

# Zhan, Likan

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- Last update: 2015-01-09

## Academic Appointment

- 2024.03 ~ Now, Visiting Scholar,  
Department of Mathematics,  
Linnaeus University, Växjö, Sweden
- 2018.12 ~ Now, Associate professor,  
School of Communication Science,  
Beijing Language and Culture University, Beijing, China
- 2016.06 ~ 2018.11, Assistant professor,  
School of Communication Science,  
Beijing Language and Culture University, Beijing, China
- 2014.09 ~ 2016.05, Assistant professor,  
Faculty of Linguistic Sciences,  
Beijing Language and Culture University, Beijing, China

## Education

- 2010.10 ~ 2014.09, Ph.D. Cognitive Science,  
Macquarie University, Sydney, Australia
- 2007.09 ~ 2010.07, M.E. Cognitive Psychology,  
Beijing Language and Culture University, Beijing, China
- 2000.09 ~ 2004.07, B.A. Teaching Chinese as a Second Language,  
Beijing Language and Culture University, Beijing, China

## Teaching Experience

- 2021 ~ Now, *Statistics with Julia*, Postgraduates, 2 hours per week
- 2017 ~ Now. *Statistics for the Behavioral Sciences*, Undergraduates, 2 hours per week
- 2022 ~ Now, *Educational Psychology*, Undergraduates, 2 hours per week
- Archives  
*R for Modeling and Visualizing Data* (2016 ~ 2021)  
*Experimental Psychology* (2019 ~ 2021)  
*Introduction to Neurolinguistics* (2019 ~ 2021)  
*Introduction to Cognitive Neuroscience* (2015 ~ 2020)  
*Foundations of Scientific Research* (2015 ~ 2021)

# Grants, Projects, and Awards

## 1. Grants

- **Zhan, L.**, Zhou, P., Zhang, L., & Crain, S. (2019 - 2023). The acquisition and online processing of irrealis in Mandarin Chinese. *The National Social Science Fund of China*. [Grant No. 19BYY087]. (¥200,000). Role: Principle Investigator.
- **Zhan, L.**, Qu, Y., Xu, J., Xiao, Y., & Li, N. (2019 - 2020). The eye movements pattern and neural oscillation markers of predictive processing in language comprehension. *The Fundamental Research Funds for the Central Universities*. [Grant No. 19YJ080002]. (¥70,000). Role: Principle Investigator.
- **Zhan, L.**, Shi, F., Gao, L., & Zhang, L. (2019 - 2020). The online processing and acquisition of lexical tone in Mandarin Chinese. *The Fundamental Research Funds for the Central Universities*. [Grant No. 18YBT15]. (¥70,000). Role: Principle Investigator.
- Shi, D., et al. (2018 - 2023). Studies of Chinese in Generative Grammar and Development of Chinese Grammar in the New Era. *The Major Project of the National Social Science Found of China*. [Grant No. 18ZDA291]. (¥800,000). Role: Co-Investigator.
- Si, F., et al. (2018 - 2023). Language acquisition and language cognition under the perspective of syntactic cartography. *The Fundamental Research Funds for the Central Universities*. [Grant No. 18ZDJ06]. (¥300,000). Role: Co-Investigator.
- **Zhan, L.** (2015 - 2016). Experimental explorations of possible world semantics. *The Fundamental Research Funds for the Central Universities*. [Grant No. 15YBB29]. (¥20,000). Role: Principle Investigator.
- **Zhan, L.** (2015 - 2016). Introduction to psychology and the scientific research. *The Funds Supporting the Growth of the New Teachers*. [Grant No. FD201530]. (¥7,000). Role: Principle Investigator.
- **Zhan, L.**, Shi, F., Gao, L., & Zhang, L. (2015 - 2016). The Processing and acquisition of tone in Mandarin Chinese. *The Fundamental Research Funds for the Central Universities*. [Grant No. 15YJ050003]. (¥70,000). Role: Principle Investigator.
- **Zhan, L.** (2010 - 2014). The interpretation of conditionals in natural language. *Cognitive Science Postgraduate Research Grant of Macquarie University*. (\$10,570). Role: Principle Investigator.
- **Zhan, L.** (20103). The hypothetical property of conditionals in natural language. *Macquarie University Postgraduate Research Fund*. (\$4,684). Role: Principle Investigator.

## 2. Projects

- Zhang, L., et al. (2018 - Now). The psychological and brain development of atypical developing adolescences. *The Program of WuTong Innovations Platforms*. Role: Co-Investigator.

- Chen, M., et al. (2019 - Now). The study of Chinese as a second language acquisition and second language teaching (The JunCai Group). *The Program of Establishing First-Class Disciplines in BLCU*. Role: Co-Investigator.

### 3. Awards

- 2013.11. The Paula Menyuk Travel Award for the 38th Boston University Conference on Language Development. (\$300).
- 2013.04. The Travel Award for the 26th Annual CUNY Sentence Processing Conference. (\$350).

## Professional Activities

### 1. Ad-hoc reviews

*Architectures and Mechanisms for Language Processing (AMLaP)* (2024 - )  
*Annual Conference on Human Sentence Processing (HSP)* (2024 - )  
*Journal of Psycholinguistic Research* (2023 - )  
*Journal of Pragmatics* (2022 - )  
*Cognition* (2021 - )  
*International Journal of Developmental Disabilities* (2021 - )  
*Language, Cognition and Neuroscience* (2021 - )  
*First Language* (2021 - )  
*Frontiers in Psychology* (2020 - )  
*Scientific Reports* (2018 - )  
*Journal of Visualized Experiments* (2018 - )  
*Language Teaching and Linguistic Studies* (In Chinese, 2016 - )  
*SAGE Open* (2016 - )

### 2. Clinical licenses

- Licensed Examiner of Wechsler Preschool and Primary Scale of Intelligence 4th Edition (WPPSI-VI) Chinese Version.
- Licensed Examiner of Adaptive Behavior Assessment System 2nd Edition (ABAS-II) Chinese Version.













### 3. Frontiers in Psychology, Review Editor in Language Sciences (2020 - )


### 4. Organization of international meetings




- Academic Advisory Committee, The 24th annual conference of the International Association of Chinese Linguistics ([IACL-24](#)), Beijing Language and Culture University, Beijing, China.

# Publications


## 1. Periodicals

- Xie, Y., Zhou, P., **Zhan, L.**, & Xue, Y. (2025). Low-frequency neural activity tracks syntactic information through semantic mediation. *Brain and Language*, 261. <https://doi.org/10.1016/j.bandl.2025.105532> 
- **Zhan, L.**, Khrennikov, A., & Zhu, Y. (2024). Violation of Leggett–Garg inequality in perceiving cup-like objects and cognitive contextuality. *Entropy*, 26(11). <https://doi.org/10.3390/e26110950> 
- **Zhan, L.**, & Zhou, P. (2023). The online processing of hypothetical events: A visual world eye-tracking study on conditionals and causal statements. *Experimental Psychology*, 70(2), 108-117. doi: 10.1027/1618-3169/a000579 
- Zhou, P., Shi, J., & **Zhan, L.** (2021). Real-time comprehension of garden-path constructions by preschoolers: A Mandarin perspective. *Applied Psycholinguistics*, 42(1), 181-205. doi: 10.1017/S0142716420000697 
- Zhou, P., Ma, W., & **Zhan, L.** (2019). A deficit in using prosodic cues to understand communicative intentions by children with autism spectrum disorders: An eye-tracking study. *First Language*. doi: 10.1177/0142723719885270 
- Zhou, P., **Zhan, L.**, & Ma, H. (2019). Understanding others' minds: Social inference in preschool children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 49(11), 4523-4534. doi: 10.1007/s10803-019-04167-x 
- Zhou, P., **Zhan, L.**, & Ma, H. (2019). Predictive language processing in preschool children with Autism Spectrum Disorder: An eye-tracking study. *Journal of Psycholinguistic Research*, 48(2), 431-452. doi: 10.1007/s10936-018-9612-5 
- **Zhan, L.** (2018). Using eye movements recorded in the visual world paradigm to explore the online processing of spoken language. *Journal of Visualized Experiments*, 140, e58086. doi: 10.3791/58086 
- Zhou, P., Ma, W., **Zhan, L.**, & Ma, H. (2018). Using the visual world paradigm to study sentence comprehension in Mandarin-speaking children with autism. *Journal of Visualized Experiments*, 140, e58452. doi: 10.3791/58452 
- **Zhan, L.**, Zhou, P., & Crain, S. (2018). Using the visual-world paradigm to explore the meaning of conditionals in natural language. *Language, Cognition and Neuroscience*, 33(8), 1049-1062. doi: 10.1080/23273798.2018.1448935 
- **Zhan, L.** (2018). Scalar and ignorance inferences are both computed immediately upon encountering the sentential connective: The online processing of sentences with disjunction using the visual world paradigm. *Frontiers in Psychology*, 9. doi: 10.3389/fpsyg.2018.00061 
- Moscati, V., **Zhan, L.**, & Zhou, P. (2017). Children's on-line processing of epistemic modals. *Journal of Child Language*, 44(5), 1025-1040. doi: 10.1017/S0305000916000313 
- **Zhan, L.**, Crain, S., & Zhou, P. (2015). The online processing of only if- and even if- conditional statements: Implications for mental models. *Journal of*






*Cognitive Psychology*, 26(7), 367-379. doi: 10.1080/20445911.2015.1016527 


- Zhou, P., Crain, S., & **Zhan, L.** (2014). Grammatical aspect and event recognition in children's online sentence comprehension. *Cognition*, 133(1), 262-276. doi: 10.1016/j.cognition.2014.06.018 
- Zhou, P., Crain, S., & **Zhan, L.** (2012). Sometimes children are as good as adults: The pragmatic use of prosody in children's on-line sentence processing. *Journal of Memory and Language*, 67(1), 149-164. doi: 10.1016/j.jml.2012.03.005 
- Zhou, P., Su, Y., Crain, S., Gao, L., & **Zhan, L.** (2012). Children's use of phonological information in ambiguity resolution: A view from Mandarin Chinese. *Journal of Child Language*, 39(04), 687-730. doi: 10.1017/S0305000911000249 

## 2. Book, book chapters and conference proceedings


- **Zhan, L.** (2015). *The Interpretation of Conditionals in Natural Language*. Saarbrücken, Germany: Lap Lambert Academic Publishing.
- **Zhan, L.** (2018). Magnetoencephalography (MEG) as a Technique for Imaging Brain Function and Dysfunction. In *Top 10 Contributions on Psychology* (Chapter 4, pp. 1-38). Telangana, India: Avid Science 
- **Zhan, L.**, Crain, S., & Zhou, P. (2013). The anticipatory effects of focus operators: A visual-world paradigm eye-tracking study of "only if" and "even if" conditionals. In N. Goto, K. Otaki, A. Sato, & K. Takita (Eds.), *Proceedings of GLOW in Asia IX 2012*. Mie University, Japan.









## 4. Peer reviewed conference presentations

- **Zhan, L.**, Xue, Y., Zhou, P., & Xie, Y. (2024, September). *Does cortical tracking signify linguistic hierarchical structures in the visual domain?* Poster session presented at the 30th Architectures and Mechanisms for Language Processing (AMLaP24), University of Edinburgh, Scotland. 
- **Zhan, L.**, Khrennikov, A. (2024, June). *Violation of Leggett–Garg inequality in perceiving bistable cup-like objects*. Poster session presented at the 25th Quantum Information and Probability: from Foundations to Engineering (QIP24), Linnaeus University, Växjö, Sweden. 
- **Zhan, L.** (2023, April). *The modality engendered by negation and where to find it*. Oral session presented at the 14th Biennial Academic Conference of Beijing Language and Culture University, Beijing, China. 
- **Zhan, L.** (2020, October). *Non-factual property entailed by conditionals has to be endorsed by a valid theory of verbal reasoning*. Oral session presented at the 13th Biennial Academic Conference of Beijing Language and Culture University, Beijing, China. 
- **Zhan, L.**, & Zhou, P. (2019, June). *Children differ from adults in interpreting disjunctions: Evidence from an eye-tracking study*. Poster session presented at Psycholinguistics in Iceland - Parsing and Prediction, University of Iceland, Reykjavík, Iceland. 

- **Zhan, L.** (2017, September). *Scalar implicature and ignorance inference are both locally computed: Evidence from the online processing of disjunctions using the visual world paradigm*. Oral session presented at the Second High-level Forum on Cognitive Linguistics, University of International Business and Economics, Beijing, China. 
  - **Zhan, L.**, Crain, S., & Zhou, P. (2013, November). *Going beyond the information that is perceived: The hypothetical property of if-conditionals in Mandarin Chinese*. Oral session presented at the Second International Conference on Psycholinguistics in China, Fuzhou, China.
  - Moscati, V., **Zhan, L.**, & Zhou, P. (2013, November). *Reasoning on possibilities: An eye tracking study on modal knowledge*. Poster session presented at the 38th Annual Boston University Conference on Language Development, Boston University, MA.
  - Zhou, P., Crain, S., & **Zhan, L.** (2013, November). *Anticipatory eye movements in children's processing of grammatical aspect*. Poster session presented at the 38th Annual Boston University Conference on Language Development, Boston University, MA.
  - **Zhan, L.**, Crain, S., & Zhou, P. (2013, March). *The hypothetical property of "if"-statements: A visual-world paradigm eye-tracking study*. Poster session presented at CUNY2013: The 26th annual CUNY Sentence Processing Conference, Columbia, SC.
  - **Zhan, L.**, Crain, S., & Zhou, P. (2012, July). *The interpretation of conditionals*. Oral session presented at the 7th International Conference on Thinking (ICT2012), Birkbeck/UCL, London, UK.
  - Zhou, P., Crain, S., & **Zhan, L.** (2012, March). *Children's pragmatic use of prosody in sentence processing*. Poster session presented at the 35th Generative Linguistics in the Old World (GLOW) Workshop: Production and Perception of Prosodically-Encoded Information Structure, University of Potsdam, Potsdam, Germany.
  - **Zhan, L.**, Crain, S., & Khlentzos, D. (2011, August). *The basic semantics of conditionals in natural language*. Oral session presented at the Harvard-Australia Workshop on Language, Learning and Logic, Macquarie University, Sydney, Australia.
  - Zhou, P., Crain, S., Gao, L., & **Zhan, L.** (2010, September). *The role of prosody in children's focus identification*. Oral session presented at the Generative Approaches to Language Acquisition - North America 4 (GALANA-4), Toronto, Canada.
  - Zhou, P., Su, Y., Crain, S., Gao, L., & **Zhan, L.** (2010, August). *Children's use of prosodic information in ambiguity resolution*. Oral session presented at the 8th Conference of Generative Linguistics in the Old World Asia (GLOW-in-Asia 8), Beijing, China.
3. Invited talks
- **Zhan, L.**, Khrennikov, A., & Zhu, Y. (2024, August). *Confirming cognitive contextuality: Violation of the Leggett-Garg inequality and demonstration of cognitive hysteresis in perceiving cup-like objects*. Invited presentation given at 19th Southeast



Conference in Mathematics, Blekinge Institute of Technology, Karlskrona, Sweden. 

- **Zhan, L.** (2024, May). *Probability of implication*. Invited presentation given at Department of Mathematics, Linnaeus University, Växjö, Sweden. 
- **Zhan, L.** (2023, November). *Visual world paradigm: An eye-tracking technique to study the real time processing of spoken Language*. Invited presentation given at the “The Frontier of Language and Cognitive Science: Perspectives from Chinese and Western Scholars” Lecture Series organized by the Center for the Cognitive Science of Language, Beijing Language and Culture University, Beijing, China. 
- **Zhan, L.** (2022, May). *Mixed Models with Julia*. Invited virtual lecture given at the course of *Language* organized by Prof. Zhou. 
- **Zhan, L.** (2020, October). *Language and Language Development*. Invited lecture given at the course of *Language +* organized by Prof. Si. 
- **Zhan, L.** (2019, August). *Gardener or Carpenter: Some thoughts on nurturing a child*. Invited presentation given at Smiland Daycare Center. 
- **Zhan, L.** (2018, December). *Sentential reasoning and sentential connectives: Conditional, disjunction, negation, and modality*. Invited presentation given at the Workshop of Theoretical and Experimental Linguistics, Tsinghua University, Beijing, China. 
- **Zhan, L.** (2018, November). *Methods of cognitive neuroscience: Focus on language*. Invited presentation given at the Child Cognition Laboratory, Department of Foreign Languages and Literatures, Tsinghua University, Beijing, China. 
- **Zhan, L.** (2018, November). *Visual world paradigm: An eye-tracking technique to study the real time processing of spoken Language*. Invited presentation given at the Center for Studies of Chinese as a Second Language, Beijing Language and Culture University, Beijing, China. 
- **Zhan, L.** (2018, October). *Experimental Builder: A what-you-see-is-what-you-get tool to build experiment scripts*. Invited presentation given at the Center for Studies of Chinese as a Second Language, Beijing Language and Culture University, Beijing, China. 