

MARIANNE C. REDDAN

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Positions

Post-doctoral Fellow, Stanford University 2019-present
 Advisor: Dr. Jamil Zaki

Education

2019 Ph.D., Psychology and Neuroscience, specialization in Cognitive Science
 University of Colorado at Boulder
 Advisor: Tor Wager, PhD

2016 M.A., Psychology and Neuroscience
 University of Colorado at Boulder

2010 B.A., Psychology with Honors
 New York University, College of Arts and Sciences
 Lewis Rudin Scholar

Awards & Honors

Quantitative Methods in Behavioral Sciences Certificate	2018
Dosier/Muenzinger Award for Teaching	2018
Beverly Sears Graduate Student Grant Award	2018
<i>Selected for</i> Social Affective Neuroscience Society Trainee Data Blitz	2018
Institute for Cognitive Science Travel Award	2017
Social Affective Neuroscience Conference Registration Award (Design)	2016
UGGS Travel Award Winner	2016
CU Boulder Graduate School Travel Award	2016
UGGS Event Grant: Diversity in STEM Panel	2016
UGGS Group Grant: STEMinar	2015
UGGS Group Grant: Science Research Student Alliance	2015
STEMinar Graduate Research Grant	2014
UGGS Group Grant: Brainhacks	2014
UGGS Group Grant: STEMinar	2014
NSF Graduate Research Fellowship Honorable Mention	2014
University of Wisconsin-Madison Emotion Symposium Travel Award	2013
Friedman Brain Institute Neuroscience Retreat: 'Best Presentation' Award	2012
NYU Undergraduate Research Conference: 'Best Poster' Award	2010
NYU Collegiate Research Scholar: Grant	2010
Psi Chi the New York University Chapter	2009-10
New York University Lewis Rudin Scholarship	2006-10

Publications

Kragel, PA, **Reddan, MC**, LaBar, KS, Wager, TD (2019). Emotion schemas are embedded in the human visual cortex. *Scientific Advances*.

Matthewson, ., Woo, C., **Reddan, MC**, & Wager, TD. (2019). Cognitive self-regulation influence pain-related physiology. *PAIN*.

Reddan MC, Wager TD, & Schiller D (2018) Attenuating Neural Threat Expression with Imagination. *Neuron*, 100, 994-1005

Reddan MC & Wager TD (2018) Brain systems at the intersection of chronic pain and self-regulation. *Neuroscience Letters*, 702:24-33

Dutra, S. J., **Reddan, M.**, Purcell, J. R., Devlin, H.C. & Welker, K. M. (in press). Indices and correlates of positive emotion in psychopathology: Methodological and design considerations In Gruber, J. (Ed.), *The Oxford Handbook of Positive Emotion and Psychopathology*. New York, NY: Oxford University Press.

Reddan MC & Wager TD (2017) Modeling Pain Using fMRI: From Regions to Biomarkers. *Neuroscience Bulletin*, 1-8.

Reddan MC, Lindquist MA, Wager TD (2017) Effect Size Estimation in Neuroimaging. *JAMA Psychiatry*. doi:10.1001/jamapsychiatry.2016.3356

Homan P, **Reddan MC**, Brosch T, Koenigsberg HW, Schiller D (2017) Aberrant link between empathy and social attribution style in borderline personality disorder. *Journal of Psychiatric Research(94)*: 163-171.

Earl E, Demeter D, Mills K, Mihai G, Ruzic L, Ketz N, Reineberg A, **Reddan, M**, Goddings A, Gonzalez-Castillo J, Krzysztof G (2015) Human Connectomes Project Minimal Preprocessing Pipelines to Nipype. Brainhack Project Report from OBM Hackathon. Project URL: <https://github.com/ericearl/hcp2nipype-hack2015>

Reddan M (2015) Developing Neural Signatures for Discrete Emotional States. CU STEMinar Journal 1(1)23-29.

Chang LJ, **Reddan M**, Ashar, YK, Eisenbarth H, Wager, TD (2015) The Challenges of Forecasting Resilience. *Behavioral and Brain Sciences Commentary* 38: 26-27.

Hildebrandt T, Grotzinger A, **Reddan M**, Greif R, Levy I, Goodman W, Schiller D (2015) Testing the Disgust Conditioning Theory of Food-Avoidance in Adolescents with Recent Onset Anorexia Nervosa. *Behaviour Research and Therapy* 71:131-138

Hartley CA, Gorun A, **Reddan MC**, Ramirez F, Phelps EA (2013). Stressor controllability modulates fear extinction in humans. *Neurobiology of Learning & Memory* 113:149-56.

Conference Talks

Reddan MC, Wager TD, & Schiller D. Attenuating Neural Threat Expression with Imagination. Organization of Human Brain Mapping, Rome, Italy, June 2019.

Reddan M, Chang, L, & Wager, TD. A Neural Basis for Embodied Emotion. Social Affective Neuroscience Society, Brooklyn, NY, May 2018.

Reddan M. Neurolime: A tool for interpreting nonlinear predictions in neuroimaging. *Unconference*, Vancouver, CA, June 2017.

Reddan M. WTF is Deep Learning? Organization of Human Brain Mapping Hackathon *Unconference*, Vancouver, CA, June 2017.

Reddan M, Schiller D, and Wager, T. Imagined Extinction Reduces Real-life Threat Expression. Emotion and Motivation Session, Organization of Human Brain Mapping, Honolulu, HI, June 2015.

Reddan M, and Wager, T. Neural Patterns of Embodied Emotion. 34th Annual Ekstrand Mini-Convention. University of Colorado-Boulder, Boulder, CO. April 2015.

Reddan M, Wager, T, and Schiller D. Influence of Imagined Extinction on Real-life Threat Expression. CASL: Colorado Affective Science Laboratories Symposium. University of Colorado-Denver, Denver, CO. April 2015.

Reddan M, Schiller D, and Wager, T. Imagined Extinction Training Influences Fear Recovery. 33rd Annual Ekstrand Mini-Convention. University of Colorado-Boulder, Boulder, CO. April 2014.

Reddan M, Brosch T, Koenigsberg H, Schiller D. Emotion Dysregulation and the fundamental attribution error in borderline personality disorder. Nanosymposium: Fear, Stress, and Social Networks. Society for Neuroscience Annual Meeting, San Diego, CA, November 2013

Reddan M, Levy D, Schiller D. The effects of imagination on fear extinction. Nanosymposium on Emotion: Neural Mechanisms of Regulation. Society for Neuroscience Annual Meeting, New Orleans, LA, October 2012

Reddan M, Schiller D. The effects of imagination on fear extinction. Friedman Brain Institute Annual Neuroscience Retreat, New York, NY. April 2012

Invited Talks

Reddan M. Behavioral and Neural Evidence for Social- & Self-Regulation of Pain, Cognitive Psychology Department CU-Boulder, Boulder, CO, Apr 2019.

Reddan M. A Neural Basis for Embodied Emotion. Cognitive Lunch Lecture Series, Cognitive Psychology Department CU-Boulder, Boulder, CO, Apr 2018.

Reddan M. The Practical Significance of Psychological Classifiers. Cognitive Lunch Lecture Series, Cognitive Psychology Department CU-Boulder, Boulder, CO, Sept 2017.

Reddan M. The Prediction and Modification of the Neural Representation of Threat. Cognitive Lunch Lecture Series, Cognitive Psychology Department CU-Boulder, Boulder, CO, Feb 2016.

Reddan M. 'Decoding' Emotion: How Machine Learning and Representational Similarity Analysis are Reshaping Psychology, Gruber Lab Meeting, University of Colorado-Boulder, CO. Feb 2016.

Reddan M. Affective Computing & Wearable Technology, Affective Science Guest Lecture, Professor June Gruber, PhD, University of Colorado-Boulder, CO. September 2015.

Reddan M, Chang L, and Wager, T. Development of Neural Signatures of Nuanced Emotional Events. Interdisciplinary Science Short: Physics in Medicine, University of Colorado-Boulder, Boulder, CO. November 2014.

Reddan M, Chang L, and Wager, T. Application of Machine Learning Techniques to the Neural Processing of Human Emotion. STEMinar, University of Colorado-Boulder, Boulder, CO. November 2014.

Conference Abstracts

Reddan M, Chang, L, & Wager, TD. A Neural Basis for Embodied Emotion. **Poster**. Organization of Human Brain Mapping, Rome, Italy, June 2019.

Reddan M, Lindquist M & Wager T. Understanding Bias in Neuroimaging Effect Sizes **Poster**. Organization of Human Brain Mapping, Vancouver, CA, June 2017.

Reddan M, Young, H & Wager T. Supportive Touch Induces Interpersonal Physiological Synchrony and Reduces Perceived Pain **Poster**. Social Affective Neuroscience Society, Los Angeles, CA, March 2017.

Reddan M, Wager T. The Neural Basis of Embodied Emotion **Poster**. Human and Animal Emotions Conference, Erice, Sicily, May 2016.

Reddan M, Wager T, Schiller D. Imagine That! Simulated Extinction Training Reduces the Expression of Fear in the Brain and Body **Poster**. Social Affective Neuroscience Society, New York, NY, April 2016.

Schiller D, Levy I, **Reddan M**, Jackson E, Harpaz-Rotem I. (2013). **Talk**. Neural Mechanism of Fear/Safety Updating in PTSD Patients. *Biological Psychiatry*(73:9)53S.

Reddan M, Levy D, Schiller D. The Efficacy and Neural Correlates of Imagined Extinction. **Poster**. Wisconsin Symposium on Emotion, Madison, WI, April 2013.

Schiller D, Manson K, **Reddan M**, Jackson E, Levy I, Harpaz-Rotem I. Reversal of fear and safety in PTSD patients. **Talk**. Nanosymposium on Emotion: Neural Mechanisms of Regulation, Society of Neuroscience Annual Meeting, New Orleans, LA, October 2012.

Reddan M, Levy D, Schiller D. Extinguishing learned fear by imagination. **Poster**. The Pavlovian Society Annual Meeting, Jersey City, NJ, September 2012.

Reddan M, Thompson C, Schiller D. The “Positive” Role of the Negative System. **Poster**. Translational and Molecular Imaging Institute Conference. Icahn School of Medicine at Mount Sinai. New York, NY. May 2011

Hartley CA, Gorun A, **Reddan M**, Phelps EA. The Influence of Stressor Controllability on Conditioned Fear Expression in Humans. **Poster**. The Pavlovian Society Annual Meeting, Baltimore, MD. October 2010

Reddan M, Gorun A, Hersh A, Hartley CA, Phelps EA. The influence of behavioral control on human fear acquisition and retention. **Poster**. NYU Undergraduate Research Conference, New York, NY. April 2010

Reddan M, Gorun A, Hersh A, Hartley CA, Phelps EA. The influence of behavioral control on human fear acquisition and retention. **Poster**. N.E.U.R.O.N. Conference at Hunter College, New York, NY. April 2010

Research Experience

MOUNT SINAI SCHOOL OF MEDICINE

2010 – 2013 Lab Manager

Laboratory for Affective Neuroscience, Adviser: **Daniela Schiller, PhD**

Departments of Psychiatry and Neuroscience, New York, NY

JAMES J. PETERS VETERANS ASSOCIATION AND MEDICAL CENTER

2012 – 2013 Research Volunteer

Lab of Electrical Brain Stimulation, Adviser: **Harold Koenigsberg, MD**

Department of Psychiatry, Bronx, NY

NEW YORK UNIVERSITY

2009 – 2010 Undergraduate Research Assistant

Laboratory of Elizabeth Phelps, Mentor: **Catherine Hartley, PhD**

Department of Psychology, New York, NY

KINGS COLLEGE LONDON

Spring 2009 Undergraduate Research Assistant

Laboratory of Melissa Lamar, Adviser: **Melissa Lamar, PhD**

Institute of Psychiatry at Guy's Hospital, London, UK

COLUMBIA UNIVERSITY

2008 – 2009 Volunteer Research Assistant

Laboratory of René Hen, Mentor: **Kimberly Scobie, PhD**

New York State Psychiatric Institute, New York, NY

Teaching Experience

UNIVERSITY OF COLORADO-BOULDER

LAB INSTRUCTOR

2018 *Cognitive Neuroscience*, Professor: **Tim Curran, PhD**

GUEST LECTURER

2017 *Affective Neuroscience*, Professor: **Tor Wager, PhD**

“The Social and Basic Neuroscience of Touch”

2015 *Affective Neuroscience*, Professor: **Tor Wager, PhD**

“Affective Computing and Wearable Technology”

TEACHING ASSISTANT

2014 *Psychological Statistics*, Professor: **Diane Martichuski, PhD**

2014 *Cognitive Psychology*, Professor: **Joseph Berta, PhD**

2015 *Human Emotion*, Professor: **June Gruber, PhD**
2016 *Introduction to Psychology*, Professor: **Joseph Berta, PhD**
2016 *Personality*, Professor: **Chelsea Pierotti, PhD**
2017 *Human Emotion*, Professor: **June Gruber, PhD**

INSTRUCTOR

2015 *STEM Academy: 3D Printing and Design*, CU Science Discovery Program
2016 *Rapid Prototyping; Lasting Lessons*, CU Science Discovery Program
2016 *Interactive Circuits and Wearable Technology*, CU Science Discovery Program

NEW YORK UNIVERSITY

2009 – 2010 Teaching Assistant / Recitation Leader
Introduction to Psychology, Professor: **Ted Edgar Coons, PhD**

Science Mentoring

Gigi Keziah, Fairview High School, Boulder, CO
Project: [Feature Weighting in Multimodal Affect Prediction and Emotion Inference](#)
2019 Boulder Valley Science Fair
2019 Intel Science Engineering Fair, 3rd Place in Behavioral & Social Sciences at CSEF

Huilin Han, Monarch High School, Louisville, CO
Project: [Neural Evidence for Embodied Emotion: A Neuroimaging Study](#)
2018 Boulder Valley Science Fair

Kate Nakasato and Madison Risi, Monarch High School, Louisville, CO
Project: [Meta-Analysis of Brain and Immune Interactions during Anger](#)
2017 Boulder Valley Science Fair

Natalie 'LeeJay' Guyton, Nederland High School, Nederland, CO.
Project: [Genetic and Environmental Contributions to Misaphonia](#)
2016 Boulder Valley Science Fair

Emily Tarbush, University of Colorado, Boulder, CO.
Project: [Gender Effects in Touch Analgesia](#)
2016 Boulder Valley Science Fair

Hannah Young, University of Colorado, Boulder, CO.
Project: [Analgesic Effects of Gentle Touch and Social Support](#)
2015 CU Boulder Undergraduate Research Conference

Julia Falkner & Tess Rudd, Monarch High School, Louisville, CO.
[Science Research Seminar](#)
Project: [Influence of Interpersonal Interactions on Pain Perception](#)
2015 ISEF special award from the American Psychological Association

Abigail Orlando, East Chester High School, Eastchester, NY.
Project: [The cognitive and psychological effects of the emoticon.](#)
2013 Intel Science Talent Search: Report Badge
2013 Intel International Science and Engineering Fair finalist
1st Place Behavior Category

1st Place American Psychological Association Competition
2nd Place Psi Chi Honor Society
2013 Junior Humanities and Science Symposium
2013 Westchester Science and Engineering Fair

May Yuan, Great Neck South High School , Long Island, NY.
Project: How disgust influences social decision making.
2012 Long Island Science and Engineering Fair
2012 Social & Affective Neuroscience Annual Meeting. Poster

Neuroscience Community Outreach

ELEMENTARY & HIGH SCHOOL SPECIAL LECTURES ON THE BRAIN:

Watershed School Boulder, CO
8th Grade Class: The Neuroscience of Controlling Fear Feb 15, 2018

Academy of St. Dorothy's Staten Island, NY
3rd Grade Class: Brain anatomy, learning, memory, and sleep *yearly* 2013 - 2017

Bay Ridge Preparatory High School Brooklyn, NY
Special Education Seniors: Learning, Memory, and Neuroplasticity Dec 19, 2013
Advanced Seniors: Current Research on Threat Learning and Fear Dec 19, 2013

Northern Manhattan Public Schools: Brain Awareness Week
Mount Sinai School of Medicine New York, NY March 2013
K – High School Students attended an event I co-organized, where our laboratory and others hosted interactive booths demonstrating neurophysiological recording techniques, and played games that revealed principles of learning and memory

COMMUNITY PRESENTATIONS & WORKSHOPS:

Socioeconomic Contributions to Chronic Pain and Anxiety
ISO Community Meetings Denver, CO June 10, 2017

Brain Hacks & a Movie Series www.boulderbrainhacks.com Monthly, 2014
Solid State Depot Boulder, CO
Founder & Organizer.

'Hacking' Your Brain May 16, 2013
Make Staten Island Staten Island, NY.
Interactive talk with a computational perspective on learning and memory

Community Involvement

CU GRADUATE SEMINAR **CU-BOULDER, CO**
student-organized seminar series at the University of Colorado for science, technology, engineering,
and math students.
2014 – 2017 Coordinator: Trubee Davison

GREENWOOD WILDLIFE REHABILITATION CENTER **BOULDER, CO**
non-profit wildlife rehabilitation center
2014 – 2015, *Volunteer* Coordinator: Jenny Bryant

SOLID STATE DEPOT: MAKERSPACE **BOULDER, CO**
community space where diverse people get together and collaborate on creative and technical projects (<http://www.boulderhackerspace.com>)
2013- present, *Board Member* President: Joel Bartlett

MAKE STATEN ISLAND: MAKERSPACE **STATEN ISLAND, NY**
creative space for tinkerers and artists to learn, share, and teach. The classes we teach are free and open to the public. (<http://www.make.si>)
2012 – 2013, *Member* President: Sarah MacArthur

THE CARING COMMUNITY **NEW YORK, NY**
Through this center, I began escorting an elderly woman, Phyllis Pagano, to Bingo. Our relationship continued onto her entry to a nursing home where I visit her regularly and take her out for various activities.
2009 - 2013, *Volunteer* Coordinator: Jonathan Maresco

EMPTY CAGES COLLECTIVE **BROOKLYN, NY**
non-profit no-kill animal shelter and wildlife rehabilitation center
2010 – 2013, *Volunteer* Coordinator: PJ McKowsky

WEST 10TH LITERARY PUBLICATION **NEW YORK, NY**
NYU undergraduate creative writing publication
2008 – 2010, *Poetry Editor* Coordinator: Scott Statland