YAYUN ZHANG, Ph.D.

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ACADEMIC POSITIONS

Postdoctoral Researcher   August 2020 – present
University of Texas - Austin
Department of Psychology

EDUCATION

Ph.D. in Developmental Psychology & Cognitive Science   August 2014 - July 2020
University of Indiana - Bloomington
- Dissertation: Statistical Word Learning from the Child's View
- Committee: Drs. Chen Yu (Chair), Linda Smith (Co-chair), Rich Shiffrin, Dan Kennedy

B.S. in Psychology (Honors in Psychology & Honors in the Liberal Arts)   August 2009 - May 2013
University of Wisconsin - Madison
- Honor thesis: Tone Perception in Natural Mandarin Speech by 7- to 8.5-Month-Old English Learning Infants
- Thesis Advisor: Dr. Jenny Saffran

RESEARCH INTERESTS

I am interested in understanding how children learn language from the world around them. My work focuses on statistical language learning, and in particular understanding the cognitive and attentional processes that support language learning. In my research, I draw on a variety of methodologies, such as using head-mounted eye-trackers to collect learning input from the learners' own view in order to understand how different everyday environments engage learning mechanisms and how learner's own developing cognitive and attentional systems shape early language learning input.

FELLOWSHIPS

College of Arts and Sciences Dissertation Research Fellowship. Indiana University - Bloomington. Department of Psychological and Brain Sciences. 2019 – 2020. Award Amount: $20,000. PI: Chen Yu.

Hilldale Undergraduate/Faculty Research Fellowship. University of Wisconsin - Madison. Department of Psychology. 2012 – 2013. Award Amount: $4,000. PI: Jenny Saffran.

AWARDS

Sackler Colloquium Travel Award	2019
Graduate Professional Student Government Research Award (IUB)	2019
College of Arts and Sciences Travel Award (IUB)	2017
Outstanding P211 Instructor Award	2017
Paula Menyuk Travel Award, BUCLD	2016, 2017
Young Scientist Travel Award (IUB)	2016
Travel Award for Women in Science – Provost Award (IUB)	2014, 2015, 2016
Supplemental Research Fellowship (IUB)	2015, 2017
Undergraduate Research Scholar Award (UW-Madison)	2013
ISS/WAA Academic Achievement Award (UW-Madison)	2013

Rosevear Research/Travel Award (UW-Madison)   2012

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PUBLICATIONS

REFERRED JOURNALS
Yu, C., **Zhang, Y.**, Slone, L., & Smith, L. (2022). The Infant's View Redefines the Problem of
 Referential Uncertainty in Early Word Learning. *Proceedings of the National Academy of
 Sciences*,*118*(53).

Zhang, Y., Yurovsky, D., & Yu, C. (2021). Cross-situational Learning from Ambiguous Egocentric Input
 Is a Continuous Process: Evidence Using the Human Simulation Paradigm. *Cognitive Science,
 45*(7), e13010.

Slone, L. K., Abney, D. H., Borjon, J. I., Chen, C., Pearcy, D., Suarez-Rivera, C., **Zhang, Y.**, Smith, L.
 B., & Yu, C. (2018). Gaze in action: Head-mounted eye tracking of children's dynamic visual
 attention during naturalistic behavior. *Journal of Visualized Experiments: JoVE*, (141)*.*

Chen, C., **Zhang, Y.**, & Yu, C. (2018). Learning Object Names at Different Hierarchical Levels Using
 Cross-Situational Statistics. *Cognitive science, 42*, 591-605.

BOOK CHAPERS
Zhang, Y., Chen, C. H., & Yu, C. (2019). Mechanisms of Cross-situational Learning: Behavioral and
 Computational Evidence. In *Advances in child development and behavior* (Vol. 56, pp. 37-63).
 JAI.

UNDER REVIEW / IN PREPARATION
Zhang, Y., Yurovsky, D., & Yu, C. (under revision). Visual Selectivity in Early Word Learning: An Eye-
 tracking Study on Viewing Naturalistic Egocentric Scenes.

Chen, C., **Zhang, Y.**, & Yu, C. (under review). Perceptual Similarity Mediates the Effect of Conceptual
 Knowledge on Statistical Word Learning and Generalization

Tsutsui, S., Wang, X., **Zhang, Y.**, Crandall, D., & Yu, C. (under review). Action Recognition based on
 Cross-Situational Action-object Statistics. *Proceedings of the 2022 Joint IEEE International
 Conference on Development and Learning and on Epigenetic Robotics.*

Zhang, Y., & Yu, C. (in prep) Book Reading ≠ Learning: Examining Real-time Attention Dynamics in
 Parent-infant Picture Book Reading

Zhang, Y., Yu, C., & Smith, L. (in prep). Looking While Learning: Using Eye Movements to Examine the
 Visual Selection of Objects in Statistical Word Learning

PEER-REVIEWED CONFERENCE PAPERS
Zhang, Y. & Yu, C.(2022). Examining Real-time Attention Dynamics in Parent-infant Picture Book

 Reading. *Proceedings of the 44th Annual Meeting of the Cognitive Science Society.*

Zhang, Y., Amatuni, A., Crain, E., Wang, X., Crandall, D., & Yu, C.(2021). Human Learners Integrate
 Visual and Linguistic Information in Cross-Situational Verb Learning. *Proceedings of the 43rd
 Annual Meeting of the Cognitive Science Society.*

Amatuni, A., Schroer, S., **Zhang, Y.**, Peters, R. E., Reza, M. A., Crandall, D., & Yu, C. (2021). In-the-
 Moment Visual Information from the Infant's Egocentric View Determines the Success of Infant

Word Learning: A Computational Study. *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society.*

Falk, J. J., **Zhang, Y.**, Scheutz, M., & Yu, C. (2021). Parents Adaptively Use Anaphora During Parent-Child Social Interaction. *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society.*

Zhang, Y., Amatuni, A., Crain, E., & Yu, C. (2020). Seeking Meaning: Examining a Cross-situational Solution to Learn Action Verbs Using Human Simulation Paradigm. *Proceedings of the 42nd Annual Meeting of the Cognitive Science Society.*

Liu, S., **Zhang, Y.**, & Yu, C. (2019). Why Some Verbs are Harder to Learn than Others – A Micro-Level Analysis of Everyday Learning Contexts for Early Verb Learning. *Proceedings of the 41st Annual Meeting of the Cognitive Science Society.*

Zhang, Y., & Yu, C. (2017). How Misleading Cues Influemce Referential Uncertainty in Statitical Cross-situational Learning. *Proceeding of the 41st annual Boston University Conference on Language Development.*

Romberg, A, **Zhang, Y.**, Newman, B., Triesch, J., & Yu, C. (2016) Global and Local Statistical Regularities Control Visual Attention to Object Sequence. *Proceedings of the 6th Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics.*

Zhang, Y., & Yu, C. (2016). Examining Referential Uncertainty in Naturalistic Contexts from the Child's View: Evidence from an Eye-Tracking Study with Infants. *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*.

Zhang, Y., Yurovsky, D., & Yu, C. (2015). Statistical Word Learning is a Continuous Process: Evidence from the Human Simulation Paradigm. *Proceedings of the 37th Annual Meeting of the Cognitive Science Society*.

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PRESENTATIONS

CHAIRED SYMPOSIA
Zhang, Y., & Yu, C. (2017). Real-Time Cross-Situational Learning from the Child's View. Paper Symposium presented at the Society for Research in Child Development 2017 Biennial Meeting. Austin, TX.

PAPER PRESENTATIONS
Zhang, Y., & Yu, C. (2021). Learning Verb Meanings using Cross-situational and Linguistic Information. Paper presented at the 46th annual Boston University Conference on Language Development.

Yu, C., Tsutsui, S., Amatuni, A., **Zhang, Y.**, & Crandall, D. (2021). Modeling Early Word Learning from the Infant's Point of View. Paper Symposium presented at the Society for Research in Child Development 2021 Biennial Meeting.

Zhang, Y., & Yu, C. (2018). The Roles of Gesture and Statistical Cues on Word Learning in Shared Storybook Reading. Paper presented at the XXI Biennial International Congress of Infant Studies. Philadelphia, PA.

Zhang, Y., & Yu, C. (2018). How Gestures facilitate Word Learning in Shared Storybook Reading. Paper presented at the XXI Biennial International Congress of Infant Studies. Philadelphia, PA.

Zhang, Y., & Yu, C. (2017). Gestures Facilitate Word Learning in Shared Storybook Reading: A Dual Eye-tracking Study. Paper presented at the 42nd annual Boston University Conference on Language Development.

POSTER PRESENTATIONS

Zhang, Y., Crain, E., Crandall, D., & Yu, C. (2022). Grounding Action Verbs in Egocentric Visual Perception. Poster to be presented at the 44th Annual Meeting of the Cognitive Science Society. Toronto, Canada.

Zhang, Y., & Yu, C. (2022). Examining Visual Selectivity and Individual Variability in Infants' Viewing of Naturalistic Egocentric Scenes. Poster to be presented at the XXIII Biennial International Congress of Infant Studies. Ottawa, Canada.

Schroer, S., **Zhang, Y**., & Yu, C (2022). Hands create high-quality naming moments in three different everyday activities. Poster to be presented at the XXIII Biennial International Congress of Infant Studies. Ottawa, Canada.

Zhang, Y., Liu, S., & Yu, C. (2019). Quantifying noun-object and verb-action co-occurrences in naturalistic contexts. Poster presented at the 44th annual Boston University Conference on Language Development.

Zhang, Y., & Yu, C. (2018). The Roles of Gesture and Statistical Cues on Word Learning in Shared Storybook Reading. *Poster presented at* the 40th Annual Meeting of the Cognitive Science Society*.* Madison, WI.

Zhang, Y., & Yu, C. (2018). The Roles of Gesture and Statistical Cues on Word Learning in Shared Storybook Reading. Poster presented at the 7th Annual Midwest Cognitive Science. Bloomington, IN.

Zhang, Y., & Yu, C. (2016). Real-Time Cross-Situational Word Learning from the Child's View. Poster presented at the 6th Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics. Cergy-Pontoise, France.

Zhang, Y., & Yu, C. (2016). How 12-month-olds Allocate Attention When Viewing Naturalistic Child's View Images with Varying Degrees of Referential Ambiguity? Poster presented at the XX Biennial International Congress of Infant Studies. New Orleans, LA.

Zhang, Y., & Yu, C. (2015). Investigating 12-Month-Old Infants' Visual Attention at Naming Moments during Naturalistic Parent-infant Toy Play. Poster presented at the Ninth Biennial Meeting of the Cognitive Development Society. Columbus, OH.

Zhang, Y., & Saffran, J. (2013). Tone Perception in Natural Mandarin Speech by 7- to 8.5-Month-Old English Learning Infants. Poster presented at the 15th Annual Undergraduate Symposium, Madison, WI.

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INVITED TALKS

Zhang, Y. (2020). Using Eye-movement to Study the Underlying Cognitive Processes of Word Learning. Talk presented at the 8th Eye-tracking Technology Online Seminar organized by Chinese Psychological Society, Tianjin, China.

Zhang, Y. (2020). Applying Head-mounted Eye-tracking Technology in Infant Research. Talk presented at the Eye-tracking in Psychological Research Workshop organized by Central China Normal University, Wuhan, China.

TEACHING

Co-Instructor (University of Texas – Austin)
- Intro to Machine Learning (PSY 341K)   Spring 2022

Graduate Student Instructor (Indiana University – Bloomington)
- Methods of Experimental Psychology (PSY - P211)   Fall 2017

Teaching Assistant (Indiana University – Bloomington)
- Cognitive Psychology (PSY - P335)   Spring 2016
- Human Learning & Cognition (PSY - P435)   Spring, 2015, 2017, 2018; Fall, 2014, 2016

Faculty Assistant (University of Wisconsin – Madison)
- Experimental Psychology: Research Methods (PSY - 225)   Fall 2013

ADVISING

HONORS THESIS STUDENTS
Lingyu Yan (UT- Austin, Psychology undergraduate)   2021 – present
Jenny Yang (IUB, Biology undergraduate)   2018 - 2020
- Won Sharon Stephens Brehm Excellence in Research Awards
- Medical student at Ohio State University

FULL-TIME RESEARCH ASSISTANT
Misty Peng (UT – Austin, Linguistics undergraduate)
Yeonji Kim (UT – Austin, Psychology undergraduate)
Kaylee Marquez (UT – Austin, Computer Science undergraduate)
Venus Shirazy (UT – Austin, Biology & Linguistics undergraduate)

Ellis Cain (IUB – Computational Linguistic & East Asian Studies undergraduate)   2019 – 2020
- Ph.D. student in the Cognitive and Informational Sciences program at UC Merced
Lillian Hogan (IUB – Psychology undergraduate)   2014, 2017
- M.S.Ed, Higher Education and Student Affairs
Christine Brennan (IUB – Neuroscience undergraduate)   2015 – 2016
- M.D. The University of Toledo College of Medicine and Life Sciences
Sara Suisman (IUB – Psychology undergraduate)   2015 – 2016
- Master's degree, Public Health, IUPUI
Carolyn Simon (IUB – Psychology undergraduate)   2015 – 2016
- Master's degree, Clinical Mental Health Counseling, National Louis University
Stella Huang (IUB – Psychology undergraduate)   2014 – 2015
- Master's degree, Information Science, Cornell University

PROFESSIONAL AFFLICATIONS

Cognitive Science Society   2014 – present
Cognitive Development Society   2014 – present
Society for Research in Child Development   2016 – present
International Congress on Infant Studies   2014 – present

SERVICES AND OUTREACH

AD-HOC REVIEWER
Journal of Experimental Child Psychology
Frontiers
CSS: Cognitive Science Society Meeting

ACTIVITIES CONTRIBUTED
Developmental Seminar Organization	Fall 2021
Special Exhibition "Your Amazing Brain!" at Wonder lab Museum, Bloomington	Spring 2016
Indiana University Science Festival, Bloomington	Fall 2015
Laboratory tours for middle school students, Bloomington	Fall 2015

LANGUAGES

Fluent in Mandarin and English

REFERENCES

Dr. Chen Yu
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University of Austin – Texas
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Dr. Linda Smith
Professor – Department of Psychological and Brain Sciences
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Dr. Ping Li
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