

Lauren Y. Atlas, Ph.D.

laurenatlas@nyu.edu

Department of Psychology
New York University
6 Washington Place
New York, NY 10003

Office: (212) 998-3720
Cell: (732) 768-3339

EDUCATION AND TRAINING

2011 - Present

Postdoctoral fellow
Department of Psychology
Advisor: Elizabeth Phelps

New York University

2006 - 2011

Ph. D., Psychology
M.A. 2009, M.Phil. 2010
Advisor: Tor D. Wager

Columbia University

Doctoral dissertation, awarded with Distinction: "Brain mechanisms of expectancy effects on pain experience." Committee: Tor Wager, Daphna Shohamy, Kevin Ochsner, Edward Smith, Russ Poldrack

2004-2006

FMRI Project Coordinator
Gotlib Mood and Anxiety Disorders Laboratory

Stanford University

2001-2003

B.A., Psychology
Honors Thesis: "Loneliness and Coping: Cardiovascular and Subjective Responses to Active and Passive Coping Tasks"; Advisor: John T. Cacioppo
Honors and Awards: General Honors, The College; Special Honors in Psychology

University of Chicago

1999-2001

Bard College

RESEARCH PUBLICATIONS AND CHAPTERS

Atlas, L.Y. & Wager, T.D. (In press). Expectations and beliefs: Insights from cognitive neuroscience. In *Oxford Handbook of Cognitive Neuroscience*, Eds. Kevin Ochsner and Stephen Kosslyn.

Wager, T.D. **Atlas, L.Y.**, Leotti, L.A., and Rilling, J.K. (2011). Predicting individual differences in placebo analgesia: Contributions of brain activity during anticipation and pain experience. *The Journal of Neuroscience* 31(2), 439-452.

Atlas, L.Y., Bolger, N., Lindquist, M.A., and Wager, T.D. (2010). Brain mediators of predictive cue effects on perceived pain. *The Journal of Neuroscience* 30(39), 12964-12977.

Eugene, F., Joormann, J., Cooney, R.E., **Atlas, L.Y.**, and Gotlib, I.H. (2010). Neural correlates of inhibitory deficits in depression. *Psychiatry Research: Neuroimaging* 181, 30-35.

Atlas, L.Y., Wager, T.D., Dahl, K., and Smith, E.E (2009). Placebo Effects. In J.T. Cacioppo and G.G. Berntson (Eds.) *Handbook of Neuroscience for Behavioral Psychologists*. (1236-1259). Hoboken, NJ: John Wiley & Sons, Inc.

Atlas, L.Y. and Wager, T.D. (2009). The neural bases of placebo effects in pain. In S. Aizenstat and R. Bosnak (Eds.) *Imagination and Medicine*. (107-134). New Orleans: Spring Journal, Inc.

Atlas, L.Y. and Wager, T.D. (2009). "The placebo response" in William Banks (Ed.) *Encyclopedia of Consciousness* (201-216). Elsevier Ltd.

Lindquist, M.A., Loh, J.M., **Atlas, L.Y.**, and Wager, T.D. (2009). Modeling the Hemodynamic Response Function in fMRI: Efficiency, Bias, and Mis-modeling. *Neuroimage* 45(1), S187-198.

Knutson, B., Bhanji, J., Cooney, R.E., **Atlas, L.Y.**, and Gotlib, I.H. (2008). Neural responses to monetary incentives in major depression. *Biological Psychiatry* 63(7), 686-692.

Cooney, R.E., Joormann, J., **Atlas, L.Y.**, Eugene, F., & Gotlib, I.H. (2007). Remembering the Good Times: Neural Correlates of Affect Regulation. *NeuroReport* 18(17), 1771-1774.

Cooney, R.E., **Atlas, L.Y.**, Joormann, J., Eugene, F., & Gotlib, I.H. (2006). Amygdala activation in the processing of neutral faces in social anxiety disorder: is neutral really neutral? *Psychiatry Research: Neuroimaging* 148, 55-59.

MANUSCRIPTS SUBMITTED OR IN PREPARATION

Atlas, L.Y., Lindquist, M.A., Whittington, R.A., Wielgosz, J., Sonty, N., & Wager, T.D. (Manuscript submitted for publication). Dissociable influences of opiates and expectations on pain.

Atlas, L.Y., Roy, M., Dahl, K.P., & Wager, T.D. (Manuscript submitted for publication). Sustained neuromodulatory effects of placebo treatment: Interactions between top-down and bottom-up affective processing.

Johnston, N.E.*, **Atlas, L.Y.***, & Wager, T.D. (Manuscript submitted for publication). Opposing effects of expectancy and somatic focus on pain. * = Equal authorship contributions.

Wager, T.D., **Atlas, L.Y.**, Lindquist, M.A., & Kross, E. (Manuscript submitted for publication). fMRI-based decoding of physical and social pain.

Cribben, I., Haraldsdottir, R., **Atlas, L.Y.**, Wager, T.D., & Lindquist, M.A. (Manuscript submitted for publication). Dynamic connectivity regression: Determining state-related changes in brain connectivity.

Buhle, J., Kober, H., Ochsner, K.N., Mende-Siedlecki, P., Weber, J., Hughes, B., Kross, E., **Atlas, L.Y.**, McRae, K., and Wager, T.D. (Manuscript submitted for publication). Common representation of pain and negative emotion in the midbrain periaqueductal gray.

Atlas, L.Y., Bolger, N., Lindquist, M.A. & Wager, T.D. (Manuscript in preparation). Tracing pain pathways from stimulus to report.

Atlas, L.Y., Shohamy, D., & Wager, T.D. (Manuscript in preparation). Expectations and learning.

Atlas, L.Y., & Wager, T.D. (Manuscript in preparation). Expectancy effects and placebo analgesia. *Neuroscience Letters*.

Wager, T.D. & Atlas, L.Y. (Manuscript in preparation). Neuroimaging contributions to understanding psychological influences on pain. Perspectives on Psychological Science.

AWARDS AND FELLOWSHIPS

2011

Doctoral dissertation awarded with Distinction

Columbia University, Graduate School of Arts and Sciences

Invited junior investigator, travel award

NIH 6th Annual Symposium on Advances in Pain Research

Notable poster award, Travel award

IBSC Conference (“How do executive function and emotion interact”) Boulder, CO

2010

OHBM Trainee Abstract Award

Organization for Human Brain Mapping, Barcelona, Italy

Scholar, European Pain School (May 30-June 6)

Siena, Italy

2009

Society for Neuroscience Chapters Graduate Student Travel Fellowship

Society for Neuroscience, Chicago IL

2008

Honorable Mention, National Science Foundation’s Graduate Research Fellowship

2007

Fellow at the Summer Institute in Cognitive Neuroscience (June 24th through July 7th, 2007)

University of California, Santa Barbara

SYMPOSIA ORGANIZED/CHAired

November 2010, Society for Neuroscience, San Diego

Seeing and Feeling Nanosymposium (Proposed and organized)

INVITED TALKS

January 2012, Weill Cornell Medical School Science Brownbag, New York, NY

TBA

September 2011, Scientific research network on decision neuroscience and aging (SRNDNA) Methods Workshop: Multilevel Modeling, Northwestern University, Evanston, IL

“Mediation analysis for fMRI: Application and methods”

April 2011, Thinking and Decision Making slide session, Cognitive Neuroscience Society, San Francisco

“Expectations about stimuli operate independently from expectations about treatments: The role of expectancy during opioid analgesia”

April 2011, Guest lecturer, Analysis of change statistics course, Columbia University, NY

“Multilevel mediation analysis and its application in fMRI”

November 2010, Seeing and Feeling Nanosymposium, Society for Neuroscience, San Diego

“Expectancy effects and remifentanil administration: Dissociable contributions of opioid and placebo analgesia”

October 2010, fMRI Seminar Series, Yale Magnetic Resonance Research Center

“How expectancies shape experience: Brain mediators of cue effects on perceived pain”

June 2010, New York University Center for Biomedical Imaging, Advanced fMRI Analysis Workshop

“An introduction to mediation analysis for fMRI”

June 2010, Organization for Human Brain Mapping Oral Session, Barcelona, Spain

“Open vs hidden opioid administration: Belief modulates remifentanil effects on pain-evoked responses”

May 2010, Dartmouth University FMRI Brownbag Series

“Brain mediators of expectancy effects on perceived pain: An introduction to multilevel mediation analysis for fMRI”

April 2010, Columbia University Cognitive Lunch Series

“Expectancy-based enhancement of opioid analgesia: Hidden vs Open Remifentanil Administration”

POSTERS

Atlas, L.Y., Wager, T.D. (2011). *The role of expectancy during opioid analgesia*. Poster presented at the NIH 6th Annual Symposium on Advances in Pain Research: “Mechanisms and Management of Co-existing pain conditions,” Bethesda, MD, April, 2011.

Atlas, L.Y., Whittington, R.A., Wielgosz, J. & Wager, T.D. (2011). *Expectations about stimuli operate independently from expectations about treatments: The role of expectancy during opioid analgesia*. Poster presented at IBSC conference on “How do executive function and emotion interact”, Boulder, Colorado, January, 2011.

Atlas, L.Y., Whittington, R.A., Lindquist, M.A., Sonty, N., & Wager, T.D. (2010). *Open vs hidden opioid administration: Belief modulates remifentanil effects on pain-evoked responses*. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Barcelona, Spain, June, 2010.

Atlas, L.Y., Whittington, R.A., Sonty, N., & Wager, T.D. (2010). *Expectancy-based enhancement of opioid analgesia: An fMRI study of hidden vs. open remifentanil analgesia*. Poster presented at the annual meeting of the Cognitive Neuroscience Society. Montreal, Canada, April, 2010.

Atlas, L.Y., Whittington, R.A., Sonty, N., & Wager, T.D. (2009). *Placebo enhancement of opioid analgesia: An fMRI study of hidden vs open remifentanil analgesia*. Poster presented at the annual meeting of the Society for Neuroscience. Chicago, IL, October, 2009.

Atlas, L.Y., Bolger, N., Lindquist, M., & Wager, T.D. (2009). *Amygdala mediates expectancy effects on pain-processing regions*. Poster presented at Social and Affective Neuroscience Conference. New York, NY, October, 2009.

Atlas, L.Y., Bolger, N., Lindquist, M., & Wager, T.D. (2009). *Amygdala activity predicts expectancy effects on pain-processing regions*. Poster presented at the Tufts Conference: The Neuroscience of Emotion: From Reaction to Regulation. Boston, MA, June, 2009.

Atlas, L.Y., Bolger, N., Lindquist, M., & Wager, T.D. (2009). *Multiple brain pathways mediate expectancy effects on pain*. Poster presented at the annual meeting of the Organization for Human Brain Mapping, San Francisco, CA. June, 2009.

Robinson, L.F., Wager, T.D., **Atlas, L.Y.,** & Lindquist, M.A. (2009). *Spatial Clustering of Response Curves*. Poster presented at the annual meeting of the Organization for Human Brain Mapping, San Francisco, CA. June, 2009.

Lindquist, M.A., Haraldsdottir, R., **Atlas, L.Y.,** & Wager, T.D. (2009) *Modeling brain pathways using Functional Mediation Analysis*. Poster presented at the annual meeting of the Organization for Human Brain Mapping, San Francisco, CA. June, 2009.

Atlas, L.Y., Bolger, N., Lindquist, M., & Wager, T.D. (2009). *Multiple mediators of expectancy effects on pain perception: Interactions among higher-order brain regions and the pain matrix*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA. March, 2009.

Atlas, L.Y., Bolger, N., Lindquist, M., & Wager, T.D. (2008). *Neural mechanisms of expectancy-based pain modulation: Whole brain mediation analysis using fMRI*. Poster presented at the annual meeting of the Society for Neuroscience, Washington, DC. November, 2008.

Wager, T.D., **Atlas, L.Y.,** Lindquist, M., Dahl, K., & Davidson, M (2008). *Functional pathway discovery using mediation analysis: Approach and application to pain*. Poster presented at the annual meeting of the Organization for Human Brain Mapping, Melbourne, Australia. June, 2008.

Atlas, L.Y., Davidson, M., Dahl, K., Lindquist, M., & Wager, T.D. (2008). *Tracing pain pathways from stimulus to report*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA. April, 2008.

Davidson, M., **Atlas, L.Y.,** Lindquist, M., Bolger, N., & Wager, T.D. (2008). *The multilevel mediation/moderation (M3) framework: A strategy for connectivity analysis for fMRI data*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA. April, 2008.

Cooney, R.E., Joormann, J., Eugene, F., **Atlas, L.Y.,** Kang, H., & Gotlib, I.H. (2008) *Neural Aspects of Ruminative Self-Focus in Depression*. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA. April, 2008.

Atlas, L. Y., Cooney, R. E., Joormann, J., & Gotlib, I. H. (2005). *Neural Correlates of Reward Processing in Girls At Risk for Depression: An fMRI Investigation*. Poster presented at the annual meeting of the Society for Research in Psychopathology, Miami, Florida, October, 2005 (Cancelled).

Cooney, R. E., **Atlas, L. Y.,** Joormann, J., Eugène, F., & Gotlib, I. H. (2005). *Threat-related Processing of Neutral Faces in Social Anxiety Disorder: Is Neutral Really Neutral?* Poster presented at the annual meeting of the Society for Research in Psychopathology, Miami, Florida, October, 2005 (Cancelled).

Cooney, R. E., Joormann, J., **Atlas, L. Y.,** Eugène, F., & Gotlib, I. H. (2004). *Differential*

Neural Response to Subliminal and Supraliminal Faces in Major Depression. Poster presented at the annual meeting of the Society for Research in Psychopathology, St. Louis, Missouri, October, 2004.

Eugène, F., Joormann, J., Cooney, R.E., **Atlas, L.Y.**, & Gotlib, I.H. (2004). *The Neural Substrates of Inhibitory Dysfunction in Major Depression: An fMRI Study.* Poster presented at the annual meeting of the Society for Research in Psychopathology, St. Louis, Missouri, October, 2004.

ADVANCED TRAINING

2010

Scholar, European Pain School (May 30-June 6)

Siena, Italy

2009

Attendee, Advanced fMRI Methods (June 23, 2009)

Organization for Human Brain Mapping, San Francisco, CA

Attendee, fMRI Image Acquisition and Analyses Course (November 6-8, 2009)

Columbia University, New York

2008

Attendee, Transcranial Magnetic Stimulation: Applications to Neuropsychiatry (July 2008)

Accredited Continuing Medical Education Course

Columbia University College of Physicians and Surgeons

2007

Fellow at the Summer Institute in Cognitive Neuroscience (June 24th through July 7th, 2007)

University of California, Santa Barbara

2004

Stanford University

Computational Neuroimaging Workshop (July 2004)

TEACHING

Summers 2008-2011, Columbia University Summer Program for High School Students

Instructor, "Science of Psychology"

Topics: Research Methodology, Brain and Nervous System, Sensation and Perception, Social Development, Social Cognition, Emotion, Mood and Anxiety Disorders

Fall 2010, Columbia University

Teaching Assistant, PSYC 1010 "Mind Brain and Behavior"

Invited Lecture: "Sensation and Perception"

Spring 2009, 2010, Columbia University

Teaching Assistant, PSYC 1450 "Research and Methods in Social Cognitive Neuroscience"

Taught laboratory section

Spring 2008, Columbia University

Teaching Assistant, PSYC 1010 "Mind Brain and Behavior"

Invited Lecture: "Neural mechanisms of emotion and social cognition"

Spring 2007, Columbia University

Teaching Assistant, PSYC 1010 "Mind Brain and Behavior"

June 2006, Stanford University

Taught five-day workshop on fMRI processing and analysis using AFNI

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

Invited Reviewer

Human Brain Mapping

Biology of Mood and Anxiety Disorders

Organization for Human Brain Mapping (conference abstract reviewer)

Professional Memberships

Society for Neuroscience, 2009-Present

Organization for Human Brain Mapping, 2009-present

Cognitive Neuroscience Society 2004-present