

# Xiaomeng (Amy) Ma

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## Education

- 2017 - 2023 **PhD** in Linguistics, Graduate Center, CUNY  
Dissertation: Neural Network as Cognitive Model for Learning Quasi-regularity  
Awarded Dissertation Year Fellowship \$10,000
- 2016 - 2017 **M.S** in Neuroscience, Columbia University
- 2014 - 2016 **M.A** in Applied Linguistics, Columbia University
- 2010 - 2014 **B.A** in English, Beijing International Studies University

## Skills

- Languages Python, R
- Tools Huggingface, TensorFlow, Keras, Pytorch, NLTK, Spacy, SciKit-Learn, NumPy
- Other Finite State Transducer
- Tasks Language Modeling, Text Generation, Automated Essay Scoring, Entity Recognition and Extraction

## Publications

- 2023 **Ma, X.**, Gao, L., Xu, Q. (2023) [ToMChallenges: A Principle-Guided Dataset and Diverse Evaluation Tasks for Exploring Theory of Mind](#). *Proceedings of CoNLL 2023*
- 2023 **Ma, X.**, Gao, L. (2023) [Evaluating Transformer Models and Human Behaviors on Chinese Character Naming](#). *Transactions of the Association for Computational Linguistics (TACL)*
- 2023 accepted Schurr, H., Kandybowicz, J. Nchare, AL., Bucknor, T., **Ma, X.**, Markoowska, M., Tapia, A. (2023) Absence of Clausal Islands in Shupamem. *Languages*.
- 2022 **Ma, X.**, Gao, L.(2022) [How do we get there? Evaluating transformer neural networks as cognitive models for English past tense inflection](#). *Proceedings of ACL-IJCNLP 2022*
- 2022 **Ma, X.**, Chodorow, M. and Valian, V. (2022) [Intolerant Data: Testing the Tolerance Principle](#). In *Proceedings of the annual meeting of the cognitive science society* Vol. 44 No. 44
- 2020 **Ma, X.**, Chodorow, M. and Valian, V. (2020) [Learning Pronoun case from distributional cues: Flexible frames for case acquisition](#). In *Proceedings of the Workshop on Cognitive Modeling and Computational Linguistics*, at EMNLP pages 66-74.
- 2018 Onnis, L., Truzzi, A., **Ma, X.** (2018). [Language development and disorders: Possible genes and environment interactions](#). *Research in developmental disabilities*

## Full-time Experience

- 2023.1 - Project **Deloitte**, Data Scientist at Audit and Assurance AI team  
Developing conversational AI based on LLMs using langchain, VectorDB and other tools for audit and accounting purposes.

## Internship

- 2021.6-8 Project **ETS**, NLP intern at AI Research lab  
Improving the robustness of transformer-based automated essay scoring models with adversarial attack techniques
- 2022.5-8 **Deloitte**, AI intern in Audit and Assurance

Project Improving the NER model's performance for auditing documents with augmentation for few-shot learning.

## Selected Conference

- 2021.4 **Ma, X.**, *Why No Double Objective Construction in Shupamem* at The 51-52 Annual Conference of African Linguistics (ACAL), Online
- 2021.1 **Ma, X.**, Valian, V., Chodorow, M. *Can 'Let her open it' explain 'Her open it' error?* at The 95th Annual Meeting of the Linguistic Society of America (LSA), Online
- 2020.11 **Ma, X.**, Chodorow, M., Valian, V. *Learning Pronoun Case from Distributional Cues: Flexible Frames for Case Acquisition* at The 10th Workshop of Cognitive Modeling and Computational Linguistics (CMCL) at Empirical Methods in Natural Language Processing (EMNLP), Online
- 2019.11 **Ma, X.**, Xu, Q., Valian, V., Chodorow, M., May, 2019, *Testing the Tolerance Principle on Corpus Data* Poster session presented at The 44th annual Boston University Conference on Language Development, Boston, USA
- 2018.6 **Ma, X.**, June, 2018, *A Systematic Review of Genetic Disorder and Language Development* Poster session presented at International Max Planck Research School for the Language Sciences Conference 2018, Nijmegen, the Netherlands
- 2018.2 **Ma, X.**, Feb, 2018, *Revisiting pronoun case errors in child language: a corpus analysis* Poster session presented at convention of Architectures and Mechanisms of Language Processing - Asia, Hyderabad, India

## Teaching

### UNDERGRADUATE LEVEL

LNG 160 Introduction to Linguistics  
LNG 321 Introduction to Syntax  
LNG 230 Language Acquisition  
PSY 242 Developmental Psychology  
PSY 342 The Psychology of Literacy Development  
PSY 335 Experimental Psychology

### GRADUATE LEVEL (TEACHING ASSISTANT)

LING 73900 Statistics for Linguistic Research

## Reference

Virginia Valian, [vvalian@gc.cuny.edu](mailto:vvalian@gc.cuny.edu), Distinguished Professor of Psychology and Linguistics at CUNY Graduate Center, 695 PARK AVENUE, NEW YORK, NY 10065

Martin Chodorow, [mchodoro@hunter.cuny.edu](mailto:mchodoro@hunter.cuny.edu), Professor of Psychology and Linguistics at CUNY Graduate Center, 695 PARK AVENUE, NEW YORK, NY 10065

Kyle Gorman, [kgorman@gc.cuny.edu](mailto:kgorman@gc.cuny.edu), Assistant Professor at Linguistics at CUNY Graduate Center, 365 FIFTH AVENUE NEW YORK, NY 10016 USA