Yuan Chang Leong

University of Chicago
5848 S. University Avenue
Chicago, IL 60637

Email: ycleong@uchicago.edu
Website: mcnlab.uchicago.edu
GitHub: github.com/ycleong

ACADEMIC APPOINTMENTS

University of Chicago *2021 – present*
Assistant Professor, Department of Psychology
Member, The Neuroscience Institute

University of California, Berkeley *2019 – 2021*
Postdoctoral Scholar, Helen Wills Neuroscience Institute
Advisor: Mark D'Esposito, M.D.

EDUCATION

Stanford University *2014 – 2019*
Ph.D., Psychology
Advisor: Jamil Zaki, Ph.D.

Princeton University *2009 – 2013*
A.B. Psychology, summa cum laude
Certificate in Quantitative and Computational Neuroscience
Advisor: Yael Niv, Ph.D.

FELLOWSHIPS AND AWARDS

Neubauer Faculty Development Fellowship	*2022*
F32 Ruth L. Kirschstein National Research Service Award (NIMH, NIH)	*2021*
Social and Affective Neuroscience Society Annual Meeting Poster Award	*2021*
Stanford Mind, Brain and Cognition Graduate Training Fellowship	*2018*
Stanford Center for Cognitive and Neurobiological Imaging Seed Grant	*2018*
Organization of Human Brain Mapping: Merit Abstract Award	*2018*
Stanford University Bio-X Travel Award	*2018*
Social and Affective Neuroscience Society Annual Meeting Poster Award	*2017*
Zimbardo Teaching Prize, Stanford University	*2016*
John Brinster'43 Neuroscience Senior Thesis Prize, Princeton University	*2013*
Outstanding Academic Achievement in Neuroscience, Princeton University	*2013*
Howard Crosby Warren Award for Psychology, Princeton University	*2013*
Society for Neuroscience Undergraduate Student Travel Award	*2012*
Nancy J. Newman, MD'78 & Valerie Biousse, MD Award for Neuroscience	*2012*
Quantitative and Computational Neuroscience Training Grant	*2012*

PUBLICATIONS

* Equal author contribution
† Motivation and Cognition Neuroscience Lab Trainee

Journal Articles

1. Nastase, S. A., Liu, Y. F., Hillman, H., Zadbood, A., Hasenfratz, L., Keshavarzian, N., ... **Leong, Y. C.**, … & Hasson, U. Narratives: fMRI data for evaluating models of naturalistic language comprehension. *Scientific Data.* (2021)

2. Rossi-Goldthorpe, R., **Leong, Y. C.,** Leptourgos, P., & Corlett, P. R. A normative account of self-deception, overconfidence, and paranoia. *PLOS Computational Biology.* (2021)

3. **Leong, Y. C.**, Dziembaj, R. & D'Esposito, M. Pupil-linked arousal biases evidence accumulation towards desirable percepts during perceptual decision-making. *Psychological Science.* (2021)

4. **Leong, Y. C.**, Chen, J., Willer, R. & Zaki, J. Conservative and liberal attitudes drive polarized neural responses to political content. *Proceedings of the National Academy of Sciences, 117(44)*, 27731-27739 (2020).

5. **Leong, Y.C.**, Hughes, B., Yiyu Wang & Zaki, J. Neurocomputational mechanisms underlying motivated seeing. *Nature Human Behavior, 3(9),* 962–973 (2019).

6. Morelli, S.*, **Leong, Y.C.***, Carlson R., Kullar M. & Zaki, J. Neural detection of socially valued community members. *Proceedings of the National Academy of Sciences, 115*(32), 8149-8154 (2019).

7. **Leong, Y.C.** & Zaki, J. Unrealistic optimism in advice taking: A computational account. *Journal of Experimental Psychology: General*, *147*(2), 170 (2018).

8. **Leong, Y. C.*,** Radulescu, A.*, Daniel, R., DeWoskin, V., & Niv, Y. Dynamic interaction between reinforcement learning and attention in multidimensional environments. *Neuron*, *93*(2), 451-463 (2017).

9. Chen, J.*, **Leong, Y.C.***, Honey, C., Yong, C.H., Norman, K.A. & Hasson, U. Shared experience and shared memory reveal a common structure for brain activity during natural recall. *Nature Neuroscience, 20*(1), 115-125 (2017).

10. Zadbood A., Chen J., **Leong, Y.C.**, Norman, K.A., Hasson U. How we transmit memories to other brains: constructing shared neural representations via communication. *Cerebral Cortex. 27(10),* 4988-5000 (2017).

11. Niv, Y., Daniel, R., Geana, A., Gershman, S.J., **Leong, Y.C.** & Wilson, R.C. Reinforcement learning in multidimensional environments relies on attention mechanisms. *The Journal of Neuroscience*, *35*(21), 8145-8157 (2015).

12. Johnson-Laird, P.N., Kang, O.E. & **Leong, Y.C.** On musical dissonance. *Music Perception: An Interdisciplinary Journal*, 30(1), 19-35 (2012).

Preprints

1. Paterson, R.†, Lyu, Y. † & **Leong, Y. C***.* Trial-by-trial fluctuations in amygdala activity track motivational enhancement of desirable sensory evidence during perceptual decision-making. *bioRxiv* (2021)

Peer-Reviewed Conference Proceedings

1. Velez, N.*, **Leong, Y.C.*,** Pan, C., Zaki, J. & Gweon, H. Learning and making novel predictions about others' preferences. *37th Annual Conference of the Cognitive Science Society* (2016).

2. **Leong, Y.C.** & Niv, Y. Human reinforcement learning processes act on learned attentionally-filtered representations of the world. *1st Multidisciplinary Conference on Reinforcement Learning and Decision Making* (2013).

3. Daniel, R., DeWoskin, V., **Leong, Y.C.**, Radulescu, A. & Niv, Y. Humans employ selective attention when learning in complex environments: evidence from computational modeling and neuroimaging. *1st Multidisciplinary Conference on Reinforcement Learning and Decision Making* (2013).

ORAL PRESENTATIONS

Invited Talks

1. "An integrative view of motivated cognition". ConCats, New York University (2022).

2. "An integrative view of motivated cognition". Peking University (2021).

3. "An integrative view of motivated cognition". Social and Personality Brown Bag, University of Illinois at Urbana-Champaign (2021).

4. "An integrative view of motivated cognition". UCLA Brain Mapping Seminar, University of California, Los Angeles (2021).

5. "Motivated perception: How the brain sees what it wants to see". Mind, Brain, Computation and Technology Seminar, Stanford University (2019).

6. "Neurocomputational mechanisms underlying motivated seeing". Affective Brain Lab Seminar Series, University College London (Skype, 2018).

7. "Dynamic modulation of attention during decision-making". National Institutes of Health (2017).

8. "Dynamic modulation of attention during decision-making". Johns Hopkins University (2017).

9. "Neural prediction of social support hubs in emerging social networks". Langfeld Conference: From micro-level cognitive phenomena to large-scale social dynamics, Princeton University (2017).

10. "Optimism bias in advice-taking: A computational account". Stanford-Berkeley-Davis Social and Affective Area Talks, University of California, Berkeley (2017).

11. "Learning what's relevant in a largely irrelevant world". Barbados Workshop in Reinforcement Learning: Planning in Reinforcement Learning (2013).

Conference Talks

1. "Neurocomputational approaches to motivated visual perception". Society for Experimental Social Psychology Annual Meeting (2021).

2. “Threat-related and moral-emotional language drive polarized neural responses between conservatives and liberals watching political videos”. Society for Experimental Social Psychology Annual Meeting (2021)

3. “Neural divergence between politically dissimilar individuals viewing real-world political messages”. European Society for Cognitive and Affective Neuroscience 2021 Convention (2020).

4. “Polarized neural responses to political content are associated with biased assimilation of political information and subsequent attitude change”. Society for Neuroeconomics Annual Meeting (2020).

5. “The role of pupil-linked arousal processes in dynamically modulating motivational biases in perceptual decision-making”. Reading Emotions Symposium (2020)

6. “Neurocomputational mechanisms underlying motivated seeing”. Bay Area Affective Science Meeting (2018).

7. “Neurocomputational mechanisms underlying motivational biases in perceptual decision-making”. Organization of Human Brain Mapping Annual Meeting (2018)

8. “Shared patterns of neural activity during narrative recall reveal shared structure in memory representations across individuals”. Association for Psychological Science Annual Convention (2018)

9. “Neurocomputational mechanisms underlying motivated seeing”. Social and Affective Neuroscience Society Meeting (2018)

10. “Neural detection of socially-valued community members”. Society for Neuroscience Annual Meeting (2017).

11. “Inflated perception of expertise: A computational account”. Society for Personality and Social Psychology Annual Meeting (2017).

12. “Dynamic interaction between reinforcement learning and attention in multidimensional environments”. Interdisciplinary Symposium on Decision Neuroscience (2015).

13. “Dynamic interaction between reinforcement learning and attention in multidimensional environments”. Manhattan Area Memory Meeting (2014).

Chaired Symposia

1. “First Impressions: When Are They Updated? When Are They Maintained?”. Society for Personality and Social Psychology Annual Meeting (Co-chair: Jack Cao, 2017).

RESEARCH SUPPORT

Data and Democracy Initiative Seed Grant (Role PI, $41,050) *2022-2023*
Understanding divergent interpretations of political information and the bias of universal sentiment measures

ADVISING AND TEACHING

Master's Students

Emily Russell (MA Program in the Social Sciences)
Zhimei Niu (MA Program in the Social Sciences)
Jin Ke (MA Program in the Social Sciences)

Undergraduate and Post-bac Research Assistants

Ren Paterson (*University of Chicago*)
Yizhou Lyu (*University of Chicago*)
Meriel Doyle (University of Chicago)
Katie Ko (University of Chicago)
Rohan Vencat (*University of Chicago*)
Samantha Kargilis, *BA (MPhil student at Oxford University*)
Yiyu Wang, *BA* (*PhD student in Psychology at Northeastern University*)
Roma Dzjembaj, *MS* (*Product Manager, Phil. Inc.*)
Chelsey Pan, *BA* (*PhD student in Psychology at USC*)
Deshawn Sambrano, BA (*PhD in Psychology student at Harvard University*)

Graduate Applications Advising

Lavonna Mark, *BA* (*PhD student in Neuroscience at Stanford University*)
Khai Qing Chua, *BA*
Alison Li, *BA* (*PhD student in Psychology at UCSB*)
Sarah Mier, *BA* (*PhD student in Psychology at Vanderbilt University*)
Jiaying Xu (*PhD student in Psychology at UCSD*)

Teaching

Mechanisms of Motivated Cognition	*2022*
Mind, Instructor	*2021*
Instruction to Social Psychology, Instructor	*2021*
Brain and Decision-Making, Stanford University, Teaching Assistant	*2019*
Introduction to Statistical Methods, Stanford University, Teaching Assistant	*2018*
Judgment and Decision-Making, Stanford University, Teaching Assistant	*2017*
Introduction to Perception, Stanford University, Teaching Assistant	*2017*
R Bootcamp, Stanford University	*2016*
Computational Modeling Workshop, Stanford Undergraduate Psychology Research Conference	*2016*
Psychology One, Stanford University, Teaching Fellow	*2015-2016*

PROFESSIONAL SERVICE

Service

Conference Co-Chair, Annual Meeting of the Social & Affective Neuroscience Society	*2022*
Affective Science Seminar Organizing Committee, Stanford University	*2019*

Department Student Representative, Stanford University *2014-2019*

Ad Hoc Reviewing

Cognitive Science
eLife
Frontiers in Psychiatry – Social Cognition
Journal of Experimental Social Psychology
Journal of Cognitive Neuroscience
Nature Communications
Nature Human Behavior
Network Neuroscience
Neuropsychologia
Philos. Trans. R. Soc. B
Science Advances
Social Cognitive & Affective Neuroscience

Outreach

Project SHORT Mentor for Graduate School Applications	*2020-*
Bay Area Society for Neuroscience Youth SfN Symposium Speaker	*2019*
SPSP Summer Program for Undergraduate Research Mentor	*2018*
Paths to PhD Speaker, Stanford University	*2017*
Stanford Summer Research Early Identification Program Mentor	*2016*
Leadership Alliance Summer Research Early Identification Program Mentor	*2016*

TRAINING EXPERIENCES

Visiting Graduate Scholar, Johns Hopkins University	*2018*
Summer School in Social Neuroscience and Neuroeconomics, Duke University	*2018*
SRNDA-Stanford Center for Reproducible Neuroscience Workshop	*2017*
Shanghai Neuroeconomics Collective Summer School	*2015*
Summer Workshop in Computational Social Science, Stanford University	*2014*
Cognitive Science Undergraduate Summer Workshop, University of Pennsylvania	*2012*
Princeton Neuroscience Institute Summer Research Program	*2012*

MEDIA COVERAGE

Big Think, BBC Mundo, BrainPost, Goggles Optional (podcast), KCBS Radio, Medscape Medical News, Psychcast (podcast), Psychology Today, PsyPost, Radiology Business, Slate (FR), Science Daily, Science Magazine, Vox, WebMD, UC Berkeley News