

LINDA HELENE MOYA

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EDUCATION

2006-2011 Ph.D. (2011), Psychology (Cognitive Neuroscience program), *Department of Psychology and The Center for the Neural Basis of Cognition*, Carnegie Mellon University

2001-2006 M. Phil. (2011), Public Policy and Management, *H. John Heinz III College of Public Policy and Management*, Carnegie Mellon University

1991-1992 M.S., Industrial Engineering, Stanford University

1979-1983 B.S.E., Electrical Engineering and Computer Science, Princeton University

RESEARCH EXPERIENCE

2014-present Affiliated Faculty, Electrical and Computer Engineering, Social and Decision Sciences, and Computer Science, Carnegie Mellon University; Center for the Neural Basis of Cognition, Carnegie Mellon University and the University of Pittsburgh. My research program involves two projects studying the role of emotions in decision making using behavioral, MEG and MRI neuroimaging.

- Cognitive Neuroscience of Threat with Dr. Luiz Pessoa, University of Maryland
 - We study the impact of threat while participants perform a cognitive task, using mild electric shocks, MEG neuroimaging, structural MRI, and physiological monitoring.
- Decision Making from Experience with Dr. Jack Stecher, Carnegie Mellon University
 - We study the role of decision making having learned outcome probabilities from experience versus description, while ensuring the experience of making choices is the same. Initial behavioral study with MEG neuroimaging and structural MRI to follow.

2011-2014 *Post-Doctoral Researcher*, Center for the Neural Basis of Cognition, Carnegie Mellon University and the University of Pittsburgh; and Electrical and Computer Engineering, Carnegie Mellon University. Behavioral, MEG and MRI research in the role of emotion in decision making.

2006-2011 *Pre-Doctoral Researcher*, Department of Psychology and the Center for the Neural Basis of Cognition, Carnegie Mellon University. Dissertation title: "The Microgenesis of Object-based vis-à-vis Space-based Visual Attention: A Temporal-Spectral-Spatial Approach and Analysis". Using MEG/EEG neuroimaging and a psychophysical behavioral task, this research focused on visual selective attention and the set of processes that determine how some subset of visual input is selected for further cognitive processing. It investigates perceptual objects as the units on which attentional selection operates.

2005-2006 *Research Assistant*, Cognitive Neuroscience Laboratory, CMU. Conducted behavioral and fMRI neuroimaging experiments with neuropsychological participants including those with neglect, prosopagnosia and autism.

2001-2006 *Pre-Doctoral Researcher*, H. John Heinz III College of Public Policy and Management, Carnegie Mellon University. Research in negotiations in the field of behavioral decision research.

TEACHING EXPERIENCE

Spring, 2015 *Instructor*, The Neuroscience of Decision Making (CMU undergraduate course in Social and Decision Sciences)

Spring, 2015 *Instructor*, Introduction to Neuroscience for Engineers (CMU upper undergraduate / graduate course co-listed in Electrical and Computer Engineering, and in Biomedical Engineering)

2006-2007 *Teaching Assistant*, Cognitive Psychology; *Teaching Assistant*, Research Methods in Cognitive Psychology (CMU undergraduate courses)

2001-2003 *Instructor*, Negotiation; *Teaching Assistant*, Negotiation and Advanced Negotiations (CMU Masters level courses)

FELLOWSHIPS AND AWARDS

National Science Foundation (December, 2009): Sole grant award recipient representing NSF's Temporal Dynamics of Learning Center (TDLC) at the NSF Science of Learning Center's MEG workshop in Helsinki, Finland, organized by Dr. Patricia Kuhl, University of Washington. Award also covered attending the 2009 Learning Mind and Brain Conference in Helsinki.

National Institute of Mental Health (Summer, 2009): Scholarship recipient and participant in the UC Davis ERP Bootcamp consisting of intensive instruction on ERP methods, organized by Dr. Steve Luck, University of California, Davis.

National Institute of Health (2007-2009): *Pre-Doctoral Fellow in Multimodal NeuroImaging Training*, pursuant to a PhD dissertation in multiple neuroimaging modalities.

National Institute of Mental Health (2007): *Pre-doctoral training grant in Combined Computational and Behavioral Approaches to Cognition*.

National Science Foundation (2006): *Integrative Graduate Education Training* (IGERT) to study fMRI methods with Dr. Mark Wheeler, University of Pittsburgh.

PUBLICATIONS

Moya, L., Padmala, S., Kassam, K., Ghuman, A. and Pessoa, L. "Anticipation effects during a face categorization task while under threat". (In preparation).

Moya, L. and Stecher, J., "Description and Experience Based Decision Making: An Experimental and Structural Estimation Approach to the Description-Experience Gap". (In preparation).

Moya, L. "The Microgenesis of Object-based vis-à-vis Space-based Visual Attention: A Temporal-Spectral-Spatial Approach and Analysis", Ph.D. dissertation, Department of Psychology, Carnegie Mellon University, 2011.

Behrmann, M., Thomas, C.P., **Moya, L.**, Avidan, G., Humphreys, K., Jung, K., & Peterson, M. (2008). "Reduction in white matter connectivity, revealed by DTI, may account for age-related changes in face perception", *Journal of Cognitive Neuroscience*, 20(2):268-284.

SELECTIVE PRESENTATIONS

Moya, L., and Stecher, J. "Description and experience based decision making: An experimental and structural estimation approach to the description-experience gap", 10th Spain-Italy-Netherlands Meeting on Game Theory (10 SING), July 7-9, 2014, Krakow, Poland. (Talk, J. Stecher speaker)

Moya, L., and Stecher, J. "Description and experience based decision making: An experimental and structural estimation approach to the description-experience gap", XVI FUR (Foundations of Utility and Risk), June 30 - July 2, 2014, Rotterdam, the Netherlands. (Talk, J. Stecher speaker)

Moya, L., Shomstein, S., Bagic, A., and Behrmann, M. "The microgenesis of object-based vis-à-vis space-based visual attention". 2011 Cognitive Neuroscience Society 18th Annual Meeting, April 4, San Francisco, CA (Talk)

Moya, L., Shomstein, S., Bagic, A., and Behrmann, M. "The microgenesis of object-based vis-à-vis space-based visual attention". 2010 Society for Neuroscience Annual Meeting, November 14, San Diego, CA (Talk)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Neural Computation Interest Group poster Session, December 15, Pittsburgh, PA (Poster)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Society for Neuroscience Annual Meeting, November 19, Washington, D.C. (Talk)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Object, Perception, Attention & Memory Annual Conference, November 13, Chicago, IL (Poster)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Center for the Neural Basis of Cognition Annual Retreat, October 19, Seven Springs, PA (Talk)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Vision Sciences Society 8th Annual Meeting, May 11, Naples, FL (Poster)

Moya L., Shomstein, S., Bagic, A., and Behrmann, M. "The time course of neural activity in object-based visual attention". 2008 Inter-Science of Learning Center 1st annual Student and Post-Doc Conference, February 19, Pittsburgh, PA (Poster)

Moya, L., Fiez J., and Wheeler, M. "Phonological maintenance of heard versus seen words: Modality matters". 2007 Society for Neuroscience Annual Meeting, November 7, San Diego, CA (Talk)

Moya, L., Fiez J., and Wheeler, M. "Phonological maintenance of heard versus seen words: Modality matters". 2007 Integrative Graduate Education Training (IGERT) Research Symposium, June 23, Pittsburgh, PA (Talk)

Moya, L., "Social preferences for negotiated outcomes". *2003 International Meeting of the Economic Science Association, June 20, Pittsburgh, PA* (Talk)

PROFESSIONAL ACTIVITIES

Member: Society for Neuroscience, American Psychological Association

Coordinator 2009-2010: Graduate Student Seminar Series, Center for the Neural Basis of Cognition, Carnegie Mellon University

Local Arrangements Chair: 2004 Meeting of the International Association for Conflict Management, Pittsburgh, PA

Discussant: 2003 International Meeting of the Economic Science Association, Pittsburgh, PA

INDUSTRY EXPERIENCE

2000 *Co-Founder*, Eizel Technologies, Pittsburgh, PA (wireless startup sold to Nokia in 2003)

1990-1999 *Executive-track Manager, Project Manager, Systems Engineer*, AT&T Corporation and AT&T Bell Laboratories, Basking Ridge, NJ and Pittsburgh, PA. Managed two billing centers (total staff of 300, \$12M budget), responsible for billing integrity of business long-distance services, unbilled calls and dispute resolution. Managed team to design integrated voice response (IVR) customer service handling 6M inbound consumer calls per month, track and report results. Managed \$20M budget and team of systems engineers to develop wireless long distance services for consumers. Program manager for initiative to mine consumer long distance data for marketing purposes: team from Bell Labs, Information Technology and Marketing Organizations. Systems engineer for the business long distance services ordering and provisioning systems of AT&T's telecommunications network.

1983-1990 *Product and Technical Manager, Software Engineer*, Hewlett-Packard Company, Cupertino, CA. Project/Technical manager of team of software engineers developing TCP-IP products. Product Line Manager for LAN and WAN network products. Software development engineer for computer-aided engineering and manufacturing software.

SKILLS

Interdisciplinary Collaborations and Research: During my three years as a post-doctoral researcher (2011-present) I have started a research program with the goal of studying the role of emotions in decision making using MEG and MRI neuroimaging technologies, and sophisticated analytical techniques drawn from the fields of cognitive neuroscience, decision research (economics) and computer science. To this end I have two active research projects/streams: 1) Cognitive Neuroscience of Threat with Dr. Luiz Pessoa, and 2) Decision Making from Experience with Dr. Jack Stecher.

Brain Imaging and Other Technologies: MEG/ERMF (seven years experience), EEG/ERP, MRI/fMRI, Eye-tracking, physiological monitoring (e.g. heart rate and galvanic skin response), electrical stimulation

Analysis Tools: MATLAB, MNE Suite and Freesurfer, Stata, SPSS, SAS, Psychtoolbox, E-Prime

Software and Systems Development: undergraduate major in Electrical Engineering and Computer Science, ten years as a software/systems engineer/technical manager of software engineers, five years as a professional C programmer

Behavioral Decision Research: negotiations, game theory, general conflict resolution, plus nine years management/supervisory experience

