# Likan ZHAN

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# **Academic Appointment**

- 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**

2019 ~ Now. Experimental Psychology,
 Undergraduates, 4 hours per week, 68 hours in total

- 2019 ~ Now. Introduction to Neurolinguistics,
   Postgraduates, 2 hours per week, 34 hours in total
- 2017 ~ Now. Statistics for the Behavioral Sciences,
   Undergraduates and Postgraduates, 2 hours per week, 34 hours in total
- 2016 ~ Now. R for Modeling and Visualizing Data,
   Postgraduates and PhD candidates, 4 hours per week, 68 hours in total
- 2015 ~ Now. Introduction to Cognitive Neuroscience,
   Postgraduates and PhD candidates, 2 hours per week, 34 hours in total
- 2015 ~ Now. Foundations of Scientific Research,
   Undergraduates, 3 hours per week, 54 hours in total
- 2015 Fall. General Psychology,
   Undergraduates, 3 hours per week, 54 hours in total

# **Professional Skills**

- 1. Experiment techniques
- Test stimuli: Package PGF in LaTeX, ImageMagick and its implementation in R magick, OmniGraffle, as well as Pixelmator for image creating and editting; praat, Packages tuneR and seewave in R, as well as Adobe Audition for audio editting and processing; blender and Autodesk Maya for video and 3d modeling; and ffmpeg for audio and video format converting;
- Experiments building: Be familiar with package Psychtoolbox under Matlab,
   Presentation, package Psychopy under Python, E-prime, and Experiment
   Builder for script building;
- Eye-tracker: Having advanced experience in using Eyelink II/1000 plus for experiment conducting, Experiment Builder for experiment building, and Data Viewer for data pre-processing;
- E/MEG: In charge of establishing the first Child MEG lab in China; be familiar with Yokogawa MEG system for equipment maintenance and MEG data acquisition, packages fieldtrip and SPM12 under Matlab, and BESA for data processing.

## 2. Data processing

- R: Besides base R, be familiar with data.table, dplyr, and tidyr for data preprossing; graphics, lattice, and ggplot2 for data visualization; car, lme4, and gam for computational modeling; Create the R package acqr for teaching statistics and illustrating data visualization;
- Julia: Recently start to use julia for computational modeling, especially the MixedModels package, because of the speed limitations of R.

### 3. Other

- Markup languages: Be familiar with LaTeX, markdown, R markdown (R package), and Jupyter for document preparing; knitr (R package) for dynamically integrating R code into a document; Pandoc for markup format conversion;
- Personal website: Use hugo under go language and the R package blogdown to build my personal website https://likan.info.
- Be familiar with the distributed version control system git, package managers homebrew and npm.

# 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 oscitation 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. 18ZDJo6]. (¥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. Frontiers in Psychology, Review Editor in Language Sciences (2020 )
- 2. 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.
- 3. Ad-hoc reviews
- Frontiers in Psychology. (2020 )
- Scientific Reports. (2018 2019);
- Journal of visualized experiments. (2018 2019);
- Language Teaching and Linguistic Studies. (In Chinese, 2016);
- SAGE Open. (2016).
- 4. 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.

## **Publications**

- 1. Book
- Zhan, L. (2015). The Interpretation of Conditionals in Natural Language. Saarbrucken, Germany: Lap Lambert Academic Publishing.

### 2. Periodicals

- 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
- 3. Book chapters and conference proceedings
- **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., & 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.

### 5. Invited talks

- **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.