Yulan D. Chen, M.Res.

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EDUCATION

2025 –	Doctoral Student, Clinical Science Vanderbilt University, Nashville, TN Advisor: Antonia N. Kaczkurkin, Ph.D.
2022 – 2024	Master of Research (M.Res.), Developmental Neuroscience and Psychopathology University College London, London, UK and Yale University, New Haven, CT Honors: Distinction Dissertation: The Adolescent Balancing Act: Cognitive-Motivational Phenotypes in Late Childhood and their Associated Neural Circuits Advisor: Youngsun T. Cho, M.D., Ph.D.
2016 – 2020	Bachelor of Art, Psychology & Global Health Northwestern University, Evanston, IL

FELLOWSHIP

2025 – 2026 College of Arts & Sciences Graduate Fellowship, Vanderbilt University

Amount: \$36,500

HONORS & AWARDS

2025 Child Study Center Postgraduate Travel Award, Yale University (\$500) 2017 – 2020 Weinberg College Dean's List, Northwestern University

PEER-REVIEWED PUBLICATIONS

(*equal author contribution)

- Chen, Y. D., Otaishat, L., Lisi, M., Dajani, R., El Kharouf, A., von Stumm, S., Hadfield, K., Mareschal, I., & Michalek, J. E. (2025). Trust perception in Syrian refugee children. *Development and Psychopathology*, 1-12. https://doi.org/10.1017/S0954579425100606
- 2. Norcia, A. M., Kaestner, M., **Chen, Y. D.**, & Clement, C. S. (2025). Late development of sensitivity to relative disparity in human visual cortex in the face of precocial development of sensitivity to absolute disparity. *Journal of Neuroscience*, 45, e0126242024. https://doi.org/10.1523/JNEUROSCI.0216-24.2024

- 3. Yan, X., Tung, S. S.*, Fascendini, B.*, **Chen, Y. D.**, Norcia, A. M., & Grill-Spector, K. (2024). When do visual category representations emerge in infants' brains? *eLife*. *13*, RP100260. https://doi.org/10.7554/eLife.100260.3
- 4. Kaestner, M., Chen, Y. D., Clement, C. S., Hodges, A., & Norcia, A. M. (2024). Two disparity channels in human visual cortex with different contrast and blur sensitivity. *Translational Vision & Science Technology*, *13*, 21. https://doi.org/10.1167/tvst.13.2.21
- 5. **Chen, Y. D.***, Kaestner, M.*, & Norcia, A. M. (2022). Cognitive penetrability of scene representations based on horizontal image disparities. *Scientific Reports*, *12*, 17902. https://doi.org/10.1038/s41598-022-22670-7
- 6. Kaestner, M., Evans, M. L., **Chen, Y. D.**, & Norcia, A. M. (2022). Dynamics of absolute and relative disparity processing in human visual cortex. *NeuroImage*, *255*, 119186. https://doi.org/10.1016/j.neuroimage.2022.119186

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION

- 1. **Chen, Y. D.***, Agrawal, S.*, Anokhin, A. P., Luciana, M., Gee, D., Cho, Y. T. (2025). Interactions between neurocognitive development and child and adolescent mental health: Findings from the ABCD study. Manuscript in preparation
- 2. Ellis, K. E., Archer, C., Reimann, G. E., **Chen, Y. D.**, Francois, R., & Kaczkurkin, A. N. (2025). Self-esteem and rumination as mediators of the association between bullying and disordered eating. Manuscript in preparation.
- 3. Archer, C., Chen, Y. D., Reimann, G. E., Jeong, H. J., Durham, E. L., Ellis, K. E. & Kaczkurkin, A. N. (2025). Functional connectivity signatures of irritability in children. Manuscript in preparation.
- 4. Reimann, G. E., Archer, C., Durham, E. L., Jeong, H. J., Chen, Y. D., Wang, S., Derr, T., Chang, C., & Kaczkurkin, A. N. (2025). Similarity indices and community detection within an internalizing symptoms network. Manuscript in preparation.
- 5. Ellis, K. E.*, Camara, A.*, Archer, C., **Chen, Y. D.**, Reimann, G. E., & Kaczkurkin, A. N. (2025). *Environmental predictors of neurostructural and impulsivity trajectories in youth*. Manuscript in preparation.

PEER-REVIEWED ABSTRACTS & CONFERENCE PRESENTATIONS

- 1. **Chen, Y. D.**, Otaishat, L., Lisi, M., Dajani, R., El Kharouf, A., von Stumm, S., Hadfield, K., Mareschal, I., & Michalek, J. E. (2025). Trust perception in Syrian refugee children. Symposium talk presented by Julia Michalek, Ph.D. at the 2025 European Conference on Developmental Psychology. Vilnius, Lithuania, EU.
- 2. **Chen, Y. D.,** Lin, C., Okolo, J., Brege, S., Pham, P., Lee, K., Ji, J. L., & Cho, Y. T. (2025). Cognitive-motivational phenotypes in late childhood. *Biological Psychiatry*, *97*, S254-255. Poster presented at the 2025 Society of Biological Psychiatry meeting. Toronto, Ontario, CA. https://www.biologicalpsychiatryjournal.com/article/S0006-3223(25)00720-6/abstract

- 3. Pham, P., Agrawal, S., Frazier, A., **Chen, Y. D.**, & Cho, Y. T. (2025). Motivational Effects on Cognition in Adolescents with Depression and Neurotypical Peers. *Biological Psychiatry*, *97*, S209. Poster presented at the 2025 Society of Biological Psychiatry meeting. Toronto, Ontario, CA. https://www.biologicalpsychiatryjournal.com/article/S0006-3223(25)00611-0/abstract
- 4. **Chen, Y. D.**, Lin, C., Okolo, J., Brege, S., Ji, J. L., Anticevic, A., Cho, Y. T. (2024). The Adolescent Balancing Act: Cognitive-motivational phenotypes in late childhood. Presented at the MRes in Developmental Neuroscience and Psychopathology Poster Session. New Haven, CT, US.
- Norcia, A. M., Kaestner, M., Chen, Y. D., & Clement, C. S. (2024). Late development of sensitivity to relative disparity in human visual cortex in the face of precocial development of sensitivity to absolute disparity. *Journal of Vision*, 24, 581. Talk given by Anthony M. Norcia, Ph.D. at the 2024 Vision Sciences Society meeting. St. Pete's Beach, Florida, US. https://doi.org/10.1167/jov.24.10.581
- 6. **Chen, Y. D.**, Yan, X., Grill-Spector, K., & Norcia, A. M. (2023). Spatio-temporal dynamics of category-selective responses in human visual cortex. Poster presented at the 2023 Society for Neuroscience meeting. Washington D.C., US. https://www.abstractsonline.com/pp8/#!/10892/presentation/41576
- 7. Clement, C., Kaestner, M., **Chen, Y. D.**, Norcia, A. M. (2022). *Does monocular sensitivity limit the development of binocular sensitivity?* Presented at the Stanford University Psychology Summer Program. Stanford, CA, US.
- 8. Yan, X., Chen, Y. D., Norcia, A. M., & Grill-Spector, K. (2022). Investigating the temporal dynamics of visual categorization in the human brain using fast periodic visual stimulation. *Journal of Vision*, *22*, 4295. Poster presented at the 2022 Vision Sciences Society meeting. St. Pete's Beach, Florida, US. https://doi.org/10.1167/jov.22.14.4295
- 9. Kaestner, M., Hodges, A., **Chen, Y. D.**, & Norcia, A. M. (2022). Blur disrupts sustained, not transient, global form-from-disparity mechanisms. *Journal of Vision*, *22*, 3303. Poster presented at the 2022 Vision Sciences Society meeting. St. Pete's Beach, Florida, US. https://jov.arvojournals.org/article.aspx?articleid=2784015
- 10. **Chen, Y. D.**, Kaestner, M., & Norcia, A. M. (2021). Functional specificity of attentional modulation in the disparity domain. Program No. 489.02. 2021, Neuroscience Meeting Planner. Presented poster at the 2021 Society for Neuroscience virtual meeting. https://www.abstractsonline.com/pp8/#!/10485
- 11. **Chen, Y. D.**, Kaestner, M., Lo Verde, L., & Norcia, A. M. (2021). Functional specificity of attentional modulation in the disparity domain. *Journal of Vision*, *21*, 2912. Presented poster at the 2021 Vision Sciences Society virtual meeting. https://doi.org/10.1167/jov.21.9.2912
- 12. Kaestner, M., **Chen, Y. D.**, & Norcia, A. M. (2021). Differences in contrast tuning for absolute and relative disparity channels. *Journal of Vision*, *21*, 2673. Presented poster at the 2021 Vision Sciences Society virtual meeting. https://doi.org/10.1167/jov.21.9.2673
- 13. Kaestner, M., Evans, M. L., **Chen, Y. D.**, & Norcia, A. M. (2020). Neural evidence for multiple spatio-temporal channels underlying human disparity sensitivity. *Journal of Vision*, 20, 857. Presented poster at the 2020 Vision Sciences Society virtual meeting.

https://doi.org/10.1167/jov.20.11.857

14. Donovan, A. M., Chen, Y. D., & Rapp, D. N. (2019). Warning! The benefits of evaluative searches are not augmented by pre-task admonitions. Presented by Amalia Donovan at the 2019 Psychonomic Society meeting. Montréal, Québec, CA.

https://www.psychonomic.org/page/2019program

RESEARCH EXPERIENCE

08/2025 – Doctoral Student, Brain Research and Internalizing Symptoms Lab

Department of Psychological Sciences, Vanderbilt University, Nashville, TN PI: Antonia N. Kaczkurkin, Ph.D.

07/2024 – 08/2025 Postgraduate Associate, Cho Lab

Child Study Center and Department of Psychiatry, Yale University, New Haven, CT PI: Youngsun T. Cho, M.D., Ph.D.

Project: (1) Longitudinal fMRI study on spatial working memory and cognitive function in healthy and depressed teenagers. (2) Identifying cognitive-motivational phenotypes in late childhood, their associated neural circuits, and developmental implications.

- Conducted clinical phone screens with healthy adolescents, adolescents with depression, and their parents.
- Administered and scored IQ tests (WASI) and NIH Cognitive Toolbox batteries for healthy and depressed adolescents.
- Acquired behavioral, eye-tracking, and neuroimaging data for a reward processing spatial working memory task in the MRI scanner.
- Lead the preprocessing and analysis of functional and structural MRI data from multiple Adolescent Brain Cognitive Development (ABCD) sites using QuNex and high-performance computing.
- Thoroughly documented preprocessing procedures in lab wiki pages to ensure reproducibility and transparency.

09/2023 – 06/2024 Master's Student, Cho Lab

Child Study Center and Department of Psychiatry, Yale University, New Haven, CT PI: Youngsun T. Cho, M.D., Ph.D.

Project: Identifying cognitive-motivational phenotypes in late childhood and their associated neural circuits.

- Conducted principal components analysis on baseline ABCD data from ~8,000 children to identify distinct behavioral phenotypes, validated using split-half cross-validation
- Developed and implemented rigorous quality control pipeline for structural and resting state fMRI data, ensuring data integrity across a large sample.
- Performed fMRI preprocessing and global brain connectivity analysis using Human Connectome Project (HCP) minimal preprocessing pipelines.
- Conducted and trained postgraduate research assistants to conduct visual BOLD signal quality control.
- Utilized Linux-based clusters for computational tasks, optimizing the efficiency of neuroimaging data processing.
- Earned a Distinction grade on master's dissertation by effectively synthesizing literature on adolescent cognitive-motivational development and presenting and discussing principal component findings.

11/2022 – 11/2023 Research Assistant, Visual Cognition Lab

Department of Psychology, Queen Mary University of London, UK PI: Isabelle Mareschal, Ph.D.

Project: Effect of child and maternal psychopathology on child facial trust perception in Syrian refugee mother-child dyads residing in Jordan.

- Proactively pursued research on the relationship between child trustworthiness perceptions and psychopathology, contributing to understanding of child development in vulnerable populations.
- Conducted regression analyses using IBM SPSS to investigate predictors of child trustworthiness in face-judgement tasks.
- Authored a comprehensive literature review on current research of children's trust perception of facial cues.
- Prepared a manuscript detailing study results, which found that child and maternal psychopathology did not predict child trustworthiness in a refugee cohort, while child age was a significant predictor.

03/2021 - 09/2022

Research Coordinator, Vision and Neuro-Development Lab (Norcia) and Vision & Perception Neuroscience Lab (Grill-Spector)

Wu Tsai Neuroscience Institute, Stanford University, Stanford, CA

PIs: Anthony M. Norcia, Ph.D. and Kalanit Grill-Spector, Ph.D.

Project: Development of object category visual processing utilizing a category oddball paradigm.

- Collected longitudinal infant (newborn, 3 mo, 6 mo) resting-state MRI data, ensuring hearing protection, operating the scanner, and optimizing data quality by facilitating infant sleep during scans.
- Collected adult and infant (3-6 mo) EEG data, ensuring fixation on stimuli using attention and artifact minimization techniques during infant data collection.
- Performed rigorous artifact rejection for both adult and infant EEG data to ensure data integrity and quality.
- Conducted Reliable Components Analysis on both the oddball and carrier frequencies for adult and infant data.

07/2020 - 09/2022

Research Coordinator, Vision and Neuro-Development Lab

Wu Tsai Neuroscience Institute, Stanford University, Stanford, CA PI: Anthony M. Norcia, Ph.D.

Project: Effects of attention, contrast, blur, and grating orientation on disparity sensitivity across development.

- Collected 200+ EEG sessions of adult and child (age 4-5) steady-state visually evoked potential (SSVEP) data.
- Performed Fourier analysis (frequency and time domains) with Reliable Components Analysis in MATLAB.
- Led subject recruitment (adults via SONA; children via preschools and social media) and managed participant databases using REDCap.
- Trained postdocs and staff to use Magstim EGI EEG acquisition system, including xDiva, PowerDiva, and Net Station software, in the Koret Human Neuroscience Community Lab.
- Maintained optimal functionality of 20 EEG nets for the Norcia and Koret Community labs by repairing broken electrodes.

 Developed and implemented a data storage system to ensure organized, accessible data archives for future analyses and investigations.

09/2019 - 04/2020

Undergraduate Research Assistant, Gratton Lab

Department of Psychology, Northwestern University, Evanston, IL

PI: Caterina Gratton, Ph.D.

Project: Measuring individual differences in functional networks governing emotion regulation in older adults.

• Assisted in collection of older adult data (resting-state fMRI, behavioral interviews, and behavioral tests including the NIH Toolbox and an emotion regulation task).

06/2019 - 09/2019

Summer Research Intern, Vision and Neuro-Development Lab

Department of Psychology, Stanford University, Stanford, CA

PI: Anthony M. Norcia, Ph.D.

Project: EEG pilot experiments measuring disparity sensitivity using SSVEPs.

• Conducted subject recruitment, data collection, preprocessing, and analysis for several phases of pilot testing to guide key decisions for main experiment.

09/2018 - 06/2019

Undergraduate Research Assistant, The Reading Comprehension Lab

Department of Psychology, Northwestern University, Evanston, IL

PI: David N. Rapp, Ph.D.

Project: Effects of inaccurate information on fact-checking behaviors.

• Collected data and coded screen recordings for 180 participants.

04/2018 - 06/2018

Undergraduate Research Assistant, The Social Self Lab

Department of Psychology, Northwestern University, Evanston, IL

PI: Wendi L. Gardner, Ph.D.

Project: Effects of shame and guilt on empathy and desire to belong.

• Coded 900+ participant short-answer responses.

01/2018 - 04/2018

Undergraduate Research Assistant, The Motivated Effort-Allocation Model Lab

Department of Psychology, Northwestern University, Evanston, IL

PI: Daniel C. Molden, Ph.D.

Project: Effects of perceived progress on motivated self-regulation.

• Tested participants using a computerized anagram paradigm and analyzed written responses.

CLINICAL EXPERIENCE & OBSERVATION

2023 Yale New Haven Hospital

Graduate Shadow

Children's Psychiatric Inpatient Service Advisor: Youngsun T. Cho, M.D., Ph.D.

2021 - 2022

StarVista Crisis Intervention & Suicide Prevention Center

Crisis Hotline Volunteer

SERVICE RECORD

2025 Ph.D. Application Mentor, *Project SHORT*

TEACHING EXPERIENCE

2025 Teaching Assistant - General Psychology, *Vanderbilt University*

2023 Special Educational Needs Teaching Assistant, *Opogo Education Agency*

ADDITIONAL TRAINING

2025 Regression Modeling Strategies 4-day Short Course, Frank E. Harrell Jr., Ph.D.

SKILLS

Languages: MATLAB, R, Mplus, bash scripting, Linux

Data analysis: Human Connectome Project (HCP) Minimal Preprocessing Pipelines (MPP) via the Quantitative Neuroimaging Environment and Toolbox (QuNex) suite, FMRIB Software Library (FSL), Reliable Components Analysis (RCA), Independent Component Analysis (ICA), Principal Components Analysis (PCA), split-half cross-validation, IBM SPSS

Neuroimaging techniques: High-density adult, child, and infant EEG acquisition (Magstim EGI system), low channel count adult EEG acquisition (Grass Technologies system), infant structural MRI acquisition (GE Discovery MR750 scanner), adolescent fMRI acquisition (Siemens 3T Prisma B scanner).

Psychological assessment techniques: Wechsler Abbreviated Scale of Intelligence (WASI) and NIH Toolbox Cognitive Battery with adolescents

Data collection and participant management software: Qualtrics, REDCap, Sona Systems, BuildClinical, Epic

Data visualization software: Connectome Workbench, WebPlotDigitizer, Inkscape

Languages: English (native), Mandarin (native speaker, intermediate reading and writing)