# Hang Yang

#### Contact

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### SUMMARY OF ACADEMIC SKILLS AND EXPERIENCE

EEG data analysis[1] in EEGLAB, Fieldtrip, Matlab and BrainVision Analyzer

Matlab and Python programming

Stats and data visualization in R, Python and SPSS, Oracle(PL/SQL)

Extensive research experience in studies of children and adults as well as depressive patients using EEG (Brain Products) and eye-tracking (Eyelink 1000) techniques

fMRI data analysis in BrainVoyager

[1]: Including ERPs, single trial analysis and time-frequency analysis, coherence analysis

### RESEARCH INTERESTS

Neural basis of mind wandering and rumination

Single trial analysis and computational models of EEG

Cognitive and neural correlates of brain disorders including depression and developmental dyslexia

Visual word recognition

### **EDUCATION**

- PhD of Computational Cognitive Neuroscience, 10/2018 09/2022
  - Bernoulli Institute for Mathematics, Computer Science and Artificial Intelligence, University of Groningen, the Netherlands
- Master of Education (Clinical Cognitive Neuroscience), 09/2015 06/2018
  - Center of Cognition of Brain Disorders, Hangzhou Normal University, China
- Bachelor of Engineering (Civil Engineering),09/2009 06/2013 School of Mechanics and Civil Engineering, China University of Mining and Technology of Beijing, China

### **COURSES**

#### School courses

- Machine Learning
- Functional MRI Data Analysis
- Multivariate Stats in R
- Developments in Psychology
- Research Methodology in Psychology

#### Self-study online courses

• Data science specialization of John Hopkins University (Nine courses)

### **PUBLICATIONS**

### Papers in preparation

Yang, H., Grabowecky M., Paller K., van Vugt, M. (2021) Can the Steady-state visual evoked potentials (SSVEPs) track spontaneous thought?

Published paper

Yang, H., Zhao, J., Gaspar, C. M., Chen, W., Tan, Y., & Weng, X. (2017). Selectivity of for words in the right hemisphere: Evidence from analysis. *Psychophysiology*, 54(8). 1128–1137.

Zhao J, Yang H, Weng X and Wang Z (2018) Emergent Attentional Bias Toward Visual Word Forms in the Environment: Evidence From Eye Movements. *Front. Psychol.* 9:1378

Xue, H., Wang, Z., Tan, Y., Yang, H., Fu, W., Xue, L., & Zhao, J. (2020). Resting-state EEG reveals global network deficiency in dyslexic children. Neuropsychologia, 138, 107343

#### Conference presentations

Yang, H., van Vugt, M; Grabowecky M., Paller K. Can the steady-state visual evoked potentials (SSVEP) predict mind wandering (March 13-16, 2021) Cognitive Neuroscience Society Annual Conference 2021, the United States (Virtual)

Yang, H., van Vugt, M; Taatgen N., Grabowecky M., Paller K. Keeping track of mind wandering with Steady-state visual evoked potentials (SSVEP) (Dec.19-21, 2019) 17th NVP Winter Conference on Brain and Cognition, Egmond aan Zee, the Netherlands

Yang, H., Zhao J., Tan Y., Gaspar, C., Weng X., (Dec.8-10, 2016). Selectivity of for words in the right hemisphere: Evidence from analysis. The 16th International Conference on the Processing of East Asian Languages (ICPEAL), Guangzhou, China.

Yang, H., Tan Y., Shi Y., Zhao J., Wang Z., Weng X. (Oct. 14- Oct. 15, 2016). Development of attentional bias towards forms in the environment, The 19th national conference on psychology, Xian, China.

Zhao J., Li S., Yang H., Tan Y., Cheng Q., Weng X. (Dec.8-10, 2016). Fine neural tuning for print follows an inverted-U shape curve during reading development. The 16th International Conference on the Processing of East Asian Languages (ICPEAL), Guangzhou, China.

Shi Y., Yang H., Ni L., He M., Zhang L. (Oct. 14- Oct. 15, 2016). The behavioral performance and electroencephalogram characteristics of self-control learning in inhibitory control, The 19th national conference on psychology, Xian, China

## **Experience**

#### Teaching Asistant (2021.4-2021.6, Master course given by Marieke van Vugt)

Computational Cognitive Neuroscience

#### Supervision (2019-2021)

• 1 Master student, 3 bachelor student in Artifacial Intelligence

#### Collection Scorecard Analyst (2018.5-2018.10, Home Credit Consumer Finance Co., Ltd.)

Predictive modelling in Consumer Finance

### Lecturer (2018.6, Zhejiang Normal University)

• EEG & ERP Training Camp: Introduction, implementation of EEG experiment and data analysis based on MATLAB and EEGLAB (10 students, 18 hours)

### Lecturer (2017.12, South China Normal University)

• Data recording in EEG experiments and data analysis of EEG and ERPs (20 students, 12 hours)

### Lecturer (2017.9, Chongqing Siying Science and Technology Ltd.)

- EEG introduction and preprocessing procedures based on EEGLAB (50 students, 3 hours)
- MATLAB overview and EEG signal processing with MATLAB scripts (50 students, 3 hours)

#### Research assistant (2014.4 - 2015.9)

Center of Cognition of Brain Disorders, Hangzhou Normal University

### **AWARDS & HONORS**

- 2017 National Scholarship for Graduate Students (CNY 20K)
- 2017 Hangzhou Normal University Graduate Student Scholarship (CNY 12K)
- 2016 Hangzhou Normal University Graduate Student Scholarship (CNY 8K)
- 2015 Hangzhou Normal University Graduate Student Scholarship (CNY 9.3K)

### **REFERENCES**

• Dr. Marieke van Vugt, Asistant Professor

Bernoulli Institute for Mathematics, Computer Science and Artificial Intelligenc

Universtiy of Groningen, the Netherlands

Room 326, Nijenborgh 9

Groningen, the Netherlands, 9747AG

m.k.van.vugt@rug.nl

Relationship: Daily supervisor for 4 years (PhD study)

### • Dr. Xuchu Weng, Professor

Institute for Brain Research and Rehabilitation

South China Normal University

55 Zhongshan (West) Road

Guangzhou Guangdong China 510631

wengxc@psych.ac.cn

Relationship: Professor and supervisor for 3 years (Master study)

### • Dr. Jing Zhao, Associate Professor

Center of Cognition of Brain Disorders

Hangzhou Normal University

2318 Yuhangtang Road

Hangzhou Zhejiang China 311121

zhaojing561@126.com

Relationship: Researcher and supervisor for 3 years (Master study)