

CURRICULUM VITAE

BO SHEN

Contact Information

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Education

- 2019 – now** **New York University, School of Medicine**, New York, U.S.
Postdoctoral research fellow
Advisors: Paul W. Glimcher, Ph.D. and Kenway Louie, M.D., Ph.D.
Projects: Neural circuit model of decision-making (computational) and normalized decision value coding in human brain (fMRI)
- 2012 – 2018** **Peking University, School of Psychological and Cognitive Sciences**,
Beijing, China
Ph.D. student
Advisors: Xiaolin Zhou, Ph.D. & Jian Li, Ph.D.
Thesis: The motives behind guilt-induced behaviors: Behavioral dissociation, temporal process and neural basis
- 2017.07** **New York University Shanghai**, Shanghai, China
Neuroeconomics Summer School
- 2015.08** **Radboud University, Donders Institute**, Nijmegen, Netherland
Neurocomputational Approaches to Decision Making Summer Program
- 2013.07** **Southwest University**, Chongqing, China
Training Camp for Psychological Research and fMRI Technologies
Summer Program
- 2008 - 2012** **Shanghai Jiaotong University, Physics Department**, Shanghai, China
Bachelor's degree in Physics
Advisor: Wenjun Ying, Ph.D.
Thesis: Single Neuron Pulse Simulation Using Boundary Element
Algorithm

Skills

Programming: Highly skilled at Matlab and R

Proficient with Python and C++

Developed many toolboxes and demos for human behavior measurement and neural imaging data analysis, e.g., mouse-tracking and eye-tracking measurement in healthy human subjects, self-adaptive algorithm for revealing choice preferences, easy fMRI data batch analysis pipeline, and various elaborated psychological tasks

Data Science: Neural circuit model of decision-making

Functional MRI

- Classifier-based Multi-voxel pattern analysis (MVPA)
- Representational similarity analysis (RSA)
- Dynamic causal modeling (DCM) for neuroimaging

Diffusion tensor imaging (DTI) analysis

Computational modeling on human behaviors

Big data analysis based on website data

Computer skills: Operation maintenance for Linux and Windows server systems

Hardware maintenance for PC, workstation, and server

Small business internet network operation

High manual skills at manipulating microcomputer, setting up applications and fixing general electronic devices.

Language: English and Mandarin Chinese

Research Expertise

Fields: Neuroeconomics, Decision neuroscience, Social affective neuroscience, Cognitive psychology

Methods: Functional magnetic resonance imaging, diffusion tensor imaging, computational modeling, non-invasive brain stimulation (tDCS & TMS), mouse-tracking, eye-tracking, electrodermal activity, big data, and etc.

Topics: Neural circuit model of decision-making, Social emotion, Guilt, Delay discounting

Publications

- Wu, Y., **Shen, B.**, Liao, J., Li, Y., Zilioli, S., & Li, H. (2020). Single dose testosterone administration increases impulsivity in the intertemporal choice task among healthy males. *Hormones and Behavior*, 118, 104634.
- Xu, Z., **Shen, B.**, Taji, W., Sun, P., & Naya, Y. (2020). Convergence of distinct functional networks supporting naming and semantic recognition in the left inferior frontal gyrus. *Human Brain Mapping*, 41(9), 2389-2405.
- Yu, H., Cai, Q., **Shen, B.**, Gao, X., & Zhou, X. (2017). Neural substrates and social consequences of interpersonal gratitude: Intention matters. *Emotion*, 17(4), 589.
- Shen, B.**, Yin, Y., Wang, J., Zhou, X., McClure, S. M., & Li, J. (2016). High-definition tDCS alters impulsivity in a baseline-dependent manner. *NeuroImage*, 143, 343-352.
- Yu, H., **Shen, B.**, Yin, Y., Blue, P. R., & Chang, L. J. (2015). Dissociating guilt-and inequity-aversion in cooperation and norm compliance. *Journal of Neuroscience*, 35(24), 8973-8975.
- Wu, Y., Yu, H., **Shen, B.**, Yu, R., Zhou, Z., Zhang, G., & Zhou, X. (2014). Neural basis of increased costly norm enforcement under adversity. *Social cognitive and affective neuroscience*, nst187.

Selected Conferences

- The Society for Neuroeconomics, 2021, virtual meeting
Poster: Shen B., Louie K., Glimcher P., Speed-accuracy tradeoffs in a disinhibition based neural circuit model of decision-making
- The Society for Neuroscience, 2020, virtual meeting
Poster: Shen B., Louie K., Glimcher P., A single neural circuit that captures divisive normalization, working memory, and winner-take-all choice
- Computational and Systems Neuroscience (COSYNE) workshop, 2019, Denver, CO, USA
Talk: Shen B., Louie K., Glimcher P., Decision circuit with disinhibition interprets normalized value coding and choice dynamics

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The Society for Neuroscience, 2019, Chicago, IL, USA

Poster: Shen B., Yu H., Zhou X., Compensation and its cousins: parsing moral motives underlying guilt-induced behaviors

The Society for Neuroeconomics, 2019, Dublin, Ireland

Talk: Shen B., Louie K., Glimcher P., A novel circuit architecture for choice: local disinhibition generates normalized value coding, persistent activity, and winner-take-all dynamics in value-guided decision making

The Society for Neuroeconomics, 2018, Philadelphia, PA, USA

Poster: Shen B., Chen Y., Zhou X., Using mouse-tracking to investigate the temporal process of approach and avoidance behavioral tendencies induced by guilt.

The Social and Affective Neuroscience Society, 2017, Los Angeles, CA, USA

Poster: Shen, B., Wang B., Zhou, X., Guilt prevents selfish bias during the learning of social norm

Annual Meeting of the Society for Neuroeconomics, 2014, Miami, FL. USA.

Oral presentation: Shen, B., Yin, Y., Wang, J., Zhou, X., McClure, S. M., & Li, J. Left DLPFC Transcranial Direct Current Stimulation (tDCS) Alters Impulsivity in Intertemporal Choice.

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Awards

Society for Neuroeconomics, Travel Award, 2019

Leo KoGuan Scholarship, Peking University, 2016 (Top 2 academic award for graduate students at Peking University)

Merit Student, Peking University, 2016

Award for Scientific Research, Peking University, 2015

Teaching Experience

Topics in Neuroeconomics, graduate course, teaching assistant, Spring 2015
School of Psychological and Cognitive Sciences, Peking University

Advanced psychological Statistics, graduate course, teaching assistant, Fall 2014
School of Psychological and Cognitive Sciences, Peking University

Cognitive Psychology, undergraduate course, Fall, 2013
School of Psychological and Cognitive Sciences, Peking University