

Jorie Koster-Hale

CONTACT INFORMATION

Harvard University
Department of Psychology
William James Hall 1482, 33 Kirkland St, Cambridge, MA 02138

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EMPLOYMENT

Postdoctoral Fellow, Department of Psychology, Harvard, Cambridge, MA
Sponsor: Fiery Cushman September, 2014 – Present

Data Analyst and Engineer, Falling Colors Technology May 2015 – Present

Senior Application Support Analyst, Falling Colors Technology November 2012 – May 2015

Application Support Analyst, Falling Colors Technology June 2011 – October 2012

EDUCATION

Ph.D in Neuroscience, Department of Brain and Cognitive Sciences,
Massachusetts Institute of Technology, Cambridge, MA.
Advisor: Rebecca Saxe (Defended 8-6-2015) Sept 2009 – August 2014

B.A. in Linguistics & Cognitive Sciences, Pomona College (Cum Laude, Honors Thesis) May 2009
Minor in Mathematics, Pomona College

HONORS, FELLOWSHIPS, & GRANTS

Templeton Science of Prospection Award (with Fiery Cushman) August 2014-August 2016

Alexander von Humboldt-Stiftung and Mellon Foundation SIAS Fellow July 2015-July 2016

MIT School of Science Brain and Cognitive Sciences Best Graduate Thesis Award June 2015

Human Brain Mapping Merit Award June 2015

National Science Foundation Graduate Research Fellowship 2009-2014

MIT Singleton Fellowship 2010-2014

Lorentz Center Travel Award May 2014

Angus MacDonald Award for Excellence in Undergraduate Teaching March 2014

Society for Neuroscience "Hot Topic" Award November 2013

Cognitive Science Society Travel Award (Top Ranked Student Paper) August 2012

Angus MacDonald Award for Excellence in Undergraduate Teaching March 2011

MIT Presidential Fellowship 2009-2010

ConSOLE Award for Best Conference Presentation December 2009

Glass Linguistics Prize for Best Linguistics Thesis May 2009

Member of Phi Beta Kappa 2009-present

Member of National Society of Collegiate Scholars 2007- present

Pomona College Scholar 2006–2009

Pomona College Summer Undergraduate Research Grant Summer 2007

Linguistics & Cognitive Science Department Research Grant Summer 2006

JOURNAL ARTICLES

- Jacoby, N., Bruneau, E., **Koster-Hale, J.**, & Saxe, R. (2016). Localizing Pain Matrix and Theory of Mind networks with both verbal and non-verbal stimuli. *NeuroImage*, 126, 39-48.
- Chakroff, A., Dungan, J., **Koster-Hale, J.**, Brown, A., Saxe, R., & Young, L. (2015). When minds matter for moral judgment: intent information is neurally encoded for harmful but not impure acts. *Social Cognitive and Affective Neuroscience*.
- Koster-Hale, J.**, Bedny, M., & Saxe, R. (2014). Thinking about seeing: Perceptual sources of knowledge are encoded in the theory of mind brain regions of sighted and blind adults. *Cognition*, 133(1), 65-78.
- Koster-Hale, J.**, & Saxe, R. (2013). Theory of Mind: A Neural Prediction Problem. *Neuron*, 79(5), 836-848.
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. L. (2013). Decoding moral judgments from neural representations of intentions. *Proceedings of the National Academy of Sciences*, 110(14), 5648-5653.
- Hackl, M., **Koster-Hale, J.**, & Varvoutis, J. (2012). Quantification and ACD: evidence from real-time sentence processing. *Journal of Semantics*, 29(2), 145-206 (featured article).
- Dodell-Feder, D., **Koster-Hale, J.**, Bedny, M., & Saxe, R. (2011). fMRI item analysis in a theory of mind task. *Neuroimage*, 55(2), 705-712.

PEER REVIEWED CHAPTERS

- Koster-Hale, J.**, Saxe, R. (2013) Functional Neuroimaging of Theory of Mind. *Understanding Other Minds, 3rd Ed.* Ed: Baron-Cohen, Lombardo & Tager-Flusberg.

PEER REVIEWED CONFERENCE PROCEEDINGS

- Koster-Hale, J.**, Dungan, J., Saxe, R., & Young, L. (2012). Thinking in Patterns: using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Proceedings of the 34rd Annual conference of the Cognitive Science Society.
- Koster-Hale, J.** & Saxe, R. (2011). Theory of Mind brain regions are sensitive to the content, not the structural complexity, of belief attributions. Proceedings of the 33rd Annual conference of the Cognitive Science Society.
- Koster-Moeller, J.** (2009). Internal DP heads in restrictive relative clauses. Proceedings of ConSOLE XVII, 209-30.
- Hackl, M., **Koster-Moeller, J.**, & Gottstein, A. (2009). Processing opacity. Proceedings of Sinnund Bedeutung 13, 171-85. University of Stuttgart, Germany.
- Koster-Moeller, J.**, Varvoutis, J., & Hackl, M. (2008). Verification procedures for modified numeral quantifiers. In Proceedings of the 27th West Coast Conference on Formal Linguistics, Somerville, MA: Cascadilla Press.
- Koster-Moeller, J.**, & Hackl, M. (2008). Quantifier scope constraints in ACD: Implications for the syntax of relative clauses. In Proceedings of the 27th West Coast Conference on Formal Linguistics, Somerville, MA: Cascadilla Press.
- Koster-Moeller, J.**, Varvoutis, J., & Hackl, M. (2007) Processing evidence for Quantifier Raising: The case of Antecedent Contained Ellipsis. In Proceedings of SALT 17, Cornell: CLC Publications.

MANUSCRIPTS IN UNDER REVIEW AND IN PREPARATION

- Koster-Hale, J.***, Richardson, H.*, Velez-Alicea, N., Asaba, M., Young, L., Saxe, R. (under review) Mentalizing regions explicitly code quality and source information about other's beliefs.
- Richardson, H.*, **Koster-Hale, J.***, Asaba, M., Velez-Alicea, N., Saxe, R. (under review) Conceptual development in theory of mind is reflected in emerging distinctions.

* Shared first authorship

Koster-Hale, J., Berlove, N., Magid, R., Benedict, R., Pyers, J., and Saxe, R. (in prep). Early language experience has long-lasting impact on the neural basis of theory of mind.

Koster-Hale, J., Saxe, R., Bedny, M. (in prep). To peek and to peer: visual verb meanings largely unaffected by congenital blindness.

Koster-Hale, J. & Saxe, R. (in prep). Repetition suppression reveals sensitivity to independent components of belief attributions in the mentalizing network.

Koster-Hale, J. & Saxe, R. (in prep). Theory of mind brain regions are sensitive to the content, not the structural complexity, of belief attributions.

Young, L., Alek Chakroff, Dungan, J., **Koster-Hale, J.**, Saxe, R. (in prep). When we are mindful of moral minds.

PRESENTATIONS & TALKS

Koster-Hale, J. Inside the social brain representations in the neural basis of theory of mind. Invited talk at BrainMap, Mass. General Hospital; Martinos Center for Biomedical Imaging. December 2015

Koster-Hale, J. Inside the social brain representations in the neural basis of theory of mind. Invited talk at Harvard, Cognition, Brain, and Behavior. November 2015

Koster-Hale, J., Cushman F. Social Propection: predictive coding in mental state inference. Contributed talk at the Society for Neuroscience, Chicago. October 2015

Koster-Hale, J., Cushman F. Social Propection: predictive coding in mental state inference. Invited talk at the Morality Lab, Boston College. August 2015

Koster-Hale, J., Cushman F. Social Propection: predictive coding in mental state inference. Invited talk at the Science of Propection Awards Mid-Course Retreat, Union League, Philadelphia August 2015

Koster-Hale, J.*, Richardson, H.*, Velez-Alicea, N., Asaba, M., Young, L., Saxe, R. Mentalizing regions explicitly code quality and source information about other's beliefs. Contributed talk at 42nd Annual meeting of the Society for Philosophy and Psychology. June 2015

Koster-Hale, J., What About Belief? Invited talk at the Primate Epistemology Workshop, Yale University. Dec 2014

Koster-Hale, J., Thinking in Patterns: Representations in the neural basis of theory of mind. Invited talk at Social Lunch, Harvard University. Sept 2014

Koster-Hale, J., Thinking in Patterns: Representations in the neural basis of theory of mind. Thesis Defense talk at the Brain and Cognitive Sciences Department, MIT. Aug 2014

Koster-Hale, J., Saxe, R., Dungan, J., & Young, L. Neural correlates of moral judgment in neurotypical and ASD populations. Invited talk at The Social Neuroscience of Autism Symposium in Berlin, Germany. June 2014

Koster-Hale, J., Bedny, M., Richardson, H., Velez-Alicea, N., Asaba, M., Saxe, R. Using the brain to find features of mental state representations. Invited talk at Carey Lab, Harvard. June 2014

Koster-Hale, J., Richardson, H., Velez-Alicea, N., Asaba, M., Saxe, R. Mentalizing regions explicitly code quality and source information about other's beliefs. Invited talk at the 2014 McGovern Institute Retreat, MIT. May 2014

Koster-Hale, J., Richardson, H., Young L., Bedny, M., & Saxe, R. Using multi-voxel pattern analyses to find features of mental state representations. Invited talk at Donders Institute for Brain, Cognition and Behaviour minisymposium. May 2014

Koster-Hale, J., Bedny, M., & Saxe, R. Thinking about seeing: how do we understand minds unlike our own? Invited talk at Language and Cognition, Harvard University. March 2014

Koster-Hale, J., Berlove, N, Magid, R., Benedict, R, Pyers, J, and Saxe, R. Early childhood experience has long-lasting impact on the neural basis of theory of mind. Contributed talk at Social Brain Sciences Symposium, Boston College. February 2014

- Koster-Hale, J.**, Bedny, M., & Saxe, R. Thinking about seeing: how do we understand minds unlike our own? Invited talk at Brigham and Women's Hospital, Center for Brain/Mind Medicine January 2014
- Koster-Hale, J.**, Berlove, N, Magid, R., Benedict, R, Pyers, J, and Saxe, R. Early childhood experience has long-lasting impact on the neural basis of theory of mind. Invited talk at Bedny Lab, Johns Hopkins. December 2013
- Koster-Hale, J.**, Bedny, M., & Saxe, R. Thinking about seeing: how do we understand minds unlike our own? Invited talk at Laboratory for Language and Cognitive Neuroscience, SDSU. November 2013
- Koster-Hale, J.**, Bedny, M., & Saxe, R. Thinking About Seeing: Perceptual sources of knowledge are encoded similarly in the mentalizing regions of sighted and blind adults. Contributed talk at the 41st Annual meeting of the Society for Philosophy and Psychology. June 2013
- Koster-Hale, J.**, Bedny, M., & Saxe, R. Thinking about seeing: how do we understand minds unlike our own? Talk at Brain & Cognitive Sciences CogLunch MIT. March 2013
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Decoding moral judgments from neural representations of intentions. Contributed talk at the STC-NSF Mini-Conference on Computational Neuroscience at California Institute of Technology. October 2012
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Thinking in Patterns: using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Contributed talk at the 34rd Annual conference of the Cognitive Science Society, Sapporo, Japan (Award for top-ranked student paper). August 2012
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Thinking in Patterns: using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Contributed talk at 40th Annual meeting of the Society for Philosophy and Psychology. June 2012
- Koster-Hale, J.** Thinking in Patterns: using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Invited talk at the 2012 McGovern Institute Retreat, MIT. May, 2012
- Koster-Hale, J.**, Young, L., Bedny, M., & Saxe, R. Using multi-voxel pattern analyses to find features of mental state representations. Invited talk at Social Neuroscience Workshop, Harvard. April, 2012
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Thinking in Patterns: using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Invited talk at the Boston Area Moral and Social Cognition Discussion Group. April, 2012
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Using multi-voxel pattern analyses to find neural correlates of moral judgment in neurotypical and ASD populations. Invited talk at the Morality Lab, Boston University. January, 2012
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Thinking in Patterns: using multi-voxel pattern analyses to find features of mental state representations. Invited talk at the Moral Psychology Lab, Brown. Nov, 2011
- Koster-Hale, J.**, Saxe, R., Dungan, J., & Young, L. Thinking in Patterns: using multi-voxel pattern analyses to find features of mental state representations. Talk at Brain & Cognitive Sciences CogLunch MIT. Oct, 2011
- Koster-Moeller, J.** Internal DP heads in Restrictive Relative Clauses. Contributed talk at ConSOLE VXII, Nova Gorica, Slovenia (Award for best presentation). January 2009
- Hackl, M., **Koster-Moeller, J.**, & Gottstein, A.. Processing Opacity. Contributed talk at Sinn und Bedeutung 13, University of Stuttgart, Germany. Oct 2008
- Hackl, M., **Koster-Moeller, J.**, & Gottstein, A.. Processing Opacity. Talk at Pomona Linguistics & Cognitive Science Research Colloquium, Pomona College, Claremont, CA. Sept 2008
- Koster-Moeller, J.** & Hackl, M.. Quantifier Scope Constraints in ACD: Implications for the Syntax of Relative Clauses. Contributed talk at WCCFL 27, UCLA, Los Angeles, CA. May 2008

- Koster-Moeller, J.** & Hackl, M.. Quantifier Scope Constraints in ACD: Implications for the Syntax of Relative Clauses. Contributed talk at XVIII Colloquium on Generative Grammar, Faculdade de Letras – Universidade de Lisboa, Lisbon. April 2008
- Koster-Moeller, J.** & Hackl, M.. Quantifier Scope Constraints in ACD: Implications for the Syntax of Relative Clauses. Talk at Pomona Linguistics & Cognitive Science Research Colloquium, Pomona College, Claremont, CA. April 2008
- Koster-Moeller, J.**. Intervention Effects in wh-Questions: Nonspecific Indefinites, talk at Cornell Undergraduate Linguistics Colloquium 2008, Cornell University, Ithaca, NY. March 2008
- Hackl, M., **Koster-Moeller, J.**, & Varvoutis, J.. Processing Evidence for Quantifier Raising: The Case of Antecedent Contained Ellipsis. Contributed talk WCCFL 26, UC Berkeley, CA. April 2007

PUBLIC LECTURES/OUTREACH

- Thinking in Patterns: Representations in the neural basis of theory of mind. Talk at Harvard Institute for Learning in Retirement April 2015
- Mentor for Greenwich Academy's GAINS (Girls Advancing IN STEM) program Spring 2014
- How People Connect: the Moral Brain. Public presentation at MIT museum February 2014
- Thinking about seeing: how do we understand minds unlike our own? Talk at Harvard Institute for Learning in Retirement October 2013
- Deafness and Theory of Mind. Public Presentation to McGovern Institute's Leadership Board April 2013

POSTERS

- Koster-Hale, J.***, Richardson, H.*, Velez-Alicea, N., Asaba, M., Young, L., Saxe, R. (2015) Mentalizing regions explicitly code quality and source information about other's beliefs. Poster at the Organization for Human Brain Mapping, Honolulu Hawaii (Merit Award)
- Koster-Hale, J.**, Bedny, M., Saxe, R. (2015). Seeing without Simulation: Perceptual sources of knowledge are encoded similarly in the theory of mind brain regions of sighted and blind adults. Poster at the Society for Personality and Social Psychology Conference Mental Simulation Preconference, Long Beach, CA.
- Koster-Hale, J.**, Bedny, M., Saxe, R. (2013). Thinking about Seeing: Perceptual sources of knowledge are encoded similarly in the theory of mind brain regions of sighted and blind adults. Society for Neuroscience, San Diego CA ("Hot Topic" award).
- Koster-Hale, J.**, Saxe, R., Bedny, M. (2012). Theory of Mind network encodes how you know what you know in blind and sighted adults. Poster at 34rd Annual conference of the Cognitive Science Society, Sapporo, Japan.
- Koster-Hale, J.**, Johnston, W., Yazzolino, L., Saxe, R., Bedny, M. (2012). To peek and to peer: visual verb meanings largely unaffected by congenital blindness. Poster at 34rd Annual conference of the Cognitive Science Society, Sapporo, Japan.
- Koster-Hale, J.** & Saxe, R. (2011). Theory of Mind brain regions are sensitive to the content, not the structural complexity, of belief attributions. Poster at Cognitive Neuroscience Society Conference, Boston MA.
- Koster-Hale, J.** & Saxe, R. (2011). Language and Theory of Mind: A manipulation of content and structure. Poster at 33rd Annual conference of the Cognitive Science Society, San Francisco, CA.
- Acland, B., **Koster-Moeller, J.**, Varvoutis, J., & Hackl, M.. (2006) Self-Paced Counting: A New Experimental Technique to Study Verification Procedures for Quantified Statements. Poster at 19th CUNY Conference on Human Sentence Processing, CUNY, New York, NY.

TEACHING EXPERIENCE

- Lecturer at the Language, Logic and Cognition Center at the Hebrew University of Jerusalem February 2016
- Guest lecture on using R for statistical analysis, for 9.61 Lab in Higher-Level Cognition March 2013

Teaching Assistant for 9.61 Lab in Higher-Level Cognition	Spring 2013
Teaching Assistant (Section Head) & Grader for 9.00 Introduction to Psychology	Spring 2012
Guest lecture on using developmental theory of mind, for 9.85 Infant & Childhood Cognition	October 2010
Teaching Assistant & Grader for 9.85 Infant & Childhood Cognition	Fall 2010
Co-Taught summer Theory of Mind course (Saxelab)	Summer 2010
Teaching Assistant & Grader for Semantics	Spring 2008, Fall 2008
Teaching Assistant & Grader for Semantics	Spring 2008, Fall 2008
Teaching Assistant for Psycholinguistics	Spring 2008
Teaching Assistant for Syntax	Fall 2007

STUDENTS ADVISED

Mahnoor Khan	Summer 2015-present
Daniel DiDonna	Fall 2014-present
Rachel Magid	Fall 2011-present
Shana Attar	Spring 2015
Emily Chen	Fall 2014-Spring 2015
Natalia Vélez Alicea	Summer 2013-Fall 2015
William Johnston	Fall 2009-Fall 2012
Jenny Lu	Fall 2011-Fall 2012
Shaun Hallece	Summer 2011
Sebastian Begg	Summer 2011