2022 - 2023 **Aurora Leadership Training**, *Scotland Cohort*

2022 **The Inside of Autism**, Instructor: Kieran Rose

2017 **Certified Scan Operator**, *Siemens MAGNETOM Prisma 3.0T MRI Scanner*

2016 **Multimodal Neuroimaging Training Program**, *Pittsburgh, PA*

- Diffusion Weighted Imaging Modality, Instructor: Fang-Cheng Yeh

2016 **FreeSurfer Course**, *Boston, MA*

2016 **Associate's Certificate**, *Center for the Integration of Research, Teaching, and Learning*

2015 **Graduate Certificate in Autism Spectrum Disorder**, *University of Central Florida*

## Employment

---

2022 - 2023 **Research Assistant**, Department of Psychology, *University of Edinburgh*

- Supervisor: Aja Murray
- Project: Developing a Digital Tool to Facilitate Counterfactual Analysis of Mental Health Data

2022 **Human Testing Technician**, Department of Psychology, *University of Edinburgh*

- Supervisor: Rob McIntosh
- Project: A Registered Re-examination of Prism Adaptation on Landmark Judgements

2021 - 2022 **Research Assistant**, Department of English Literature, *University of Edinburgh*

- Supervisors: Patrick Errington & Daniel Mirman
- Project: Difficulty and Pleasure in the Comprehension of Metaphors using fNIRS

2019 - 2023 **Research Assistant**, *University of Edinburgh*

- Supervisor: Daniel Mirman
- Project: Recovery of Functional Communication in Post-Stroke Aphasia

2014 - 2015 **Therapist & Teacher**, *Florida Autism Center, Sanford, FL*

2013 **Research Assistant**, Anxiety Disorders Clinic (Deborah Beidel), *University of Central Florida*

2012 - 2014 **Research Assistant**, Technology and Aging Lab (Janan Smither), *University of Central Florida*

2012 - 2014 **Research Assistant**, Children's Learning Clinic (Mark Rapport), *University of Central Florida*

## Awards, Fellowships, & Grants

2022	<b>CAHSS Challenge Investment Fund</b> , <i>University of Edinburgh</i>	£8,600
	• Project: The Neural Basis of Semantic and Social Cognition in Autism	
	• Role: Key Collaborator	
2022	<b>Research Support Grant</b> , <i>University of Edinburgh</i>	£460
2022	<b>Research Support Grant</b> , <i>University of Edinburgh</i>	£815
2016	<b>Civitan Emerging Scholars Fellowship</b> , <i>University of Alabama at Birmingham</i>	\$25,000
2016	<b>Ireland Research Travel Scholarship</b> , <i>University of Alabama at Birmingham</i>	\$1,000
2015 - 2017	<b>College of Arts and Sciences Graduate Fellowship</b> , <i>University of Alabama at Birmingham</i>	\$32,000
2014	<b>Distinguished Undergraduate Researcher Award</b> , <i>University of Central Florida</i>	
2010 - 2014	<b>Florida Academic Scholars Award</b> , <i>University of Central Florida</i>	

## Teaching Experience

2021	<b>Research Methods in Cognitive Science</b> , Guest Lecture, <i>Rutgers University</i>
	• Lecture Title: <i>Using fMRI (and more!) to Study Human Cognition</i>
2018	<b>Developmental Psychology</b> , Instructor, <i>University of Alabama at Birmingham</i>
2017	<b>Abnormal Psychology</b> , Teaching Assistant, <i>University of Alabama at Birmingham</i>
2013 - 2014	<b>Abnormal Psychology</b> , Teaching Assistant, <i>University of Central Florida</i>

## Publications

### PEER REVIEWED PUBLICATIONS

\* *equally contributing authors*

**Thye, M.**, Hoffman, P., & Mirman, D. (Accepted In-Principle). Registered Report: The neural basis of naturalistic semantic and social cognition. *Scientific Reports*.



McIntosh, R.D., Ten Brink, A.F., Mitchell, A.G., Jones, H., Peng, N., **Thye, M.**, & Bultitude, J.H. (Accepted In-Principle). A registered re-examination of the effects of leftward prism adaptation on landmark judgements in healthy people. *Cortex*.



Zevgolatakou, E., **Thye, M.**, & Mirman, D. (2022). Behavioural and neural structure of fluent speech production deficits in aphasia. *Brain Communications*.

Errington, P., **Thye, M.**, & Mirman, D. (2022). Difficulty and pleasure in the comprehension of verb-based metaphor sentences: A behavioral study. *PLOS ONE*. DOI: <https://doi.org/10.1371/journal.pone.0263781>



Adezati, E., **Thye, M.**, Edmondson-Stait, A.J., Szaflarski, J.P., & Mirman, D. (2022). Lesion correlates of auditory sentence comprehension deficits in post-stroke aphasia. *NeuroImage: Reports*. DOI: <https://doi.org/10.1016/j.ynirp.2021.100076>



**Thye, M.**, Geller, J., Szaflarski, J.P., & Mirman, D. (2021). Intracranial EEG evidence of functional specialization for taxonomic and thematic relations. *Cortex*, 140, 40-50. DOI: <https://doi.org/10.1016/j.cortex.2021.03.018>



**Thye, M.**, Szaflarski, J.P., & Mirman, D. (2020). Shared lesion correlates of semantic and letter fluency in post-stroke aphasia. *Journal of Neuropsychology*. DOI: <https://doi.org/10.1111/jnp.12211>



Geller, J., **Thye, M.**, & Mirman, D. (2019). Effects of graded white matter damage and binary tract disconnection on post-stroke language impairment. *NeuroImage*, 189, 248-257. DOI: [10.1016/j.neuroimage.2019.01.020](https://doi.org/10.1016/j.neuroimage.2019.01.020)



Mirman, D., & **Thye, M.** (2018). Uncovering the neuroanatomy of core language systems using lesion-symptom mapping. *Current Directions in Psychological Science*, 27(6), 455-461. DOI: [10.1177/0963721418787486](https://doi.org/10.1177/0963721418787486)

**Thye, M.**, & Mirman, D. (2018). Relative contributions of lesion location and lesion size to predictions of varied language deficits in post-stroke aphasia. *NeuroImage: Clinical*, 20, 1129-1138. DOI: [10.1016/j.nicl.2018.10.017](https://doi.org/10.1016/j.nicl.2018.10.017)

- Goodman, E.S., Boe, L., **Thye, M.**, & Mirman, J.H. (2018). Using community detection analysis to elucidate caregivers' mental models of pediatric concussion symptoms. *Safety*, 4(3), 35. DOI: 10.3390/safety4030035
- Thye, M.D.**, Ammons, C.J., Murdaugh, D.L., & Kana, R.K. (2018). Differential recruitment of theory of mind brain network across three tasks: An independent component analysis. *Behavioural Brain Research*, 347, 385-393. DOI: 10.1016/J.BBR.2018.03.041
- Thye, M.D.**, Murdaugh, D.L., & Kana, R.K. (2018). Brain mechanisms underlying reading the mind from eyes, voice, and actions. *Neuroscience*, 374, 172-186. DOI: 10.1016/J.NEUROSCIENCE.2018.01.045
- Thye, M.D.\***, Bednarz, H.M.\*, Herringshaw, A.J.\*, Sartin, E.B.\*, & Kana, R.K.\* (2018). The impact of atypical sensory processing on social impairments in autism spectrum disorder. *Developmental Cognitive Neuroscience*, 29, 151-167. DOI: 10.1016/j.dcn.2017.04.010

## BOOK CHAPTERS

- Mirman, D., & **Thye, M.** (2022). Lesion-Based Prediction and Predictive Inference. In: Pustina, D., Mirman, D. (eds) *Lesion-to-Symptom Mapping*, vol 180 (pp. 219-236). Neuromethods, vol 180. Springer, New York, NY. DOI: 10.1007/978-1-0716-2225-4\_12
- Thye, M.** (2022). Automated Segmentation — Tools and Examples: LINDA software. In: Pustina, D., Mirman, D. (eds) *Lesion-to-Symptom Mapping*, vol 180 (pp. 317-323). Neuromethods, vol 180. Springer, New York, NY. DOI: 10.1007/978-1-0716-2225-4
- Thye, M.** (2022). Lesion-Symptom Mapping — Tools and Examples: LESYMAP software. In: Pustina, D., Mirman, D. (eds) *Lesion-to-Symptom Mapping*, vol 180 (pp. 337-341). Neuromethods, vol 180. Springer, New York, NY. DOI: 10.1007/978-1-0716-2225-4

## UNDER REVIEW

- Ding, J., **Thye, M.**, Edmondson-Stait, A., Szaflarski, J.P., & Mirman, D. (*under review*). A multiverse evaluation of connectome-based lesion-symptom mapping in post-stroke aphasia.
- Reilly, E., Schwartz, R., **Thye, M.**, & Geller, J. (*under review*). Visual perspective taking in autistic and non-autistic children.

## Presentations

### INVITED

\* *presenting author*

- Thye, M.\*** (2021, October). *Open Research: What's in it for me?*. Research talk at the Open Research Event Series, University of Edinburgh, Edinburgh, UK. **[Talk Materials]**
- Thye, M.\*** & Kana, R.K. (2017, April). *Characterizing the Heterogeneity in Autism Spectrum Disorder Using Brain Connectivity Underlying Social Cognition*. Invited research presentation at the Civitan International/Simpson-Ramsey Neurodevelopmental Symposium, Birmingham, AL.

### SUBMITTED

- Goodman, A. M.\*, Janko, D., Davis, K. E., Pizarro, D., **Thye, M.**, Wang, Z., Magnotti, J. F., & Szaflarski, J. P. (2022). *Auditory Feedback Processing in the Orbitofrontal Cortex*. Poster presented at the Annual Meeting of the American Epilepsy Society, Nashville, TN.
- Janko, D.\*, Goodman, A. M., Davis, K. E., Magnotti, J. F., Wang, Z., Pizarro, D., **Thye, M.**, & Szaflarski, J. P. (2022). *Comorbid Anxiety is Related to Gamma Frequency Amygdala Response to Fearful Faces*. Poster presented at the Annual Meeting of the American Epilepsy Society, Nashville, TN.
- Thye, M.\***, Hoffman, P., & Mirman, D. (2022, June). *Activation of Semantic and Social Brain Networks During Auditory Story Comprehension*. Poster presented at the Organization for Human Brain Mapping, Glasgow, UK.
- Ding, J.\*, **Thye, M.**, Edmondson-Stait, A., Szaflarski, J.P., & Mirman, D.\* (2022, June). *A Multiverse Evaluation of Connectome-based Lesion-symptom Mapping in Post-stroke Aphasia*. Poster presented at the Organization for Human Brain Mapping, Glasgow, UK.

- Zevgolatakou, E., **Thye, M.**, & Mirman, D.\* (2021, October). *A multivariate behavioural and lesion-symptom mapping investigation of the core aspects of fluent speech production*. Platform presentation given at the Academy of Aphasia Meeting (virtual).
- Thye, M.\***, Szaflarski, J.P., & Mirman, D. (2020, February). *Using intracranial EEG to measure the neural dynamics of language processing*. Research talk at the Language Processing and Representation: Scottish-German Perspectives Workshop, Dundee, UK.
- Adezati, E., **Thye, M.**, Szaflarski, J.P., & Mirman, D.\* (2021, October). *Lesion Correlates of Auditory Sentence Comprehension Deficits in Post-Stroke Aphasia*. Slide Slam presented at the Society for the Neurobiology of Language Meeting (virtual).
- Thye, M.\***, Geller, J., Pizarro, D., Szaflarski, J.P., & Mirman, D. (2019, March). *An Intracranial EEG Study of Taxonomic and Thematic Relations*. Poster presented at the Cognitive Neuroscience Society Meeting, San Francisco, CA.
- Thye, M.\***, Geller, J., Pizarro, D., Szaflarski, J.P., & Mirman, D. (2018, November). *An intracranial EEG Study of Semantic Cognition*. Poster presented at the Psychonomic Society Meeting, New Orleans, LA.
- Thye, M.\*** & Mirman, D. (2018, August). *Relative Contributions of Lesion Location and Lesion Size to Predictions of Varied Language Deficits in Post-Stroke Aphasia*. Poster presented at the Society for the Neurobiology of Language Meeting, Québec City, Canada.
- Geller, J.\*, **Thye, M.**, & Mirman, D. (2018, August). *Effects of Graded White Matter Damage and Binary Tract Disconnection on Post-Stroke Language Impairment*. Poster presented at the Society for the Neurobiology of Language Meeting, Québec City, Canada.
- Thye, M.\*** & Kana, R.K. (2017, May). *Characterizing the Heterogeneity in Autism Spectrum Disorder Using Brain Connectivity Underlying Social Cognition*. Poster presented at the International Meeting for Autism Research, San Francisco, CA.

## Other Professional Activities

### SERVICE AND OUTREACH

- 2018 - 2019 **Colloquium Coordinator**, Neuroimaging Journal Club, *University of Alabama at Birmingham*  
 2017 - 2019 **Student Representative**, Developmental Psychology, *University of Alabama at Birmingham*  
 2016 - 2019 **Brain Awareness Week Volunteer**, McWane Science Center, *Birmingham, AL*  
 2013 - 2014 **Service Officer**, Psi Chi International Honors Society, *University of Central Florida*  
 2013 **Student Intern**, Center for Autism & Related Disabilities, *Orlando, FL*

### PEER REVIEW

PLOS ONE

eNeuro

NeuroImage: Clinical

Brain and Language

Journal of Neuroscience

Quarterly Journal of Experimental Psychology

Assistive Technology