Postdoctoral Research Applicant

Dongyang Yan

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EDUCATION

Department of Education, Hokkaido University — Sapporo, Japan
Ph.D., in Neuropsychology of Learning — Apr. 2020 - Now (expected, Sep. 2024)

Research and Education Center for Brain Science, Hokkaido University — Sapporo, Japan
Graduate Program of Brain Science — Apr. 2020 - Now (expected, Sep. 2024)

Department of Education, University of York — York, United Kingdom
M.A., Teaching English to Speakers of Other Languages — Sept. 2014 - Jan. 2016

Department of Foreign Languages, Zhengzhou University — Zhengzhou, China
B.A., English Translation — Sept. 2010 - Jul. 2014

SUMMARY OF RESEARCH

My research focused on investigating the brain activations associated with multisensory integration, particularly some of the most fundamental questions related to training and language learning. Throughout my doctoral studies, I have specifically explored the audiovisual integration processes in both native and second language learning contexts. Specifically, I have approached letter-speech sound integration phenomena by employing not only traditional psycholinguistic task along with behavioral measures, including priming and artificial language learning experiments, but also event-related responses and neural oscillations. Future research interests include using multi-modal imaging techniques, and phase amplitude coupling methods to understand the neurobiological substrate of multisensory perception and language learning in the healthy and disordered human.

RESEARCH INTERST

Neurolinguistics
Cognitive Neuroscience
Neurobiology
Neuronal Oscillation
Second language acquisition
Reading
Multisensory integration
M/EEG, fMRI

PEER REVIEWED PUBLICATIONS

Yan, D., Seki, A. (2024). The Role of Letter-Speech Sound Integration in Native and Second Language Reading: A Study in Native Japanese Readers Learning English. Journal of Cognitive Neuroscience (in press). https://doi.org/10.1162/jocn_a_02137

Yan, D. (2022). A systematic review of Letter-speech sound integration: two analysis models and reading acquisition (自動的文字-音統合の処理についての検討: 二つの分析方法と読み習得における役割). Bulletin of Faculty of Education, Hokkaido University, 140, 1-24. https://doi.org/10.14943/b.edu.140.1 (In Japanese).

Letter-Speech Sound Congruency Differentially Modulates Theta and Beta-Band Powers and Coherences: An EEG Study (Under review).

Temporal Asynchrony Affects Letter-Speech Sound Integration in Second Language Reading: A Study of Event-Related Potentials (In preparation).

INTERNATIONAL CONFERENCE PRESENTATIONS

Yan, D., Seki, A. (2024). Differential Modulation of Theta and Beta Oscillations by Audiovisual Congruency in Letter-Speech Sound Integration. The 8th Annual Conference for the Association for Reading and Writing in Asia. Jeju, Korea.

Yan, D., Seki, A. (2023). The Role of Letter-Speech Sound Integration in Native and Second Languages: An ERP Study. The 7th Annual Conference for the Association for Reading and Writing in Asia. (Virtually, due to the COVID-19 pandemic).

RESEARCH EXPERIENCE

Research Assistant 2021-2022, 2023-2024
Dept. of Education, Hokkaido University

Worked on fMRI projects focusing on healthy human participants during various cognitive task, overseeing end-to-end processes from fMRI data collection to robust data analysis using SPM (Statistical Parametric Mapping) software.

Conducted neuropsychological assessments and psychotherapeutic interventions for children with learning difficulties or developmental disorders. Contributed to independent and collaborative research in the areas of reading development and reading disorders through computerized cognitive testing, and performance validity assessment.

Organized and led large-scale assessments across multiple elementary schools. Employed sophisticated data analysis techniques to extract meaningful insights from complex datasets, facilitating a comprehensive understanding of the cognitive profiles of children with learning difficulties.

TEACHING EXPERIENCE

Dept. of Education, Hokkaido University Apr. 2020- Apr. 2021
Teaching Assistant
Learning difficulty theory

SCHOLARSHIP & AWARDS

Hokkaido University DX Doctoral Fellowship 2021-2023
Japan Dyslexia Research Association Conference, Best Presentation Award, 2023
Fumiko Hoeft Award, 2023
ARWA Student Scholarship, 2024

SKILLS

Language Skills: Chinese: Native; English: Advanced; Japanese: Advanced
Programming & software: Matlab, Python, R, Stata, Adobe Illustrator, E-prime