

# Likan ZHAN

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- Last update: 2019-07-18

## Academic appointment

- 2019.07 ~ Now, Associate professor,  
School of Communication Science,  
Beijing Language and Culture University, Beijing, China
- 2014.10 ~ 2019.06, Assistant professor,  
MEG Laboratory for Brain Sciences,  
Institute for Speech Pathology and the Brain Science,  
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
- 2017 ~ Now. Statistics for the Behavioral Sciences,  
Undergraduates and post-graduates, 2 hours per week, 34 hours in total

- 2016 ~ Now. R for Modeling and Visualizing Data,  
Post-graduates and PhD candidates, 4 hours per week, 68 hours in total
- 2015 ~ Now. Introduction to Cognitive Neuroscience,  
Post-graduates and PhD candidates, 2 hours per week, 34 hours in total
- 2015 ~ Now. Foundations of Scientific Research,  
Under-graduates, 3 hours per week, 54 hours in total
- 2015 Fall. General Psychology,  
Under-graduates, 3 hours per week, 54 hours in total

## Professional skills

### 1. Experiment techniques

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

### 2. Data processing

- R: Moderate experience in using [R](#) for statistical modeling and data visualization, especially: [data.table](#), [dplyr](#), and [tidyr](#) for data preprocessing; [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 started to use [julia](#) for computational modeling, especially the [MixedModels](#) package, because of the speed limitations of R.

### 3. Other

- Markup languages: [LaTeX](#), [markdown](#), and [R markdown](#) for typesetting; [Pandoc](#) for converting files from one markup format into another;
- Personal website: Use [hugo](#) under [Go](#) language and the R package [blogdown](#) to build my personal website <https://likan.info>.

## 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 prrocessing 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. (2019 - 2023). The study of Mandarin Chinese from a generative perspective and The innovation of grammar theories in the new era. *The Major Program of the National Natural Social Science Foundation 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 Inovations 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. 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.

### 2. Ad-hoc reviews

- Scientific Reports. (2019);
- Journal of visualized experiments. (2018);
- Language Teaching and Linguistic Studies. (In Chinese, 2016).

### 3. 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*. Saarbrücken, Germany: Lap Lambert Academic Publishing.



### 2. Periodicals

- Zhou, P., **Zhan, L.**, & Ma, H. (2018). Predictive language processing in preschool children with Autism Spectrum Disorder: An eye-tracking study. *Journal of Psycholinguistic Research*. 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*. Paper 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*. Paper 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*. Paper 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*. Paper 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*. Paper 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*. Paper presented at the 8th Conference of Generative Linguistics in the Old World Asia (GLOW-in-Asia 8), Beijing, China.

## 5. Invited talks

- **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. 