Chi-Lin Yu

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Research Interests

My research focuses on young children's acquisition, learning, and development of social-cognitive understanding, studied via behavioral experiments, neuroimaging, psychometrics/statistics/data science, and computational modeling. Specific topics include the underlying mechanism of theory of mind, the development of theory of mind, and how theory of mind varies across different social-cultural contexts and diverse samples (e.g., gender, race, ethnicity, social classes, cultures, bilingualism, deafness, and neurodiversity).

Education

2019 - Ph.D., Psychology, University of Michigan, Ann Arbor, United States

Dissertation: Sources of heterogeneity in developing theory of mind: A multimethod perspective

Primary Advisor: Henry M. Wellman

2017 – 2018 M.S., Psychology, National Taiwan University, Taipei, Taiwan

2012 – 2016 B.S., Psychology, National Cheng Kung University, Tainan, Taiwan

Publications (Google Scholar)

⁺ denotes current or former mentee. Second or last-author position with mentees as first-authors denotes senior authorship (lead Principal Investigator). First and senior authors have the largest roles.

Preprints (full-text available upon request)

- [5] Yu, C. L., Lee, S., Wellman, H. M., & Olson, S. L. (*Under Revision*). Theory of mind and executive function underlie childhood psychotic symptoms.
- [4] Yu, C. L., Gau, S. F., Lin, H. Y., Lai, M. C., Lee, S. H. & Chou, T. L. (*Under Revision*) Atypical neural factor structures underlying theory of mind processing in autism: an fMRI study.
- [3] Yu, C. L., Stanzione, C. M., Branum-Martin, L., Wellman, H. M., & Lederberg, A. R. (*Under Revision*). Conversational-communicative experience and theory of mind: A study of diverse deaf child samples.
- [2] Yu, C. L., Eggleston, R., Zhang, K., Nickerson, N., Sun, X., Marks, R., Hu, X. S., Brennan, J. R., Wellman, H. M., & Kovelman, I. (*Under Review*) Neural processing of children's theory of mind in a naturalistic story-listening paradigm. https://psyarxiv.com/8ns5v
- [1] ⁺Zhixin Li, Trisha Thomas, **Yu, C. L.**, & Ying Xu (*Under Review*). "I Said Knight, Not Night!": Children's Communication Breakdowns and Repairs with AI Versus Human Partners.

Published Peer-Reviewed Journal Articles

- [22] Eggleston, R., Marks, R., Sun, X., **Yu, C. L.**, Zhang, K., Nickerson, N., Caruso, V., Hu, X. S., & Kovelman, I. (*Accepted*). Brain bases of morphological awareness differ between typical readers and children with dyslexia. *Journal of Speech, Language, and Hearing Research*.
- [21] Nickerson, N., Sun, X., Caruso, V., Zhang, K., Yu, C. L., Eggleston, R., Chaku, N., Hu, X. S., Satterfield, T. & Kovelman, I. (*Accepted*). What's in the sound? Common and language-specific patterns in brain activation and functional connectivity for phonological awareness in Spanish-English bilinguals. *Mind, Brain and Education*.
- [20] Yu, C. L., & Wellman, H. M. (In Press). Where do differences in theory-of-mind development come from? An agent-based model of social interaction and theory-of-mind. Frontiers in Developmental Psychology. https://doi.org/10.3389/fdpys.2023.1237033
- [19] Hong, S., Yu, C. L., Rousson, A., Bender, A., Fedina, L., & Herrenkohl, T. (2023). Exploring the impact of adversity history on internalizing symptoms in adulthood: Analysis of types, repetition, variety, and timing of past adversity. *Journal of Interpersonal Violence*, 39(3-4), 569-586. https://doi.org/10.1177/08862605231198056
- [18] Zhang, K., Sun, X., Yu, C. L., Eggleston, R., Marks, R., Nickerson, N., Caruso, V., Hu, X. S., Tardif, T., Chou., T. L., Booth, J. R. & Kovelman, I. (2023). Phonological and morphological literacy skills in English and Chinese: A cross-linguistic neuroimaging comparison of Chinese-English bilingual and monolingual English children. Human Brain Mapping, 44(13), 4812–4829. https://doi.org/10.1002/hbm.26419
- [17] Yu, C. L., & Wellman, H. M. (2023). All humans have a "theory of mind." Journal of Autism and Developmental Disorders, 53, 2531–2534. https://doi.org/10.1007/s10803-022-05584-1
- [16] Sun, X., Marks, R., Eggleston, R., Zhang K., Yu, C. L., Nickerson, N., Caruso, V., Chou., T. L., Hu., X. S., Tardif, T., Booth, J.R., Beltz, A.M., & Kovelman, I. (2023). Sources of heterogeneity in functional connectivity during English word processing in bilingual and monolingual children. *Neurobiology of Language*, 4(2), 198-220. https://doi.org/10.1162/nol_a_00092
- [15] Sun, X., Marks, R., Eggleston, R, Zhang, K., Lau, C., Yu, C. L., Nickerson, N., & Kovelman, I. (2023). Impacts of the COVID-19 disruption on the language and literacy development of monolingual and heritage bilingual children in the United States. Reading and Writing, 36(2), 347-375. https://doi.org/10.1007/s11145-022-10388-x
- [14] Marks, R., Labotka, D., Sun, X., Nickerson, N., Zhang, K., Eggleston, R., Yu, C. L., Uchikoshi Y., Hoeft F., & Kovelman, I. (2023). Morphological awareness and its role in early word reading in English monolinguals, Spanish–English, and Chinese–English simultaneous bilinguals. *Bilingualism: Language and Cognition*, 26(2), 268-283. https://doi.org/10.1017/S1366728922000517
- [13] Sun, X., Marks, R., Zhang, K., Yu, C. L., Eggleston, R., Nickerson, N., Chou, T. L., Hu, X. S., Tardif, T., Satterfield, T., & Kovelman, I. (2023) Brain bases of En-

- glish morphological processing: A comparison between Chinese-English, Spanish-English bilingual, and English monolingual children. Developmental Science, 26(1), e13251. https://doi.org/10.1111/desc.13251
- [12] Yu, C. L., & Wellman, H. M. (2022). Young children treat puppets and dolls like real persons in theory of mind research: A meta-analysis of false-belief understanding across ages and countries. *Cognitive Development*, 63, 101197. https://doi.org/10.1016/j.cogdev.2022.101197
- [11] Wellman, H. M., & Yu, C. L. (2022). Theory of puppets or theory of mind? Misunderstanding how children construe puppets in psychological research: A commentary on Packer and Moreno-Dulcey (2022). Cognitive Development, 63, 101218. https://doi.org/10.1016/j.cogdev.2022.101218
- [10] Marks, R. A., Eggleston, R. L., Sun, X., Yu, C. L., Zhang, K., Nickerson, N., Hu, X. S., & Kovelman, I. (2022). The neurocognitive basis of morphological processing in typical and impaired readers. *Annals of Dyslexia*, 72(2), 361–383. https://doi.org/10.1007/s11881-021-00239-9
 - [9] Sun, X., Zhang, Z., Marks, R., Karas, Z., Eggleston, E., Nickerson, N., Yu, C. L., Wagley, N., Hu, X. S., Caruso, V., Chou, T. L., Satterfield, T., Tardif, T., & Kovelman, I. (2022). Morphological and phonological processing in English monolingual, Chinese-English bilingual, and Spanish-English bilingual children: An fNIRS neuroimaging dataset. Data in Brief, 42, 108048. https://doi.org/10.1016/j.dib.2022.108048
 - [8] Sun, X., Zhang K., Marks, R., Nickerson, N., Eggleston, R., Yu, C. L., Chou., T. L., Tardif, T., & Kovelman, I. (2022). What's in a word? Cross-linguistic influences on Spanish-English and Chinese-English bilingual children's word reading development. Child Development, 93(1), 84-100. https://doi.org/10.1111/cdev.13666
 - [7] Yu, C. L., Kovelman, I., & Wellman, H. M. (2021). How bilingualism informs us about theory of mind development. *Child Development Perspectives*, 15(3), 154-159. https://doi.org/10.1111/cdep.12412
 - [6] Yu, C. L., Stanzione, C. M., Wellman, H. M., & Lederberg, A. R. (2021). Theory of mind development in young deaf children with early hearing provisions. *Psychological Science*, 32(1), 109-119. https://doi.org/10.1177/0956797620960389
 - [5] Yu, C. L., Chen, C. C., Yang, Z. Y., & Chou, T. L. (2020). Multi-time points analysis: A time course analysis with functional near-infrared spectroscopy. *Behavior Research Methods*, 52(4), 1700–1713. https://doi.org/10.3758/s13428-019-01344-9
 - [4] Chen, D. Y., Yu, C. L. (co-first), 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. https://doi.org/10.6129/CJP.201909_61(3).0001
 - [3] Yu, C. L., & Chou, T. L. (2018). A dual route model of empathy: A neurobiological perspective. Frontiers in Psychology, 9(2212), 1-5. https://doi.org/10.3389/fpsyg.2018.02212

- [2] 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. https://doi.org/10.21105/joss.00567
- [1] 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. https://doi.org/10.1097/WNR.00000000000000571

Published Peer-Reviewed Conference Proceedings

[1] ⁺Zhang, C., Liu, X., ⁺Ziska, K., Jeon, S., **Yu, C. L.**, & Xu, Y. (*In Press*). Mathemyths: Leveraging Large Language Models to Teach Mathematical Language through Child-AI Co-Creative Storytelling. *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*.

Research Presentations

Invited Talks and Colloquia

- [11] Yu, C. L. (2024, March). Developing a Theory of Mind: An Interdisciplinary Perspective. Invited talk in the Laboratory for Developmental Studies Group, Department of Psychology, Harvard University, Boston.
- [10] Yu, C. L. (2024, January). Studying Theory of Mind through an Interdisciplinary lens: from NCKU to UM. Invited talk in the Department of Psychology, National Cheng Kung University, Tainan, Taiwan.
- [9] Yu, C. L. (2024, January). Developing a Theory of Mind: An Interdisciplinary Perspective. Invited talk in the Department of Psychology, National Chung Cheng University, Chiayi, Taiwan.
- [8] Yu, C. L. (2023, December). Developing a Theory of Mind: An Interdisciplinary Perspective. Invited talk in the Department of Psychology, University of Wisconsin–Madison, Madison.
- [7] Yu, C. L. (2023, November). Developing a Theory of Mind: An Interdisciplinary Perspective. Invited talk in the Department of Psychology, Oklahoma State University, Stillwater.
- [6] Yu, C. L. (2023, July). Multi-Methods and Theory of Mind Development. Invited talk in Social Learning Lab, Department of Psychology, Stanford University, Palo Alto.
- [5] Yu, C. L. (2023, March). Where Do Differences in Theory of Mind Development Come from? An Agent-Based Model of Social Interaction and Theory of Mind. Invited talk in the Developmental Area Colloquium, Department of Psychology, University of Michigan, Ann Arbor.
- [4] Yu, C. L. (2022, June). Open Science in Developmental Psychology. Invited talk in the Michigan Summer Program in Cognition and Early Development, Department of Psychology, University of Michigan, Ann Arbor.

- [3] Yu, C. L. (2021, June). Open Science in Developmental Psychology. Invited talk in the Michigan Summer Program in Cognition and Early Development, Department of Psychology, University of Michigan, Ann Arbor.
- [2] Yu, C. L. (2021, March). Theory of Mind Development in Young Deaf Children with Early Hearing Provisions. Invited talk in the Developmental Area Colloquium, Department of Psychology, University of Michigan, Ann Arbor.
- [1] Yu, C. L. (2020, November). Predictive Processing during Naturalistic Comprehension in Developmental Dyslexia. Invited talk in the Language and Cognition Colloquium, Department of Psychology, University of Michigan, Ann Arbor.

Selected Conference Presentations (as the first or senior author)

- [19] ⁺Hurtado, A., **Yu, C. L.**, Xu Y., & Kovelman, I. (2024, March). How Children Learn with Artificial Intelligence: A Study of Dialogic Story Listening. Poster presented at the 2024 Annual Marshall M. Weinberg Symposium, Ann Arbor.
- [18] Yu, C. L., Eggleston, R., Brennan, J. R., Wellman, H. M., & Kovelman, I. (2024, March). Neural processing of children's theory of mind in a naturalistic story-listening paradigm. Poster presented at the 2024 Biennial Meeting of the Cognitive Development Society (CDS), Pasadena.
- [17] ⁺Hurtado, A., **Yu, C. L.**, Xu Y., & Kovelman, I. (2024, March). *How Children Learn with Artificial Intelligence: A Study of Dialogic Story Listening*. Symposium presentation at the 2024 Latinx Research Week at the University of Michigan, Ann Arbor.
- [16] Yu, C. L., Eggleston, R., Zhang, K., Nickerson, N., Sun, X., Marks, R., Hu, X. S., Brennan, J. R., Wellman, H. M., & Kovelman, I. (2023, October). Using a naturalistic listening paradigm to study brain bases of language comprehension in developmental dyslexia. Symposium presentation at the 2023 Annual Reading, Literacy, & Learning Conference of the International Dyslexia Association (IDA), Columbus.
- [15] ⁺Baybaş, J., **Yu, C. L.**, ⁺Damiani, J., ⁺Gao, R., Kovelman, I., & Brennan, J. R. (2023, September). *Natural Language Comprehension in the Developing Brain: A Computational Neurolinguistics Perspective*. Symposium presentation at the 2023 Yale and Wu Tsai fNIRS Workshop, New Haven.
- [14] ⁺Damiani, J., ⁺Gao, R., ⁺Baybaş, J., **Yu, C. L.**, & Kovelman, I. (2023, August). *Natural Language Comprehension in the Developing Brain: A Computational Neurolinguistics Perspective*. Poster presented at the 2023 Michigan Summer Program in Cognition and Early Development (MSPICED) Symposium, Ann Arbor.
- [13] Yu, C. L., Stanzione, C. M., Branum-Martin, L., Wellman, H. M., & Lederberg, A. R. (2023, March). Theory of mind development in deaf children: The effects of language exposure and usage. Poster presented at the 2023 Biennial Meeting of the Society for Research in Child Development (SRCD), Salt Lake City.
- [12] Yu, C. L. & Wellman, H. M. (2023, March). Where do differences in theory-of-mind development come from? An agent-based model of social interaction and theory-of-mind.

- Poster presented at the 2023 Biennial Meeting of the Society for Research in Child Development (SRCD), Salt Lake City.
- [11] ⁺Carrera, C., **Yu, C. L.**, & Kovelman, I. (2022, September). Exploring the Neural Mechanism of Theory of Mind Processing Through a Naturalistic Lens. Poster presented at the 2022 Michigan Summer Program in Cognition and Early Development (MSPICED) Symposium, Ann Arbor.
- [10] Yu, C. L., Eggleston, R., Kovelman, I., & Brennan, J. R. (2022, April). Using functional near-infrared spectroscopy to study developmental aspects of naturalistic narrative comprehension. Symposium presentation at the 2022 Biennial Meeting of the Cognitive Development Society (CDS), Madison.
- [9] Yu, C. L. & Wellman, H. M. (2022, April). Young children treat puppets (and dolls and pictures) like real persons. Poster presented at the 2022 Biennial Meeting of the Cognitive Development Society (CDS), Madison.
- [8] Yu, C. L., Heng, J., & Wellman, H. M. (2021, April). A meta-analysis of progressions in theory-of-mind understandings: Theory of mind scale findings across different contexts an initial exploration. Symposium presentation at the 2021 Biennial Meeting of the Society for Research in Child Development (SRCD), Virtual.
- [7] Yu, C. L., Lee, S., Wellman, H. M., & Olson, S. L. (2021, April). Theory of mind and executive function underlie childhood psychotic symptoms. Poster presented at the 2021 Biennial Meeting of the Society for Research in Child Development (SRCD), Virtual.
- [6] Yu, C. L., Sun, X., Zhang, K. H., Kim, J., Marks, R., Nickerson, N., & Kovelman, I. (2020, October). Cross-language neural interconnection of phonological awareness and morphological awareness in simultaneous Chinese-English bilingual children. Poster presented at the 12th Annual Meeting of Society for the Neurobiology of Language (SNL), Virtual.
- [5] Yu, C. L., Lee, S. H., Chen T., & Liao, C. C. (2019, June). The influence of family reading history on Chinese classifier processing: An fMRI study. Poster presented at the 2019 Annual Meeting of the Organization for Human Brain Mapping (OHBM), Rome.
- [4] Yu, C. L., Lee, S. H., Gau S., & Chou, T. L. (2018, June). Aberrant neural organization of theory of mind in youths with autism. Poster presented at the 2018 Annual Meeting of the Organization for Human Brain Mapping (OHBM), Singapore.
- [3] Yu, C. L., & Sheu, C. F. (2017, November). *EFAshiny: A shiny application for exploratory factor analysis*. Poster presented at 47th annual meeting of the Society for Computers in Psychology (SCiP), Vancouver.
- [2] Yu, C. L., Causeur, D., Shen, I. H., & Sheu, C. F. (2016, November). *Using R to explore ERP data*. Symposium presentation at the 46th annual meeting of the Society for Computers in Psychology (SCiP), Boston.
- [1] Yu, C. L., Wang, M. Y., Chen, P. W., Yap, J. Y., Chang, J. S., Hsiao, Y. R., & Hu, J. F (2015, July). Using false-belief task to explore the effect of empathy situation on

theory of mind function. Poster presented at the 37th Annual Cognitive Science Society Meeting (CogSci), Pasadena.

Research Grants

2023	University of Michigan Psychology Dissertation Research Grant Role: PI			
	Title: A meta-analysis of progressions in theory-of-mind understandings Amount: \$1,000 USD			
2021	Rackham Candidate Graduate Student Research Grant Role: PI			
	Title: Social-cultural determinants of early theory-of-mind development Amount: \$3,000 USD			
2020	Rackham Precandidate Graduate Student Research Grant			
	Role: PI Title: Measuring theory of mind across early and middle childhood Amount: \$1,500 USD			
2015	Taiwan Ministry of Science and Technology Research Grant			
	Role: PI			
	Title: Understanding theory of mind: Evidence from preschoolers			
	Amount: \$1,500 USD			
Honors and Awards				
2024 - 2025	Harvard Postdoctoral Fellowship in Psychology (Declined due to overlap)			

2024 - 2023	narvard Fostdoctorar Fenowship in Fsychology (Declined due to overlap)
2019 - 2024	Taiwan Government Ph.D. Scholarship for Studying Abroad (\$200,000 USD)
2023 - 2024	Rackham Predoctoral Fellowship (\$36,000 USD)
2023	University of Michigan Psychology Departmental Associate
2023	Rackham One-Term Dissertation Fellowship (\$12,000 USD)
2023	Hagen-Stevenson Dissertation Research Award (\$1,500 USD)
2023	Society for Research in Child Development (SRCD) Graduate Student Travel
	Award (\$300 USD)
2023	Rackham Conference Travel Award (\$900 USD)
2021 - 2023	Funding for the Summer Program in Quantitative Methods of Social Research
	(\$9,200 USD)
2021	The Inter-university Consortium for Political and Social Research (ICPSR)
	Diversity Scholarship (\$2,500 USD)
2021	The Lorraine Nadelman Early Graduate Student Research Award (\$750 USD)
2021	Rackham International Student Fellowship and the Chia-Lun Lo Fellowship
	(\$10,000 USD)
2020	Best Paper Award for Chinese Journal of Psychology in 2019 Academic Year
2019	Weinberg Institute for Cognitive Science Graduate Fellowship (\$12,000 USD)
2018	Best Paper Award for the Annual Meeting of Taiwanese Society of Child and
	Adolescent Psychiatry (\$200 USD)
2018	Taiwan Ministry of Science and Technology International Conference Travel
	Award(\$1,500 USD)

2016		National Cheng Kung University President Wei-Noon Wang Memorial Scholarship (\$400 USD)
2015		Outstanding Student for Academic Achievement at National Cheng Kung University (\$100 USD)
Teac	hing	
2024	0	Developmental Cognitive Neuroscience: Social Cognition
		Guest Instructor (Primary instructor: Dr. Ioulia Kovelman)
		Undergraduate Lecture University of Michigan
2022 -	2023	Statistics and R Programming
		Primary Instructor Undergraduate Lecture University of Michigan
2023		Introduction to Developmental Psychology
		Graduate Student Instructor (Primary instructor: Dr. Ioulia Kovelman)
		Undergraduate Lecture University of Michigan
2023		Introduction to Cognitive Neuroscience
		Guest Instructor (Primary Instructor: Dr. Ying Xu)
		Graduate Seminar University of Michigan
2021 -	- 2022	Open Science in Psychology
		Primary Instructor Undergraduate Seminar University of Michigan
2021		Psychometric Theory
		Graduate Student Instructor (Primary Instructor: Dr. Matthew Diemer)
		Graduate Lecture University of Michigan
2020		Introduction to Developmental Psychology
		Graduate Student Instructor (Primary instructor: Dr. Katie Jodl)
2010		Undergraduate Lecture University of Michigan
2019		Psychology and Modern Life
		Teaching Assistant (Primary instructor: Dr. Shu-Hui Lee)
2010		Undergraduate Lecture National Tsing Hua University
2018		Brain and Language
		Teaching Assistant (Primary instructor: Dr. Tai-Li Chou)
2017		Undergraduate Lecture National Taiwan University
2017		Introduction to Psychology Teaching Assistant (Primary instructor: Dr. Tai-Li Chou)
		Undergraduate Lecture National Taiwan University
2016		Cognitive Neuroscience
2010		Teaching Assistant (Primary instructor: Dr. Shu-Lan Hsieh)
		Undergraduate Lecture National Cheng Kung University
2016		Assessment Practicum Developmental Psychology
2010		Teaching Assistant (Primary instructor: Dr. Jon-Fan Hu)
		Undergraduate Seminar National Cheng Kung University
2016		Seminar on Emotion and Memory
_010		Teaching Assistant (Primary instructor: Dr. Der-Yow Chen)
		Undergraduate Lecture National Cheng Kung University
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Mentoring

Graduate Students

- 2023 Ethan Lee, National Tsing Hua University
- 2023 2024 James Baybaş, University of Michigan

Lab Staff

2023 – Ziqian Shen, University of Michigan

Undergraduate Students

- 2024 Isabella Yoon, University of Michigan
- 2023 Astrid Hurtado, University of Michigan (Honors student) | Awards: Tanner Memorial Award
- 2023 Ruimin Gao, University of Michigan
- 2023 2024 Xi Zhang, University of Michigan
- 2023 2024 Jessica Damiani, University of Maryland (Research Program for Underrepresented Students)
- 2021 2024 Kaitlynn Sims, University of Michigan
- 2022 2023 Cristina Carrera, California State University Northridge (Research Program for Underrepresented Students)
- 2021 2022 Olivia Anderson, Kalamazoo College (Research Program for Underrepresented Students)
- 2019 2020 Doris Huang, University of Michigan

Service

Ad-Hoc Journal Reviewer

- Frontiers in Psychology (Editorial Board)
- Journal of Psychosocial Oncology (Editorial Board)
- Advances in Methods and Practices in Psychological Science
- Journal of Experimental Child Psychology
- Developmental Psychology
- International Journal of Bilingualism
- Language and Education
- Cognitive Science
- European Journal of Developmental Psychology

University Service

- 2023 2024 University of Michigan Psychology Departmental Associate
- 2020 2024 Mentor, Michigan Summer Program in Cognition and Early Development (MSPICED)
- 2020 2024 Mentor, University of Michigan Undergraduate Research Opportunities Program (UROP)
- 2019 2024 Mentor, University of Michigan Summer Research Opportunities Program (SROP)