

## Education

- Ph.D. Candidate, **Dartmouth College** (anticipated) 2019  
*Degree: Cognitive Neuroscience*  
*Advisor: Luke J. Chang*  
*Thesis: Naturalistic approaches towards an understanding of the structure of social memory*
- 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*  
*Thesis: Testing Domain Specificity: Conceptual Knowledge of Living and Non-living Things*

## 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. (under review). Gossip drives vicarious learning and facilitates robust social connections. *PsyArXiv*.

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

Chang, L.J., **Jolly, E.**, Cheong, J.H., Rapuano, K., Greenstein, N., Chen, P.A., Manning, J.R. (under review). Endogenous variation in ventromedial prefrontal cortex state dynamic during naturalistic viewing reflects affective experience. *bioRxiv*.

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

**Jolly, E.** & Chang, L.J. (2019). The Flatland Fallacy: Moving beyond low dimensional thinking. *Topics in Cognitive Science*, 1-22.

**Jolly, E.** (2018). Pymer4: Connecting R and Python for Linear Mixed Modeling. *Journal of Open Source Software*, 3(31), 862.

Chang, L.J. & **Jolly, E.** (2018). Emotions as computational signals of goal error. In A. Fox, R. Lapate, A. Shackman & R. Davidson (Eds.), *The Nature of Emotion* (343-351). Oxford University Press.

Cheong, J. H., **Jolly, E.**, Sul, S. & Chang, L.J. (2017). Computational Models in Social and Affective Neuroscience. In Moustafa, A. (Eds), *Computational Models of Brain and Behavior* (229-244). Wiley-Blackwell.

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

**Jolly, E.**, Cheong, J.C. & Chang, L.J. (in prep). Neural models reflect spontaneous impression formation

about para-social relationships.

**Jolly, E.**, Sadhukha, S., Cheong, J.C., Chang, L.J. (in prep). Measuring the efficacy and cost-benefit ratio of custom-molded head cases for use in MRI.

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

**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.** (2018). *Introduction to Git and Github*. Lecture at Methods in Neuroscience Computational Summer School, Dartmouth College, Hanover, NH.

**Jolly, E.** (2018). *Introduction to Jupyter Notebooks for Interactive Data Analysis*. Lecture at Methods in Neuroscience Computational Summer School, Dartmouth College, Hanover, NH.

**Jolly, E.** (2018). *Introduction to functional alignment methods for fMRI*. Lecture at Sao Paulo School of Advanced Science on Social and Affective Neuroscience. Sao Paulo, Brazil.

**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. & Chang, L.J.** (2019). Gossip drives vicarious learning and facilitates robust social connections. Poster presented at Social and Affective Neuroscience Society meeting, Miami, FL.
- Cheong, J.C., Chen, P.A., **Jolly, E.,** Elhence, H., Wager, T.D., Chang, L.J. (2019). Socially transmitted placebo effects. Poster presented at Society for Affective Science meeting, Boston, MA.
- 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

Sao Paulo Summer School Social and Affective Neuroscience (SPSAN)	2018
Dartmouth Graduate Arts and Science Travel Award	2018
Dartmouth PBS Graduate Travel Award	2018
Neukom Institute Travel Award	2018
Dartmouth Graduate Alumni Research Award	2017
Dartmouth PBS Graduate Travel 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 <sup>nd</sup> Place project award	2016
Hack Dartmouth DEN Business Innovation Prize	2016
Neurohackweek Summer School	2016
SANS Graduate Student Poster Award	2015
Dartmouth PBS 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

Functional Alignment Techniques in fMRI (Guest Lecturer)	Sao Paulo, SPSAN, 2018
Methods in Neuroscience Computational Summer School (TA)	Dartmouth College 2018
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

\*Mentored award winning undergraduate group

Experimental Design and Methodology (TA and Guest Lecturer)  
Laboratory in Psychological Science (TA and Guest Lecturer)  
Introduction to MATLAB for Behavioral Research (ad-hoc workshop)  
Mind Perception (ad-hoc workshop)

Dartmouth College 2014  
Dartmouth College 2013  
Harvard University 2011  
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 + Honors Thesis)  
Maryam Iqbal '21 (Presidential Scholar)  
Sushmita Sadhukha (Full-time Research Assistant)

## 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:

Nature Communications  
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 ( <a href="#">LineAtKAF Project</a> ) <b>Partner</b>	January 2017-present Dartmouth College
Dartmouth Brainhack <b>Organizing committee member</b>	March 2017 Dartmouth College
Neuro-learn: Python tools for brain-imaging analysis <b>Core Contributor</b>	2016-present
Introductory Data Analysis with Python <b>Private Tutor</b>	2016-present
Social Brain Sciences symposium series at Dartmouth College <b>Primary Organizer</b>	2013-2015 Dartmouth College
Social Area Graduate Representative at Dartmouth College <b>Graduate Representative</b>	2013-2015 Dartmouth College
GWISE Science Day for local middle schools <b>Station Leader</b>	2014 Dartmouth College

## References

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### **Joe M. Moran**

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