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Xin KANG (康鑫)

I am an experimental psycholinguist working on cognitive, neural, and genetic bases of first (L1) and second (L2) language learning and processing by typically developing and special populations. I investigate how we learn and process languages and what biological mechanisms are involved in this process. I use a range of behavioral and neuroimaging techniques (e.g., corpus linguistics, eye-tracking, ERPs, and behavioral genetics) and advanced statistical methods (e.g., structural equation modelling, multilevel linear regression, and machine learning). I have achieved clinical reliability in administering ADOS-2 and ADI-R for autism spectrum disorder (ASD).

Academic employment

2022/12– present	Professor Research Centre for Language, Cognition and Language Application, Department of Languages and Cultures, Chongqing University, China
2021/11– 2022/12	Associate Professor Research Centre for Language, Cognition and Language Application, Department of Languages and Cultures, Chongqing University, China
2020/12– 2021/11	Research Associate (PI: Professor Patrick CM Wong) Laboratory for Language, Learning, and the Brain, Department of Linguistics and Modern Language Brain and Mind Institute, The Chinese University of Hong Kong
2015/11 – 2020/12	Postdoctoral Fellow (PI: Professor Patrick CM Wong) Laboratory for Language, Learning, and the Brain, Department of Linguistics and Modern Language Brain and Mind Institute, The Chinese University of Hong Kong
2014/10 – 2015/11	Research Assistant (PI: Professor Patrick Chun Man Wong) Laboratory for Language, Learning, and the Brain, The Chinese University of Hong Kong

Education

2011–2016	University of York, York, United Kingdom Ph.D. in Psychology , viva in August 2015 (awarded in January 2016) THESIS: <i>Establishing object-state representation in language comprehension: Evidence from picture verification, eye-tracking and ERPs</i> ADVISOR: <u>Professor Gerry Altmann</u> ADVISORY PANEL: <u>Silvia Gennari</u> , <u>Shirley-Ann Rueschemeyer</u>
2009–2010	Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences Visiting student (Ambient Intelligence and Multimodal Systems Laboratory) ADVISOR: <u>Dr. Wang Lan</u>

2008–2010	Guangdong University of Foreign Studies, Guangzhou China M.A. in Linguistics and Applied Linguistics THESIS: <i>L2 Acquisition of the Argument Structure of English Causative Alternation</i> ADVISOR: <u>Professor Chuming Wang</u>
2006–2007	Shandong University, Jinan, China Exchange student in the Department of Foreign Languages
2004–2008	Central South University, Changsha, China B.A. in English Language and Literature

Publications

(Note: *corresponding author; # co-first author)

JOURNAL ARTICLES (PUBLISHED OR ACCEPTED)

1. Zhao, J., Fu, C., & **Kang, X.** (2022). Content characteristics predict the putative authenticity of COVID-19 rumors. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.920103>
2. Nayar, K.#, **Kang, X.#**, Winston, M., Wong, P. C. M., Losh, M. (2022). A cross-cultural study of visual attention in autism spectrum disorder. *Child Neuropsychology*. 10.1080/09297049.2022.2094904
3. Lau, J. C. Y., Patel, S., **Kang, X.**, Nayar, K., Martin, G. E., Choy, J., Wong, P. C. M., & Losh, M. (2022). Cross-linguistic patterns of speech prosodic differences in autism: A machine learning study. *PLoS One*, 17(6), e0269637.
4. **Kang, X.***, & Ge, H.* (2022). Tracking object-state representations during real-time language comprehension by native and non-native speakers of English. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.819243>
5. Wong, P. C. M.*, **Kang, X.***, So, H.-C., & Choy, K. W. (2022). Contributions of common genetic variants to specific languages and to when a language is learned. *Scientific Reports*, 12(1), 580. <https://doi.org/10.1038/s41598-021-04163-1>
6. **Kang, X.**, Matthews, S., Yip, V., Wong, P. C. M.* (2021). Language and Non-Language Factors in Foreign Language Learning: Evidence for the Learning Condition Hypothesis. *npj Science of Learning*. <https://doi.org/10.1038/s41539-021-00104-9>
7. Geng, X.*, **Kang, X.***, & Wong, P. C. M. (co-corresponding author; 2020). Autism spectrum disorder risk prediction: A systematic review of behavioral and neural investigations. *Progress in Molecular Biology and Translational Science* (Vol. 173, pp. 91–137). Academic Press. <https://doi.org/10.1016/bs.pmbts.2020.04.015>
8. **Kang, X.***, Joergensen, G. H., & Altmann, G. T. M. (2020). The activation of object-state representations during online language comprehension. *Acta Psychologica*, 210, 103162. <https://doi.org/10.1016/j.actpsy.2020.103162>
9. **Kang, X.***, Eerland, A., Joergensen, G., Zwaan, R., Altmann, G.T.M. (2019). The Influence of state change on object representations in language comprehension. *Memory & Cognition*, 48, 390 – 399. <https://doi.org/10.3758/s13421-019-00977-7>

10. **Kang, X.*** (2010). On the L2 acquisition of English causative alternation: The role of verb semantics and entrenchment. *Foreign Language Teaching and Research*. 2010, (6): 431 -437, (6): 431 -437
11. Wong, P. C. M.*, **Kang, X.**, Wong, K. H. Y., So, H.-C., Choy, K. W., & Geng, X. (2020). ASPM-lexical tone association in speakers of a tone language: Direct evidence for the genetic-biasing hypothesis of language evolution. *Science Advances*, 6(22), eaba5090. <https://doi.org/10.1126/sciadv.aba5090> [Media Coverage]: *Scientific American, Forbes, Phys.org, CUHK Press Release*]
12. Nayar, K., **Kang, X.**, Xing, J., Gordon, P. C., Wong, P. C. M., & Losh, M. (2021). A cross-cultural study showing deficits in gaze-language coordination during rapid automatized naming among individuals with ASD. *Scientific Reports*, 11(1), 1–13. <https://doi.org/10.1038/s41598-021-91911-y>
13. Ge, H., Mulders, I., **Kang, X.**, Chen, A., & Yip, V. (2021). Processing focus in native and non-native speakers of English: an eye-tracking study in the visual world paradigm. *Applied Psycholinguistics*, 42(4), 1057–1088. <https://doi.org/10.1017/S0142716421000230>
14. Lau, J. C. Y., To, C. K. S., Kwan, J. S. K., **Kang, X.**, Losh, M., & Wong, P. C. M. (2020). Lifelong Tone Language Experience does not Eliminate Deficits in Neural Encoding of Pitch in Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*. 51, 3291–3310. <https://doi.org/10.1007/s10803-020-04796-7>

Presentations

PEER-REVIEWED TALKS AND POSTERS

1. **Kang, X.*** & Ge, H.Y. (2021). Non-native English speakers are slower in predicting object-state during real-time language comprehension than native speakers. Psychonomic Society 62th Annual Meeting. Nov. 4-7, New Orleans, Louisiana, USA.
2. **Kang, X.**, Chan, P.H.Y., Lam, H.S., Wong, P.C.M.* (2021). Influence of prenatal and postnatal fish consumption on the efficiency of response inhibition in adolescence: Preliminary evidence from a 15-year follow-up study in Hong Kong. ABC'21 Conference: Language and Cognition in Typical and Atypical Development, Dec. 2 – 4, Hong Kong, SAR, China.
3. Hirai, W.H.#, **Kang, X.#** (co-first author), Lau, J.C.Y., Choy, J.L.H., Lai, E.C.L., Wong, P.C.M.* (2021). Prosody Production Difficulties in Tone Language Speakers with Autism Spectrum Disorder. ASHA Convention. Nov. 18-20, Washington D.C. USA.
4. **Kang, X.**, Wong, HYK., & Wong, P.C.M.* (2017). Do subject-internal factors predict third language acquisition? Preliminary evidence from a corpus of Cantonese learners of modern languages. Talk presented at the 4th Learner Corpus Research Conference, Bolzano/Bozen, Italy. October 5 -7 , 2017.

5. **Kang, X.***, Wang, T. (2017). Tracking object-state representations in language comprehension: Do cognitive abilities matter?. Poster presented at the 23rd AMLaP Conference – Architectures and Mechanisms of Language Processing, Lancaster, UK. September 7-9, 2017.
6. **Kang, X.***, Joergensen, G. H., Altmann, G. T. M. (2015). Event-related brain potentials reflect processing of object-state representations in language comprehension. Poster presented at the Neurobiology of Language, Chicago, USA.
7. **Kang, X.***, Joergensen, G. H., Altmann, G. T. M. (2014). Representing conflicting states of a single object requires identity binding: Evidence from the visual world paradigm. Talk given at the Experimental Psychology Society Meeting, Kent, UK.
8. **Kang, X.***, Joergensen, G. H., Altmann, G. T. M. (2014). Representing multiple instantiations of an object: Effects of visual and linguistic context on real-time event processing. Poster presented at The 27th Annual CUNY Conference on Human Sentence Processing, Ohio, USA
9. **Kang, X.***, Joergensen, G. H., Altmann, G. T. M. (2013). From altered states to altered eye movements: Object state-change in the visual world. Poster presented at The 19th annual Conference on Architectures and Mechanisms for Language Processing, Marseille, France.
10. **Kang, X.*** (2010). L2 acquisition of English causative alternation by advanced learners of English in China. Proceedings of the 4th International Symposium on SLA in China, Suzhou, China, April 23-25, 2010
11. Xing, J., Nayar, K., Landau, E., **Kang, X.** Lau, JCY., Martin, GE., Wong, PCM., & Losh, M.* (2021). Narrative and visual attention in autism spectrum disorder: A cross-cultural perspective. Poster presented at the INASR Annual Meeting.
12. Lau, J.C.Y., **Kang, X.**, To, C.K.S., Losh, M., Wong, P.C.M.* (2019). Impaired Neural Pitch Encoding Associated with Autism Spectrum Disorders in Cantonese-speaking Children. Neuroscience 2019, the 49th annual gathering of the Society for Neuroscience. Chicago, IL, Oct. 19-23 2019.
13. Nayar, K., **Kang, X.**, Wong, PCM., & Losh, M.* (2019). Visual Attention during Narration in Autism: A Cross-Cultural Study. INSAR Annual Meeting, Québec, Canada, May 1 - 4, 2019.
14. Ge, H.*, **Kang, X.**, Mai, Z. & Yip, V. (2017) How Cantonese-speaking adults use prosody to interpret focus in L2 English: Evidence from eye movement in the visual world paradigm. Poster presented at the 11th International Symposium on Bilingualism, University of Limerick, Ireland.
15. Ge, H.*, **Kang, X.**, Mai, Z., Lam, H., Matthews, S. & Yip, V. (2017) Association of prosodic focal information with only in L1 and L2: Evidence from eye movement in the visual world paradigm. Paper presented at the Experimental Psycholinguistics Conference, Menorca, Spain. 26-28 June 2017.

16. Lee, L.C., Kang, X. & Mai, Z*. (2016). Processing Cantonese classifiers by Mandarin speakers: an eye-tracking study. Paper presented at the Linguistic Society of Hong Kong Annual Research Forum 2016. December 3. Hong Kong Education University. Hong Kong.
17. Ekves, Z.*, Joergensen, G.H., Kang, X., Altmann, G. T. M. (2016). Episodic and semantic influence in object instantiation. Poster presented at the 29th CUNY conference on Human Sentence Processing, Florida, US

Teaching

THE CHINESE UNIVERSITY OF HONG KONG

- | | |
|------|--|
| 2019 | <i>Research Techniques in Language Studies</i> (Undergraduate; Course) |
| 2019 | <i>Using Corpus as a Research Method</i> (Postgraduate; Course) |
| 2015 | <i>Introduction to eye-tracking in linguistics research</i> (Postgraduate; Workshop) |

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| 2012-2014 | <i>Research Design and Statistics</i> (Undergraduate; Practical Sessions) |
| 2012-2014 | <i>Research Practicum</i> (Undergraduate; Research Projects) |
| 2012-2014 | <i>Development and Language</i> (Undergraduate; Tutorials) |

Advising

THE CHINESE UNIVERSITY OF HONG KONG

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|------|--|
| 2021 | King Hei Lau, , Undergraduate Thesis
<i>The heritability of prosody abnormalities from parents to children with ASD</i> |
| 2019 | Sharon Cheng, Undergraduate Thesis
<i>The storytelling features of Cantonese-speaking children with ASD</i> |
| 2019 | Melody Lam, visiting student, Oxford University
<i>The impact of social economic status on language learning outcomes</i> |
| 2019 | Gabriel Blanco Gomez, visiting student, University of Toronto
<i>The neurobiological factors on language learning</i> |
| 2018 | Ada Yan Kwok Ng, Undergraduate Thesis
<i>Narrative structure of Cantonese-speaking adults with high-functioning ASD</i> |
| 2016 | Ka Chun Lee (co-supervised with Dr. Ziyin Mai), Postgraduate Thesis
<i>The L2 acquisition of Chinese Classifier</i> |
| 2015 | Yue Chan, Undergraduate Thesis
<i>The influence of L3 on phonological awareness development</i> |
| 2015 | Zijia Tian, Postgraduate Thesis
<i>The role of feedback and working memory in language learning</i> |
| 2015 | Ting Wang, Postgraduate Thesis |

Tracking object-state representation in Mandarin Chinese

UNIVERSITY OF YORK

2013 Michelle Lam, Undergraduate Thesis
The influence of object typicality on eye movement

Professional training

2019 Clinical Reliability for Autism Diagnostic Observation Schedule Second Edition (ADOS-2) and Autism Diagnostic Interview-Revised (ADI-R)

Experimental-Computational skills

DATA COLLECTION Lab-experiment: E-Prime; PsychoPy
Web-experiment: Qualtrics & Amazon Mechanical Turk

EYE-TRACKING SR Research EyeLink II, Eyelink 1000, Tobii TX300

EEG/ERPs Neuroscan, Presentation

DATA ANALYSIS R, SPSS, Matlab, EEGlab, ERPlab

OTHER TOOLS CLAN, PRAAT, Sound Studio, Adobe Illustrator

Professional affiliations

Member, Association for Psychological Science
Member, Cognitive Science Society
Member, Society for Neurobiology of Language
Member, Psychonomic Society
Member, Society for the Teaching of Psychology

Awards

2020 Research Fellowship Scheme, The Chinese University of Hong Kong
2019 Research Fellowship Scheme, The Chinese University of Hong Kong
2011-2014 Overseas Research Scholarship, University of York
2010 Best Postgraduate Thesis Award, GDFUS
2008 Outstanding Graduate Award, Central South University
2005-2008 Scholarship for Academic Excellence, Central South University

Languages

English (Fluent): IELTS 8.0 (2010); Mandarin (Native); Cantonese (Intermediate)