

Xinyi Deng

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EDUCATION

MA, Developmental Psychology, Cornell University Aug 2022 – Aug 2023

- Master's Thesis: Differentiating Risk from Reward Motivation in Decision Making
- Academic Committee: Marlen Z. Gonzalez, Ph.D., Adam Anderson, Ph.D.

BSc, Psychology, ANU-SWU Joint Education Program Sep 2017 - June 2021

- First two years based in Southwest University (SWU), Chongqing, China
- Last two years based in Australian National University (ANU), Canberra, Australia
- Primary Advisor: Xu Lei, Ph.D.

PUBLICATIONS

Zhang, Y., **Deng, X.**, Wang, X., Luo, H., Lei, X., & Luo, Q. (2023). Can daily actigraphic profiles distinguish between different mood states in inpatients with bipolar disorder? An observational study. *Frontiers in Psychiatry*, 14, 1145964.

Wang, S., Wang, H., **Deng, X.**, & Lei, X. (2023). Validation of the Munich Chronotype Questionnaire (MCTQ) in Chinese college freshmen based on questionnaires and actigraphy. *Chronobiology International*, 1-12.

PRESENTATIONS

Deng, X., & Gonzalez, Z. M. (2023, September 27th - October 1st). *Differentiating risk from reward motivation in decision making*. The 2023 Annual Meeting of the Society for Psychophysiological Research (SPR), New Orleans, LA.

Deng, X., Zhang, Y., Wang, X., Luo, H., Lei, X., & Luo, Q. (2023, November 16th – 19th). *Can daily actigraphy profiles distinguish between different mood states in inpatients with bipolar disorder? An Observational Study*. The Association for Behavioral and Cognitive Therapies (ABCT) 57th Annual Convention, Seattle, WA.

Deng, X., Wang, S., Wang, Y., & Lei, X. (2023, September 21st - 24th). *The mediating effect of sleep misperception on trait anxiety and depression via rumination: Actigraphy data from a large sample of college students*. Society for Research in Psychopathology (SRP) 2023 Annual Meeting, St. Louis, MO.

MANUSCRIPT IN PREPARATION

Deng, X., & Gonzalez, Z. M. Differentiating risk from reward motivation in decision making: A multi-echo fMRI evidence.

Deng, X., Wang, S., Wang, Y., & Lei, X. The mediating effect of sleep misperception on trait anxiety and depression via rumination: Actigraphy data from a large sample of college students.

RESEARCH EXPERIENCE

Research Coordinator & Grad Research Assistant

August 2022 - Present

Life History Lab, Cornell University

Advisor: Marlen Z. Gonzalez, Ph.D.

Project: The Neural Correlates of Reward Sensitivity and Risk Propensity in Decision Making (Master's Thesis)

- Research on differentiating the neural correlates of reward sensitivity from risk propensity in decision making, using the modified Balloon Analogue Risk Task (BART) paradigm.
 - Preprocessed raw multi-echo MRI data on the Red Cloud server (RedHat OpenStack), using AFNI and Python.
 - Denoised multi-echo BOLD data via principal component analysis (PCA) and independent component analysis (ICA) using Bash and Tedana.
 - Performed first and higher-level analysis for preprocessed data by using FSL FEAT.

Full-Time Research Assistant

June 2021 – June 2022

Sleep and NeuroImaging Center, SWU

Supervisors: Xu Lei, Ph.D. and Yulin Wang, Ph.D.

Project 1:

- Investigate whether interest-related reward enhance memory consolidation in Kids with Sleep Disorders (ages 6-15) using fMRI and polysomnography (PSG).
 - Conducted behavior experiments including psychomotor vigilance tasks, Simon task and stop signal tasks, etc, to build a database for children ages 6-15.
 - Assess children's brain activity in a designed reflex task, using fMRI and E-prime 2.0.
 - Gathered PSG data for children by recording the function of sleep as memory consolidation during their rapid eye movement (REM).

Project 2:

- Research on the mediating effect of rumination on the relationship between sleep misperception and depression and trait anxiety using Actigraphy data from 672 college students (watch-worn monitor-measured).
 - Analyze the group difference in subjective-objective sleep misperception and mediation model using SPSS and PROCESS.
 - Presented this study and wrote the manuscript.

Project 3:

- Study circadian characteristics of long-term motor activity for inpatients with three subtypes of bipolar disorders
 - Conducted the experiment to assess the actigraphy-measured acceleration of physical activity and self-reported mood states with inpatients currently experiencing mixed-state, depressive or manic episodes, separately.
 - Analyzed the parameters of activity counts per minute (i.e., sample entropy, intra-variability etc.), made waterfall graph and tables using Prism and revise manuscript.

Undergraduate Research Assistant

Nov 2020 - July 2021

Neuropsychology, Attention and Cognition Laboratory, ANU

Supervisors: Anne Aimola Davies, Ph.D.

- Study on the semantic relatedness between pictures and unexpected stimulus and how this would affect detection rates for different unexpected Chinese characters in Inattentional Blindness (IB) Paradigm.

Research Assistant, Independent Project

Feb 2018 - Feb 2019

Faculty of Psychology, SWU

Supervisor: Lingxiang Xia, Ph.D.

- Examine the impact of social exclusion on cyberbullying and the function of moral disengagement in the relationship between two factors using Cyberball paradigm.

Course Project Leader

Oct 2018 - Dec 2018

Faculty of Psychology, SWU

Instructor: Gang Tang, Ph.D.

- Research on the effect of procrastination and anxiety traits on emotional stimulation for college students

CLINICAL EXPERIENCE

Department of Psychiatry, the Second Affiliated Hospital of Chongqing Medical University

Supervisors: Ting Wang, Psychiatrist and Jing Li, Therapist

Role: Psychological Intern (12 hours per week)

Jan 2021 - April 2021

- Conducted face-to-face interviews with patients to gather the information of their chief complaints, allergies, medical history, and present illness, and documented onto the electronic medical record system, under the supervision of the psychiatrist and counselor.

Yiyi Counseling Co. Ltd., China

Supervisor: Ning Wang, Licensed Counselor

Role: Psychological Intern (20 hours per week)

Jan 2021 - April 2021

- Coordinated and maintained clients' archives and participated in weekly trainings led by counselors and psychiatrists

Findself Counseling, United States & China

Supervisor: Bohao Zhang, Licensed Counselor

Role: Peer-Support Assistant (3 hours per week) Dec 2020 - Sept 2021

- Provided anonymous online 24/7 peer-support counseling service to support diverse peer groups.

Sunshine-Love Volunteer Team, Psychology Student Union, SWU

Supervisor: Guikang Cao, Ph.D.

Role: Leader and Volunteer (20 hours per week) Oct 2017 - Jun 2019

- Led and managed the Sunshine-Love volunteer team to take 50-minute group counseling sessions in different settings, including the local middle and primary school, drug rehabilitation center, prison hospital, fire department, and SWU in Chongqing.

VOLUNTEER EXPERIENCE

Teaching Assistant, **Community Neuroscience Initiative**, NY Nov 2022-present

- Assisted in teachers in training for K-12 Neuroscience lesson in Syracuse primary schools

Volunteer, **Future Wellness Foundation**, NY July 2023-present

- Provided empirical evidence and evaluation supporting events that advocate against the stigma of mental illness.

Volunteer, Director's Office, **Beijing LGBT Centre**, China May 2020 - Sept 2021

- Developed the anti-harassment toolkit for the public welfare institution and assisted in LGBTQ+ and women-related events

AWARDS

- “Excellent Volunteer”, SWU, 2017 & 2018
- “Advanced Individual in Youth Volunteer Service”, SWU, 2017 & 2018
- Third Class Scholarship, SWU, 2019
- Third prize of 6th Hanhong Academic Science and Technology Competition, SWU, 2019

SKILLS

- Language: Mandarin (Native), English (Fluent)
- Technical: FMRIB Software Library (FSL), Analysis of Functional NeuroImages (AFNI), Bash, Python, Microsoft Office, Photoshop, E-prime 2.0, MATLAB, SPM 12.0 (DPARSF), Prism, PsychoPy.
- Statistics: SPSS, JASP, R