

Ruien Wang 王睿恩

(Updated by 05/2023)

Department of Psychology, Queen's University, Kingston, ON, Canada

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Personal website: <https://rainneuro.github.io/> Lab website: <https://anitatusche.com/>

Education

Queen's University

Ph.D. in Cognitive Neuroscience

Kingston, ON, Canada

Expected 2026

Department of Psychology

M.S. in Cognitive Neuroscience

Expected 2024

Department of Psychology

Advised by Anita Tusche

Queen's Neuroeconomics Laboratory <https://anitatusche.com/>

University of Macau

BSS in Psychology

Macau SAR, China

Aug 2018 - June 2022

Research Interests

- Social cognitive neuroscience, computational neuroscience, brain gradient, MVPA, brain-behavior association, experience sampling
- Main topics: (1) social cognition and functioning; (2) real-world social neuroscience; (3) ongoing thoughts pattern

Research Experiences

Social cognition patterns in laboratory and real-world contexts

Department of Psychology, QU

09/2022 -

Neural computation of personal space and its influence on dynamic social navigation (ongoing project)

Center for Cognitive and Brain Sciences, UM

12/2021 -

The multi-modal representation of negative emotion experience under virtual reality

Center for Cognitive and Brain Sciences, UM

03/2021 – 06/2022

The effect of oxytocin on modulating self-other distinction

Center for Cognitive and Brain Sciences, UM

08/2020 – 10/2021

The abnormalities of resting-state EEG microstates in probable REM sleep behavior disorder (Cooperation with West China Hospital)

Center for Cognitive and Brain Sciences, UM

08/2020 – 10/2021

The abnormal electrophysiological signatures of patients with obstructive sleep apnea syndrome (Cooperation with West China Hospital)

Center for Cognitive and Brain Sciences, UM

10/2020 – 07/2021

An EEG & Mouse tracking dataset for assessing the brain dynamic of binary choice in the human brain Center for Cognitive and Brain Sciences, UM	08/2020 – 04/2021
The neural mechanism of motivated dishonesty Center for Cognitive and Brain Sciences, UM	09/2020 – 04/2021
Chinese translation of the book <i>Computational Modeling of Cognition and Behavior</i> Center for Cognitive and Brain Sciences, UM	08/2020 – 09/2021
Investigating the neural pattern of morphological constraints in reading Chinese compound word: An EEG-fNIRS fusion study Center for Cognitive and Brain Sciences, UM	11/2019 – 05/2020

Publications

- **Wang, R.**, Yu, R., Tian, Y., & Wu, H. (2022). Individual variation in the neurophysiological representation of negative emotions in virtual reality is shaped by sociability. *NeuroImage*, 263, 119596.
- Peng, A#, **Wang, R#.**, Huang, J., Wu, H.*, & Chen, L* (2021). Abnormalities of resting-state electroencephalographic microstate in REM sleep behavior disorder. *Frontiers in Human Neuroscience*, 607. doi: <https://doi.org/10.3389/fnhum.2021.728405>
- Wang, Y., **Wang, R.**, & Wu, H. (2022). The role of oxytocin in modulating self-other distinction brain: a pharmacological fMRI study. *Cerebral Cortex*. bhac167, <https://doi.org/10.1093/cercor/bhac167>.
- Chen, K., **Wang, R.**, Huang, J., Gao, F., Yuan, Z., Qi, Y., & Wu, H. (2022). A resource for assessing dynamic binary choices in the adult brain using EEG and mouse-tracking. *Scientific data*, 9(1), 1-10.

Manuscripts in preparation

- Constructing optimal interaction distance by combining others' and one's own using medial frontal cortex
- Towards the “Real” or “Natural” social neuroscience: recent advances, new tools and future directions
- Dissecting social brain contributions to dishonesty adaptation and consistency considerations.

Presentation

The 14th The 14th Annual Meeting of the Social & Affective Neuroscience Society (SANS)

- Poster presentation: Individual variation in neurophysiological representation of negative emotional experiences is shaped by sociability: A naturalistic neuroimaging approach **May 5th 2022**

Center for Cognitive and Brain Sciences, University of Macau

Sep 2021

- Workshop on psychophysiological data processing in *Python*
- Workshop on EEG preprocessing pipeline for MATLAB

Center for Cognitive and Brain Sciences, University of Macau

Jun 2021

- CCBS NeuroTalk: Abnormalities of resting-state electroencephalographic microstate in REM sleep behavior disorder

Center for the Cognitive Science of Language, Beijing Language and Culture University

Dec 2020

- Investigating the neural pattern of morphological constraints in reading Chinese compound words using

simultaneous EEG-fNIRS recording

Skills

- **Programming:** Python, MATLAB, R, Unity (C#)
- **Data acquisition:** EEG, 3T fMRI, fNIRS, Eye-tracking, BIOPAC, Virtual-reality technique
- **Neuromodulation:** TDCS
- **Data Analysis:** EEG, fMRI, Physiological signal (ECG,SKT,EMG)
- **Language:** Chinese (native), English (proficient)

Courses

- Cognitive neuroscience, computational neuroscience, computational psychiatry, neuroeconomics
- Artificial intelligence & human cognition, machine learning, deep learning, reinforcement learning

Honors & Awards

08/2022 Graduate Student Award & Teaching Assistantship (About CAD 30,000, by Queens' University)

2018-2022 Dean's Honor list (Faculty of Social Sciences, University of Macau)

References

Anita Tusche, Assistant Professor

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Wei Deng, Assistant Professor

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Department of Psychology, University of Macau

Zhen Yuan, Professor

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Faculty of Health Sciences, University of Macau