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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–Present Ph.D., Psychology, University of Michigan, Ann Arbor, United States

Dissertation (In Progress): *Sources of heterogeneity in developing theory of mind: A multimethod perspective*

Advisors: Henry Wellman & Ioulia Kovelman

Expected graduation: Summer 2024

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

- p 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 English 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](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.0000000000000571>

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.

Grants and Awards

2019-2024	Taiwan Government Ph.D. Scholarship for Studying Abroad: 4 years of funding for studying Ph.D. in the United States (\$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	University of Michigan Psychology Dissertation Grant (\$1,000 USD)
2023	Society for Research in Child Development (SRCD) Graduate Student Travel Award (\$300 USD)
2023	Rackham Conference Travel Grant (\$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	Rackham Precandidate Graduate Student Research Grant (\$1,500 USD)
2020	Best Paper Award for <i>Chinese Journal of Psychology</i> 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 Grant (\$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)

2015 Taiwan Ministry of Science and Technology Research Scholarship (\$1,500 USD)

Teaching

2024 **Developmental Cognitive Neuroscience: Social Cognition** (Undergraduate Lecture), University of Michigan, Guest Instructor (Primary instructor: Dr. Ioulia Kovelman)

2022-2023 **Statistics and R Programming** (Undergraduate Lecture), University of Michigan, Primary Instructor

2023 **Introduction to Developmental Psychology** (Undergraduate Lecture), University of Michigan, Graduate Student Instructor (Primary instructor: Dr. Ioulia Kovelman)

2023 **Introduction to Cognitive Neuroscience** (Graduate Seminar), University of Michigan, Guest Instructor (Primary Instructor: Dr. Ying Xu)

2021-2022 **Open Science in Psychology** (Undergraduate Seminar), University of Michigan, Primary Instructor

2021 **Psychometric Theory** (Graduate Lecture), University of Michigan, Graduate Student Instructor (Primary Instructor: Dr. Matthew Diemer)

2020 **Introduction to Developmental Psychology** (Undergraduate Lecture), University of Michigan, Graduate Student Instructor (Primary instructor: Dr. Katie Jodl)

2019 **Psychology and Modern Life** (Undergraduate Lecture), National Tsing Hua University, Teaching Assistant (Primary instructor: Dr. Shu-Hui Lee)

2018 **Brain and Language** (Graduate Seminar), National Taiwan University, Teaching Assistant (Primary instructor: Dr. Tai-Li Chou)

2017 **Introduction to Psychology** (Undergraduate Lecture), National Taiwan University, Teaching Assistant (Primary instructor: Dr. Tai-Li Chou)

2016 **Cognitive Neuroscience** (Undergraduate Lecture), National Cheng Kung University, Teaching Assistant (Primary instructor: Dr. Shu-Lan Hsieh)

2016 **Assessment Practicum Developmental Psychology** (Undergraduate Seminar), National Cheng Kung University, Teaching Assistant (Primary instructor: Dr. Jon-Fan Hu)

2016 **Seminar on Emotion and Memory** (Undergraduate Seminar), National Cheng Kung University, Teaching Assistant (Primary instructor: Dr. Der-Yow Chen)

Mentoring

Graduate Students

2023-Present Ethan Lee, National Tsing Hua University

2023-2024 James Baybaş, University of Michigan

Lab Staff

2023-Present Ziqian Shen, University of Michigan

Undergraduate Students

2024-Present Isabella Yoon, University of Michigan

2023-Present Astrid Hurtado, University of Michigan (Honors student); Awards: Tanner Memorial Award

2023-Present Ruimin Gao, University of Michigan

2023-Present Xi Zhang, University of Michigan

2021-Present Kaitlynn Sims, University of Michigan

2023-Present Jessica Damiani, University of Maryland (Research Program for Underrepresented Students)

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-Present	Mentor, Michigan Summer Program in Cognition and Early Development (MSPICED)
2020-Present	Mentor, University of Michigan Undergraduate Research Opportunities Program (UROP)
2019-Present	Mentor, University of Michigan Summer Research Opportunities Program (SROP)