

# Jixing Li ['tɕi'ɕiŋ li]

📍 LI-5459, Department of Linguistics and Translation, City University of Hong Kong

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🌐 <https://compneurolinglab.github.io>

🐙 jixing-li

🐦 @jixingli

## EMPLOYMENT

- |             |  |
|-------------|--|
| 2025 Summer | Visiting Fellow<br>Princeton Neuroscience Institute, Princeton University  |
| 2022 –      | Assistant Professor<br>Department of Linguistics and Translation, City University of Hong Kong<br>Assistant Professor, Affiliate<br>Department of Social and Behavioral Sciences, City University of Hong Kong |
| 2018 – 2022 | Post-doctoral Fellow, New York University Abu Dhabi  |

## EDUCATION

- |             |   |
|-------------|---|
| 2013 – 2019 | Ph.D., Linguistics, Cornell University                                  |
| 2016 – 2018 | Graduate Minor, Cognitive Science, Cornell University                   |
| 2011 – 2012 | M.Sc., Experimental Psychology, University of Oxford                    |
| 2009 – 2010 | M.A., Linguistics, University College London                            |
| 2005 – 2009 | B.A., English Language and Literature, Beijing Normal University        |
| 2006 – 2009 | Double B.A., Chinese Language and Literature, Beijing Normal University |

## GRANTS

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|-------------|--|
| 2025 – 2027 | General Research Fund (co-I): \$759,880 HKD<br>Tracking the spatiotemporal dynamics of language comprehension in healthy aging: an EEG-fMRI study. UGC.                                |
| 2023 – 2025 | CityU Strategic Interdisciplinary Research Grant (PI): \$299,420 HKD<br>Modeling associative encoding of speech sounds in rat and human auditory cortex. City University of Hong Kong. |

2023 – 2025	CityU Strategic Research Grant (PI): \$99,998 HKD Modeling multi-talker speech comprehension in normal and hearing-impaired listeners. City University of Hong Kong.
2023 – 2024	CityU HKTech 300 (PI): \$200,000 HKD EEG-Assisted hearing aidS (EARS). City University of Hong Kong.
2022 – 2024	CityU Start-up Grant (PI): \$300,000 HKD Neural mechanisms of speech comprehension in a cocktail party situation. City University of Hong Kong.
2016 – 2017	Jeffrey Sean Lehman Fund for Scholarly Exchange with China (Co-PI): \$13,000

## AWARDS & FELLOWSHIPS

2023	HKTech 300 Best Pitch Award City University of Hong Kong
2021	CCCN2021 Best Poster Award Chinese Conference of Computational and Cognitive Neuroscience
2019	CNS2019 Postdoctoral Fellow Award Cognitive Neuroscience Society
2018	SNL2018 Travel Award Society for the Neurobiology of Language
2017	SNL2017 Travel Award Society for the Neurobiology of Language
Spring, 2017	Dean's Excellence Fellowship Cornell University
Fall, 2017	SAGE Fellowship Cornell University
2016	IPA Student Award for Speech Prosody 2016 International Phonetic Association
Summer, 2016	International Research Travel Grant Mario Einaudi Center for International Studies, Cornell University
Fall, 2015	C.V. Starr Fellowship East Asian Program, Cornell University
2013-2014	SAGE Fellowship Cornell University

## PREPRINTS

under review Zada, Z., Nastase, A., **Li, J.**, Hasson, U (under review). Brains and language models converge on a shared conceptual space across different languages.

under review Wang, C., Fan, Z., Bi, Y., Han, Z. **Li, J.** (under review). Emergent modularity in large language models: Insights from aphasia simulations.

under review **Li, J.**, Wang, Q., Wang, Y., Wang, C., Ma, Z., Xu, R., Feng, S., Jiang, X., Meng, Z. (under review). Naturalistic fMRI and MEG recordings during viewing of a reality TV show.

## PEER-REVIEWED JOURNAL ARTICLES

in press Gao, C., Ma, Z., Chen, J., Li, P., Huang, S., **Li, J.** (2025). Scaling, but not instruction tuning, enhances the resemblance of large language models to the human brain. *Nature Computational Neuroscience*.

2025 Wang, Q., Zhou, Q., Ma, Z., Wang, N., Zhang, T., Fu, Y., **Li, J.** (2025). Le Petit Prince (LPP) Multi-talker: Naturalistic 7T fMRI and EEG Dataset. *Scientific Data*, 12, 829.

2025 Xu, T., **Li, J.**, & Jiang, X (2025). Semantic processing of argument structure during naturalistic story listening: Evidence from computational modeling on fMRI. *NeuroImage*, 314, 121253.

2024 Momenian, M., Ma, Z., Wu, S., Wang, C., Brennan, J., Hale, J., Meyer, L., & **Li, J.** (2024). Le Petit Prince Hong Kong (LPPHK): Naturalistic fMRI and EEG data from older Cantonese speakers. *Scientific Data*, 11, 992.

2024 **Li, J.**, Wang, Q., Zhou, Q., Yang, L., Shen, Y., Huang, S., Wang, S., Pylkkänen, L., & Huang, Z. (2024). Multi-talker speech comprehension at different temporal scales in listeners with normal and impaired hearing. *eLife*, 13.

2024 **Li, J.**, Lai, M., & Pylkkänen, L. (2024). Semantic composition in experimental and naturalistic paradigms. *Imaging Neuroscience*, 2, 1-17.

2023 Zhang, G., Xu, Y., Wang, X., **Li, J.**, Shi, W., Bi, Y., & Lin, N. (2023). A social-semantic working-memory account for two canonical language areas. *Nature Human Behaviour*, 1, 18.

2023 Dunagan, D., Stanojevi, M., Coavoux, M., Zhang, S., Bhattasali, S., **Li, J.**, Brennan, J., & Hale, J. (2023). Neural correlates of object-extracted relative clause processing across English and Chinese. *Neurobiology of Language*, 4, 455-473.

2022 **Li, J.**, Bhattasali, S., Zhang, S., Franzluebbers, B., Luh, W., Spreng, R. N., Brennan, J., Yang, Y., Pallier, C., & Hale, J. (2022). Le Petit Prince multilingual naturalistic fMRI corpus. *Scientific Data*, 9, 530.

2022 Dunagan, D., Zhang, S., **Li, J.**, Bhattasali, S., Pallier, C., Whitman, J., Yang, Y., & Hale, J. (2022). Neural correlates of semantic number: A cross-linguistic investigation. *Brain and Language*, 229, 105110.

2022 Hale, J., Campanelli, L., **Li, J.**, Pallier, C., & Brennan, J. (2022). Neuro-computational models of language processing. *Annual Review of Linguistics*, 8, 427-446.

2022 Zhang, S., **Li, J.**, Yang, Y., & Hale, J. (2022). Decoding the silence: Neural bases of zero pronoun resolution in Chinese. *Brain and Language*, 224, 105050.

- 2021 Li, J., & Pylkkänen, L. (2021). Disentangling semantic composition and semantic association in the left temporal lobe. *Journal of Neuroscience*, 41, 6526-6538.
- 2017 Klemens, K., Li, J., Maggioni, E., & Spence, C. (2017). What drives sound symbolism? Different acoustic cues underlie sound-size and sound-shape mappings. *Scientific Reports*, 7, 5562.

## PEER-REVIEWED CONFERENCE PAPERS

- 2024 Gao, C., Li, J., Chen, J., Huang, S. (2024). Measuring meaning composition in the human brain with composition scores from large language models. *Annual Conference of the Association for Computational Linguistics: ACL 2024*. Association for Computational Linguistics.
- 2024 Gao, C., Hu, H., Hu, P., Chen, J., Li, J., Huang, S. (accepted). Multilingual pretraining and instruction tuning improve cross-lingual knowledge alignment, but only shallowly. *Annual Conference of the North American Chapter of the Association for Computational Linguistics: NAACL 2024*. Association for Computational Linguistics.
- 2023 Gao, C., Huang, S., Li, J., Chen, J. (2023). Roles of scaling and instruction tuning in language perception: Model vs. human attention. In H. Bouamor, J. Pino, K. Bali (Eds.), *Findings of the Association for Computational Linguistics: EMNLP 2023*. 1304213055. Association for Computational Linguistics.
- 2018 Li, J., Fabre, M., Luh, W. & Hale, J. (2018). Modeling brain activity associated with pronoun resolution in English and Chinese. *Proceedings of the First Workshop on Computational Models of Reference, Anaphora and Coreference (CRAC)*. 87-96.
- 2018 Li, J., Fabre, M., Luh, W. & Hale, J. (2018). The role of syntax during pronoun resolution: Evidence from fMRI. *Proceedings of the Eight Workshop on Cognitive Aspects of Computational Language Learning and Processing (CogACLL)*. 56-64.
- 2016 Li, J., Brennan, J., Mahar, A. & Hale, J. (2016). Temporal lobes as combinatory engines for both form and meaning. *Proceedings of the Workshop on Computational Linguistics for Linguistic Complexity (CL4LC)*. 186-191.
- 2016 Li, J., & Tilsen, S. (2016). Early prosodic manifestations of disfluency. *Proceedings of Speech Prosody*. 1235-1239.
- 2015 Li, J., & Tilsen, S. (2015). Phonetic evidence for two types of disfluency. *Proceedings of ICPhS*. 668.

## BOOK CHAPTERS

- in press Li, J., & Ma, Z, Wang, C. (in press). MRI datasets for language processing. Nesi, H. & Milin, P (Eds.). *Encyclopedia of Language and Linguistics, Third Edition*. Elsevier.
- 2019 Li, J., & Hale, J. (2019). Grammatical predictors for fMRI timecourses. Stabler, E., & Berwick, R. (Eds.). *Minimalist Parsing*. Oxford University Press.

## INVITED TALKS, WORKSHOPS & TUTORIALS

- 2024 Li., J. Wang, S. (2024). Modeling linguistic processes through experimental and naturalistic designs. *Symposium at the 16th Annual Meeting of Society for the Neurobiology of Language: SNL 2024*. Society for the Neurobiology of Language, Brisbane, Australia, October 24-26, 2024.
- 2024 Sun, J., Wang, S., Chen, Z., Li., J. Moens, M. (2024). Computational linguistics for brain encoding and decoding: Principles, practices and beyond. *Tutorial at the 62nd Annual Conference of the Association for Computational Linguistics: ACL 2024*. Association for Computational Linguistics, Bangkok, Thailand, August 11-16, 2024.
- 2024 Sun, J., Xia, W., Wang, S., Li., J., Oztireli, C., Zhang, J., Moens, M. (2024). Deep learning for brain encoding and decoding: Principles, practices and beyond. *Tutorial at the International Joint Conference on Artificial Intelligence: IJCAI 2024*. Jeju, South Korea, August 3-9, 2024.
- 2024 Li., J. (2024). Meaning composition in LLMs and the human brain. *Invited talk at the Virtual Psycholinguistics Forum, The Chinese University of Hong Kong*. March 28, 2024.
- 2024 Li., J. (2024). Neural encoding and decoding of human speech. *Invited talk at the Department of Chinese and Bilingual Studies (CBS) Research Seminar, The Hong Kong Polytechnic University*. February 27, 2024.
- 2023 Li., J. (2023). Neural encoding and decoding of human speech. *Invited talk at the Division of Life Science Research Seminar, Hong Kong University of Science and Technology*. October 20, 2023.
- 2023 Li., J. (2023). Neural encoding and decoding of human speech. *Workshop at the 44th Annual Meeting of the Cognitive Science Society (CogSci) 2023 Hong Kong Meetup, The Chinese University of Hong Kong*. June 24, 2023.
- 2023 Li., J. (2023). Semantic composition in two-word and naturalistic paradigms. *Invited talk at the Neuroseminar at University of Jyväskylä*. June 2, 2023.
- 2022 Li., J. (2022). Language processing in naturalistic and experimental paradigms. *Invited talk at Cognition and Cognitive Neuroscience (CCN) Brownbag series, University of California, Riverside*, November 30, 2022.
- 2022 Li., J. (2022). Modeling language processing in naturalistic and controlled experiments. *The LT Research Forum Series, City University of Hong Kong*, January 25, 2022.
- 2021 Li., J. (2021). Grammatical predictors for fMRI time-courses during naturalistic listening. *Workshop for the Leipzig Lectures on Language End-of-Year Symposium*, October 20-21, 2021.
- 2021 Li., J. (2021). Cortical processing of pronoun resolution revealed by computational models. *SNL Symposium: What can NLP systems teach us about language in the brain?*, October 8, 2021.
- 2021 Li., J. (2021). Modeling pronoun resolution in the brain. *Workshop on Computational Neurolinguistics (WCNL2021), Nanjing Normal University*, August 21, 2021.
- 2021 Li., J. (2021). Referential processing in the brain. *Language in Interaction Consortium, Donders Center / Max Planck Institute, the Netherlands*, June 21, 2021.
- 2021 Li., J. & Hale, J. (2021). Neuro-computational models of language processing: The case of reference and coreference. *The Leipzig Lectures on Language, Max Planck Institute for Human Cognitive and Brain Sciences*, May 26, 2021.

- 2021 Li, J. (2021). Cortical processing of reference in language revealed by computational models. *Presentation at the Neurolinguistics Lab, University of Maryland, April 27, 2021.*

## CONFERENCE PRESENTATIONS

- 2024 Ma, Z., & Li, J. (2024). Modeling the trajectory of language processing in neural state space. Poster presented at the 16th Annual Meeting for the Neurobiology of Language Conference (SNL), Brisbane, Australia, October 24-26, 2024. *SNL2024 Trainee Scholarship Award*
- 2024 Wang, C., Fan, Z., Han, Z., Bi, Y., & Li, J. (2024). Functional specificity in multimodal large language models and the human brain. Poster presented at the 16th Annual Meeting for the Neurobiology of Language Conference (SNL), Brisbane, Australia, October 24-26, 2024. *SNL2024 Trainee Scholarship Award*
- 2024 Li, J. (2024). Semantic composition in experimental and naturalistic paradigms. Talk presented at the Natural Language and MEG symposium at the 23rd International Conference on Biomagnetism BIOMAG, Sydney, Australia, August 26-29, 2024.
- 2024 Li, J. (2024). Neural tracking of bottom-up and top-down processes in speech comprehension. Talk presented at the 23rd International Conference on Biomagnetism BIOMAG, Sydney, Australia, August 26-29, 2024.
- 2023 Qing, H., Li, J., (2023). Neural encoding of distinct linguistic hierarchies across different languages. Poster presented at the 15th Annual Meeting for the Neurobiology of Language Conference (SNL), Marseille, France, October 24-26, 2024. *SNL2023 Travel Award.*
- 2023 Gao, C., Huang, S., Li, J., (2023). Impact of model size and fine-tuning techniques on LLMs resemblance to the human brain. Poster presented at the 15th Annual Meeting for the Neurobiology of Language Conference (SNL), Marseille, France, October 24-26, 2024.
- 2023 Li, J., Wang, Q., Zhou, Q., Huang, S. & Huang, Z. (2022). Modeling multi-talker speech comprehension in normal and hearing-impaired listeners. Poster presented at the 30th Anniversary Meeting of the Cognitive Neuroscience Society (CNS), San Francisco, USA, March 25-28, 2023.
- 2022 Li, J., Lai, M., & Pylkkänen, L. (2022). Meaning composition in two-word and naturalistic listening paradigms. Poster presented at the 14th Annual Society for the Neurobiology of Language Conference (SNL), Pennsylvania, USA, October 6-8, 2022.
- 2021 Li, J., Luh, W., Pylkkänen, L., Yang, Y., & Hale, J. (2021). Modeling pronoun resolution in the brain. Poster presented virtually at the 3rd Chinese Conference of Computational and Cognitive Neuroscience (CCCN), June 11-13, 2021. *CCCN2021 Best Poster Award*
- 2021 Li, J., Luh, W., Pylkkänen, L., Yang, Y., & Hale, J. (2021). Modeling pronoun resolution in the brain. Data Blitz presented virtually at the Cognitive Neuroscience Society (CNS), March 13-16, 2021.
- 2021 Zhang, S., Li, J., & Hale, J. (2021). Neural mechanisms of zero pronoun resolution in Chinese. Poster presented virtually at the Cognitive Neuroscience Society (CNS), March 13-16, 2021.



- 2021 Li, J., Luh, W., Pylkkänen, L., Yang, Y., & Hale, J. (2021). Modeling pronoun resolution in the brain. Poster presented virtually the Society for Neuroscience (SfN): Global Connectome, January 11-13, 2021.
- 2020 Donald, D., Zhang, S., Li, J., Pallier, C., Whitman, J. & Hale, J. (2020). Grammatical number in French and Chinese brains. Poster presented virtually at the Society for the Neurobiology of Language (SNL), October 21-25, 2020.
- 2020 Li, J., & Pylkkänen, L. (2020). Disentangling semantic association from semantic composition in the LATL. Poster presented virtually at the 33rd Annual CUNY Conference on Human Sentence Processing (CUNY), March 19-21, 2020.
- 2019 Li, J., & Pylkkänen, L. (2019). Disentangling semantic association from semantic composition in the LATL. Poster presented at the 11th Annual Society for the Neurobiology of Language Conference (SNL), Helsinki, Finland, August 20-22, 2019.
- 2019 Zhang, S., Li, J., Luh, W., & Hale, J. (2019). Human brain networks for semantic roles: An fMRI study. Poster presented at the 11th Annual Society for the Neurobiology of Language Conference (SNL), Helsinki, Finland, August 20-22, 2019.
- 2019 Li, J., & Hale, J. (2019). Tracking the subprocesses of pronoun resolution during naturalistic comprehension. Poster presented at the Cognitive Neuroscience Society (CNS), San Francisco, USA, March 23-26, 2019. *CNS2019 Postdoctoral Fellow Award*.
- 2018 Li, J., Fabre, M., Luh, W., & Hale, J. (2018). fMRI evidence for binding theory during anaphora resolution in naturalistic listening. Poster presented at the Society for the Neurobiology of Language (SNL), Quebec, Canada, August 16-18, 2018.
- 2018 Li, J., Fabre, M., Luh, W., & Hale, J. (2018). Neural mechanisms of pronoun resolution in Chinese during naturalistic listening. Poster presented at Architectures and Mechanisms of Language Processing (AMLaP), Berlin, Germany, September 6-8, 2018.
- 2018 Li, J., Fabre, M., Luh, W., & Hale, J. (2018). fMRI evidence for binding theory during anaphora resolution in naturalistic listening. Poster presented at the Society for the Neurobiology of Language (SNL), Quebec, Canada, August 16-18, 2018. *SNL2018 Travel Award*.
- 2018 Li, J., Fabre, M., Luh, W., & Hale, J. (2018). The role of syntax during pronoun resolution: Evidence from fMRI. Paper presented at the ACL Workshop on Cognitive Aspects of Computational Language Learning and Processing (CogACLL), Melbourne, Australia, July 19, 2018.
- 2018 Li, J., Fabre, M., Luh, W., & Hale, J. (2018). Modeling brain activity associated with pronoun resolution in English and Chinese. Paper presented at the NAACL Workshop on Computational Models of Reference, Anaphora, and Coreference (CRAC), New Orleans, USA, June 9, 2018.
- 2017 Li, J., Pallier, C., Yang, Y., & Hale, J. (2017). Neural correlates of semantic coherence in English and Chinese speakers during natural language comprehension. Poster presented at the Society for the Neurobiology of Language (SNL), Baltimore, USA, November 8-10, 2017. *SNL2017 Travel Award*.
- 2017 Hale, J., Bhattasali, S., Brennan, J., Li, J., Luh, W., & Pallier, C. (2017). Localizing structure-building and memory retrieval in naturalistic language comprehension. Poster presented at the Society for the Neurobiology of Language (SNL), Baltimore, USA, November 8-10, 2017.

- 2016 Li, J., Hale, J., Mahar, A., & Brennan, J. (2016). Temporal lobes as combinatory engines for both form and meaning. Poster presented at the Workshop on Computational Linguistics for Linguistic Complexity (*CL4LC, COLING*), Osaka, Japan, December 11, 2016.
- 2016 Li, J., & Tilsen, S. (2016). Early prosodic manifestations of disfluency. Paper presented at Speech Prosody, Boston, May 31-June 3, 2016. *IPA Student Award*.
- 2016 Li, J., & Tilsen, S., Phonetic evidence for two types of disfluency. Paper presented at the Linguistic Society of America (*LSA*), Washington, USA, January 7-10, 2016.
- 2015 Li, J., & Tilsen, S., (2015). Phonetic evidence for two types of disfluency. Poster presented at the 18th International Congress of Phonetic Sciences (*ICPhS*), Glasgow, UK, August 10-14, 2015.
- 2013 Li, J., Klemens, K., & Spence, C. (2013). Sonority, shape and size in sound symbolism. Poster presented at the Linguistic Society of America (*LSA*), Boston, USA, January 3-6, 2013.
- 2012 Li, J. (2012). "Root infinitives" in child Chinese. Paper presented at the 1st Workshop on Syntax and Semantics in China, Nanjing, China, June 16-17, 2012.

## TEACHING

- Semester B,  
2023-2024 LT5406 Psycholinguistics  
CityU Hong Kong
- Semester A,  
2023-2024 LT4256 Topics in Neurolinguistics and Psycholinguistics  
CityU Hong Kong
- Semester B,  
2023 LT2206 Fundamentals of Statistics for Language Sciences  
CityU Hong Kong
- Semester A and  
B, 2022-2024 LT3233 Computational Linguistics  
CityU Hong Kong
- Semester A,  
2022-2024 LT5903 Language and Its Applications  
CityU Hong Kong
- Lead TA:  
July 5-23, 2021 Computational Neuroscience  
Neuromatch Academy

## SERVICE & MEMBERSHIP

- Organizer The 14th Workshop on Cognitive Modeling and Computational Linguistics (CMCL), Association for Computational Linguistics
- Organizer 3rd BRAIN Research Cluster Symposium, May 6-7, 2024, CityU Hong Kong
- Organizer Symposium on NLP x Neurolinguistics, April 1, 2023, CityU Hong Kong
- Organizer Neuroimaging Methods Workshop, October 10-11, 2022, CityU Hong Kong



Editorial Board	Communications Psychology
Ad-hoc Reviewer	eLife, PNAS, Nature Machine Intelligence, Imaging Neuroscience, Scientific Data, PLOS Computational Biology, Neuroimage, Cerebral Cortex, Journal of Cognitive Neuroscience, Journal of Neurolinguistics, Journal of Experimental Psychology: Learning, Memory, and Cognition, Visual Cognition, Cognitive Science, OpenMind.
Member	Society for Neuroscience Cognitive Neuroscience Society Society for the Neurobiology of Language Association for Computational Linguistics Linguistic Society of America International Phonetic Association

## NATURAL LANGUAGES

Mandarin Chinese (native), English

## PROGRAMMING LANGUAGES

Python, Matlab, R, Shell Scripting