Qihui Xu

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Basque Center on Cognition, Brain, and Language Donostia - San Sebastián, Spain

EDUCATION

Graduate Center, City University of New York

08/2017-Present

PhD student in Psychology (Cognition, Language and Development)

Advisors: Virginia Valian, Ph.D. and Martin Chodorow, Ph.D.

Central China Normal University (Wuhan, China)

09/2012-06/2016

BSc in Psychology

Member of Boya Plan (a program composed of the top 50 CCNU students)

Thesis: The Differences between Native and Second Language Semantic Satiation and Its Cognitive Neural Mechanisms (Outstanding Thesis Award, Hubei Province)

University of California Berkeley (Berkeley, USA)

01/2014-05/2014

Berkeley International Study Program

AWARD

University Fellowship Award, CUNY, \$1000 Psychology Tithe Fellowship, CUNY, \$1352 Psychology Tithe Fellowship, CUNY, \$669 University Fellowship, CUNY, \$750 Five-year Tuition Fellowship, CUNY Outstanding Thesis, Hubei Province Second Place, Essay Competition, "Teaching Festival" at CCNU National Scholarship, Ministry of Education of China, ¥8000 Second Place, National English Competition for College Students (NECCS)	09/2022 08/2019 08/2018 06/2017 06/2017 09/2016 09/2015 09/2015 06/2015
National Scholarship, Ministry of Education of China, ¥8000 Second Place, National English Competition for College Students (NECCS) Merit Student (Three times), CCNU First Place, 12.9 Prose and Poetry Competition, Hubei Province Third Place, Recitation Contest, CCNU	,

GRANTS

Doctoral Student Research Grant, Graduate Center, CUNY. \$1300.

2020 - 2021

"Abstract Syntactic Knowledge or Limited-Scope Formulae: Computational and

Experimental Studies of Children's Early Utterances".

Role: Principle Investigator.

Advisors: Virginia Valian, Ph.D. and Martin Chodorow, Ph.D.

Collaborative Innovation Center for Language Ability Open Project, Jiangsu Normal University. ¥103,000.

2020 - 2022

"A corpus-based study of developmental and computational processes of vocabulary acquisition".

Role: Student Collaborator.

Principle Investigator: Hongbing Xing, Ph.D.

Undergraduate Innovative Experimental Project, Ministry of Education P.R.China. ¥10000. 2015 - 2017

"The Differences between Native and Second Language Semantic Satiation and Its Cognitive Neural Mechanisms".

Role: Principle Investigator.

Advisor: Siyun Liu, Ph.D.

PUBLICATIONS

- **Xu, Q.**, Chodorow, & M., Valian, V. (2023). How infants' utterances grow: A probabilistic account of early language development. *Cognition*.
- Li, P. & Xu, Q. (2022). Computational modeling of bilingual language learning: Current models and future directions. *Language Learning*. In press.
- **Xu, Q.,** Markowska, M., Chodorow, M., & Li, P. (2021). Modeling Bilingual Lexical Processing through Code-Switching Speech: A Network Science Approach. *Frontiers in Psychology, 12*, 3192.
- **Xu, Q.**, Markowska, M., Chodorow, M., & Li., P. (2021). Network Science Approach to Bilingual Codeswitching. *Proceedings of the Society for Computation in Linguistics*, 4(1), 18-27.
- Ai, T., **Xu, Q.**, Li, X., & Li, D. (2017). Interparental conflict and Chinese adolescents' suicide ideation and suicide attempts: The mediating role of peer victimization. *Journal of Child and Family Studies*, 26(12), 3502-3511.

CONFERENCE PRESENTATIONS

Talk presentations

- **Xu, Q.**, Markowska, M., Chodorow, M., Li, P. (2023). Model Bilingual Lexical Processing Through Code-Switching Speech: A Network Science Approach. Talk to be presented at the 14th International Symposium on Bilingualism, Sydney, June, 2023.
- **Xu, Q.** Chodorow, M., Valian, V. (2022). Key Open Door: Simulating Children's Early Three-word Utterances Reveals Simple Statistical Regularities Underlying Telegraphic Speech. Flash talk presented at the Annual Meeting of the Cognitive Science Society 2022, July.
- **Xu, Q.,** Peng Y., Li, P. (2021). Large-scale network science analyses reveal cross-language differences in semantic structures: A comparative study of English and Mandarin Chinese. Talk presented at the 51st Annual Meeting of the Society for Computation in Psychology, November, 2021.
- **Xu, Q.**, Markowska, M., Chodorow, M., Li, P. (2021). Network Science Approach to Bilingual Codeswitching. Talk presented at the Society for Computation in Linguistics, February, 2021.
- **Xu, Q.**, Chodorow, M., Valian, V. (2020). Continuously growing resources but discrete production units: A probabilistic account of the development of early utterance length. Talk presented at the 45th Boston University Conference on Language Development, Boston, November, 2020.

Poster presentations

- **Xu, Q.,** Chodorow, M., Valian, V. (2022). Syntactic Knowledge, Statistics, or Both? Simulating the Production of Very Early Child Multiword Utterances. Poster presented at the 47th Boston University Conference on Language Development, Boston, November, 2022.
- **Xu, Q.,** Chodorow, M., Valian, V. (2019). Modeling morphological bootstrapping of children's number word acquisition. Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, November, 2019.
- **Xu, Q.**, Chodorow, M., Valian, V. (2019). The structure of very early multiword utterances. Poster presented at the 44th Boston University Conference on Language Development, Boston, November, 2019.
- Ma, X., Xu, Q., Valian, V., Chodorow, M. (2019). Testing the tolerance principle on corpus data. Poster presented at the 44th Boston University Conference on Language Development, Boston, November, 2019.

Xu, Q., Chodorow, M., Valian, V., Ma, X. (2019). Abstract syntactic knowledge or limited-scope formulae: a computational study of children's early utterances. Poster presented at the 41st Annual Meeting of the Cognitive Science Society, Montreal, July, 2019.

Xu, Q., Gorman, K., Chodorow, M., Valian, V. (2019). POS tagging of children's early utterances. Poster presented at Symposium Honoring the Impact of Brian MacWhinney on Language Research, Pittsburgh, June, 2019.

Xu, Q., Ezrin, E., Chodorow, M., Valian, V. (2019). The "two-word stage" in language acquisition: a longitudinal cross-linguistic study. Poster presented at the 93rd Annual Meeting of the Linguistic Society of America, New York, January, 2019.

PROFESSIONAL SKILLS

Python (Proficient; including PyTorch and Keras)

R (Intermediate)

MatLab (Beginner)

ERPs (Intermediate)

Eye-tracking (Beginner)

SPSS (Proficient)

Eprime (Proficient)

PROFESSIONAL ACTIVITIES

Symposium organization

Organizer for symposium on Computational Modeling of Bilingualism: Current Models and Future Directions, the 14th International Symposium on Bilingualism, 2023.

Action Editor

Brain and Language, Elsevier

Ad hoc Reviewer (Journal/Conference Submissions)

Educational Research Review

CogSci 2022

Thinking Skills and Creativity

The Society for Computational in Linguistics (SCiL) 2022

Brain and Language

Cognitive Modeling and Computational Linguistics (CMCL) 2021

Cognitive Science

Language Learning and Development

Community Service

Program Committee. The Society for Computational in Linguistics (SCiL), 2022.

Student Volunteer. The 60th Annual Meeting of the Psychonomic Society, 2019.

Student Volunteer. The 93rd Annual Meeting of the Linguistic Society of America, 2019.

TEACHING EXPERIENCE

Lab Instructor, Statistical Methods in Psychological Research (PSYCH 248), Fall 2019 - Present Hunter College

Teaching Assistant, Experimental Psychology (PSYCH 250), Hunter Fall 2017; Fall 2018; Spring

College 2019

Teaching Assistant, Statistical Methods in Psychology (PSYCH 705, Fall 2018

Graduate level course), Hunter College

Teaching Assistant, Human Development (PSYCH 150), Hunter College Spring 2018

Teaching Assistant, Brain and Behavior (PSYCH 180), Hunter College Fall 2017

PROJECTS IN PROGRESS

Brain Mechanisms of Language and Social-Emotional Development in Infancy and Early Childhood

Study the interaction between children and parents in the Chinese speaking environment, in order to identify the impact that culture-general (Western and Chinese) and culture-specific (Chinese) factors affect children's language development in Chinese; Investigates the dynamic interactions between language development and social-emotional development in children.

Grant application under review.

Role: Research assistant

PI: Ping Li

Children's development of early multiword utterances

Investigates the quantitative and qualitative development of children's early multiword utterances.

CHILDES corpus analysis; Computational modeling; Human subject experiments.

Human subject experiments in progress.

Role: Principal investigator

Advisor: Virginia Valian; Martin Chodorow

Cross-linguistic and developmental studies of human semantic networks

Investigates cross-linguistic universality and variations of human semantic networks; Investigates semantic network growth for children as well as adults learning a second language.

Network science approach; Computational modeling; Word embedding; Human subject experiments.

Human subject experiments are being developed.

Role: Principal investigator

Advisor: Ping Li

Modeling morphological bootstrapping on children's number word acquisition

Investigates whether there is morphological bootstrapping and, if so, what the underlying mechanism is through computational modeling.

CHILDES corpus analysis; Deep neural network; Computational modeling;

Data analysis in progress.

Role: Principal investigator

Advisor: Martin Chodorow; Virginia Valian

WORK HISTORY

Assistant Editor, Brain and Language, Elsevier

09/2022 - Current

Responsibility: Action editor under the supervision of the editor-in-chief

Research Assistant, Brain, Language, and Cognition Lab, The HongKong 09/2020 – 09/2021 Polytechnic University

Responsibility: Assist in editorial work and developing database for the

journal of Brain and Language

Lab Director: Ping Li, Ph.D.

Research Associate, Speech, Language, and Neuroscience Group, New 03/2017 - 08/2017

York University, Shanghai. Lab Director: Xing Tian, Ph.D.