

Ya-Yun Chen

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EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech, VT), Virginia, USA	
<i>Current Doctoral Candidate in Psychology (Developmental Science)</i>	Present
<i>M.S. in Psychology, Developmental Science</i>	2021
• Advisor: Dr. Tae-Ho Lee	
National Yang-Ming University (NYMU), Taipei, Taiwan	
<i>M.S. in Brain Science, Clinical Brain Science</i>	2016
• Advisor: Dr. Jen-Chuen Hsieh	
National Chung Cheng University (CCU), Chiayi, Taiwan	
<i>B.S. in Psychology</i>	2014

GRANT ACTIVITY

2023 Alliance for Neurodevelopment Research Seed Funding, Virginia Tech	2023
• Supports dissertation research on “How Parent-Child Neural Similarity Interacts with the Neurobiological Development of Emotional Adaptation, Aggression, and Prosociality during Adolescence”	
• The total funding amounts to US\$7,500	
Government Scholarships to Study Abroad, the Ministry of Education, Taiwan	2020 – 2021
• First place fellow in the field of Psychology and Cognitive Science in 2020	
• The total funding amounts to US\$32,000	
Fulbright Graduate Study Grants	2019 – 2020
• Taiwan's 2019-2020 grant winner	
• The total funding amounts to US\$54,000	

HONORS AND AWARDS

Invited Attendees for the 2023 Plasticity of Well-being Summer Workshop	2023
• Funded by the National Center for Complementary and Integrative Health (NCCIH; U24-AT011289-01)	
• One of six networks that NIH supporting to advance the understanding of emotional well-being	
• The award covers all travel expenses, including airfare/transportation, lodging, meals, and per diem, for the 5-day workshop	
The SRCD 2023 Biennial Meeting Travel Award	2023
• The 2023 Biennial Meeting of the society for research in child development (SRCD)	
• Graduate student travel award: US\$300	
Invited Attendees for the ABCD Workshop on Modeling Developmental Change	2021
• 40 seats out of 180 applications	
• The ABCD Study is the largest long-term study of brain development and child health in the US	
The Graphic Competition Award	2015
• Only winner of the competition held by Vision Sciences Society, St. Pete Beach, Florida, USA	
Undergraduate Student Research Grant, Ministry of Science and Technology, Taiwan	2013
• Only awardee in the Department of Psychology, CCU, Taiwan	
Academic Excellence Award	2011, 2013
• Academic Excellence Award was gained by students who are top 5% of the class in a semester	

INVITED SPEECHES AND GUEST LECTURES

1. Children Derive Aggression and Prosociality from Parents in Distinct Ways	Jun. 2023
Flash talk at the Center for Healthy Minds, University of Wisconsin-Madison, USA	

2. **Practical Research Approach in Developmental Psychology** Apr. 2023
Guest lecturer at PSYC 1094: Principles of Psychology Research, Virginia Tech, USA
3. **Career Trajectory in Biological Psychology and Developmental Science** Mar. 2023
Guest speaker at PSYC 3984: Careers in Psychology, Virginia Tech, USA
4. **Independent Research in Cognitive and Developmental Neuroscience** Mar. 2022
Guest lecturer at the Graduate-level Course, National Chung Cheng University, Taiwan
5. **Cross-Cultural Differences in Aggression and Prosociality** Nov. 2021
Invited Seminar Speaker at the Graduate-level Course: Independent Research in Cognitive and Developmental Neuroscience, National Chung Cheng University, Taiwan
6. **Dynamic Causal Modeling (DCM) Workshop: From Theory to Implementation** Jul. 2019
Invited Seminar Lecturer at the Research Center for Education and Mind Sciences, National Tsing Hua University, Taiwan
7. **Domestic Violence Prevention: Revictimization Prediction and Management** Nov. 2017
Invited Talk at the Pan Knowledge Festival, PanMedia Asia, Taiwan

PUBLICATIONS

Peer-Reviewed Journal Articles († denotes trainee, * denotes equal contribution)

1. Zhou Z., **Chen, Y.-Y.**, Yang, B., Qu, Y., & Lee, T.-H. (2023). Family Cohesion Moderates the Relation between Parent-Child Neural Connectivity Pattern Similarity and Youth's Emotional Adjustment. *Journal of Neuroscience*, 43(33), 5936-5943. [*Featured Article](#)
2. **Chen, Y.-Y.**, Yim, H., Lee, T.-H. (2023). Negative Impact of Daily Screen Use on Inhibitory Control Network in Preadolescence: A Two-Year Follow-Up Study. *Developmental Cognitive Neuroscience*, 60, 101218.
3. ***Lee, L.-C.**, ***Chen, Y.-Y.**, Li, W.-C., ..., Hsieh, J.-C. (2023). Adaptive neuroplasticity in the default mode network contributing to absence of central sensitization in primary dysmenorrhea. *Frontiers in Neuroscience*, 17, 144.
4. **Chen, Y.-Y.**, Uljarevic M., Neal, J., Greening S., Yim, H., & Lee, T.-H. (2022). Distracted from their surroundings: excessive functional coupling with less variability between salience and default-mode networks in ASD. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 7(9), 876-884.
5. **Chen, Y.-Y.**, & Shyi, G. C. W. (2017). A Comparison of Identity and Emotional Expression Processing between Real and Line-Drawn Faces. *Chinese Journal of Psychology*, 59(2), 105-123.

Submitted & Under Review/Revision

1. **Chen, Y.-Y.**, Lindenmuth, M., Lee, T.-H., ..., Kim-Spoon, J. (submitted). Neural Signatures of Future Substance Use Onset and Severity in Adolescents: A Seven-Year Longitudinal Study.
2. ***Lindenmuth, M.**, ***Chen, Y.-Y.**, Lee, T.-H., ..., Kim-Spoon, J. (under review). Developmental Changes in Neural Connectivity Underlying Cognitive Control Predicted by Family Economic Environment.
3. Yang, B., **Chen, Y.-Y.**, Zhou Z., Devakonda V., Lee, T.-H., & Qu, Y. (under revision). Positive Parenting Buffers the Negative Impact of Weaker Inhibitory Control Network Connectivity on Adolescents' School Performance.

In Preparation

- **Chen, Y.-Y.**, Lee, T.-H., Shyi, G. C.-W. & Huang, T. S.-T. (in preparation). Bi- vs. Uni-dimensional Taxonomy in Aggression and Prosociality: From A Horizontal-Vertical Individualism-Collectivism Perspective.
- **Chen, Y.-Y.**, †Hong, S., & Lee, T.-H. (in preparation). Neurobiological Development of Aggression and Prosociality from Adolescence to Young Adulthood: A Systematic Review.
- †Hong, S., **Chen, Y.-Y.**, Harrison A., & Lee, T.-H. (in preparation). Emotional Uncertainty's Effect on Avoidance Behavior in Risky Conflicts in Young Adulthood.
- *Rahrig, H., *Lipsett, M., ***Chen, Y.-Y.**, *David, A., Richter, C. G., ... & Wilson-Mendenhall, C. D. (in preparation). Principles and Practices to Facilitate Emotional Well-Being in Academic.
- Wicker, P., Trang, K., ... **Chen, Y.-Y.**, ... (in preparation). Meta Well-Being: Collective Approaches to Community Care for Emerging Well-Being Scholars.
- **Chen, Y.-Y.**, Chen, C.-H., †Wang, M., & Lee, T.-H. (in preparation). Predicting aggression and prosociality in childhood and early adolescence with the socioecological approach: From neighborhoods, parents to the brain.

Conference Presentations (Selected) († denotes trainee)

1. Kim-Spoon, J., **Chen, Y.-Y.**, Lee, T.-H., Lee, J., Lindenmuth, M., Clinchard C., Lee, J., & Casas, B. (2024, June). *Neural Processing of Cognitive Control Predicts Substance Use Through Altruism*. Abstract submitted to be presented at the 2024 Annual Meeting of the Organization for Human Brain Mapping (OHBM), Seoul, Korea.

2. Lindenmuth, M., **Chen, Y.-Y.**, Lee, T.-H., Lee, J., Casas, B., & Kim-Spoon, J. (2024, April). *Sensitive Periods for the Effects of Childhood Maltreatment on Functional Connectivity during Cognitive Control*. Paper symposium submitted to be presented at the Society for Research on Adolescence (SRA), Chicago, IL, USA.
3. Lindenmuth, M., **Chen, Y.-Y.**, Lee, T.-H., Melville, N., Casas, K., & Kim-Spoon, J. (2024, April). *Effects of Chronic Maltreatment on Functional Connectivity in Risk Processing Systems*. Poster submitted to be presented at the Society for Research on Adolescence (SRA), Chicago, IL, USA.
4. **Chen, Y.-Y.**, & Lee, T.-H. (2023, November). *The association between family conflict and children's emotional capacity is mediated by parent-child neural similarity during unpredictable aversive events in youths*. Poster presented at the SfN (Society for Neuroscience) Annual Meeting 2023, Washington DC, USA.
5. [†]Hong, S., **Chen, Y.-Y.**, & Lee, T.-H. (2023, November). *The Role of the Inferior Frontal Gyrus in the Processing of Ambiguity in Emotions: Will Emotional Ambiguity Predict Avoidance Behavior?* Poster presented at the SfN (Society for Neuroscience) Annual Meeting 2023, Washington DC, USA.
6. Lindenmuth, M., **Chen, Y.-Y.**, Lee, T.-H., Melville, N., Casas, B., & Kim-Spoon, J. (2023, November). *Effects of Chronic Maltreatment on Adolescent Functional Connectivity during Risk Processing*. Poster presented at the Developmental Affective Neuroscience Symposium, Pittsburgh, PA, USA.
7. **Chen, Y.-Y.**, [†]Hong, S., Harrison, A., & Lee, T.-H. (2023, March). *Emotional Uncertainty's Effect on Avoidance Behavior in Risky Conflicts*. Poster presented at the 2023 Graduate and Professional Student Senate (GPSS) Research Symposium, Virginia Tech, Virginia, USA.
8. **Chen, Y.-Y.**, [†]Hong, S., & Lee, T.-H. (2023, March). *Children Derive Aggression and Prosociality from Parents in Distinct Ways*. Poster presented at the 2023 Biennial Meeting of the society for research in child development (SRCD), Salt Lake City, Utah, USA.
9. Lindenmuth, M., **Chen, Y.-Y.**, ... & Kim-Spoon, J. (2023, March). *Harshness vs. Unpredictability: Family Income and Functional Connectivity during Cognitive Control during Adolescence*. Poster presented at the 2023 Biennial Meeting of the society for research in child development (SRCD), Salt Lake City, Utah, USA.
10. **Chen, Y.-Y.**, [†]Wang, M., Chen, T.-J., & Lee, T.-H. (2022, May). *Predicting aggressive behaviors in childhood and early adolescence with the socioecological approach: From neighborhoods, parents to the brain*. Poster presented at the 2022 Annual Meeting of Social and Affective Neuroscience Society (SANS), Virtual.
11. [†]Wang, M., **Chen, Y.-Y.**, Chen, T.-J., & Lee, T.-H. (2022, April). *Predicting prosociality in childhood and early adolescence by integrating neighborhoods, parental factors, and the brain*. Poster presented at the Society for Research on Adolescence (SRA) Biennial Meeting, New Orleans, LA.
12. **Chen, Y.-Y.**, Yim, H., & Lee, T.-H. (2021, April). *Children of the Pandemic: Increasing Screen Exposure Time Harms Inhibitory Control Network in Developing Children*. Poster presented at the 2021 Society for Research in Child Development Biennial Meeting, Virtual.
13. **Chen, Y.-Y.**, Neal, J., & Lee, T.-H. (2020, May). *Distracted 'from' their surroundings: excessive functional coupling between salience and default-mode networks in ASD*. Poster presented at the 2020 Annual Meeting of Cognitive Neuroscience Society (CNS), Virtual.
14. **Chen, Y.-Y.**, Chen, C.-C., ... & Gary C.-W. Shyi, (2019, May). *Neural Correlates of Emotional Expression Processing of East-Asian Faces: An fMRI and Dynamic Causal Modeling Investigation*. Poster presented at the 2019 Annual Meeting of Vision Sciences Society (VSS), St. Pete Beach, FL.
15. **Chen, Y.-Y.**, Wang, Y.-H., ... & T. C. Hsieh, (2017, November). *Domestic Violence Risk Prediction and Management: A Public-Private Partnership Approach*. Oral presented at the 2017 annual meeting of American Public Health Association (APHA) 11/04, Atlanta, Georgia, USA.
16. **Chen, Y.-Y.**, Wang, Y.-H., ... & Hsieh, T. C. (2017, September). *Measuring the unmeasurable - a project of domestic violence risk prediction and management*. Oral presented at Data for Good Exchange 2017, 09/24, New York, USA.
17. **Chen, Y.-Y.**, T C.-H., ... & Hsieh, J.-C. (2016, June). *Central Processing of Thermal Pain in Young Women With Primary Dysmenorrhea*. Poster presented at the 2016 Annual Meeting of the Organization for Human Brain Mapping (OHBM), Geneva, Switzerland.
18. **Chen, Y.-Y.** & Gary C. -W, Shyi, (2015, May). *A Comparison of Perceptual and Emotional Expression Processing between Real and Line-drawn Faces*. Poster presented at the 2015 Annual Meeting of Vision Sciences Society (VSS), St. Pete Beach, FL, USA.

Books

1. Repackage Yourself: Changing makes you become a millionaire (2012/Jan./09). ISBN: 9789868738065

Media Coverage

1. Screen Time and Adolescent Brain Changes (2023/Mar./23) [[Media Link](#)]
2. Interplay Between Brain Networks in Autism (2022/Feb./22) [[Press Link](#)]
3. Mapping Domestic Violence to Reduce Recidivism (2017/Mar./16) [[Press Link](#)]
4. The First Time Domestic Violence in Taipei City Been Seen (2017/Mar./16) [[Press Link](#)]

PROFESSIONAL SERVICE & OUTREACH

Service

1. Co-reviewed for Nature Mental Health with Dr. Jungmeen Kim-Spoon 2023
2. Committee member for the Lunch & Learn meetings for graduate students in developmental science 2022-2023
3. Graduate representative of developmental science in the Department of Psychology 2020-2021

Outreach

1. Plasticity of Emotion Wellbeing Writing Retreat at the University of Wisconsin–Madison 2024
2. Flip the Fair: A Flipped Science Fair for Underrepresented 5th Graders 2023
3. Virginia Tech College of Science Summer Camps for 9th to 12th graders 2023
4. Undergraduate Research Mixer at Virginia Tech 2023

PROFESSIONAL WORK EXPERIENCE

Research Experience

Affective Neurodynamics & Development (AND) Lab, VT (PI: Dr. Tae-Ho Lee) 2019 – Present

- Conducted research projects: Parent-child neural concordance in the tasks of emotion regulation, emotion perception, aggression, prosociality, and facial expression identification
- Main research duties: Experimental design, magnetic resonance imaging (MRI) data collection, MRI scanner operation, psychophysiological signals collection, survey and computer tasks data collection, data analysis, results interpretation, and writing
- Organized cross-discipline and cross-cultural collaborations
- Mentoring undergraduate research assistants: recruitment, conducting research, data analysis, and writing
- Lab skills: MRI, Matlab, R, JASP, E-Prime, Psychtoolbox, BioPAC

JK Lifespan Development Lab, VT (PI: Dr. Jungmeen Kim-Spoon) 2022 – 2023

- Conducted National Institute on Drug Abuse (NIDA) granted research project: Neurobehavioral determinants of adolescent risk decision making and health risk behaviors
- Main research duties: 7-year longitudinal functional MRI (fMRI) data analysis, interpreting results, manuscript writing, scripting analysis pipelines, and assisting with the renewal grant application for the longitudinal study
- Trained other graduate students in basic and advanced fMRI data analyses, coding, and visualization of results
- Lab skills: MRI, Matlab, R, JASP

Center for Research in Cognitive Science, CCU, Taiwan (PI: Dr. Gary C.-W. Shyi) 2018 – 2019

- Conducted granted research project: A neural-computational approach to investigate multi-modal processing and integration of emotional expressions
- Main research duties: Experimental design, participant recruitment, magnetic resonance imaging (MRI) data collection, data analysis, results interpretation, and writing
- Successfully organized seminars and meetings for four collaborative laboratories from three institutes
- Trained undergraduate and graduate research assistants: participant recruitment, conducting research, and data analysis
- Lab skills: MRI, Matlab, SPM8/12 (GLM, DCM), E-Prime

Integrated Brain Research Unit, NYMU, Taiwan (PI: Dr. Jen-Chuen Hsieh) 2014 – 2016

- Research focused on how long-term pain experience affect on the pain processing and pain modulatory systems in human brain
- Main research duties: Collected data analysis, results interpretation, writing, and conducting transcranial direct current stimulation (tDCS) study
- Lab skills: MRI, Matlab, SPM8 (GLM, PPI), SPSS, tDCS

Visual Cognition Laboratory, CCU, Taiwan (PI: Dr. Gary C.-W. Shyi) 2013 – 2014

- Completed my undergraduate grant study on face recognition and facial emotional expression processing by using eye-movement and behavioral data

- Main research duties: Experimental design for over three experiments, participant recruitment, eye-movement and behavioral data collection, data analysis, results interpretation, and writing
- Lab skills: PsychoPy, E-Prime, Eye-link, SPSS

Sleep Laboratory, CCU, Taiwan (PI: Dr. Lin-Lin Tsai)

2011 – 2014

- Assisted study in whole night sleep deprivation, N2, and/or REM-sleep deprivation
- Main research duties: Setting up and scoring polysomnography (PSG), arranging and processing behavioral data
- Lab skills: EasyIII EEG, Excel

Teaching Experience**Lecturer**

- Functional MRI data analysis workshop, VT, USA 2023
- Dynamic Causal Modeling (DCM) for functional magnetic resonance imaging (fMRI) data, Taiwan 2019
- Team teaching: Personal Image Design, Shu-Te University, Taiwan 2019
- Team teaching: Professional English, Shu-Te University, Taiwan 2019

Teaching Assistant

- Introductory Psychology, VT, USA 2021 – 2022
- Experiments in Perception, CCU, Taiwan 2018
- Experiments in Physiology, CCU, Taiwan 2014
- Polysomnography (PSG) Setting, Sleep Lab, CCU, Taiwan 2014

Mentoring

1. **Kylie Kim**, Undergrad: Research idea development 2022 – Present
2. **Allauna Harrison**, Undergrad: Data collection, data analysis, writing 2022 – Present
3. **Marx Wang**, CS Graduate student: Research idea development, data analysis, writing 2021 – 2023
4. **Alexandra Dagli**, Undergrad: Data collection, data analysis, writing 2021 – 2022
5. **Joanne Lee**, Undergrad: Data collection 2021 – 2022
6. **Simran Puri**, Undergrad: Data collection 2021
7. **Sammy Hong**, Undergrad: Experiment material preparation, data collection, data analysis, writing 2020 – 2022
8. **Alise Bondurant**, Undergrad: Experiment material preparation 2019 – 2020
9. **Sara Honaker**, Undergrad: Experiment material preparation 2019 – 2020

CONTACT INFORMATION OF REFERENCES**Dr. Tae-Ho Lee**, taehol@vt.edu

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Dr. Jungmeen Kim-Spoon, jungmeen@vt.edu

Professor, Department of Psychology, Virginia Tech

Dr. Gary C.-W. Shyi, cwshyi@gmail.com

Professor, Center for Research in Cognitive Science, National Chung Cheng University

Dr. Jen-Chuen Hsieh, jchsieh@ym.edu.tw; jchsieh@vghtpe.gov.tw

Distinguished Professor, Institute of Brain Science, National Yang-Ming University