Jixing Li [ˈtɕiˈɕiŋ li]

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EMPLOYMENT

2025 Summer	Visiting Fellow Princeton Neuroscience Institute, Princeton University
2022 –	Assistant Professor Department of Linguistics and Translation, City University of Hong Kong Assistant Professor, Affiliate 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

2026 – 2029	National Natural Science Foundation of China (NSFC) Young Scientist Fund (PI): $300,000 RMB Leveraging large language models for aphasia simulation and intervention.

2025 – 2027	General Research Fund (co-I): $759,880 HKD Tracking the spatiotemporal dynamics of language comprehension in healthy aging: an EEG-fMRI study.
2023 – 2025	CityU Strategic Interdisciplinary Research Grant (PI): $299,420 HKD Modeling associative encoding of speech sounds in rat and human auditory cortex.
2023 – 2025	CityU Strategic Research Grant (PI): $99,998 HKD Modeling multi-talker speech comprehension in normal and hearing-impaired listeners.
2023 – 2024	CityU HKTech 300 (PI): $200,000 HKD EEG-Assisted heaRing aidS (EARS).
2022 – 2024	CityU Start-up Grant (PI): $300,000 HKD Neural mechanisms of speech comprehension in a cocktail party situation.
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
2017, 2018	SNL Travel Award
	Society for the Neurobiology of Language
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
2015	C.V. Starr Fellowship
	East Asian Program, Cornell University
2013, 2014, 2017	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

2025   Gao, C., Ma, Z., Chen, J., Li, P., Huang, S., **Li, J.** (2025). Increasing large language models' alignment with language processing in the human brain. *Nature Computational Science*. https://doi.org/10.1038/s43588-025-00863-0

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, 3rd 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

2025	**Li., J.** Music and speech processing under time compression. *The 2025 Annual Academic Conference of the Digital Medicine Subcommittee, Shanghai Medical Association.* Shanghai, September 20, 2025.
2025	**Li., J.** Music and speech processing under time compression. *Workshop on Theoretical and Experimental Pragmatics.* School of International Studies, Zhejiang University, September 7, 2025.
2025	**Li., J.** Aphasia simulation from a modelbrain alignment perspective. *Workshop on Theoretical and Experimental Pragmatics.* School of Literature, Zhejiang University, September 6, 2025.
2024	**Li., J.** Wang, S. 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. 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. 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.** 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.** 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.** 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.** 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.** Semantic composition in two-word and naturalistic paradigms. *Invited talk at the Neuroseminar at University of Jyväskylä.* June 2, 2023.
2022	**Li., J.** 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.** Modeling language processing in naturalistic and controlled experiments. *The LT Research Forum Series, City University of Hong Kong,* January 25, 2022.
2021	**Li., J.** 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.** 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.** Modeling pronoun resolution in the brain. *Workshop on Computational Neurolinguistics (WCNL2021), Nanjing Normal University*, August 21, 2021.
2021	**Li., J.** Referential processing in the brain. *Language in Interaction Consortium, Donders Center / Max Planck Institute, the Netherlands*, June 21, 2021.
2021	**Li., J.** & Hale, J. 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.** Cortical processing of reference in language revealed by computational models. *Presentation at the Neurolinguistics Lab, University of Maryland*, April 27, 2021.

CONFERENCE PRESENTATIONS

2025	Ma, Z., Gao, Q., Wang, N., & **Li., J.** (2025). Neural tracking of semantic and rhythmic information under temporal compression. Poster presented at the 17th Annual Meeting for the Society for the Neurobiology of Language (*SNL*), Washington, D.C, USA, September 12-14, 2025.
2025	Wang, C., & **Li., J.** (2025). Finding Modularity in Large Language Models: Insights from Aphasia Simulations. Poster presented at the 8th annual conference on Cognitive Computational Neuroscience (*CCN*), Amsterdam, The Netherlands, August 12-15, 2025.
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 Society for the Neurobiology of Language (*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 Society for the Neurobiology of Language (*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 Society for the Neurobiology of Language (*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 Society for the Neurobiology of Language (*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 Society for the Neurobiology of Language (*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 presnented 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 12th Annual Meeting for 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 Meeting for the Society for the Neurobiology of Language (*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 Meeting for the Society for the Neurobiology of Language (*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 10th Annual Meeting for 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 10th Annual Meeting for 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 9th Annual Meeting for 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 9th Annual Meeting for 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

2022-2025	LT4391 Undergraduate Research Project
Semester A, 2025	LT8806 Advanced Topics in Linguistic Research

Semester B, 2023-2024	LT5406 Psycholinguistics
Semester B, 2023-2024	LT4256 Topics in Neurolinguistics and Psycholinguistics
Semester B, 2022-2023	LT2206 Fundamentals of Statistics for Language Sciences
Semester A, B, 2022-2024	LT3233 Computational Linguistics
Semester A, 2022-2025	LT5903 Language and Its Applications
Lead TA, July, 2021	Computational Neuroscience, Neuromatch Academy

SERVICE & MEMBERSHIP

Organizer	The 19th Annual Meeting for the Society for the Neurobiology of Language (SNL), Hong Kong, 2027
Organizer	The 14th Workshop on Cognitive Modeling and Computational Linguistics (CMCL), Association for Computational Linguistics, 2024-
Organizer	3rd BRAIN Research Cluster Symposium, May 6-7, 2024, CityUHK
Organizer	Symposium on NLP x Neurolinguistics, April 1, 2023, CityUHK
Organizer	Neuroimaging Methods Workshop, October 10-11, 2022, CityUHK
Editorial Board Member	Communications Psychology PLOS Computational Biology
Ad-hoc Journal Reviewer	eLife, PNAS, Nature Machine Intelligence, Imaging Neuroscience, Scientific Data, PLOS Computational Biology, NeuroImage, Cerebral Cortex, Brain and Language, Journal of Cognitive Neuroscience, Journal of Neurolinguistics, Journal of Experimental Psychology: Learning, Memory, and Cognition, Visual Cognition, Cognitive Science, OpenMind.
Conference Reviewer	ACL, NAACL, EMNLP, CMCL Workshop, SNL, CCN
Member	Society for Neuroscience Cognitive Neuroscience Society Society for the Neurobiology of Language Association for Computational Linguistics