

Zhiyan Wang

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190 Thayer Street, Providence, RI

Education

2016-

Ph.D. candidate in Psychology

Cognitive and Perceptual Learning Lab

Department of Cognitive, Linguistic and Psychological Sciences

Brown University

Advisor: Takeo Watanabe

2016-2018

M.A. in Psychology

Department of Cognitive, Linguistic and Psychological Sciences

Brown University

Master Thesis: The mechanisms of visual perceptual learning

2012-2016

B.S. in Psychology

Department of Cognitive and Psychological Sciences

Peking University, China

Thesis: Lateral Interactions and Grouping in Adaptation

Professional Experience

2019 – 2020

Trainee for T32 Training Grant Interactionist Cognitive Neuroscience

Robert J. & Nancy D. Carney Institute for Brain Science

Brown University

PIs: Takeo Watanabe, Yuka Sasaki, Michael Frank, David Badre,

Christopher Moore

2013 - 2016

Research Assistant in Accurate Vision Lab

Department of Cognitive and Psychological Sciences

Peking University, China

PI: Cong Yu

2015.7 - 2015.9

Visiting Research Assistant in Cognitive and Perceptual Learning Lab

Department of Cognitive, Linguistic and Psychological Sciences

Brown University

PI: Takeo Watanabe

2014 - 2015

National Undergraduate Innovative Research Program

Department of Cognitive and Psychological Sciences

Peking University, China

Project: Feature-based attention and its influence on the transfer of visual perceptual learning

Publications

Peer-reviewed journal article

Wang Z.*, Tan Q*, Sasaki Y., Watanabe T. (2019). Category-induced transfer of visual perceptual learning. *Current Biology*. 29 (8): 1374-1378. (*equal contributions)

Preprints and journal articles under review

Wang Z., Kim D., Pedroncelli G., Sasaki Y., Watanabe T.(preprint) Reward evokes visual perceptual learning following reinforcement learning rules. doi: <https://doi.org/10.1101/760017>
Tamaki M., **Wang Z.**, Watanabe T., Sasaki Y. (preprint). Trained-feature specific offline learning in an orientation detection task. doi: <https://doi.org/10.1101/429761>. Revise and Resubmit.

Tamaki M., **Wang Z.**, Barnes-Diana T., Berard V.A., Walsh E., Watanabe T., Sasaki Y. (preprint). Opponent neurochemical and functional processing in NREM and REM sleep in visual learning. doi: <https://doi.org/10.1101/738666>. Under review.

In preparation

Wang Z., Kim D., Sasaki Y., Watanabe T. (in preparation). Different degrees of generalization following reward and alertness induced learning.

Conference Presentations

Wang Z., Kim D., Sasaki Y., Watanabe T. (2017) Reward may explain how reward evokes visual perceptual learning. Poster presentation at *2017 Vision Science Society Annual Meeting*, Tampa, Florida / Poster presentation at ‘*Atoms, Axons, and Asteroids: Big Data in STEM*’ – *Young Scholar Conference 2017*, Providence, Rhode Island

Wang Z., Tamaki M., Shibata K., Worden M., Sasaki Y., Watanabe T. (2018) Feature-based plasticity revealed by decoded fMRI neural feedback (DecNef). Poster presentation at 2018 *Vision Science Society Annual Meeting*, Tampa, Florida.

Wang Z., Kim D., Hu C., Sasaki Y., Watanabe T. (2018) Reward may evoke visual perceptual learning following reinforcement learning rules. Poster presentation at *2018 Society for Neuroscience Annual Meeting*, San Diego, California.

Tamaki, M., **Wang, Z.**, Barnes-Diana, T., Yamada, T., Walsh, E. G., Watanabe, T., & Sasaki, Y. (2019). Different but complementary roles of NREM and REM sleep in facilitation of visual perceptual learning associated with neurotransmitters changes revealed by magnetic resonance spectroscopy. Poster presentation at *2019 Vision Science Society Annual Meeting*, Tampa, Florida.

Honors and Awards

2019-2020	Trainee of T32 Training Grant Interactionist Cognitive Neuroscience
2016-2017	Brown University Graduate Student Fellowship
2015-2016	Peking University Wusi Fellowship, China
2014-2015	Peking University Award for Good Academic Standing, China
2014-2015	National Innovation Award for Undergraduate Research, China

Services

2017-2018

Organizer, Perception and Action Seminar Series

Department of Cognitive, Linguistic and Psychological Sciences
Brown University

Certificates

2018

Sheridan Teaching Certificate – Level 2 (Course Design)

2017

Sheridan Teaching Certificate – Level 1

2016

Brown University MRI Research Facility – Level 2

Teaching

2017 Fall

Teaching assistant for CLPS 0900 Statistical Methods

2018 Spring

Teaching assistant for CLPS 0900 Statistical Methods

2018 Fall

Teaching assistant for CLPS 0120 Introduction to Sleep

2019 Spring

Teaching assistant for CLPS 0710 The Psychology and Philosophy of

Happiness

Mentoring

Undergraduate

Chun Hu

Master/ Intern

Giorgia Pedroncelli

Professional Memberships

2018- present

Society for Neuroscience

2015- present

Vision Science Society