

# Chi-Lin Yu

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2020 East Hall, Department of Psychology, University of Michigan, 530 Church St, Ann Arbor, MI 48109  
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## EDUCATION

University of Michigan (UM), Ann Arbor, United States 2019/9-2024/4(Expected)  
Degree: Ph.D. Psychology, Developmental Area  
National Taiwan University (NTU), Taipei, Taiwan 2017/2-2018/6  
Degree: M.S. Psychology (Thesis: “*Neural Correlates of Theory of Mind in Typically Developing Youths and Youths with Autism Spectrum Disorder*”)  
National Cheng Kung University (NCKU), Tainan, Taiwan 2012/9-2016/7  
Degree: B.S. Psychology

## RESEARCH INTERESTS

I focus on social cognition in children and adults via behavioral experiments, neuroimaging techniques, and computational modeling. Specific topics include the underlying mechanism of Theory of Mind (ToM), the development of ToM, how ToM become dysfunction in autism as well as deaf populations, and also designing advanced data analyses methods to answer all the aforementioned theoretical questions.

## PUBLICATIONS

1. **Yu, C. L.**, Chen, C. C., Yang, Z. Y., & Chou, T. L. (in press). Multi-Time Points Analysis: A Time Course Analysis with Functional Near-Infrared Spectroscopy. *Behavior Research Methods*, will be published online soon.
2. Chen, D. Y., **Yu, C. L.**, Su, C. W., Liao, K. H., & Hsiao, H. Y. (2019). Cognitive Abilities in the Game of Go during the Opening, Middle, and Endgame Phases: When Experimental Psychology Meets Artificial Intelligence. *Chinese Journal of Psychology*, 61(3), 173-196 (*As the co-first author*).
3. **Yu, C. L.** & Chou, T. L. (2018). A Dual Route Model of Empathy: A Neurobiological Prospective. *Frontiers in Psychology*, 9(2212), 1-5.
4. **Yu, C. L.**, & Sheu, C. F. (2018). EFAshiny: An User-Friendly Shiny Application for Exploratory Factor Analysis. *Journal of Open Source Software*, 3(22), 567.
5. **Yu, C. L.**, Wang, M. Y., & Hu, J. F. (2016). Valence processing of first impressions in the dorsomedial prefrontal cortex: a near-infrared spectroscopy study. *NeuroReport*, 27(8), 574-579.

## PUBLICATIONS : In Preparation

1. **Yu, C. L.**, Lee, S. H., Gau S., & Chou, T. L. “Neural Correlates of Theory of Mind in Typically Developing Youths and Youths with Autism Spectrum Disorder”
2. **Yu, C. L.**, Causeur D., Shen, I. H., & Sheu, C. F. “ggerp: Visualization of Event-Related Brain Potentials with ggplot2”
3. Hu, J. F., **Yu, C. L.**, Tsai Y. L., Hsiao, Y. R. & Chen, H. C. “The Role of Theory of Mind Ability in Verbal Humor Comprehension: A functional magnetic resonance imaging study” (*As the corresponding author*)

## PRESENTATIONS

1. **Yu, C. L.**, Lee, S. H., Chen T., Liao, C. C. (2019) “The Influence of Family Reading History on Chinese Classifier Processing: An fMRI Study”, presented as a poster in the 2019 Annual Meeting of Organization for Human Brain Mapping (OHBM).
2. **Yu, C. L.**, Hwang, T. J., Chou, T. L. (2018) “Neural Changes Associated with Semantic Processing in Aged Schizophrenia”, presented as a poster in the 17th International Conference on the Processing of East Asian Languages and the 9th Conference on Language, Discourse, and Cognition (ICPEAL 17 – CLDC 9).
3. **Yu, C. L.**, Lee, S. H., Gau S., & Chou, T. L. (2018) “Aberrant Neural Organization of Theory of Mind in Youths with Autism”, presented as a poster in the 2018 Annual Meeting of Organization for Human Brain Mapping (OHBM).
4. **Yu, C. L.**, Chen, H. C., Yang, Z. Y., & Chou, T. L. (2018) “Multi-Time Points Analysis: A Time Course Analysis with Functional Near-Infrared Spectroscopy”, presented as a poster in the 3rd NTU-Kyoto University International Symposium for Cognitive Neuroscience.
5. **Yu, C. L.** & Sheu, C. F. (2017). “EFashiny: A shiny application for exploratory factor analysis”, presented as a poster in 47th annual meeting of the Society for Computers in Psychology (SCiP).
6. **Yu, C. L.**, Causeur, D., Lee, Y. s. & Sheu, C. F. (2017). “ggerp: An R Package for Graphical Explorations of Event-Related Potentials”, presented as oral presentation in a symposium of 55th Annual Taiwan Psychology Association Meeting.
7. **Yu, C. L.**, Causeur, D., Shen, I. H. & Sheu, C. F. (2016). “Using R to explore ERP data”, presented as oral presentation in a symposium of 46th annual meeting of the Society for Computers in Psychology (SCiP).
8. **Yu, C. L.**, Wang, M. Y., Chen, P. W., Yap, J. Y., Chang, J. S., Hsiao, Y. R. & Hu, J. F (2015). “Using false belief task to explore the effect of empathy situation on theory of mind function”, presented as a poster at the 37th Annual Cognitive Science Society Meeting.
9. Chu, C., **Yu, C. L.**, Chuang Y. Y., Tsai Y. L. & Hu, J. F. (2015). “An Embodied Cognition Approach to Studying Emotional Words: The Impact of Positive Facial Experiences on Semantic Properties Judgment”, presented as a poster at the 37th Annual Cognitive Science Society Meeting.
10. Tsai Y. L., **Yu, C. L.**, Hsiao, Y. R., Cho, S. L., Chen, H. C. & Hu, J. F. (2015). “The differences of semantic features between Chinese concrete, abstract, and emotional concept”, presented as a poster at the 37th Annual Cognitive Science Society Meeting.
11. Chuang Y. Y., **Yu, C. L.**, Chu, C., Tsai Y. L. & Hu, J. F. (2015) “An Embodied Cognition Approach to Studying the Impact of Negative Facial Experiences on Semantic Properties of Emotional Words”, presented as a poster at the 8th Annual Conference on Embodied and Situated Language Processing.
12. Chen S. C., Hu, J. F., Chuang Y. Y., Chu, C., & **Yu, C. L.** (2015). “Releasing Strength in Imagination Constructs Implicit Association of Simulated Action and Response Index”, presented as a poster at the 8th Annual Conference on Embodied and Situated Language Processing.

## AWARDS & FELLOWSHIPS

2019 Weinberg Institute for Cognitive Science Graduate Fellowship

2018 Taiwan Government PhD Scholarship for Studying Abroad: 4 years full funding for studying PhD in U.S.

– *This funding supports the best student in psychology/neuroscience domain. Only one student will get the scholarship each year.*

2018 Best paper award for Annual Meeting of Taiwanese Society of Child and Adolescent Psychiatry

2018 An International Conference Travel Grant from Taiwan Ministry of Science and Technology

2016 NCKU President Wei-Noon Wang Memorial Scholarship

2016 KYMCO Scholarship for outstanding student

2016 Ren-Da Industrial Park outstanding student scholarship

2015 The title of outstanding student for the academic achievement

2015 Tainan True Jesus Church outstanding student scholarship

2015 Taiwan Ministry of Science and Technology Research Scholarship (Students : Wang, M. Y. , Yu, C. L., et al.; Project Number:104-2815-C-006-149-H)

2014 Tainan True Jesus Church outstanding student scholarship

## **TEACHING EXPERIENCE**

2020 Graduate Student Instructor (GSI), Introduction to Developmental Psychology, Mentor: Dr. Kathleen Jodl

2018 Teaching Assistant, Brain and Language Course (English-Taught), Mentor: Prof. Tai-Li Chou

2017 Teaching Assistant, General Psychology Course, Mentor: Prof. Tai-Li Chou

2016 Teaching Assistant, Cognitive Neuroscience Course, Mentor: Prof. Shu-Lan Hsieh

2016 Teaching Assistant, Assessment Practicum Developmental Psychology Course, Mentor: Prof. Jon-Fan Hu

2016 Teaching Assistant, Seminar on Emotion and Memory Course, Mentor: Prof. Der-Yow Chen

## **JOURNAL REVIEWER**

– Advances in Methods and Practices in Psychological Science

## **RESEARCH EXPERIENCE**

*UM, Infant Cognition Project, Mentor: Prof. Henry Wellman*

- Explore the relationship between Theory of Mind (ToM) and language development in deaf children with cochlear implants or hearing aids
- Develop a robust and valid ToM scale for preschoolers and school-age children

*UM, Language & Literacy Lab, Mentor: Prof. Ioulia Kovelman*

- Use near functional infrared spectroscopy (fNIRS) to examine the neural development of bilingualism in Chinese-English bilingual children
- Implement naturalistic listening designs to investigate the underlying mechanism of ToM as well as language processing in typically developing children and children with dyslexia

*NTU, Language Neuroscience Laboratory, Mentor: Prof. Tai-Li Chou*

- Develop functional magnetic resonance imaging (fMRI) studies to investigate the underlying mechanism of ToM in typically developing children and children with autism spectrum disorder (ASD)
- Design a new analysis method implementing machine learning algorithms to analyze fNIRS data.
- Establish a conceptual model to interpret the mechanism of human empathy.

*NCKU, Cognitive and Affective Neuroscience Laboratory, Mentor: Prof. Der-Yow Chen*

- Develop a hyper-scanning paradigm with multi-fMRI scanners to investigate the neural underpinnings of social interaction.
- Probe the underlying mentalizing processes and cognitive abilities to play Chinese Go from experimental psychology and artificial intelligence perspectives.

*NCKU, Institute of Education, Mentor: Prof. Ching-Fan Sheu*

- Design a user-friendly web application for exploratory factor analysis (EFA) by using the shiny package in R.
- Develop exploratory graphical tools for Event-Related Potentials (ERPs) and fNIRS data analysis.

*National Tsing Hua University, Developmental Language Neuroscience Laboratory, Mentor: Prof. Shu-Hui Lee*

- Develop fMRI studies to explore the neural correlates of Chinese classifiers in typically developing children.
- Design behavioral and neuroimaging experiments to investigate the aberrant neural mechanisms of ToM and emotion-related semantic processing in patients with alexithymia.

*NCKU, Language Acquisition and Cognitive Development Laboratory, Mentor: Prof. Jon-Fan Hu*

- Pioneer fNIRS research in Taiwan to explore the neural mechanism of first impression formation.
- Develop fMRI studies to investigate the underlying relationships between ToM and humor processing.

## **SKILLS**

Languages: Mandarin: Native Fluency; English/Taiwanese: Excellent Fluency

Experimental skill: Experimental Design, Imaging Data Analysis, Scale Design and Analysis, Statistical Modeling

Computer programming: R, MATLAB, SPM, E-PRIME, HOMER, Oro.Nifti, ANTsR, fslR

## **SELECTED EXTRACURRICULAR**

2018 Volunteer Assistant, The 17th International Conference on the Processing of East Asian Languages and the 9th Conference on Language, Discourse, and Cognition (ICPEAL 17 – CLDC 9)

2016 Valedictorian, Department of Psychology, NCKU

2015 Representatives of Students in School, Department of Psychology, NCKU

2015 Chief Counselor, Psychology Summer Camp, NCKU

2015 Volunteer Assistant, The 7th Annual Taiwan Association of Clinical Psychology Meeting

2015 Symposium Student for resting state fMRI, Mind Research and imaging center, NCKU

2015 Symposium Student for Cognitive Neuroscience of Aging, Mind Research and imaging center, NCKU

2014 Activity Leader, The Night of Psychology, NCKU

2013 Leader, The Week of Psychology, NCKU