

## **Xiaoming Jiang, PhD**

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### **Research Profiles:**

[ResearchGate](<https://www.researchgate.net/profile/Xiaoming-Jiang-3/research>)

[Google Scholar](<https://scholar.google.ca/citations?user=iF2CM7sAAAAJ&hl=zh-CN>)

### **Research Statement**

My research investigates how human listeners infer speakers' traits (e.g., trustworthiness, persuasiveness) and attitudinal orientations (listener-oriented vs. issue-oriented) from vocal expressions (e.g., confidence, doubt, politeness, desire, etc.) using behavioral, EEG, fMRI, fNIRS, and machine learning methods. I aim to bridge neurocognitive models of social inference with computational approaches to nonverbal communication.

I have been an active member and contributor to the Speech Prosody (SProSIG) community since 2014, with continuous conference presentations and organizational roles.

### **Education**

2005–2010, Ph.D., Basic Psychology/ Cognitive Neuroscience, Peking University  
2001–2005, B.S., Psychology, East China Normal University  
2002–2005, Minor, English Linguistics, East China Normal University

### **Academic Appointments**

2024–present, Professor & Associate Dean, Institute of Language Sciences, SISU  
2023–present, Associate Director, Key Laboratory of Language Science & Multilingual Intelligence Applications, SISU  
2020–2024, Professor, Institute of Linguistics, SISU  
2018–2020, Associate Professor, Department of Psychology, Tongji University  
2015–2018, Research Associate (Computational Auditory Social Neuroscience), McGill University, Canada  
2016, Faculty Lecturer, School of Communication Sciences & Disorders, McGill University  
2013–2015, Postdoctoral Research Fellow (Auditory Social Neuroscience), McGill University, Canada  
2011–2012, Postdoctoral Research Fellow (Neuropragmatics), Peking University

### **Visiting Positions**

- 2023: Visiting Professor, City University of Hong Kong  
- 2018, 2020: Visiting Professor, McGill University  
- 2010, 2012: Visiting Scholar, Hiroshima University, Japan

## Industry Experience

- 2017–2018: Senior Speech Scientist, Nuance Communications

## Grants (Selected)

PI, NSFC General Program: Neurocognitive mechanisms underlying inferring speaker characteristics and attitudes from vocal expressions, 2025–2028

PI, Shanghai Natural Science Foundation: Neurocognitive basis of cross-modal integration of speech expressions modulated by authenticity, 2022–2025

PI, Shanghai “Dawn” Program: Cross-cultural neural basis of social inference from speaker voice and accent – A neuropragmatic perspective, 2021–2023

## Awards & Honors

- Best Paper Award (2017–2022) – International Speech Communication Association (ISCA) & EURASIP, for The sound of confidence and doubt, Speech Communication (2017)
- Shanghai “Dawn” Scholar (2020)
- Peking University Outstanding Doctoral Dissertation Award (2010)

## Technical Skills

- Neuroimaging: fMRI (SPM, FSL, AFNI), EEG/ERP (MNE, EEGLAB, ERPLAB, FieldTrip), fNIRS (Homer2, NIRS-SPM)
- Acoustic analysis: Praat, STRAIGHT (voice morphing), OpenSMILE, custom MATLAB/Python feature extraction
- Machine learning: scikit-learn, XGBoost, representational similarity analysis (RSA), MVPA, basic deep learning (Keras/PyTorch)
- Behavioral methods: Mouse-tracking, eye-tracking (Tobii, Eyelink), auditory gating, cross-splicing paradigm
- Programming: MATLAB, Python, R, SPSS
- Community service: Speech Prosody (SProSIG) conference organization, special session chairing, and long-term community engagement.

## Supervision & Team

- Supervised 5 PhD students (1 direct-entry PhD) and 8 Master students since 2020
- Trained students in experimental design, EEG/fMRI data analysis, acoustic analysis, and statistical modeling
- Actively leading a research team of 1 postdoc, 5 PhDs, and 8 Master students at SISU

## Languages

- Chinese – Native
- English – Fluent (extensive experience publishing, lecturing, and presenting internationally)

## Publications (Peer-reviewed, SSCI/SCI, # corresponding author)

2026

Jiang, X.#, Luo, R., Yang, Q. Altered selective attention or increased imagination? Effects of eye closure on vocal expression perception. Journal of Speech, Language and Hearing

Research, 69, 1395-1418.

- Ji, Y., Song, Q., Jiang, X.#, Tan, Y., Chang, W., Zhou, X. Temporal expectation in turn-taking: Prosodic cues modulate behavioral and neural signatures of turn-end prediction in conversation. *Brain and Language*, 275, 105723.
- Xu, R., Jiang, X.# Ambiguity in vocal expression perception: Evidence from voice morphing and its electrophysiological correlates. *NeuroImage*, 121987.
- Peng, Z., Jiang, X.#, Sun, Q., Ji, Y. The consistency of task-relevant and task-irrelevant vocal cues modulates speech judgments during dichotic listening. *Psychological Research*, in press.
- Chen, W., Pell, M. D., Jiang, X.# Prosodic cues strengthen human–AI voice boundaries: Listeners do not easily perceive human speakers and AI clones as the same person. *Computers in Human Behavior: Artificial Humans*, 7, 100261.
- Pell, M. D.#, Cui, H., Mori, Y., Jiang, X. Speak or shout? Nonverbal vocalizations promote rapid detection of emotions in vocal communication. *PLoS One*, e0327529.
- Li, X., Jiang, X.# Stereotypes vs. general knowledge: How listener-specific expectations shape the processing of counter-expectation meaning. *Lingua*, 339, 104185.
- Li, X., Xu, R., Jiang, X.# On the contextual constraints of counter-expectation marker and its use in Shanghai dialect–Mandarin bidialectals: An experimental investigation of papa in Shanghai dialect. *Journal of Psycholinguistic Research*, in press.
- Xu, T.#, Jiang, X., Dellwo, V. Dominant role of temporal–prosodic cues in sentence-level voice discrimination: Insights from interpretable machine learning. *Speech Prosody*.

2025

- Xu, T., Li, J., Jiang, X.# Semantic processing of argument structure during naturalistic story listening: Evidence from computational modeling on fMRI. *NeuroImage*, 314, 121253.
- Buchanan, E., Cuccolo, K., Heyman, T., ... Jiang, X. ... Measuring the semantic priming effect across many languages. *Nature Human Behavior*, 10, 182–201.
- Li, J., Wang, Q., Wang, Y., Wang, C., Ma, Z., Xu, R., Feng, S., Jiang, X.#, Meng, Z.# Naturalistic fMRI and MEG recordings during viewing of a reality TV show. *Scientific Data*, 1809.
- Li, Y., Jiang, X.# Neural evidence for encoding communicative functions in speech across linguistic forms with varying iconicity. *Language, Cognition & Neuroscience*, 15, 12415.
- Peng, Z., Wang, C., Jiang, X.# On how vocal cues impact dynamic credibility judgments: Mouse-tracking paradigm examining speaker confidence and gender through voice morphing. *Journal of Speech, Language, and Hearing Research*, 68, 5261-5277.
- Gao, L., Pell, M. D., Peng, Z., Jiang, X.# Perceiving female physical attractiveness and expressive traits from body features and body motion. *BMC Psychology*, 13, 1206.
- Si, S., Jiang, X.#, Su, Q., Carin, L. Detecting implicit biases of large language models with Bayesian hypothesis testing. *Scientific Reports*, 15, 12415.
- Li, Y., Ma, X., Jiang, X.#, Feng, Q., Wang, L. Tactile and interpersonal sound symbolic associations in patients with multiple somatic symptoms. *Scientific Reports*, 15, 18303.
- Xu, T., Jiang, X.#, Zhang, P., Wang, A. Introducing the Sisu Voice Matching Test (SVMT): A novel tool for assessing voice discrimination in Chinese. *Behavioral Research Methods*, 57, 86.

2024

- Jiang, X.#, Pell, D. M. Tracking dynamic social impressions from multidimensional voice representation. *Trends in Cognitive Sciences*, 28, 878-880.
- Jiang, X.#, Ma, X., Sanford, R., Li, X. Adapting to changes in communication: The orbitofrontal cortex in language and speech processing. *Brain Sciences*, 14, 264.
- Feng, S., Jiang, X.# Acoustic encoding of vocally-expressed confidence and doubt in Chinese bidialectics. *JASA*, 156, 2860-2876.
- Kong, L., Sun, Y., Jiang, X.# Exploring pragmatic factors on the logical relationships of conditional reasoning: A study of counterfactual and hypothetical conditionals. *Behavioral Sciences*, 14, 686.
- Li, Y., Jiang, X.# Sound symbolic associations: Evidence from visual, tactile, and interpersonal iconic perception of Mandarin rimes. *Humanities and Social Sciences Communications*, 11, 992.
- Chen, W., Jiang, X.# Memorization-based training and testing paradigm for robust vocal identity recognition in expressive speech using event-related potentials analysis. *Journal of Visualized Experiment*, 210, e66913.
- Hu, Y., Li, R., Jiang, X., Chen, W. The change in aesthetic experience and empathic concern predicts theory of mind ability: Evidence from drama improvisation training. *The Arts in Psychotherapy*, 89, 102167.

2023

- Kong, L., Jiang, Y., Huang, Y., Jiang, X.# Temporal shift length and antecedent occurrence likelihood modulate counterfactual conditional comprehension: Evidence from event-related potentials. *Brain Sciences*, 13, 1724.
- Zhou, X.#, Jiang, X.#, Tan, Y.# Editorial: Psychological and neurocognitive mechanisms of presupposition processing in speech and language processing. *Frontiers in Psychology*, 14, 1289045.
- Yang, Q., Jiang, X.# On the scope of presupposition in discourse reading comprehension. *Acta Psychologica*, 237, 103955.
- Hu, Y., Mou, Z., Jiang, X.# Attentional relevance modulates nonverbal attractiveness perception in multimodal display. *Journal of Nonverbal Behavior*, 47, 285-319.
- Liao, Q., Kong, L., Jiang, X.# The influence of temporal information on online processing of counterfactual conditional sentences: Evidence from ERPs on temporal indicators. *Journal of Neurolinguistics*, 68, 101143.
- Weng, X., Jiang, X., Liao, Q.# Using information of relationship closeness in the comprehension of Chinese ironic criticism: Evidence from behavioral experiments. *Journal of Pragmatics*, 215, 55-69.
- Buchanan, E., Lewis, S., Paris, B., Forscher, P., Pavlacic, J., ... Jiang, X., ... Maximilian, P. The Psychological Science Accelerator's COVID-19 rapid-response dataset. *Scientific Data*, 10, 87.

2022

- Li, X., Jiang, X., Chang, W., Tan, Y., Zhou, X.# Neural segregation of left inferior frontal

gyrus in semantic processes at different levels of syntactic hierarchy. *Neuropsychologia*, 171, 108254.

- Pell, D. M., Sethi, S., Rigoulot, S., Rothermich, K., Liu, P., Jiang, X.# Emotional voices modulate perception and predictions about an upcoming face. *Cortex*, 149, 148-164.
- Huang, Y., Deng, Y., Jiang, X., Chen, Y., Mao, T., Xu, Y., Jiang, C., Rao, H.# Resting-state occipito-frontal alpha connectome is linked to differential word learning ability in adult learners. *Frontiers in Neuroscience*, 16, 953315.
- Ma, X., Jiang, X.#, Jiang, Y. Increased spontaneous fronto-central oscillatory power during eye-closing in patients with multiple somatic symptoms. *Psychiatry Research: NeuroImaging*, 324, 111489.
- Cui, X., Jiang, X., Ding, H.# Affective prosody guides facial emotion processing. *Current Psychology*, <https://doi.org/10.1007/s12144-022-03528-7>.
- Ji, Y., Hu, Y., Jiang, X.# Segmental and suprasegmental encoding of speaker confidence in Wuxi dialect vowels. *Frontiers in Psychology*, 13, 1028106.

## 2021

- Liu, P.#, Rigoulot, S., Jiang, X., Zhang, S., Pell, D. M. Unattended emotional prosody affects visual processing of facial expressions in Mandarin-speaking Chinese: A comparison with English-speaking Canadians. *Journal of Cross-cultural Psychology*, 52(3), 275-294.
- Mauchand, M.#, Caballero, J., Jiang, X., Pell, D. M. Immediate on-line use of prosody reveals the ironic intentions of a speaker: neurophysiological evidence. *Cognitive, Affective & Behavioral Neuroscience*, 21, 74-92.
- Caballero, J.#, Mauchand, M., Jiang, X., Pell, D. M. Cortical processing of speaker politeness: tracking the dynamic effects of voice tone and politeness markers. *Social Neuroscience*, 16(4), 423-438.

## 2020

- Jiang, X.#, Gossack-Keenan, K., Pell, D. M. To believe or not believe? How voice and accent information in speech alter listener impressions of trust. *Quarterly Journal of Experimental Psychology*, 73, 55-79.
- Jiang, X., Zhou, X.# An alternative structure rescues failed semantics? Strong global expectancy reduces local-mismatch N400 in Chinese flexible structures. *Neuropsychologia*, 140, 107380.
- Chang, W., Duan, Y., Qian, J., Wu, F., Jiang, X., Zhou, X.# Gender interference in processing Chinese compound reflexive: Evidence from reading eye-tracking. *Language, Cognition and Neuroscience*, 35, 1355-1370.
- Vergis, N.#, Jiang, X., Pell, M. D. Neural responses to interpersonal requests: Effects of imposition and vocally-expressed stance. *Brain Research*, 1740, 146855.
- Rigoulot, S., Jiang, X., Vergis, N., Pell, M. D.# Neurophysiological correlates of sexual evocative speech. *Biological Psychology*, 154, 107909.

## 2019

- Jiang, X.# Single-trial based EEG classification of the dynamic representation of speaker stance: A preliminary study with representational similarity analysis. *ICMI '19*:

NeuroManagement and Intelligent Computing Method on Multimodal Interaction, Article 6, 1-4.

Jiang, X.#, Sanford, R. Commentary: A neural mechanism of social categorization. *Frontiers in Neuroscience*, 13, 368.

Zang, C., Zhang, L., Zhang, M., Bai, X., Yan, G., Jiang, X., He, Z., Zhou, X.# Eye movements reveal delayed use of construction-based pragmatic information during online sentence reading: A case of Chinese Lian...dou Construction. *Frontiers in Psychology*, 10, 2011.

2018

Jiang, X.#, Sanford, R., Pell, D. M. Neural architecture underlying person perception from ingroup and outgroup voices. *NeuroImage*, 181, 582-597.

Hu, C., Jiang, X., Jeffrey, R., Zuo, X. Open science as a better gatekeeper for science and society: A perspective from neurolaw. *Science Bulletin*, 63, 1529.

Caballero, J., Vergis, N., Jiang, X., Pell, D. M.# Sound of (im)politeness. *Speech Communication*, 102, 39-53.

2017

Jiang, X.#, Sanford, R., Pell, D. M. Neural systems for evaluating speaker (un)believability. *Human Brain Mapping*, 38, 3732-3749.

Zhan, J., Jiang, X., Politzer-Ahles, S., Yu, H., Zhou, X. Neural correlates of fine-grained meaning distinctions: an fMRI investigation of scalar implicatures. *Human Brain Mapping*, 38, 3848-3864.

Feng, W., Wu, Y., Jan, C., Yu, H., Jiang, X., Zhou, X.# Effects of contextual relevance on pragmatic inference during conversation: an fMRI study. *Brain and Language*, 171, 52-61.

Jiang, X.#, Pell, D. M. The sound of confidence and doubt. *Speech Communication*, 88, 106-126.

Wang, R., Jiang, X., Wang, W., Li, Z.# A micro-needle electrode array on flexible substrate for long-term EEG monitoring. *Sensor & Actuators B: Chemical*, 244, 750-758.

2016

Jiang, X.#, Pell, D. M. How speech betrays our feeling of knowing: the case of “mixed messages”. *Journal of Experimental Psychology: Human Perception and Performance*, 42, 1412-1428.

Jiang, X.#, Pell, D. M. Neural responses towards a speaker’s feeling of (un)knowing. *Neuropsychologia*, 81, 79-93.

2015

Jiang, X., Zhou, X.# Who is respectful? Effects of social context and individual empathic ability on ambiguity resolution during utterance comprehension. *Frontiers in Psychology*, 6, Article 1588.

Jiang, X.#, Pell, D. M. On how the brain decodes speaker’s confidence. *Cortex*, 66, 9-34.

- Jiang, X.#, Paulmann, S., Robin, J., Pell, D. M. More than accuracy: nonverbal dialects modulates time course of vocal emotion processing across cultures. *Journal of Experimental Psychology: Human Perception and Performance*, 41, 597-612.
- Xu, X., Jiang, X., Zhou, X.# When a causal assumption is not satisfied by reality. Differential neural responses to concessive and causal relations during sentence comprehension. *Language, Cognition and Neuroscience*, 30, 704-715.
- 2014 & earlier – Full list available on request.

### **Edited Books**

- Jiang, X. (2024). *Psycholinguistics: New Advances and Real-World Applications*. IntechOpen.
- Jiang, X. (2023). *Interdisciplinary Insights on Interpersonal Relationships*. IntechOpen.
- Jiang, X. (2021). *Types of Nonverbal Communication*. IntechOpen.
- Jiang, X. (2017). *Sociolinguistics: Interdisciplinary Perspectives*. InTech.

### **Book Chapters (Selected)**

- Kong, L., Jiang, X. (2024). How can psycholinguistic research respond to societal needs. In Jiang (Ed.), *Psycholinguistics*.
- Lin, C., Jiang, X. (2023). The role of personality traits and values in perceived friendship quality. In Jiang (Ed.), *Interdisciplinary Insights*.
- Jiang, X. (2021). Perceptual attributes of human-like animal stickers as nonverbal cues. In Jiang (Ed.), *Types of Nonverbal Communication*.
- Jiang, X. (2020). Trends in usage-based and pragmatic language processing. In Savvidou (Ed.), *Second Language Acquisition*.
- Jiang, X. (2018). Prefrontal cortex: Language communication during social interaction. In Starcevic & Filipovic (Eds.), *Prefrontal Cortex*.
- Jiang, X. (2017). Tracking the sound of human affection. In Hosseini (Ed.), *Emotion and Attention Recognition*.
- Jiang, X., Zhou, X. (2015). Impoliteness electrified. In Terkourafi (Ed.), *Interdisciplinary Perspectives on Politeness and Impoliteness*.

### **Editorial & Reviewing Experience**

- Editorial Board Member – *Brain Sciences (Social, Cognitive and Affective Neuroscience Section)*, 2022–present
- Guest Editor – *Frontiers in Psychology (Special Issue on presupposition processing)*, with X. Zhou & Y. Tan, 2021–present
- Associate Editor – *Bibliography of Pragmatics Online*, 2019–present

### **Manuscript Reviewer for (60+ journals, selected):**

Behavioral Research Methods, Bilingualism: Language and Cognition, Biological Psychology, Brain and Language, Cerebral Cortex, Cortex, Emotion, Human Brain Mapping, Journal of Experimental Psychology: HPP, Journal of Pragmatics, NeuroImage, Neuropsychologia, Nature Communications, Quarterly Journal of Experimental Psychology, Scientific Reports,

Social Cognitive and Affective Neuroscience, etc.

#### Invited Talks (Selected)

- 2018: Fudan University – “The cognitive neuroscience of speaker confidence and doubt”
- 2018: Zhejiang Normal University – “How listeners evaluate speaker’s interpersonal stance”
- 2017: Carleton University – “Bridging language use and social cognition”
- 2016: Tsinghua University – “The voice of confidence and doubt”
- 2016: McGill University – “Group status alters neural mechanisms underlying vocal trustworthiness”
- 2015: Massey University – “Open the box of neuropragmatics”
- 2010: Hiroshima University – “Brain responses to pragmatic mismatch”
- 2009: Sino-German Workshop (Munich) – “Neuro-aesthetics and Chinese calligraphy”

#### Conference Presentations (Selected)

- 2026: Speech Prosody 13 (Leiden) - Dominant role of temporal – prosodic cues in sentence-level voice discrimination: Insights from interpretable machine learning
- 2024: Speech Prosody 12 (Leiden) - The role of prosodic cues in the perception and anticipation of sentence completion in structurally ambiguous sentences
- 2024: Speech Prosody 12 (Leiden) - Breathing features of COVID-19 patients and their association with listener’s speech perception
- 2024: Speech Prosody 12 (Leiden) - Inconsistent prosodies more severely impair speaker discrimination of artificial-intelligence-cloned than human talkers
- 2024: Speech Prosody 12 (Leiden) - Tones do not disappear in singing: the duration of Mandarin tones in the music context
- 2018: SNL (Québec City) – “Decoding another’s feeling of knowing from spoken language with MVPA on fMRI”
- 2018: Speech Prosody 9 (Poznan) – “Predicting confidence and doubt from accented speakers: Human perception and machine learning experiments ”
- 2015: SANS (Boston) – “ERPs reveal early detection of speaker believability”
- 2014: Speech Prosody 7 (Dublin) – “Encoding and decoding confidence-related information in speech”
- 2011: Neurobiology of Language (Annapolis) – “Processing construction-based pragmatic violation”

#### Professional Service

- 2018: Co-organizer of Special Session “Prosody in Social Context” at Speech Prosody 9, Poznan
- 2017–2018: Volunteer contributor to COBIDAS MEEG project (OHBM 2018, Singapore)
- Abstract reviewer for SNL (2011, 2012, 2016–present), OHBM (2012, 2017–2018, 2023), ACII (2017)
- Speech Prosody (SProSIG) community service: Long-term contributor and active conference participant since 2014; organized one special session.

Full publication list available upon request.

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