

JIN HYUN CHEONG

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PhD candidate in Cognitive Neuroscience
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Education

Dartmouth College , Hanover, NH PhD candidate in Cognitive Neuroscience Advisor: Luke Chang	2015 - <i>present</i>
Princeton Neuroscience Institute , Princeton, NJ Lab Manager at Botvinick Lab Advisor: Matthew Botvinick	2013 - 2015
Princeton University , Princeton, NJ A.B. with Honors in Psychology Certificate in Neuroscience with Honors Certificate in Finance Advisors: Matthew Botvinick, Daniel Osherson	2007 - 2013

Research Training

Neurohackademy , University of Washington, Seattle, WA	summer 2018
Methods in Neuroscience at Dartmouth , Dartmouth College, Hanover, NH	summer 2017
NIH Multimodal Neuroimaging Training Program , University of Pittsburgh, PA	summer 2017

Awards, Funding, & Membership

First Place in Thayer Consulting Case Competition , sponsored by Google & McKinsey & Co.	2019
AI Grant , Artificial Intelligence Grant, https://aigrant.org	2018
Best Thematic Flash Talk Award , Society for Affective Science, Los Angeles, CA	2018
Best Dartmouth Community Hack , Hackathon, Dartmouth College	2018
NEUKOM Institute Computational Research Travel Grant , Dartmouth College	2018
NIH NIDCR Travel Award , 2017 APS Annual Convention, Boston, MA	2017
NIH Multimodal Neuroimaging Training Program Travel Award , University of Pittsburgh, PA	2017
Best Poster Award , Dartmouth Graduate Poster Session	2017
SANS Best Poster Award , Social and Affective Neuroscience Society, Los Angeles, CA	2017
Dartmouth Entrepreneurial Network Innovation Prize , Hackathon, Dartmouth College	2016
Second Best Hack , Hackathon, Dartmouth College	2016
Presidential Fellow Award , Dartmouth College	2015
Sigma Xi Scientific Research Society , Princeton University	2013
Horton Elmer Fund , Senior Thesis Research Grant Funding, Princeton University	2013
Samsung Scholarship , Full college tuition Scholarship	2007

Publications

Chang, L.J., Jolly, E., **Cheong, J.H.**, Chen, P.H.A, Rapuano, K., & Manning, J.R. (Under Review). Endogenous variation in ventromedial prefrontal cortex state dynamics reflects affective experience in naturalistic viewing.

Chen, P.H.A., **Cheong, J.H.**, Jolly, E., Elhence, H., Wager, T.D., & Chang, L.J. (Under Revision at Nature Human Behavior). Socially transmitted placebo effects.

Cheong, J.H., Brooks, S., and Chang, L.J. (Under Review). FaceSync: Open source framework for recording facial expressions with head-mounted cameras. [Preprint]

Momennejad, I., Russek, E.M., **Cheong, J.H.**, Botvinick, M.M., Daw, N. and Gershman, S.J. (2017). The successor representation in human reinforcement learning: evidence from retrospective reevaluation. *Nature Human Behaviour*, 1. [Link] [Preprint]

Cheong, J.H., Jolly, E., Sul, S., & Chang, L.J. (2017). Computational models in social neuroscience. In *Computational Models of Brain and Behavior*, Moustafa, A (Ed), Wiley-Blackwell. [Link]

Oud, B., Krajbich, I., Miller, K., **Cheong, J. H.**, Botvinick, M., & Fehr, E. (2016). Irrational time allocation in decision-making. In *Proc. R. Soc. B*(Vol. 283, No. 1822, p. 20151439). The Royal Society. [Link]

Working Papers

Cheong, J.H., Molani, Z., Sadhukha, S., & Chang, L.J. (in prep). Synchronized emotions in shared experiences increase social connection.

Cheong, J.H., Arnold, A., Chang, L.J., & Winkielman, P. (in prep). Comparison of facial EMG measures and automatically extracted action units from face videos in distinguishing affective states.

Cheong, J.H., Losin, E.R., Wager, T.D., and Chang, L.J. (in prep). Temporal dynamics in biomarkers of doctor empathy modulates patient pain responses in simulated clinical interactions.

Cheong, J.H., Jolly, E., and Chang, L.J. (in prep). A window into the mind: A computational approach to measuring emotions in response to naturalistic stimuli.

Diuk, C. *, Yee, D. *, **Cheong, J.H.** *, Weinstein, A., Stachenfeld, K., Schapiro, A., Barto, A., Niv, Y., and Botvinick, M.M. (in prep). A warped map of problem space in human hippocampus.

*equal contributions.

Posters & Presentations

Cheong, J.H., Sadhukha, S., Molani, Z., and Chang, L.J. (May, 2018). Convergence of opinions and emotions in shared experiences. Poster presented at the *2018 Annual Meeting of the Social and Affective Neuroscience Society*, Brooklyn, NY.

Cheong, J.H., Sadhukha, S., Molani, Z., and Chang, L.J. (April, 2018). Convergence of opinions and emotions in shared experiences. Flash-Talk presented at the *2018 Society for Affective Science Annual Conference*, Los Angeles, CA. **Best Thematic Flash Talk Award*

Cheong, J.H., Losin, E., Wager, T., and Chang, L.J. (May, 2017). Temporal Dynamics in Biomarkers of Doctor Empathy Modulates Patient Pain Responses in Simulated Clinical Interactions*. Poster presented at the *2017 29th Association for Psychological Science Annual Convention*, Boston, MA. *NIDCR/NIH Building Bridges Travel Award

Cheong, J.H., Jolly, E., and Chang, L.J. (April, 2017). Inferring social impressions from facial expressions*. Poster presented at the *2017 Dartmouth Graduate Poster Session*, Hanover, NH. *Best Poster Award

Cheong, J.H., Jolly, E., and Chang, L.J. (March, 2017). A window into the mind: A computational approach to measuring emotions in response to naturalistic stimuli*. Poster presented at the *2017 Social and Affective Neuroscience Society*, Los Angeles, CA. *SANS Best Poster Award

Jolly, E., **Cheong, J.H.** & Chang, L.J. (March, 2017). Spontaneous impression-formation about parasocial relationships. Presentation at the *Annual Meeting of the Social and Affective Neuroscience Society*, Los Angeles, CA.

Brooks, H., **Cheong, J.H.**, Cohen, J.D., and Chang, L.J. (November, 2016). Using patterns of functional brain connectivity to classify autism spectrum disorder. Poster presented at the *2016 Annual Biomedical Research Conference for Minority Students*, Tampa, FL.

Cheong, J.H., Jolly, E., and Chang, L.J. (June, 2016). Psychophysiological intersubject synchrony to naturalistic stimuli. Poster presented at the *2016 Samsung Scholarship Academic Camp*, Muju, Korea.

Momennejad, I., **Cheong, J.H.**, Botvinick, M.M., and Gershman, S.J. (June, 2015). The successor representation in human reinforcement learning: evidence from retrospective revaluation. Poster presented at the *2nd Multidisciplinary Conference on Reinforcement Learning and Decision Making*, Edmonton, Canada.

Botvinick, M.M., Diuk, C., Yee, D., **Cheong, J.H.**, Weinstein, A., Schapiro, A., Niv Y., and Barto, A. (Nov, 2014). A hierarchical representation of problem space in human hippocampus. Poster presented at the *44th Annual Society for Neuroscience Meeting*, Washington, DC.

Oud, B., Krajbich, I., Miller, K., **Cheong, J.H.**, Botvinick, M.M., and Fehr, E. (June, 2014). Irrational Time Allocation in Decision Making. Poster presented at *2014 Samsung Scholarship Academic Camp*, Yosemite, CA.

Cheong, J.H. (June, 2014). Importance of Self-control and Ways to Enhance It. Talk at *Samsung Scholarship Academic Camp*, Yosemite, CA.

Cheong, J.H. and Osherson, D. (June, 2013). Effects of Involvement and Timing on Illusion of Control's Mediation of Loss Aversion. Poster presented at *2013 Samsung Scholarship Academic Camp*, Muju, Korea.

Cheong, J.H. (June, 2013). Psychology of Face Perception. Talk at *2013 Samsung Scholarship Academic Camp*, Muju, Korea.

Software Development & Contributions

feat. A Python toolbox for analyzing and visualizing facial expression data
<https://github.com/cosanlab/feat>

facesync. A Python toolbox for synchronizing videos based on audio features.
<https://github.com/cosanlab/facesync>

nltools. A Python toolbox for analyzing neuroimaging data.
<https://github.com/cosanlab/nltools>

Emotion detector. Web application to extract emotions from face images using the Affectiva JavaScript API.
http://jinhyuncheong.com/affectiva-app/affectiva_emotion_detector_photo.html

pyMedoc. A Python class to remotely communicate with the Medoc Pathway Pain & Sensory Evaluation system.
<https://github.com/cosanlab/pymedoc>

LineAtKAF. iOS & web application that provide real time estimation of wait times using neural network models.
<http://lineatkaf.com/>

PaperWiki. A Wikipedia-like platform for collaborative discussion and summary of scientific articles.
<https://paperwiki.herokuapp.com> (Under development)

Teaching Experience

Social Psychology, T.A., Dartmouth College, Winter 2018

Principles of Human Brain Mapping with fMRI, T.A., Dartmouth College, Fall 2017

Advanced Statistics Workshop, T.A., Dartmouth Summer Seminar for Composition Research, Summer 2017

Experimental Study of Social Behavior, T.A., Dartmouth College, Winter 2017

Experimental Study of Social Behavior, T.A., Dartmouth College, Spring 2016

Services & Activities

Towards Data Science, Medium, contributing writer, 2018

fMRI Brown Bag Meeting, organizer, Dartmouth College, 2018

Dartmouth Social Labs Meeting, organizer, Dartmouth College, 2017

Departmental Graduate Student Representative, Dartmouth College, 2016 - 2018

Graduate Research Roundtable, organizer, Dartmouth College 2016 - 2017

Technical Skills & Languages

Software: Python, MATLAB, R, SPM, FSL, Microsoft Excel, PowerPoint, Word
Certification for fMRI scanners (Dartmouth College, Princeton University)

Language: Korean (NS), English (Fluent), Chinese (Intermediate)