Song Qi

6100 Executive Blvd
Bethesda, MD 20892

Research Fellow
National Institute of Mental Health

+1 917 274 9225
song.qi@nih.gov

EDUCATION

8/2016–7/2019 Ph.D.(Social Decision Neuroscience), **California Institute of Technology** (Caltech), USA
Supervisors: Dean Mobbs, John O'Doherty and Ralph Adolphs

6/2014–8/2016 M.A. (Psychology), Columbia University in the City of New York, USA
Supervisors: Dean Mobbs and James Curley

8/2010–6/2014 B.S. (Electronic Information & Biomedical Engineering), UESTC, China
Supervisors: Keith M. Kendrick and Benjamin Becker

PUBLICATIONS

Qi, S., Cross, L., Wise, T., Fung, B., O'doherty, J., and Mobbs,D. (2021) The role of the medial prefrontal cortex in spatial margin of safety calculations. (under review, available at SSRN 3653545)

Silston, B., Wise T., Qi, S., Sui, X., Dayan, P., and Mobbbs, D. (2021). Neural encoding of perceived patch value during competitive and hazardous virtual foraging. Nature Communications, 12 (1), 1-11

Zbozinek, T., Wise T., Qi, S., Perez, OD.,Fanselow, M and Mobbs,D. (2021) Pavlovian occasion setting in human fear and appetitive conditioning: Effects of trait anxiety and trait depression. Behaviour Research and Therapy, 103986

Zbozink, T., Charpentier, C., Qi.,S and Mobbs,D. (2021). Economic decisions with ambiguous outcome magnitudes vary with low and high stakes but not trait anxiety or depression. Computational Psychiatry, 5(1)

Qi, S.*, Fung B.*, Hassabis, D., Daw N., and Mobbs D. (2019). Slow escape decisions are swayed by trait anxiety. Nature Human Behavior,3,702-708

Qi, S., Hassabis, D., Sun J., Guo,F., Daw N., and Mobbs,D. (2018). How cognitive and reactive fear circuits optimize escape decisions in humans, Proceedings of the National Academy of Sciences 115 (12), 3186-3191

Qi, S.*, Footer O.*, Camerer, C.F. and Mobbs,D. (2018). A collaborator's reputation can bias decisions and anxiety under uncertainty, Journal of Neuroscience 38 (9), 2262-2269

Yao, S., Qi, S., Kendrick, K.M. and Mobbs,D. (2018). Attentional set to safety recruits the ventral medial prefrontal cortex, Scientific reports, 8(1),1-9

Qi, S.*, Hu J.*, Becker B.*, Luo L., Gao S., Gong Q., Hurlemann R. and Kendrick K.M. (2015). Oxytocin selectively facilitates learning with social feedback and increases activity and functional connectivity in emotional memory and reward processing regions, Human Brain Mapping 36(6), 2132-2146

ACADEMIC WORK EXPERIENCE

9/2014–9/2020 Research Assistant: Mobbs Lab for Social, Affective and Ecological Neuroscience, Caltech, USA
Fear and decision making under threat, with fMRI techniques and computational modelling
Supervisors: Dean Mobbs, in collaboration with John O'doherty and Ralph Adolphs

3/2012–6/2014 Research Assistant: Social Cognition and Affective Neuroscience Group, UESTC, China
Oxytocin's selective facilitation of socially reinforced learning
Supervisors: Keith M. Kendrick, Benjamin Becker and Jiehui Hu

7/2013–10/2013 Visiting Research Assistant, Immunotrafficking lab, University of Manitoba, Canada
Collective Electrotaxis of Epithelial Cell
Supervisor: Francis Lin

6/2013–7/2013 Visiting Research Assistant, Neuromodulation of Emotion Group, Universität Bonn, Germany
Experimental TMS therapy for **depression** patients
Supervisor: Rene Hurlemann

ACADEMIC AWARDS AND HONOURS

8/2016	**Davidson's Fellowship & Lipper Fellowship** California Institute of Technology
9/2014	**Dean's Fellowship** Columbia University in the City of New York
8/3/2013	**Honorable Mention** The 2013 ICM (Interdisciplinary Contest of Modelling)

CONFERENCE PRESENTATIONS (SELECTION)

Talks:

Qi S. (2020) "Decision making under threat: an ecological framework".
@Computational and System Neuroscience (Cosyne) 2020, Breckenridge, Colorado

Qi S. (2019) "Spatial margin of safety decisions in the face of volatile attack distances".
@T & C Chen Social and Decision Neuroscience Symposium, Caltech ,Pasadena, USA

Qi S. (2018) "Cognitive/reactive fear circuits and decision under threat".
@Society for Affective Science, 5th Annual Conference, Los Angeles, USA

Qi S. (2017) "How Cognitive and reactive fear circuits optimize escape decisions in humans".
@Social & Affective Neuroscience Society, 10th Annual Meeting, Los Angeles, USA

Posters:

Qi S., Cross L., Fung, B., O'Doherty, J., Mobbs, D. (2019) "Spatial margin of safety decisions in the face of volatile attack distances". Social & Affective Neuroscience society, 12th Annual Conference, Miami, USA

Qi S., Hassabis, D., Sun J., Guo,F., Daw N., Mobbs,D. (2018) "How Cognitive and reactive fear circuits optimize escape decisions in humans". Society for Affective Science, 5th Annual Conference, Los Angeles, USA

Qi S.*, Footer O.*, Camerer, C.F. and Mobbs,D. (2016). "A collaborator's reputation can bias decisions and anxiety under uncertainty". Social & Affective Neuroscience Society, 9th Annual Meeting, New York

Qi S.*, Hu J.*, Luo L., Gao S., Becker B., Gong Q., Hurlemann R., Kendrick K.M. (2013) Oxycontin facilitates learning with social feedback and activity in emotion and reward regions. 2013 Annual Conference of Society for Social Neuroscience, Guangzhou, China

MEDIA COVERAGE

A Tale of Two Fears: Anxiety is selective in modulating decisions under different types of threat. (Behavior & Social Sciences, Nature Human Behavior)

You don't think your way out of a tiger attack. (Caltech News)

SKILLS

Techniques	fMRI (has know-how beyond the black boxes. SPM, FSL, fMRIprep, PyMVPA etc.) Computational modelling (mainly predictive modeling. Bayesian, reinforcement learning etc.)
Programming	R-shiny, JAGS, Numpy, SciPy, SciKit-Image, SciKit-learn, TensorFlow etc.
Languages	Chinese (native), English (fluent), Japanese (fair)
Tools	Psychopy, Pygames, Psychtoolbox, Cogent, SPSS, Adobe Photoshop, Inkscape, LaTeX.

TEACHING & SUPERVISION

9/2014-9/2016	Introduction to Psychology (Teaching assistant with guest lectures) With Patricia Lindemann, Columbia University in the City of New York
3/2018–Present	Principles of Cognitive Neuroscience (Teaching assistant) With Dean Mobbs, Caltech