Yike Li

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EDUCATION

University of Michigan, Ann Arbor — Ann Arbor, MI
Ph.D. in Psychology — Sep 2023 – Present
Area of focus: Cognition and Cognitive Neuroscience
Advisor: David Brang, Ph.D.

New York University — New York, NY
M.A. in Experimental Psychology — Sep 2021 – May 2023
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 — Beijing, China
B.A. in Spanish Language and Literature (Honors Thesis in Linguistics) — Sep 2015 – Jul 2019
Minor in Psychology (Cognitive Psychology)

The Autonomous University of Madrid — Madrid, Spain
Exchange student in Spanish Philology — Sep 2017 – Feb 2018

RESEARCH POSITIONS

Poeppel Lab, New York University — New York, NY
Research Assistant, *Advisor: Dr. David Poeppel* — Sep 2021 – May 2023
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.
- Speech planning, real-time feedback in speech production.

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.

CONFERENCES & PUBLICATIONS

Li, Y., Chang, A., & Poeppel, D. (In prep). Spectro-temporal modulation in speech and music.

Chang, A., **Li, Y.,** & Poeppel, D. (In prep). The neural regions for acoustically distinguishing music and speech.

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. **[Oral 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, Qualtrics
- **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, MNE)
- **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