

# Junjie Wu (Jonathan, 吴俊杰)



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## CV

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## Bio

Dr. Junjie Wu is a Visiting Fellow at Macquarie University, working with Dr. Xin Wang, and an Assistant Professor in the School of Psychology at Tianjin Normal University. He received his Ph.D. in Basic Psychology from Beijing Normal University in 2020.

His research employs a wide range of research techniques and analytical methods, including neuromodulation (e.g., transcranial magnetic stimulation, TMS), neuroimaging (magnetic resonance imaging, MRI; functional near-infrared spectroscopy, fNIRS; electroencephalography, EEG), and eye-tracking. His methodological toolkit also encompasses mixed-effects modeling (MEM), structural

equation modeling (SEM), Representational Similarity Analysis (RSA), Multivoxel Pattern Analysis (MVPA), machine learning (ML), and large language models (LLMs). For data analysis and experimental programming, he regularly uses SPSS, MATLAB, R, PsychoPy, and E-Prime.

## Research Interests

1. Investigating the cognitive and neural mechanisms that underlie bilingual language representation and control.
2. Exploring the neural mechanisms that support meaningful learning

## Selected Publications

1. **Wu, J.**, Cai, C., Wu, M., Wang, X., Yu, M. (2025) Distinct Language Control Mechanisms in Speech Production and Comprehension: Evidence from N-2 Repetition, Switching, and Mixing Costs. *Journal of Multilingual and Multicultural Development*. (5-year impact factor 3.7, JCR Q1, SSCI) [Wu-2025-J Multiling Multicult Dev](#)
2. **Wu, J.**, Yang, G., Liu, Z., Yan, Y. L. J. G. G., Yang, G. D. C. F. Z., Yang, X., & Chen, L. (2025) Language Processing in Emergencies Recruits both Language and Default Mode Networks. *Neuropsychologia*. 109152. (5-year impact factor 2.6, JCR Q3, SCIE) [Wu-2025-Neuropsychologia](#)
3. Gao, C., **Wu, J. [Co-first author]**, Cheng, Y., Ke, Y., Qu, X., Yang, M., Hartwigsen, G., Chen, L. (2025). Continuous theta-burst stimulation demonstrates language-network-specific causal effects on syntactic processing. *NeuroImage*, 306, 121014. (Five-year Impact Shadow 5.9, JCR Q1, SCIE)
4. **Wu, J.**, Ji, Y., Qu, H., Zuo, S., Liang, J., Su, J., Wang, Q., Yan, G., Ding, G. (2025). Transcranial magnetic stimulation of the right inferior frontal gyrus impairs bilinguals' performance in language-switching tasks. *Cognition*, 254, 105963. (Five-year impact factor 3.5, JCR Q1, SCIE/SSCI) [Wu-2025-Cognition](#)
5. **Wu, J.**, Zhao, H., Wu, X., Liu, Q., Su, J., Ji, Y., Wang, Q. (2025). Word Concreteness Modulates Bilingual Language Control During Reading Comprehension. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 51 (3), 425-434. (5-year impact factor 2.6, JCR Q1, SCIE/SSCI) [Wu-2024-J Exp Psychol Learn Mem Cogn](#)
6. **Wu, J.**, Wu, X., Liu, Q., Ji, Y., & Wang, Q. (2024). Is Language a Unique Form of Symbol? A Perspective from Bilingual Language Control. *Studies of Psychology and Behavior*, 22 (6), 730. (In Chinese; Reprinted in *Renmin University of China Reprinted Materials: Psychology*, 2025(5)) [Wu-2024-Studies of Psychology and Behavior](#)
7. **Wu, J.**, Ji, Y., Cai, C., Pu, X., Wang, Q., Yan, G., Wang, Q. & Wang, X. (2024). Online Transcranial Magnetic Stimulation Reveals Dynamic Interactions Between Language Control and Processing in Bilingual Language Production. *Cerebral Cortex*,

34( 11), bhae452. (5-year impact factor 3.4, JCR Q2, SCIE) [Wu-2024-Cereb Corte](#)

8. **Wu, J.**, Cheng, Y., Qu, X., Kang, T., Cai, Y., Wang, P., ... & Chen, L. (2024). Continuous Theta-Burst Stimulation on the Left Posterior Inferior Frontal Gyrus Perturbs Complex Syntactic Processing Stability in Mandarin Chinese. . *Neurobiology of Language*, 5 (2): 608-627. (Impact Factor 3.6, JCR Q1, ESCI) [Wu-2024-NOL](#)
9. **Wu, J.**, Zhang, M., Dang, Q., Chang, Q., Yuan, Q., Zhang, Z., ... & Guo, T. (2022). Nonverbal cognitive control training increases the efficiency of frontal-subcortical collaboration for bilingual language control. *Neuropsychologia*, 169, 108204. (5-year impact factor 3.218, JCR Q3, SCIE) [Wu-2022-Neuropsychologia](#)
10. Wang, Q., Wu, X., Ji, Y., Yan, G., & **Wu, J. [Corresponding author]** (2022). Second Language Proficiency Modulates the Dependency of Bilingual Language Control on Domain-General Cognitive Control. *Frontiers in Psychology*, 13 , 810573-810573. (5-year impact factor 3.618, JCR Q2,SSCI) [Wang-2022-Frontiers in Psychology](#)
11. Li, H., **Wu, J.**, Marks, R. A., Huang, H., Li, L., Dong, L., ... & Ding, G. (2022). Functional mapping and cooperation between the cerebellum and cerebrum during word reading. *Cerebral Cortex*, 32 (22), 5175-5190 . (Five-year impact factor 6.108, JCR Q1). (5-year impact factor 6.108, JCR Q1, SCIE) [Li-2022-Cereb Cortex](#)
12. Yuan, Q., **Wu, J. [Co-first author]**, Zhang, M. et al. Patterns and networks of language control in bilingual language production. *brain Structure and Function* (2021) . (5-year impact factor 4.019, JCR Q1, SCIE) [Yuan-2021-BSAF.pdf](#)
13. Chen, L., **Wu, J. [Co-first author]**, Hartwigsen, G., Li, Z., Wang, P., & Feng, L. (2021). The role of a critical left fronto-temporal network with its right-hemispheric homologue in syntactic learning based on word category information. *Journal of Neurolinguistics*, 58, 100977. (5-year impact factor 1.853, JCR Q4, SCIE) [Chen-2020-Journal of Neurolinguistics](#)
14. **Wu, J.**, Zhang, Z., Chen, M., Yuan, Q., Zhang, M., Yang, J., ... & Guo, T. (2020). Language context tunes brain network for language control in bilingual language production. *Neuropsychologia*, 147, 107592. (Five-year impact factor 3.218, JCR Q3, Chinese Academy of Sciences, Region 3; in SCIE (5-year impact factor 3.218, JCR Q3, SCIE) [Wu-2020-Neuropsychologia](#)
15. **Wu, J.**, Yang, J., Chen, M., Li, S., Zhang, Z., Kang, C., Ding, G., Guo, T. (2019). Brain Network Reconfiguration for Language and Domain-general Cognitive Control in Bilinguals. *Neuroimage*, 199, 454-465. (Five-year impact factor 6.918, JCR Q1, SCIE) [Wu-2019-NeuroImage](#)
16. Chen, M., Wu, Y., **Wu, J. [Co-first author]**, Fu, Y., Li, S., Liu, H., Lu, C., Guo, T. (2019). Individual differences in inhibitory control abilities modulate the functional neuroplasticity of inhibitory control. *brain Structure and Function*, 224(7), 2357-2371. (Five-year impact factor 4.019, JCR Q1, SCIE)
17. **Wu, J.**, Kang, C., Ma, F., Gao, X., & Guo, T. (2018). The influence of short-term

language-switching training on the plasticity of the cognitive control mechanism in bilingual word production. *Quarterly Journal of Experimental Psychology*, 71(10), 2115-2128. (Five-year impact factor 2.562, JCR Q2, SSCI) [Wu-2018-QJEP](#)

18. **Wu, J.**, Liu, H., Lu, D., & Guo, Taomei. (2018). Overlap and dissociation of brain mechanisms for language control and general domain cognitive control. *SCIENCE CHINA: LIFE SCIENCES*, 48(3), 332-340. (CSCD) [J.J. Wu-2018-Science-China-Life Sciences](#)

19. Kang, C., Fu, Y., **Wu, J. [Co-first author]**, Ma, F., Lu, C., & Guo, T. (2017). Short-term language switching training tunes the neural correlates of cognitive control in bilingual language production. *Human Brain Mapping*, 38(12), 5859-5870. (Five-year impact factor 5.182, JCR Q1, SCIE) [Kang-2018-HBM](#)

## Selected Presentations

1. **Wu, Junjie**; Xin, Pingping; Pu, Xinping; Yan, Guoli; Gu, Chanyuan; Li, Hehui (24-28 June, 2025). All Proficient Foreign Language Learners Resemble the Native Readers, Each Less Proficient Learner Struggles in Their Own Distinct Way: Evidence from Alignment of Eye-tracking and fMRI, **Poster presentation** at the 2025 Annual Meeting of the Organization for Human Brain Mapping (OHBM), Brisbane Convention and Exhibition Centre, Brisbane Convention and Exhibition Centre, Brisbane, Australia.

2. **Wu, Junjie**; Cai, Chuyao; Wu, Minzhe; Wang, Xin; Yu, Miao (17-20 June, 2025). Distinct Language Control Mechanisms in Speech Production and Comprehension: Evidence from N-2 Repetition, Switching, and Mixing Costs, **Oral presentation** at the Joint Meeting of the Australasian Experimental Psychology Conference (EPC) and the Asia Pacific Conference on Vision (APCV), University of New South Wales, Sydney. University of New South Wales, Sydney, Australia.

3. **Wu, Junjie.**, Dong, Yu., Guo, Taomei., Li, Hehui. (2023). Intensive Neural Cooperation Shifts from the Cerebellum to the Cerebrum for Visual Word Processing, **Oral presentation** at the 16th Annual Meeting of Chinese Neuroscience Society & The 2nd CJK International Meeting, Zhuhai, China.