

# QIANXI YU

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余千禧

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## EDUCATION

### Nanjing University of Science and Technology, China

Sep. 2021 - Mar. 2024

Research Master of Arts in Linguistics | GPA 3.92/4 (top 1%)

- **Courses:** Experimental Phonetics (97/100), Empirical Methods in Linguistic Research (91/100), Semantics and Pragmatics (92/100), Exploration on Modern Linguistic Theories (90/100)

### Nanjing University of Science and Technology, China

Sep. 2017 - Jun. 2021

Bachelor of Arts in English | GPA 3.64/4 (top 10%)

- **Courses:** Classical Literature in Linguistics (96/100), Introduction to English Linguistics (92/100)

## EMPLOYMENT

### Zhejiang University, College of Biomedical Engineering and Instrument Science

Apr. 2024 - May. 2025

Full-time Research Assistant | PI: Dr. Nai Ding

- **Project 1: Gaze-based intention inference dataset construction**
  - Developed a VQA dataset with complex scenes and diverse gaze relationships.
  - Tested the dataset on visual large language models.
  - Wrote a research paper for publication based on findings.
- **Project 2: Children's sensitivity to linguistic constituents**
  - Designed a child-friendly word deletion task and the corresponding behavioral experiment questionnaire.
  - Collected behavioral data from 80 children aged 6-7 years.
- **Project 3: Neural Encoding of Rhythm Perception**
  - Collected EEG and MEG data from 40 adults.
- **Project 4: Spontaneous Synchronization of Rhythms between speakers**
  - Organized 20 participant pairs and tested their synchronization during spontaneous speech production.

## RESEARCH PROJECTS

### Mandarin Irony Speech Comprehension by Normal-Hearing Children & Children with Cochlear Implants

Master's Thesis

Sep. 2022 - Mar. 2024

- **Overview:** This thesis found that both prosodic and visual cues significantly enhance irony comprehension in Mandarin-speaking preschoolers with normal hearing and cochlear implants, with the ability to use these cues developing as early as age 4, and without requiring advanced theory of mind.
- **My Role:** Reviewed 200+ research articles to identify research questions.  
Designed and processed 1000+ audio and video materials to build experiments through PsychoPy.  
Collected data from 150+ children and performed acoustic analysis and statistical tests using R.  
Wrote the thesis and published the results as one SSCI journal paper.

### The Acquisition of Mandarin Tones by Children with Cochlear Implants: Effects of Age at Implantation & Cochlear Implant Experience

Research Assistant

Sep. 2022 - Mar. 2023

- **Overview:** This study showed that children with cochlear implants face challenges in producing accurate Mandarin tones, but those implanted before age 2 produced target-like tones, while those with longer CI experience (3-6 years) continued to produce flatter pitch contours.
- **My Role:** Conducted growth curve analysis to model production data and used linear mixed-effects models to test the effects of various factors, using R.  
Wrote and published the results as the first author in a journal paper.

## **The Effect of Visual-Articulatory Cues on the Identification of Mandarin Tones by Children with Cochlear Implants**

*Research Assistant*

*Aug. 2022 - Aug. 2023*

- **Overview:** This study reported that visual articulatory cues enhance Mandarin lexical tone identification by children with cochlear implants in both quiet and noisy environments and earlier implantation was significantly correlated with greater visual benefits.
- **My Role:** Assisted data analysis by conducting correlation tests and linear mixed-effects models using R.  
Drafted data plots using ggplot2 in R to visually represent analysis results.

## **Role of High-Variability Phonetic Training on Chinese EFL Learners' Identification and Discrimination of English Tense-Lax Vowel Contrasts /ɑ/-/ʌ/ and /i/-/ɪ/**

*Bachelor's Thesis*

*Sep. 2020 - Jun. 2021*

- **Overview:** This thesis demonstrated the positive effect of high variability phonetic training on Chinese EFL (English as foreign language) learners' ability to identify and discriminate challenging English vowel contrasts in both quiet and noisy conditions, though the improvement varied for different vowels.
- **My Role:** Reviewed 100+ research articles and identified key research questions  
Designed materials and recruited 10 native speakers for recordings  
Developed identification and AX discrimination experiments, collecting data from 24 adults, using PsychoPy  
Analyzed data using linear mixed-effects models with R  
Completed thesis writing and published the results as an EI-indexed conference paper

## **PEER-REVIEWED PUBLICATIONS**

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### **• First-author articles**

- Yu, Q., Ling, C., Feng, S., Hu, J., Lu, Y., Ding, N. (2025). **GIICS: A Dataset for Gaze-direction-based Intention Inference in complex visual scenes**. In Proceedings of 2025 IEEE 4th International Conference on Artificial Intelligence, Human-Computer Interaction and Robotics. (EI)
- Yu, Q., Li, H., Li, S., & Tang, P. (2024). **Prosodic and Visual Cues Facilitate Irony Comprehension by Mandarin-Speaking Children**. *International Journal of Psychology*, 59(S1). (SSCI, Q1)
- Yu, Q., Li, H., Li, S., & Tang, P. (2024). **Prosodic and Visual Cues Facilitate Irony Comprehension by Mandarin-Speaking Children with Cochlear Implants**. *Journal of Speech, Language and Hearing Research*, 67(7). (SSCI, Q1)
- Yu, Q., Shen, Y., Wang, L., & Tang, P. (2023). **The Acquisition of Mandarin Tones by Children with Cochlear Implants: Effects of Age at Implantation and Cochlear Implant Experience**. *Chinese Journal of Phonetics*, 19.
- Yu, Q., & Tang, P. (2021). **The Role of High Variability Phonetic Training on Chinese EFL Learners' Perception of English Vowels in Noisy Environment**. In Proceedings of the 24th Conference of the Oriental COCOSDA International Speech Databases and Assessment Techniques (O-COCOSDA), November 18-20, Singapore (pp. 94-99). IEEE. (EI)

### **• Co-author articles**

- Tang, P., Shen, Y., Li, S., Yu, Q., & Feng, Y. (2024). **Visual-Articulatory Cues Facilitate Children with CIs to better perceive Mandarin Tones in Sentences**. *Speech Communication*, 160. (SCI, Q1)
- Li, S., Wang, Y., Yu, Q., Feng, Y., & Tang, P. (2024). **The Effect of Visual-Articulatory Cues on the Identification of Mandarin Tones by Children with Cochlear Implants**. *Journal of Speech, Language and Hearing Research*, 67(7). (SSCI, Q1)
- Zhu, F., Yu, Q., Li, S., & Tang, P. **The Use of Prosody and Facial Expressions in Irony Comprehension by Mandarin-Speaking Preschoolers**. (in submission)

## **PEER-REVIEWED CONFERENCE ORAL PRESENTATIONS**

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- The 33rd International Congress of Psychology, Czech, 2024
- The 3rd Academic Annual Conference of the Neurolinguistics Branch of the Society on Modernization of Chinese Language, China, 2023
- The 24th Conference of the Oriental COCOSDA International Speech Databases and Assessment Techniques, Singapore, 2021

## EXTRACURRICULAR ACTIVITIES

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### EMLAR 2024 Workshop at Utrecht University (online)

Aug. 2024

- Attended tutorials: ERP experiments, Bayesian Hypothesis Evaluation, Statistics using R.

### ‘Yu Yan’ Summer Camp of Speech Therapy at the Affiliated Stomatological Hospital of Nanjing Medical University

- Volunteered as a speech therapist to train children with cleft palate in correctly pronouncing Chinese consonants Aug. 2023

### 2021 Taiwan Summer School of Cognitive Neuroscience (online)

Sept. 2021

- Attended courses: Language Comprehension by Children with ADHD, Introduction of fNIRS, Musical Training.

## SELECTED SCHOLARSHIPS & AWARDS

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- **Excellent Paper Award** of Jiangsu Provincial Graduate Forum on Academic Innovation in Language Development and Disorders (**500¥**) 2023
- **Third-class Academic Scholarship for Postgraduates (6000¥)** 2023
- **First-class Academic Scholarship for Postgraduates (8000¥)** 2022
- **First-class Academic Scholarship for Postgraduates (8000¥)** 2021
- **Second Prize** in the 31st “Innovation Cup” College Students Extracurricular Academic Science and Technology Works Competition of Nanjing University of Science and Technology 2022
- **Second Prize** in the 9th International Translation and Interpretation Competition “Perfect World” Cup 2020
- **Second Prize** in the 27th “Innovation Cup” College Students Extracurricular Academic Science and Technology Works Competition of Nanjing University of Science and Technology 2018

## SKILLS

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- **Languages:** Mandarin (native), Southwestern Mandarin (native), English (IELTs 8), Korean (TOPIK 2)
- **Softwares:** Praat, Audacity, PsychoPy
- **Programming:** R, Praat script, Matlab, Python, Latex

## REFERENCES

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**Dr. Ping Tang** | ping.tang@njust.edu.cn

Associate Professor at Nanjing University of Science and Technology, China

**Dr. Nai Ding** | ding nai@zju.edu.cn

Associate Professor at Zhejiang University, China