Yuan Chang Leong

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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. Calabro, R.†, Lyu, Y.†, **Leong, Y. C**. Trial-by-trial fluctuations in amygdala activity track motivational enhancement of desirable sensory evidence during perceptual decision-making. *Cerebral Cortex.* (2022)

2. 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)

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

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

5. **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).

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

7. 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).

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

9. **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).

10. 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).

11. 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).

12. 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).

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

Peer-Reviewed Conference Proceedings

1. Ke, J. [†], **Leong, Y.C.**, (2022). A connectome-based predictive model of affective experience during naturalistic viewing. *Proceedings of the Conference on Cognitive Computational Neuroscience.*

2. 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).

3. **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).

4. 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).

Book Chapters

1. Decety, J., **Leong, Y. C**. Social Neuroscience. In Gilbert, D., Fiske, S., Finkel, E., Mendes, WB. (Eds). *The Handbook of Social Psychology 6th Edition*. (in revision)

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).

CONTRIBUTED CONFERENCE PRESENTATIONS (selected)
[†] Motivation and Cognition Neuroscience Lab Trainee

Park, JS[†], Pappas, I, & Leong, YC. (2023). Functional network integration mediates arousal effects on naturalistic recall. *Talk delivered at Social & Affective Neuroscience Society Annual Meeting*. Santa Barbara, CA, USA

Hackel, L., Babur, B, Leong, YC, Pan, C. (2023) Neural responses to social rejection reflect learning about relational value. *Talk delivered at Social & Affective Neuroscience Society Annual Meeting*. Santa Barbara, CA, USA

Calabro, R[†], Doyle, M[†], Leong, YC. (2023). Motivational influences on intuitive physical judgments. *Poster presented at the Social and Affective Neuroscience Society Meeting*. Santa Barbara, CA, USA

Ke, J[†], Song, H, Bai, Z[†], Rosenberg, MD, & Leong, YC (2023). Dynamic Connectome-based Predictive Model of Affective Experience during Naturalistic Viewing. Poster presented at the Social and Affective Neuroscience Society Meeting. Santa Barbara, CA, USA

Lyu, Y[†], Su, Z[†], Meidenbauer, K, & Leong, YC. (2023). Neural correlates of hostile attribution bias. *Poster presented at the Chicago Area Undergraduate Research Symposium*. Chicago, IL, USA

Park, JS[†], Pappas, I, & Leong, YC. (2023). Functional network integration mediates arousal effects on naturalistic recall. *Talk delivered at Memory Messabout Meeting*. Chicago, IL, USA.

Babur B, Pan, C, Leong, YC, Hackel, L. (2023). Learning from Social Acceptance: Distinct roles for reward learning and theory of mind. *Poster presented at the Society for Personality and Social Psychology.* Atlanta, GA, USA

Calabro, R[†], Lyu, Y[†], Leong, YC. (2022). Amygdala contributions to motivational biases in perceptual decision-making. *Talk delivered at the Midway Meeting of the Memory Minds.* Chicago, IL, USA

Ke, J[†], & Leong, YC. (2022). A Connectome-based Predictive Model of Emotion during Naturalistic Viewing. *Poster presented at the Conference on Cognitive Computational Neuroscience*. San Francisco, CA, USA

Ke, J[†], Leong, YC. (2022) Affective Experience Predicts Narrative Engagement during Naturalistic Viewing. *Poster presented at the SANS 2022 Naturalistic fMRI Data Analysis Challenge.* (virtual)

Paterson, R[†], Lyu, Y[†], Leong, YC. (2022). Amygdala contributions to motivational biases in perceptual decision-making. *Poster presented at the Social and Affective Neuroscience Society Meeting.* (virtual)

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

Social Sciences Faculty Seed Grant Program (Role: Co-PI, $20,000)   *2023-2024*
The Ties That Bind: Neural and Cognitive Processes Underlying How People Make Sense of Social Relationships

ADVISING AND TEACHING

PhD Students

       Jadyn Park, B.A.

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)
       Zishan Su (MA Program in the Social Sciences)
       Zihan Bai (MA Program in the Social Sciences)
       Shan Gao (MA Program in Computational Social Science)

Undergraduate and Post-bac Research Assistants

       Ren Calabro (*University of Chicago*)
       Yizhou Lyu (*University of Chicago*)
       Su Karaca (Univesity of Chicago)
       Kannon Bhattacharyya (University of Chicago)
       Meriel Doyle (University of Chicago)
       Grace 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*)

Honors Thesis Supervision

       Grace Vencat (2023), Meriel Doyle (2023)

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

Instruction to Social Psychology, Instructor	*2021-*
Mind, Instructor	*2021-*
Mechanisms of Motivated Cognition	*2022*
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*

University and Departmental Committees

Department of Psychology Colloquium Committee, The University of Chicago	*2022-*
Faculty Advisory Board, Department of Psychology Representative, MA Program in the Social Sciences, The University of Chicago	*2021-*
Search Committee for an Instructional Professor in Psychology, MA Program in the Social Sciences, The University of Chicago	*2023*
Search Committee for an Instructional Professor in Psychology, MA Program in the Social Sciences, The University of Chicago	*2022*

Ad Hoc Reviewing

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

PhD Committees

Hayoung Song, UChicago	*2022-*
Jennie Qu-Lee, NYU	*2022-*
Mengsi Li, UCSB	*2022-*

Trial Research Committees

Ziwei Zhang (2021), Nak Won Rim (2022), Katie Vasquez (2022), Xinyue Li (2023)

Honors Thesis Second Reader

Defne Buyukyazgan (2022), Abigail Shivers (2023), Lucy Owens (2023), Tommy Hsee (2023)

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, Minds Matter (podcast), Psychcast (podcast), Psychology Today, PsyPost, Radiology Business, Slate (FR), Science Daily, Science Magazine, Vox, WebMD, UC Berkeley News, UChicago News