# **Eshin Jolly**

Dartmouth College, Dept. of Psychological and Brain Sciences 6207 Moore Hall, Hanover, NH 03755 github.com/ejolly eshin.jolly.GR@dartmouth.edu

## **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

PI: Duncan Watts

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)

Pls: 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). The Flatland Fallacy: Moving beyond low dimensional thinking.
- **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., Frey &, 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

- **Jolly, E.**, Cheong, J.C. & Chang, L.J. (in prep). Neural models reflect spontaneous impression formation about parasocial relationships.
- Jolly, E., Smith, A.& Chang, L.J. (in prep). The inelasticity of interpersonal guilt.
- **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.** & 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.

- 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 <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 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 Computation 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)      | 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 |

## **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, Ime4, 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

# **Leadership and Community Involvement**

DALI lab

March - June 2017

Partner

Dartmouth College

Dartmouth Brainhack March 2017

Organizing committee member Dartmouth College

Neuro-learn: Python tools for brain-imaging analysis

**Core Contributor** 

2016-present

Introductory Data Analysis with Python

2016-present

2013-2015

2014

**Private Tutor** 

Social Brain Sciences symposium series at Dartmouth College

Dartmouth College

**Primary Organizer** 

GWISE Science Day for local middle schools

Dartmouth College

**Station Leader** 

# References

Luke J. Chang

Jason P. Mitchell

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