

Education

- Ph.D. Candidate, **Dartmouth College** (anticipated) 2018
Degree: Cognitive Neuroscience
Advisor: Luke J. Chang
- B.A., **University of Rochester**, distinction and highest honors in research 2010
Major(s): Brain and Cognitive Science & Psychology; Minor: Music
Advisor(s): Jessica F. Cantlon & Bradford Z. Mahon

Research Experience

- Microsoft Research**, New York, NY (summer) 2016
Computational Social Science Group
PIs: Duncan Watts & Sid Suri
Research Intern
- Harvard University**, Cambridge, MA 2010-2012
Social Cognitive and Affective Neuroscience Lab (SCAN)
PI: Jason P. Mitchell
Lab Manger
- University of Rochester**, Rochester, NY 2009-2010
Concepts, Actions and Objects Lab (CAOs)
PIs: Jessica F. Cantlon & Bradford Z. Mahon
Honors Thesis Student
- Baruch College**, New York, NY 2009-2010
Dynamic Learning Lab
PI: Jennifer Mangels
Research Assistant
- University of Rochester**, Rochester, NY 2008-2010
Mt. Hope Family Center
PI: Sheree Toth
Research Assistant

Publications

Jolly, E. & Chang, L.J. (revisions). The Flatland Fallacy: Moving beyond low dimensional thinking. *Topics in Cognitive Science*.

Jolly, E.,* Tamir, D.I.,* Burum, B.A. & Mitchell, J.P. (under review). Wanting without enjoying: The social value of sharing experiences.
*Equal contribution

Jolly, E. & Chang, L.J. (under review). Gossip drives vicarious learning and facilitates robust social connections.

Cheong, J. H., **Jolly, E.**, Sul, S. & Chang, L.J. (in press). Computational Models in Social and Affective Neuroscience. To appear in Moustafa, A. (Eds). *Computational Models of Brain and Behavior*.

Chang, L.J. & **Jolly, E.** (2017). Emotions as computational signals of goal error. To appear in A. Fox, R. Lapate, A. Shackman & R. Davidson (Eds.), *The nature of emotions*.

Rane, S.,* **Jolly, E.**,* Park, A.,* Jang, H.* & Craddock, R.C. (2017). Developing predictive biomarkers using whole-brain classifiers: Application to the ABIDE I dataset. *Research Ideas and Outcomes*, 3:e12733
*Equal contribution

Moran, J.M., **Jolly, E.** & Mitchell, J.P. (2014). Spontaneous mentalizing predicts the fundamental attribution error. *Journal of Cognitive Neuroscience*, 26(3), 569-576.

Moran, J.M., **Jolly, E.** & Mitchell, J.P. (2012). Social-cognitive deficits in normal aging. *Journal of Neuroscience*, 32(16), 5553-5561.

Jolly, E. (2011). Testing domain specificity: Conceptual knowledge of living and non-living things. *The Yale Review of Undergraduate Research in Psychology*, 2, 94-118.

Manuscripts in preparation

Cheong, J.C., **Jolly, E.** & Chang, L.J. (in prep). Endogenous variation in affective experiences.

Chang, L.J., Cheong, J.C. & **Jolly, E.** (in prep). Endogenous variation in ventromedial prefrontal state dynamics.

Jolly, E., Cheong, J.C. & Chang, L.J. (in prep). Neural models reflect spontaneous impression formation about para-social relationships.

Jolly, E., Smith A., Gangadharan, A.A., Hoidal, A.S. & Chang, L.J. (in prep). Guilt aversion motivates harm-minimization in surrogate decision-making.

Jolly, E., Gangadharan, A. A. & Chang, L.J. (in prep). Interpersonal decision-making during end-of-life care: A comprehensive review.

Talks & Presentations

- Jolly, E.** (2017). *Computational tools for neuroscience: Containers and Jupyter Notebooks*. Lecture at Methods in Neuroscience Computational Summer School, Dartmouth College, Hanover, NH.
- Jolly, E.** & Visconti di Oleggio Castello, M. (2017). *Introduction to Singularity: Running containers on a HPC*. Tutorial at Graduate research roundtable workshop, Dartmouth College, Hanover, NH.
- Jolly, E.** (2017). *Introduction to git and github for psychologists*. Presentation at the Reproducible Psychological Science workshop at the Annual Meeting for the Association for Psychological Science, Boston, MA.
- Jolly, E.** & Chang, L.J. (2017). *Interpersonal dynamics and the inelasticity of social guilt*. Presentation at the Boston Area Moral Cognition Group, Boston, MA.
- Jolly, E.**, Cheong, J.H & Chang, L.J. (2017). *Interpersonal dynamics and the inelasticity of social guilt*. Presentation at Affectiva Boston, MA.
- Jolly, E.**, Cheong, J.H. & Chang, L.J. (2017). *Spontaneous impression-formation about parasocial relationships*. Presentation at the Annual Meeting of the Social and Affective Neuroscience Society, Los Angeles, CA.
- Jolly, E.** (2017). *Introduction to Jupyter Notebooks (and why you should love them!)*. Tutorial at Brainhack Dartmouth College, Hanover, N.H.
- Jolly, E.** (2017). *Research Methods for Conducting Synchronous Online Experiments*. Guest Lecture at Dartmouth College, Hanover, NH.
- Jolly, E.** (2017). *Contemporary fMRI pre-processing: Introduction to Nipype and Docker*. Tutorial at Dartmouth College, Hanover, NH.
- Jolly, E.**, Nastase, S. A., Sievers, B., Ma, F. & Huckins, J.F. (2017). *State of the Data: Annual Dartmouth Brain Imaging Center Quality Assurance Report*. Presentation at Dartmouth College, Hanover, NH.
- Jolly, E.**, Suri, S. & Watts, D.J (2016). *Field experiments on human prosociality using Mechanical Turk*. Presentation at Microsoft Research, New York, NY.
- Jolly, E.** (2016). *Research Methods for Conducting Synchronous Online Experiments*. Guest Lecture at Dartmouth College, Hanover, NH.
- Jolly, E.** (2016). *The Social Benefits of Gossip*. Guest Lecture at Dartmouth College, Hanover, NH.
- Jolly, E.** (2016). *The Social Benefits of Gossip*. Presentation at the Social Brain Sciences Brown Bag series at Dartmouth College, NH.

Posters and Conference Proceedings

Jolly, E., Reddan, M.C., Gianaros, P.J., Manuck, S.M. Chang, L.J., Wager, T.D. (2018). *NeuroLIME: A novel tool for explaining the predictions of complex brain models*. Poster presented at Social and Affective Neuroscience Society meeting, New York, NY.

Reddan, M.C., **Jolly, E.** Wager, T.D. (2018). *NeuroLIME: A novel tool for explaining the predictions of nonlinear neuroimaging classifiers*. Poster presented at the Organization for Human Brain Mapping meeting, Singapore, Singapore.

Reddan, M.C., **Jolly, E.** Wager, T.D. (2018). *NeuroLIME: A novel tool for explaining the predictions of nonlinear neuroimaging classifiers*. Poster presented at the Computational and Systems Neuroscience meeting, Denver, CO.

Jolly, E. & Chang, L.J. (2017). *Gossip drives vicarious learning and facilitates robust social connections*. Poster presented at the Annual Meeting of the Association for Psychological Science, Boston, MA.

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

Jolly, E. & Chang, L.J. (2016). *Groups, gossip and social dilemmas*. Poster presented at the International Conference on Computational Social Science, Evanston, IL.

Jolly, E., Tamir, D.I. & Mitchell, J.P. (2015). *The social value of sharing experiences*.* Poster presented at the Annual Meeting of the Social and Affective Neuroscience Society, Boston, MA.

*Winner, SANS Graduate Student Poster Award

Moran, J.M., **Jolly, E.**, & Mitchell, J.P. (2012). *Spontaneous mentalizing supports the fundamental attribution error*. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, Chicago, IL.

Peltz, J.S. Toth, S.L., Rogosch, F.A., **Jolly, E.**, & Cicchetti, D. (2010). *Paternal emotional availability's effects on children's socioemotional functioning in maternal depression contexts*. Poster presented at the Annual Meeting of the Association for Psychological Science, Boston, MA.

Awards and Honors

Graduate Alumni Research Award	2017
Methods in Neuroscience Computational Summer School	2017
Summer School in Social Neuroscience and Neuroeconomics	2017
SANS Trainee Data Blitz Award	2017
Human Neuroimaging Methods Travel Award	2017
Hack Dartmouth 2 nd Place project award	2016
Hack Dartmouth DEN Business Innovation Prize	2016
Neurohackweek Summer School	2016
SANS Graduate Student Poster Award	2015
Dartmouth College Graduate Travel Award	2015

National Science Foundation Graduate Research Fellowship	2013-2016
University of Rochester BCS Dept. Highest Honors in research	2010
University of Rochester Wilder-Trustee Scholarship	2006-2010

Teaching

Methods in Neuroscience Computational Summer School (TA)	Dartmouth College 2017
Experimental Study of Social Behavior (Guest Lecturer)	Dartmouth College 2017
Experimental Study of Social Behavior (Guest Lecturer)	Dartmouth College 2016
Social Psychology (Guest Lecturer)	Dartmouth College 2016
Brain Mapping with functional MRI (TA and Guest Lecturer)	Dartmouth College 2015
Laboratory in Psychological Science* (TA and Guest Lecturer)	Dartmouth College 2015
<i>*Mentored award winning undergraduate group</i>	
Experimental Design and Methodology (TA and Guest Lecturer)	Dartmouth College 2014
Laboratory in Psychological Science (TA and Guest Lecturer)	Dartmouth College 2013
Introduction to MATLAB for Behavioral Research (ad-hoc workshop)	Harvard University 2011
Mind Perception (ad-hoc workshop)	Harvard University 2011

Mentorship

Hirsh Elhence '17 (Presidential Scholar)
 Arati A. Gangadharan '18 (Honors Thesis)
 Sushmita Sadhukua '18 (Honors Thesis)
 Nathan P. Greenstein '19 (Presidential Scholar)

Technical skills

Programming Languages: Python, MATLAB, Bash, Javascript
 Web/Application Development: HTML, CSS, Bootstrap, MeteorJS, Node.js, Electron, Docker, Singularity
 Stimulus presentation: Psychophysics toolbox, Psychopy, E-prime, Presentation
 Data analysis: scientific-python, scikit-learn, R, MongoDB, lme4, SPSS
 Neuroimaging Analysis: FSL, AFNI, SPM, Nipype, Nilearn
 Data visualization/sharing: ggplot, seaborn/matplotlib, D3.js, markdown, git/github

Professional Activities

Ad hoc Reviewer:
 Special Interest Group on Human Computer Interaction (SIGCHI)
 Frontiers in Psychology
 Social Cognitive and Affective Neuroscience
 Journal of Personality and Social Psychology

Society Memberships:
 Social and Affective Neuroscience Society
 Cognitive Neuroscience Society
 Organization for Human Brain Mapping

Leadership and Community Involvement

DAI lab (LineAtKAF Project) Partner	January 2017-present Dartmouth College
Dartmouth Brainhack Organizing committee member	March 2017 Dartmouth College
Neuro-learn: Python tools for brain-imaging analysis Core Contributor	2016-present
Introductory Data Analysis with Python Private Tutor	2016-present
Social Brain Sciences symposium series at Dartmouth College Primary Organizer	2013-2015 Dartmouth College
GWISE Science Day for local middle schools Station Leader	2014 Dartmouth College

References

Luke J. Chang

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