

# Emile BRUNEAU

Annenberg School for Communication  
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## APPOINTMENTS

- 2015–present      UNIVERSITY OF PENNSYLVANIA  
Visiting Scholar, Annenberg School for Communication
- 2008–2015      MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
Post-Doctoral Fellow, Department of Brain and Cognitive Sciences

## ACADEMIC BACKGROUND

- 2002–2008      UNIVERSITY OF MICHIGAN  
Ph.D., Neuroscience 2008
- 1990–1994      STANFORD UNIVERSITY  
B.A., Human Biology 1994

## AWARDS & HONORS

- 2015      Beyond Conflict Innovation Fellowship
- 2015      Ed Cairns Early Career Award of the Society for the Study of Peace, Conflict, and Violence: Division of Peace Psychology, American Psychological Association
- 2013      Harvard Bok Center Teaching Award, Harvard University
- 2006      Excellence in Research and Service Award, University of Michigan
- 2006      Outstanding Student Publication Award, University of Michigan

## FUNDING

- 2014-2016      Open Society Foundation: *Shaking the psychological roots of resistance to Roma integration* (Principle Investigator; \$100,000)
- 2014-2015      DRAPER laboratories: *Illuminating the dark side of social cognition: using functional magnetic resonance imaging (fMRI) to measure unconscious biases* (Co-Investigator; \$110,000)
- 2012-2015      DARPA: *Neurobiology of Narrative Influence in Intergroup Conflict* (Co-Investigator; \$950,000)
- 2012-2013      McGovern Institute Neurotechnology Grant: *Novel measures of collective intelligence* (Co-Investigator; \$87,000)

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- 2010-2014 MIT Research Support Committee: *Speaking with the Enemy: Experimental investigations of inter-group dialogue for conflict resolution* (Co-Investigator; \$40,000)
- 2009-2012 Office of Naval Research: *Neural Underpinnings of Conflict* (Co-Investigator; \$600,000)
- 2008-2010 United Nations Alliance of Civilizations – Media Fund: *De-Radicalization: the effect of acute intervention on inter-group stereotypes* (Co-Investigator; \$110,000)
- 2005-2008 National Institutes of Health, National Research Service Award: *The Dynamics of Rapsyn in vitro and in vivo* (PI; \$200,000)

## PUBLICATIONS: Psychology and Cognitive Neuroscience

Kteily N\*, **Bruneau EG\***, Waytz A, Cotterill S. The Ascent of Man: A Theoretical and Empirical Case for Blatant Dehumanization. (2015) *JPSP*.

**Bruneau E.** *Putting Neuroscience to work for Peace* in Understanding the social psychology of intractable conflicts: The Israeli-Palestinian case and beyond, A tribute to the legacy of Daniel Bar-Tal (eds.) Keren Sharvit and Eran Halperin (2015)

**Bruneau EG**, Jacoby N, Saxe R. Empathic control through coordinated interaction of amygdala, theory of mind and extended pain matrix brain regions. (2015) *Neuroimage*.

Cikara M, **Bruneau EG**, Van Bavel J, Saxe R. Their pain gives us pleasure: Understanding empathic failures and counter-empathic responses in intergroup competition. (2014) *JESP* 55:110-125.

**Bruneau EG**, Dufour N, Saxe R. How We Know it Hurts: Item Analysis of Written Narratives Reveals Distinct Neural Responses to Others' Physical Pain and Emotional Suffering. (2013) *PLoS One* 8(4):e63085.

**Bruneau EG**, Saxe R. The Power of Being Heard: the Benefits of 'Perspective-Giving' in the Context of Intergroup Conflict. (2012) *JESP*. 84(4):855-866.

**Bruneau EG**, Dufour N, Saxe R. Social cognition in members of conflict groups: behavioural and neural responses in Arabs, Israelis and South Americans to each other's misfortunes. (2012) *Phil Trans R Soc B, Special Issue on "The Biology of Cultural Conflict"*. 367:717-730.

**Bruneau EG\***, Pluta A\*, Saxe R. The Role of 'Shared Pain' and 'Theory of Mind' Networks in Processing Others' Emotional Suffering. (2012) *Neuropsychologia*. 50:219-231.

Cikara, M, **Bruneau EG**, Saxe R. Us and Them: Intergroup Failures of Empathy (2011). *Current Directions in Psychological Science*. 20(3):149-153.

**Bruneau EG**, Saxe R. Attitudes Towards the Outgroup are Predicted by Activity in the Precuneus in Arabs and Israelis (2010). *Neuroimage*. 52(4):1704-1711.

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*In Revision, Review or Preparation*

Kteily N, Hodson G, **Bruneau EG**. They see us as less than human: Meta-dehumanization drives intergroup conflict via reciprocal dehumanization. (Invited Revision, *JPSP*)

Jacoby N, **Bruneau EG**, Koster-Hale J, Saxe R. Localizing Theory of Mind and Pain Matrix brain regions with verbal and non-verbal tasks. *Neuroimage* (Invited Revision, *Neuroimage*)

**Bruneau EG**, Cikara M, Saxe R. Minding the gap: Narrative descriptions of mental states mitigate parochial empathy. (Invited Revision, *PLoS One*)

**Bruneau EG**, Cikara M, Saxe R. Empathy for 'us' versus 'them': Intergroup behaviors are predicted by parochial empathy rather than trait empathic concern. (In Review)

**Bruneau EG**, Jacoby N, Saxe R. Double-dissociation of dehumanization and dislike judgments in medial precuneus. (In Review)

**Bruneau EG**, Szekeres H, Tropp L, Kteily N, Ligourdi L, Kende A. Beyond dislike: Blatant dehumanization predicts teacher discrimination against minority children. (In Review)

**Bruneau EG\***, Kteily N\*. The enemy as animal: Dehumanization in wartime. (In Review)

**Bruneau EG**, Lane D, Saleem M. Giving the underdog a leg up: exposure to non-violent resistance improves third party perceptions and behavioral support of a disempowered group. (In Review)

**Bruneau EG**, Dufour N, Coronel J, Saxe R. We approve this message: party endorsements affect neural responses to political initiatives. (In Preparation)

**Bruneau EG**, Saxe R. Building virtual bridges: Online contact improves intergroup attitudes in Americans and Muslims. (In Preparation)

**Bruneau EG\***, Kteily N\*. The influence of dehumanization on contemporary socio-political issues. (In Preparation)

OTHER PUBLICATIONS

**Bruneau E**. Stumbling on our psychology: potential pitfalls of 'common sense' confidence building (2014). *Strategic Multilevel Assessment group publication* (2015).

**Bruneau E**. In-group/out-group Distinctions – Neuroscience Findings and Upshot (2012). *White Paper. Volume: National Security Challenges: Insights from Social, Neurobiological, and Complexity Sciences*

**Bruneau E**, Saxe R. Identifying, measuring and regulating the psychological biases that contribute to political violence (2010) *White paper. Volume: The Neurobiology of Political Violence: New Tools, New Insights*.

**Bruneau E**. Why Work for Social Justice? (2002) *Timelines: Foundation for a Global Community*.

## PUBLICATIONS: Cellular and Molecular Neuroscience

**Bruneau EG**, Akaaboune M. Dynamics of the Rapsyn Scaffolding Protein at the Neuromuscular Junction of Live Mice (2010). *Journal of Neuroscience*. 13;30(2):614-9.

**Bruneau EG**, Esteban JA, Akaaboune M. Receptor-Associated Proteins and Synaptic Plasticity. Review (2009). Review. *FASEB Journal*. 23(3):679-88.

**Bruneau EG**, Brenner DI, Kuwada J, Akaaboune M. Acetylcholine Receptors are Necessary for the Maintenance of the Post-Synaptic Scaffold (2008). *Current Biology*. 22;18(2):109-15.

**Bruneau EG**, Akaaboune M. Dynamics of the Acetylcholine Receptor Associated Protein, Rapsyn (2007). *J Biological Chemistry*. 282(13):9932-40.

**Bruneau EG**, Akaaboune M. Dynamic Cycling of Acetylcholine Receptors at the Neuromuscular Junction of Live Animals (2006). *Development*. 133(22):4485-93.

**Bruneau EG**, Akaaboune M. Running to Stand Still: Ionotropic Receptor Dynamics in Central and Peripheral Synapses (2006). Review. *Molecular Neurobiology*. 34(2):137-152.

**Bruneau EG**, Macpherson PC, Goldman D, Hume RI, Akaaboune M. The Effect of Agrin and Laminin on Acetylcholine Receptor Dynamics In Vitro (2005). *Developmental Biology*. 288(1):248-58.

**Bruneau E\***, Sutter D\*, Hume RI, Akaaboune M. Identification of Nicotinic Acetylcholine Receptor Recycling and its Role in Maintaining Receptor Density at the Neuromuscular Junction In Vivo (2005). *Journal of Neuroscience*. 25(43):9949-59.

**Bruneau EG**, McCullumsmith RE, Haroutunian V, Davis KL, Meador-Woodruff JH. Increased Expression of Glutaminase and Glutamine Synthetase mRNA in the Thalamus in Schizophrenia (2005). *Schizophrenia Research*. 75(1):27-34.

## CONFERENCES and SYMPOSIA ORGANIZED

- 2016 Chair, accepted symposium. Society for Personality and Social Psychology Conference. *The forces that divide us: the roles of social dominance, hatred and (meta)dehumanization in real intergroup conflict*. San Diego, CA.
- 2015 Co-organizer. New Perspectives on Social Conflict. In collaboration with 'Beyond Conflict'. Cambridge, MA.
- 2014 Organizing committee member. Computational Models of Narrative Conference. Quebec City, Canada.
- 2014 Co-organizer. Topical mini-conference: *Norms and Narratives*. In collaboration with 'Beyond Conflict'. Cambridge, MA.
- 2013 Co-organizer. Topical mini-conference: *Dehumanization*. In collaboration with 'Beyond Conflict'. Cambridge, MA.

- 2012 Co-organizer. Neuroscience and Social Conflict. In collaboration with 'Beyond Conflict'. Cambridge, MA.

*Conferences organized in collaboration with Boston NGO 'Beyond Conflict' featured presentations and dialogue between social psychologists (e.g. Lee Ross, Daniel Batson, Betsy Paluck), neuroscientists (e.g. Liz Phelps, Mohammed Milad), and conflict resolution practitioners (e.g. Rolf Meyer, former chief negotiator for F.W. DeKlerk in South Africa, Naomi Chazan, former Deputy Speaker of the Israeli Knesset, Mohammed Milad, former president of Ecuador).*

## SELECTED TALKS

- 2015 United States Institute for Peace (USIP) meeting on Countering Violent Extremism, "*The potential for brain based assessment*". Washington, D.C., July 22.
- 2015 The World Bank Brown Bag Seminar: "*Applying behavioral science to promote Roma inclusion*". Washington, D.C., June 25.
- 2015 European Association of Social Psychology – minority rights small group meeting, "*Measuring and mitigating anti-Roma bias*". Budapest, Hungary, June 19.
- 2015 International Communications Association – Biological Science Preconference, "*The neurocognitive roots of empathy*". San Juan, Puerto Rico, May 21.
- 2015 A Pint of Science Community Talk Series, "*Measuring the thoughts you didn't think you were thinking*". Cambridge, MA, May 18.
- 2015 Empathy Working Group at Massachusetts General Hospital, "*Love, hate and indifference: interpersonal and intergroup empathy*". Boston, MA, May 14.
- 2015 [Keynote] United States Institute for Peace (USIP) Annual Meeting, "*Putting neuroscience to work for peace*", May 13.
- 2015 New Perspectives on Social Conflict, "*Prejudice 101: The psychology of intergroup conflict*". Cambridge, MA, April 25.
- 2015 American International Educators Association Meeting, "*Building virtual bridges*". Washington, D.C., February 17.
- 2015 Cornell University Talk Series, "*Translational intergroup psychology: putting science to work for peace*". Ithaca, NY, January 26.
- 2015 El-Hibri Foundation Neuroscience and Peacebuilding Conference, "*Combating anti-Roma discrimination through evidence-based interventions*". Washington, DC, January 22.
- 2015 El-Hibri Foundation Neuroscience and Peacebuilding Conference, "*Brain 101: neuroscience for a lay audience*". Washington, D.C., January 21.
- 2014 University of Pennsylvania Neuroethics series, "*Putting neuroscience to work for peace*". Philadelphia, PA, November 25.
- 2014 Strategic Multi-Level Analysis group speaker series, "*The psychology of asymmetric conflict: recent themes and potential pitfalls*". Online Presentation, November 4.

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- 2014 Harvard Social Lunch, *“Examining the dark (psychological) heart of intergroup conflict: parochial empathy and dehumanization”*. Cambridge, MA, October 21.
- 2014 Eotvos University Psychology Forum, *“Putting science to Work for Peace”*. Budapest, Hungary, September 16.
- 2014 American Psychological Association meeting, *“Putting Science to Work for Peace”*. Washington, DC, August 7.
- 2014 Open Society Foundation meeting, *“Intervening Below the Ground Floor: Developing and Deploying Psychological Interventions to Mitigate Anti-Roma Bias”*. Budapest, Hungary, July 14.
- 2014 Building Peace Conference, Panel Talk on Evaluation. Cambridge, MA, April 4.
- 2014 University of Pennsylvania Annenberg Colloquium Series, *“Metaphorical bridges and virtual contact: leveraging media and communication technology to reduce intergroup conflict”*. Philadelphia, PA, March 28.
- 2014 Harnessing the Potential of Virtual Exchange and Connected Learning. Panel Conversation on Evaluation. Boston, MA, March 15.
- 2014 Society for Personality and Social Psychology Conference, *“Building metaphorical bridges with virtual contact: an online intergroup program improves American attitudes towards Muslims”*. Austin, TX, February 15.
- 2014 The MIT Technology and Culture Forum, *“Getting Beyond Us and Them: Our Brains and the Possibility of Peace”*. Cambridge, MA, February 4.
- 2013 Dartmouth Social Neuroscience Brown Bag Series, *“Putting neuroscience to work for peace: translational social cognitive neuroscience”*. Dartmouth, NH, December 12.
- 2013 DARPA Narrative Networks PI meeting, *“Neurobiology of narrative influence on intergroup conflict”*. Washington, D.C., December 4.
- 2013 MIT Middle East Education through Technology (MEET) program, *“Putting science to work for peace”*. Cambridge, MA, November 14.
- 2013 Lexington High School, *“Training the lens of social cognitive neuroscience on conflict resolution”*. Lexington, MA, November 7.
- 2013 AP Psychology Teachers Conference, *“Training the lens of social cognitive neuroscience on conflict resolution”*. Hopkinton, MA, August 14.
- 2013 DARPA Narrative Networks PI meeting, *“Neurobiology of narrative influence on intergroup conflict”*. Washington, D.C., May 15.
- 2013 Herbert C. Kelman Seminar Series on International Conflict Analysis and Resolution, *“What can neuroscience tell us about conflict and its resolution?”* Cambridge, MA, April 1.
- 2013 Jewish Community Day School, *“Neuroscience: Looking at the Unknowable”*. Watertown, MA, April 22.
- 2013 Clarke University Social Psychology Colloquium, *“Keeping the eye on the Moneyball: An evidence-based approach to ‘social education’ programs”*. Worcester, MA, March 28

- 2013 Boston University Morality Seminar, *"Minding the (empathy) gap: Narratives about others' minds mitigate parochial empathy"*. Boston, MA, March 26.
- 2013 Arab Student Organization, *"Anti-Arab Bias"*. Cambridge, MA, March 13.
- 2013 [Keynote] Community Colleges for International Development, *"Minding the 'Other': assessing the effect of cultural fluency programs on social cognition"*. Atlanta, GA, February 24.
- 2013 Society for Personality and Social Psychology Conference, *"Minding the gap: narratives about others' minds reduce the intergroup empathy gap"*. New Orleans, LA, January 18.
- 2012 AP Biology Teachers Conference, *"Love, Hate and Indifference: Identifying, measuring and resolving intergroup bias in distant and conflict groups"*. Cambridge, MA, July 16.
- 2012 DARPA conference, *"Neurobiological basis of narrative influence on intergroup conflict"*. Jackson Hole, WY, April 16.
- 2012 Neuroscience and Social Conflict Conference, *"Symposium summary: Where do we go from here?"* Cambridge, MA, February 11.
- 2012 Neuroscience and Social Conflict Conference, *"Evaluation conflict resolution programs and quantifying open-mindedness"*. Cambridge, MA, February 10.
- 2012 Society for Personality and Social Psychology Conference, *"Behavioral and neural responses in Arabs, Israelis and South Americans to each other's pain and suffering"*. San Diego, CA, January 27.
- 2012 Society for Personality and Social Psychology, Cultural Psychology Preconference, *"Love, hate and indifference: characterizing, measuring and ameliorating intergroup biases in members of 'distant' and conflict groups"*, Washington, D.C., January 26.
- 2012 Yale University Philosophical and Psychological Perspectives on Morality Series, *"Recognizing and resolving empathic failures and moral schisms in members of conflict groups"*, New Haven, CT January 11.
- 2011 Harvard Psychology Department "Social Lunch" Brown Bag Series: *"Love, hate and indifference: identifying, measuring and resolving intergroup bias towards distant and conflict groups"*. Cambridge, MA, September 16.
- 2011 Society for Neuroscience Conference, *"Distinct brain regions underlie empathy for physical pain and emotional suffering."* Washington, D.C., November 13.
- 2011 American Psychological Association Convention, *"Activity in the Precuneus predicts negativity towards the outgroup in Arabs and Israelis."* Washington, D.C., August 4.
- 2011 International Society for Political Psychology, *"Thou Shalt Not Kill?: the effect of power on prohibitions against harming others."* Istanbul, Turkey, July 8.
- 2011 International Society for Political Psychology, *"Face to face across the partisan divide: perspective-taking and 'perspective-giving' have asymmetric effects on dominant and non-dominant members of conflict groups."* Istanbul, Turkey, July 7.
- 2011 National Security, Human Rights and the "Other" Symposium, *"The power of being heard: the benefits of 'perspective-giving' in the context of intergroup conflict."* University of MN, May 21.

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- 2011 The Neurobiology of Stories and Narratives Conference, *"Feeling your pain, understanding your suffering: the brain networks underlying empathy for physical pain and emotional suffering."* San Francisco, CA, April 26.
- 2011 Cognitive Neuroscience Society Meeting, *"Separate brain regions respond to others' physical pain and emotional suffering."* San Francisco, CA, April 4.
- 2011 Eastern Psychological Association Meeting, *"The contribution of Theory of Mind and Pain Matrix networks to empathizing with physical pain and emotional suffering."* Cambridge, MA, March 11.
- 2011 Society for Personality and Social Psychology Meeting, *"Reducing the negativity resulting from intergroup competition in the context of the Israeli-Palestinian conflict."* San Antonio, TX, January 29.
- 2010 Neurobiology of Political Violence, *"Identifying, regulating and measuring the psychological biases which contribute to political violence."* NIH campus, MD, December 2.

#### POSTER PRESENTATIONS: Psychology and Cognitive Neuroscience

- 2015 Social Affective Neuroscience Meeting. April 24.
- 2015 Society for Personality and Social Psychology Meeting. February 28.
- 2014 Cognitive Neuroscience Society Meeting. *"Separate neural mechanisms regulate empathy for pain and suffering"*. April 6.
- 2013 Social Affective Neuroscience Meeting, *We Approve this Message: Party Endorsement Affect Neural Responses to Political Initiatives*. April 13.
- 2012 Cognitive Science Society Meeting, *Going Beyond the Headlines: Narratives Mitigate the Intergroup Empathy Gap*. August 3.
- 2010 The Society for Neuroscience Conference, *Brain Regions Subserving Empathy for Physical Pain and Emotional Suffering*. November 14.
- 2009 The Society for Neuroscience Conference, *The Neural Correlates of Motivated Reasoning in Members of Conflict Groups*. October 19.
- 2009 Cognitive Neuroscience Society Meeting, *An fMRI study of Social Cognition in Members of Conflict Groups*. May 22.

#### MEDIA

- 2015 The New York Times Magazine, "The empathy gap", March 22.
- 2015 Washington Post, "How neuroscience is offering hope for a more peaceful world", March 4.
- 2014 Foreign Policy magazine. "The Real eHarmony: How young people meeting on the Internet might help build peace in some of the world's most volatile regions", January 2.



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- 2013 BBC Forum. "Why do we tell stories?" May 26
- 2012 Scientific American Mind and Brain. "Sympathy can heighten conflict", June 11.
- 2012 The American Scholar. "Love? Hate? Who cares?" Summer.
- 2012 Neurology Today. "The neurobiological correlates of social pain", January 19.
- 2012 MIT news feature. "Seeking the neurological roots of conflict", January 23.

## TEACHING EXPERIENCE

- 2014 Teaching Fellow, Harvard University. *Us and Them: Challenges and Possibilities in Intergroup Relations*
- 2013 Teaching Fellow, Harvard University. *Introductory Social Psychology*
- 2006 Lecturer, University of Michigan. *MCDB 422: Molecular and Cellular Neuroscience*
- 2004 Graduate Student Instructor, University of Michigan. *Brain, Learning, & Memory*
- 2000–2002 Elementary School Teacher, Peninsula School. Menlo Park, CA.
- 1995–2000 High School Science Teacher, Menlo School. Menlo Park, CA.

## AD HOC REVIEWER for:

Psychological Bulletin, Journal of Personality and Social Psychology, Proceedings of the National Academy of Science, Philosophical Transactions of the Royal Society – Biology, Neuroimage, Neuropsychologia, Social Cognitive and Affective Neuroscience, Journal of Experimental Social Psychology, Group Processes and Intergroup Relations, Political Psychology, Journal of Social and Political Psychology, Journal of Applied Social Psychology, Journal of Peace Research, PLoS One, Human Brain Mapping

## BLOG POSTS

Invited Blogger for Psychology Today: [Link to Blog](#)

## NEUROSCIENCE OUTREACH AND SERVICE

- 2009–2013 Instructor and Guest Lecturer, MIT Summer Science Teacher Workshop
- 2006–2007 Student Representative, Faculty Search Committee: Molecular, Cellular and Developmental Biology Department
- 2005–2006 Student Representative, Neuroscience Program Executive Committee
- 2004–2005 President, Neuroscience Graduate Student Organization
- 2005–2007 Founder and Organizer of the Summer Reviews Student Journal Club

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| 2005–2007 | Founder and Editor of “Neurons”, the Michigan Neuroscience Student Handbook and Survival Guide |
| 2004–2007 | Steering Committee Member, Brains Rule!  |
| 2002–2007 | Volunteer, Neuroday Outreach Program   |
| 2004–2005 | Coordinator, Neuroscience Fall Retreat   |
| 2004      | Exhibitor at the Detroit Science Museum for Brain Awareness Week                               |

#### OTHER COMMUNITY SERVICE

- |      |   |
|------|---|
| 2000 | Volunteer, Global Children’s Organization. Galway, Ireland. |
| 1999 | Volunteer, Earthwatch. Usaambara Mountains, Tanzania.       |
| 1994 | Volunteer, South African Red Cross. Capetown, South Africa. |
| 1994 | Volunteer, Paarl Day Hospital. Capetown, South Africa.      |