

# Yang Liu

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## EDUCATION

**Stony Brook University, Linguistics Department, Stony Brook, NY**

Ph.D. in Linguistics, 2022

Dissertation: Addressing Outstanding Questions of the Mandarin Syllable

PhD advisor: Lori Repetti

**Stony Brook University, Linguistics Department, Stony Brook, NY**

Online Teaching Certificate, 2022

**Beijing Language and Culture University, Beijing**

Master of Arts, Foreign Linguistics and Applied Linguistics, 2017

(with honors and highest National Scholarship)

**University of Chicago, Chicago, Illinois**

Linguistic Institute, Linguistic Society of America (LSA), Summer 2015

**North China Electric Power University, Beijing**

Bachelor of Arts in English Linguistics and Literature, 2014

(with first-class scholarship and highest National Scholarship)

## RESEARCH INTERESTS

Chinese Linguistics, Phonology, Phonotactics, Computational Linguistics,  
Syntax-Prosody interface, Syntax

## PUBLICATIONS

### Journal Articles

Kalina Kostyszyn, Yang Liu, Vasudha Varadarajan, Salam Khalifa, Owen Rambow. 2022.  
(in prep) Arabic Broken Plurals and the Tolerance Principle.

Yang Liu. 2021. The Analyticity of Prepositions and Localizers in Chinese and English,  
*Modern Chinese* 现代语文, 2021(03):68-72.

Yang Liu. 2019. Interactions between Written Characters and Grammar: A Case Study of  
Chinese. *ABD: Artifacts, Bones, Discourse, Volume 6*. New York: The State University of  
New York at Buffalo.

Yang Liu. 2017. Force Architecture of “Yaome” ----Force-first and Force-second, *Foreign Languages & Literature Research* 外国语言文学研究论丛, Shandong University Press.

Yang Liu, 2016. Feature Checking of Antecedents in Chinese Relatives, *Yuwen Xuekan* 语文学刊, 2016(04):60-61+85.

Yang Liu, 2015. Word Categories in Four-dimensional Coordinate System, *Journal of Yili Normal University*. 34(04):98-102.

Yang Liu, 2015. Colors of Poems 诗的颜色, *Journal of Chinese language life* 中国语言生活, Vol.4:31.

### Conference Proceedings

Yang Liu. 2023. Categorical and Gradient Grammar Models of Mandarin Phonotactics. In *Proceedings of the 34nd North American Conference on Chinese Linguistics (NACCL-34)*. Indiana University, Bloomington, IN.

Yang Liu, Jiwon Yun & Francisco Ordóñez, 2022. Attachment and Prosody of Mandarin Relative Clauses. In *Proceedings of the 24th Seoul International Conference on Generative Grammar (SICOGG 24)*.

Yang Liu. 2022. A Comparative Analysis of Categorical and Gradient Grammar Models of Mandarin Phonotactics. In *Proceedings of the 24th Seoul International Conference on Generative Grammar (SICOGG 24)*.

Yang Liu and Lori Repetti. 2020. Restrictions on Consonant + Glide (CG) Sequences in Chinese Varieties. In *Proceedings of the 32nd North American Conference on Chinese Linguistics (NACCL-32)*, ed. by Kaidi Chen, 48-53. University of Connecticut, Storrs, CT.

Yang Liu. 2020. Weights of Constraints on CG Combinations in American English and Mandarin. In *Proceedings of the 56th Linguistics Colloquium, Linguistik International*. Peter Lang.

Yang Liu and Lori Repetti. 2019. Backness agreement in consonant+glide onsets in Mandarin. In *Proceedings of the 31st Western Conference on Linguistics (WECOL-31)*, ed. by Sho Akamine, vol. 25, 63-65. Fresno, CA.

Yang Liu. 2018. Psych Adjectives and their Cross-categorical Behavior. In *Proceedings of the 30th Western Conference on Linguistics (WECOL-30)*, ed. by Trevor Driscoll, vol. 24, 113-117. Fresno, CA.

### CONFERENCE PRESENTATIONS

Yang Liu. 2022. Categorical and Gradient Grammar Models of Mandarin Phonotactics, presented at *the 34th North American Conference on Chinese Linguistics (NACCL-34)*, September 23-25.

Yang Liu, Jiwon Yun & Francisco Ordóñez, 2022. Attachment and Prosody of Mandarin Relative Clauses, presented at *the 24th Seoul International Conference on Generative Grammar (SICOGG 24)*, August 12-14.

Yang Liu. 2022. A Comparative Analysis of Categorical and Gradient Grammar Models of Mandarin Phonotactics, presented at *the 24th Seoul International Conference on Generative Grammar (SICOGG 24)*, August 12-14.

Kalina Kostyszyn, Yang Liu, Vasudha Varadarajan, Salam Khalifa, Owen Rambow. 2021. A Statistical Analysis of Arabic Broken Plurals in Inflectional Classes, presented at *Brown Bag Talks*, Stony Brook University, October 13.

Yang Liu. 2020. English Relatives' Attachment from Second Language Learners, presented at *the 68th Studentische Tagung Sprachwissenschaft (StuTS-68)* online, November 19.

Yang Liu. 2020. Weights of Constraints on CG Combinations in American English and Mandarin, presented at *the 56th Linguistics Colloquium* online, November 14.

Yang Liu. 2020. A Comparative Study on Attachment of English and Mandarin Relatives, presented at *the 32nd Western Conference on Linguistics* online, November 14.

Yang Liu and Lori Repetti. 2020. Restrictions on Consonant + Glide (CG) Sequences in Chinese Varieties, presented at *the 32nd North American Conference on Chinese Linguistics (NACCL-32)* online, September 18-20.

Yang Liu. 2019. The Analysis on the Reaction Time and CG Grammaticality: A case study of Mandarin, presented at *2019 SYNC Annual Linguistics Conference*, New York University, December 7.

Yang Liu and Lori Repetti. 2019. Backness agreement in consonant+glide onsets in Mandarin, presented at *the 31st Western Conference on Linguistics*, Fresno, California, November 15-18.

Yang Liu. 2019. Sluicing effect of D-link phrases: A case study of Mandarin, *the 48th Annual Meeting of the Linguistic Association of the Southwest*, Baton Rouge, Louisiana. Oct. 31-Nov. 2.

Yang Liu. 2019. English dual localizers and LocP in Mandarin, presented at Poster session of *the UNC Linguistics 2019 Spring Colloquium*, University of North Carolina-Chapel Hill, April 6.

Yang Liu. 2018. Psych Adjectives and their Cross-categorical Behavior, presented at *the 30th Western Conference on Linguistics*, Fresno, California, Nov. 30-Dec. 2.

Yang Liu. 2016. The Analyticity of Prepositions and Localizers from a Cross-linguistic Perspective, presented at *the 24th Annual Conference of the International Association of Chinese Linguistics (IACL-24)*, Beijing Language and Culture University, July 17-19.

Yang Liu. 2015. Three approaches to marking Chinese nouns and verbs, presented at *the LSA Summer Institute Poster Session*, University of Chicago, July 14.

Yang Liu. 2015. A Cognitive Analysis of Figurative Language in Daily Conversation, presented in *the Graduate Student Conference at University of Maryland*, College Park, March 28.

## **GENERAL LINGUISTICS PROJECTS**

### **Dissertation: Addressing Outstanding Questions of the Mandarin Syllable**

The following questions central to Mandarin syllables remain controversial and are studied: (a) What are the general phonotactic principles – both local and long-distance ones – that Mandarin syllables abide by? (b) What grammar can best account for native speakers' phonotactic intuition on what represents a well-formed syllable in Mandarin? (c) What is the status of the pre-vocalic glide [j] within the syllable: is it segmental (Cj) or, else, is it palatalized, i.e., realized as a secondary articulation (Cj)? This thesis seeks to contribute to the scientific understanding of the questions listed in (a-c), by implementing a series of experimental and computational methodologies to investigate syllables in Mandarin Chinese.

### **Attachment and Prosody of English and Mandarin Relative Clauses.**

This paper addresses whether and how prosodic cues and attachment bias correlate. A survey including both Chinese relative clauses and English relative clauses is carried out to examine: (a) the attachment bias of Chinese relative clauses from Chinese speakers; (b) the influence on attachment judgment from their native language Chinese to their second language English. Furthermore, the data from the experiment were analysed to illustrate the correlation between prosodic cues (stress and pause) and RC attachment.

## **COMPUTATIONAL LINGUISTICS PROJECTS**

### **A Statistical Analysis of Arabic Broken Plurals in Inflectional Classes**

Team Members: Kalina Kostyszyn, Yang Liu, Vasudha Varadarajan, Salam Khalifa, Owen Rambow

The Tolerance Principle is used to describe patterns of morphological rule generalizations based on the number of exceptions to that rule. Some problematic cases exist, such as that of Arabic broken plurals, where the 'default' case is not the most popular in the data. To get a better understanding of Arabic's place in this theory, we examine several corpora of Modern Standard Arabic. We looked at the \*n\* most frequent nominal forms (for several values of \*n\*, 100 to 1000) and looked at the rate of regular to broken plurals.

Additionally, we used the inflectional classes (describing what suffixes a root could take) to determine what patterns were reliable predictors of 'brokenness'. Thus, we find that broken plurals are limited to certain inflectional classes, and thus are restricted by features of those classes. Next steps are to link the two halves of this project for more decisive results, then expand this work to spoken dialects of Arabic.

### **Performance of Position Models on Mandarin syllables**

The position models include two major types: Position based on string index and position based on syllable positions (onset, nucleus, coda). Mandarin phonotactic patterns are learned and examined by the Position Models. The four position models can process both the distant restrictions and the local ones with 90% - 100% accuracy. The performances of different position models are similar. This is possibly due to the short length of Mandarin syllables (length not bigger than 4). Thus, the index position labels (at most 4 indexes) are similar to syllable position labels (at most 4 indexes).

## **TEACHING/WORKING EXPERIENCE**

### **Alexa AI Team, Amazon.com**

2022 Oct - present      Language Engineer  
Alexa AI, Natural Language Understanding Modeling Solutions

### **Department of Linguistics, Stony Brook University**

2022 Summer    CHI 112 Elementary Chinese II (Primary Instructor)  
2022 Summer    LIN 380 Anatomy and Physiology of Speech and Hearing (TA)  
2022 Spring     LIN355 Language and Life in China (Primary Instructor)  
2021 Fall        LIN120 Language and Technology  
(Enrollment: 176, Recitations' instructor)  
2021 Spring     LIN330 Language Acquisition (TA)  
2021 Summer    LIN101/LIN530 Human Language (Primary Instructor)  
Summer Youth Camp for Computational Linguistics (Instructor)  
2021 Winter     LIN101 Human Language (Primary Instructor)  
2020 Fall        LIN101 Human Language (Recitations' instructor)

2020 Summer	LIN425/LIN532 Second Language Acquisition (Instructor) Summer Youth Camp for Computational Linguistics (Instructor)
2020 Spring	LIN301 Phonology (Recitations' instructor)
2019 Fall	WAE194 Advanced Writing Academic English (Primary Instructor)
2019 Summer	WAE194 Advanced Writing Academic English (Primary Instructor)
2019 Spring	LIN200 Language in the United States (Co-designer of Online Lectures)
2018 Fall	LIN431 The structure of an Uncommonly Taught Language-Marathi (Recitations' instructor)
2018 Spring	LIN200 Language in the United States (TA)
2017 Fall	LIN200 Language in the United States (TA)

#### **Other**

2014-2016	GRE/IELTS teaching in Tiandao Education, Beijing, New Channel Education, Beijing
2014	Intern editor of <i>New Horizon College English</i> textbooks, Foreign Language Teaching and Research Press, Beijing
2011	Volunteer primary school teacher in Beijing

### **ACADEMIC AND VOLUNTEER SERVICE**

2018-2022	Proctor, Foreign Languages Placement Exams, Stony Brook University
2018-2020	President, Graduate Linguistics Club, Stony Brook University
2018/11	Conference abstract reviewer, the 2018 Stony Book, Yale, NYU and CUNY (SYNC) Annual Linguistics Conference
2021 Spring	Skillz Hour Organizer, Linguistics Department, Stony Brook University
2019/10	Translator, China Center, Stony Brook University

### **RECENT HONORS/AWARDS**

2021	Research funding award, Linguistics Dept., Stony Brook University
2020	Summer Research Fellowship, Linguistics Dept., Stony Brook University
2019	GSEU Professional Development Award, Stony Brook University
2019	Departmental Travel Award, Linguistics Dept., Stony Brook University
2015-2017	China National Scholarship 国家奖学金, BLCU (awarded for the highest GPA & academic performance)
2016	Erasmus scholarship
2015-2017	First-class Graduate Scholarship, Outstanding Graduate Award, BLCU
2015-2016	Graduate Innovation Research Grant, BLCU
2011	Award of "Undergraduate Excellent Volunteer Teacher"

### **CERTIFICATES**

Public School Teaching Certificate, Washington State, USA  
Pedagogical Certificate of Psychology (Ministry of Education, Beijing)

Pedagogical Certificate of Education (Ministry of Education, Beijing)  
Mandarin Level Certificate One (北京市教师资格证普通话测试一级证书)  
Training Certificate of Mandarin Child Language Disorders and Assessment

## **LANGUAGES**

### **Natural Language**

Mandarin (native), Northern Chinese dialect (native)  
English (fluent)  
Japanese (proficient)

### **Programming Language**

Python, R, LATEX, Praat, CHILDES (proficient)  
Haskell (familiar)