

Yike Li

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🌐 <https://yike-echo-li.github.io/>

EDUCATION | New York University

M.A. in Experimental Psychology (expected)

Emphasis on Cognitive Neuroscience

Advisor: David Poeppel, Ph.D.

Thesis: *Spectro-temporal information distinguishes between speech and music*

Neuromatch Academy 2022

Emphasis on Computational Neuroscience

Jul 2022

Project: *Prediction of semantically differentiated tasks from fMRI using standard GLM and time-decoding model*

Peking University

B.A. in Spanish Language and Literature

Minor in Psychology

Beijing, China

Sep 2015 – Jul 2019

The Autonomous University of Madrid

Exchange student in Spanish Philology

Madrid, Spain

Sep 2017 – Feb 2018

RESEARCH | POSITIONS | Poeppel Lab, New York University

New York, NY

Research Assistant, *Advisor: Dr. David Poeppel*

Sep 2021 – Present

Thesis Project | Spectro-temporal information distinguishes between speech and music

- Led and performed advanced audio signal processing and big data methods on standard corpora to quantify spectro-temporal structure in speech and music.
- Found that speech and music have distinct modulation patterns while maintaining a high within-category consistency.

Other Experience

- Behavioral experiment, fMRI and MEG scanning, data preprocessing and analysis.

Language Acquisition & Sound Recognition Lab, UC San Diego

San Diego, CA

Visiting Researcher, *Advisor: Dr. Sarah Creel*

Aug 2019 – Jun 2020

Independent Study | Pitch consistency in tone versus non-tone language speakers across domain

- Led and conducted behavioral experiments in Mandarin and English native college students to test absolute and relative pitch consistency in linguistic and non-linguistic production.
- Designed and programed Praat-based pipeline to batch-process and quantify pitch trajectories and other phonetic cues.
- Found that tonal language experience may benefit both absolute and relative pitch precision in speech production, while music production showed a weakened but similar pattern.

Other Experience

- Eye-tracked phoneme acquisition experiments on preschoolers (ages 3-5)
- Normed language proficiency tests (PPVT-IV, MINT, GFTA) on both adults and children
- Undergraduate student mentorship (initials of mentored students: Y.D., H.W.)

Cognitive & Computational Neuroscience Lab, New York University

New York, NY

Summer Intern, *Advisor: Dr. Biyu J. He*

Jul 2018 – Sep 2018

Main Project | EEG study on visual categorization and consciousness

- Collaborated on pilot studies in understanding how consciousness may influence visual categorization on refined and coarse levels.
- Designed and performed an EEG protocol for data collection and analysis.

Other Experience

- Inhibiting cortical regions with t-DCS, ICA cleaning of fMRI data.

Attention, Neural Aesthetic & Time Lab, Peking University

Beijing, China

Research Assistant, *Advisor: Dr. Yan Bao*

Jun 2017 – Jun 2019

Independent Study | Relationship between temporal order threshold and McGurk effect

- Led and conducted psychophysics study to explore the hypothetical relationship between multisensory integration and time perception ability.
- Found that the individual difference in time perception ability may account for the sensitivity to the McGurk effect by interacting with the perception and accuracy of auditory input.

SELECTED CONFERENCE ABSTRACTS

Li, Y., Chang, A., & Poeppel, D. (2022, Oct. 6-8). Spectro-temporal Information Distinguishes between Speech and Music. **[Poster presentation]**. *14th Annual Meeting of the Society for the Neurobiology of Language*, Philadelphia, PA.

Li, Y., Chang, A., & Poeppel, D. (2022, Apr. 29). The Role of Spectro-temporal Information in Speech and Music. **[Poster presentation]**. *26th Annual NYU Psychology Masters' Research Conference*, New York, NY.

Li, Y., & Creel, S.C. (2021, Jul. 28-31). Tone Language Enhances Consistency in Pitch Production Across Domain. **[Slide presentation]**. *16th International Conference on Music Perception and Cognition*, Sheffield, United Kingdom (remote).

AWARDS & HONORS

Graduate Student Conference Award (\$500), New York University	2022
Graduate Student Conference Award (\$200), New York University	2022
Master's Research Conference Honorable Mentioned, New York University	2022
National Fellowship for Undergraduate Research (¥10,000), Ministry of Education, China	2018
Santander Scholarship for Distinguished Students (\$4,000), Santander Bank, Spain	2017

SKILLS & OTHER

Language: Mandarin (native), English (fluent), Spanish (fluent), Japanese (beginner)

Programming Skills: MATLAB, Python, Praat, R, JavaScript, HTML, CSS

- **Experimental Design:** Psychtoolbox, PsychoPy, OpenSesame, jsPsych
- **Data Analysis:** Audio Signal Processing (MATLAB), Phonetic Analysis (Praat), Statistics (R, SPSS, G-Power), Machine Learning (Scikit-Learn, Nilearn, PyTorch, TensorFlow), Neural Data Processing (SPM, FieldTrip, NME)
- **Other:** Markdown, LaTeX, GitHub

Experimental Skills:

- **Neuroscience:** MRI/fMRI, MEG, EEG, t-DCS
- **Behavioral:** Eye-tracking (EyeLink) and behavioral experiments in adults and preschoolers

Other: Musical experience (Accordion, Music Theory), video editing (Adobe Premiere, OBS Studio)

OUTREACH & SERVICE

Thinkingdom Media Group Ltd.

Beijing, China

Group Leader, *Literary Rights and Data Management Group*

Mar 2021 – Aug 2021

Junior Researcher, *Marketing and Editorial Research Group*

Jul 2020 – Feb 2021

Peking University

Beijing, China

Co-president, *Association of Accordion*

Jun 2016 – Jun 2018

Co-president, *Student Union*

Jun 2016 – Jun 2018

Teaching Assistant, *Introduction to Hispanic Culture*

Jul 2017 – Aug 2017

Embassy of the Republic of Chile in China

Beijing, China

Volunteer Interpreter (Spanish-English-Mandarin), *Chile Week 2016*

Aug 2016