

Curriculum Vitae
Andrea S. Heberlein
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Department of Psychology, Harvard University
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Born 9 July, 1973 in St. Paul, MN.

EMPLOYMENT

Harvard University, Department of Psychology, Cambridge, MA. (July 2006-present)
Lecturer and Research Associate.

EDUCATION and TRAINING

Harvard University, Department of Psychology, Cambridge, MA. (July 2006-present).
Research associate in the labs of Mahzarin Banaji, Ph.D. and Daniel Wegner, Ph.D.

University of Pennsylvania/Children's Hospital of Philadelphia, Philadelphia, PA. (September 2002-June 2006)
Postdoctoral fellowship, under the supervision of Martha Farah, Ph.D., Dept. of Psychology, University of Pennsylvania. Funded by NIH training grant T32-NS07413 through the Children's Hospital of Philadelphia [on leave Jan-Jun 2005].

University of Iowa, Neuroscience Graduate Program, Iowa City, IA. (August 1997- July 2002)
Doctoral dissertation defended June 2002, under the supervision of Ralph Adolphs, Ph.D., Dept. of Neurology. Title: *Neural substrates for social cognition from motion cues: Lesion studies in humans.*

University of Pennsylvania, Philadelphia, PA. (August 1991- May 1995)
Bachelor of Arts cum laude in Biological Basis of Behavior, Behavioral Ecology concentration (with departmental honors).

RESEARCH INTERESTS

- The interaction of bottom-up (stimulus-driven) and top-down (conceptual) processes in judgments of animacy, agency, emotion, and personhood
- Neural substrates for social cognition, including emotion recognition; judgments of animacy, agency, and personhood; personality trait attribution; anthropomorphizing and personhood attribution; and empathy
- 'Shared substrates' or simulation models of emotion and intention recognition
- Relationships among different social cognitive processes (e.g., animacy perception, emotion recognition, personality trait attribution, mentalizing, attributing personhood, empathy)
- Methods: lesion approach (including lesion overlap analysis), behavioral testing, fMRI.

PAPERS: published or in press

Heberlein AS, Padon AA, Gillihan SJ, Farah MJ, Fellows LK (in press). Facial emotion recognition impairments consequent to ventromedial frontal lobe damage. Journal of Cognitive Neuroscience.

- Atkinson, A., **Heberlein AS**, Adolphs R. (2007). Spared ability to recognise fear from static and moving whole-body cues following bilateral amygdala damage. Neuropsychologia. 45(12): 2772-2782.
- Farah MJ, **Heberlein AS**. (2007). Personhood and neuroscience: Naturalizing or nihilating? American Journal of Bioethics. 7(1): 37-48.
- Farah MJ, **Heberlein AS**. (2007). Response to Open Peer Commentaries on "Personhood and neuroscience: Naturalizing or nihilating?": Getting Personal. American Journal of Bioethics. 7(1): W1-W4.
- Bigelow NO, Paradiso S, Adolphs R, Moser DJ, Arndt S, **Heberlein AS**, Nopoulos P, Andreasen NC. (2006) Perception of socially relevant stimuli in schizophrenia. Schizophrenia Research 83 (2-3): 257-267.
- Heberlein AS**, Saxe RR. (2005) Dissociation between emotion and personality judgments: Convergent evidence from functional neuroimaging. NeuroImage. 28:770-777.
- Fellows LK, **Heberlein AS**, Morales DA, Shivde G, Waller S, Wu D. (2005) Method matters: An empirical study of impact in cognitive neuroscience. Journal of Cognitive Neuroscience. 17: 850-858.
- Heberlein AS**, Adolphs R, Tranel D, Damasio H. (2004) Cortical regions for judgments of emotions and personality traits from pointlight walkers. Journal of Cognitive Neuroscience. 16: 1143-1158.
- Heberlein AS**, Adolphs R. (2004) Perception in the absence of social attribution: selective impairment in anthropomorphizing following bilateral amygdala damage. Proceedings of the National Academy of Sciences 101(19):7487-7491.
- Heberlein AS**, Pennebaker JW, Tranel D, Adolphs R (2003) Effects of damage to right-hemisphere brain structures on spontaneous emotional and social judgments. Political Psychology 24(4): 705-726.
- Crawford JD, Cook AP, **Heberlein AS**. (1997) Bioacoustic behavior of African fishes (Mormyridae): Potential cues for species and individual recognition in Pollimyrus. Journal of the Acoustical Society of America 102 (2): 1200-1212.

PAPERS: submitted or in preparation

- Olson KR, **Heberlein AS**, Spelke ES, Dweck CS, Banaji MR (in preparation) Why do people prefer the lucky? Exploring predictions of the Affective Tagging Hypothesis.
- Gillihan SJ, Xia C, Padon AA, **Heberlein AS**, Farah MJ, Fellows LK (under review) Contrasting roles for dorsolateral and ventromedial prefrontal cortex in transient and dispositional affective experience.
- Russell TA, Joiner A, Carter J, Gherling R, **Heberlein A**, Phillips ML. (submitted) Perception of emotional movement in paranoid schizophrenia.
- Heberlein AS**, Rao H, Tang K, Wang JJ, Farah MJ, Detre J (in preparation) Wanting vs. Feeling: Comparison of emotion and intention attribution from pointlight walkers using perfusion fMRI.

Heberlein AS, Scheer K, McGivern M, Farah MJ (in preparation) A replication and extension of Hashimoto (1966): Anthropomorphisms in descriptions of an animated visual stimulus.

OTHER PAPERS

Heberlein AS, Birks HL, Fernald A. (1998) Twelve-month-old infants predict human action from both positive and negative directed emotional expressions. *Unpublished manuscript*.

BOOK CHAPTERS AND INVITED REVIEWS

Heberlein AS (In prep). Emotion recognition from faces and bodies. To appear in a special issue of Emotion Review on Emotion and Embodiment, P. Niedenthal, Ed.

Heberlein AS (In Press). Animacy and intention in the brain: Neuroscience of social event perception. To appear in: Understanding Events: How Humans See, Represent, and Act on Events, T. F. Shipley and J. Zacks (eds.), Oxford University Press.

Heberlein AS, Adolphs R. (2007). Neurobiology of emotion recognition: Current evidence for shared substrates. In: Social Neuroscience: Integrating Biological and Psychological Explanations of Social Behavior, E. Harmon-Jones and P. Winkielman (eds.) Guilford Press.

Heberlein, AS, Adolphs R. (2005). Functional anatomy of human social cognition. In: The Cognitive Neuroscience of Social Behaviour, N. Emery and A. Easton (eds.) Philadelphia: Psychology Press.

Adolphs R, **Heberlein AS**. (2002) Emotion. In: Encyclopedia of the Brain, V.S. Ramachandran (ed.). New York: Academic Press.

TEACHING and SUPERVISING

Teaching:

Harvard University

Instructor, Psychology 950, *Psychology Live* (Fall 2007)
 Instructor, Psychology 1703, *Emotion* (Spring 2007, Spring 2008)
 Instructor, Psychology 1309, *Cognitive Neuroscience* (Fall 2006)

University of Iowa

Instructor, Psychology 012, *Introduction to Brain and Behavior* (Fall 2001).
 Teaching assistant, Psychology 016, *Introduction to Cognitive Psychology* (Spring 2001)
 Teaching assistant, Biology 040, *Biology of the Brain* (Spring 1999).

Stanford University

Teaching assistant, Psychology 110, *Culture and Human Development* (Spring 1997).

University of Pennsylvania

Teaching assistant, Psychology 343, *Lab Course in Neuroethology* (Fall 1994).

Supervising:

Harvard University, Department of Psychology:

One undergraduate thesis student (beginning Spring 2007; preparing thesis project for Spring 2008)

Undergraduate research assistants (2-5/semester)

University of Pennsylvania, Center for Cognitive Neuroscience, Department of Psychology:

Undergraduate independent study projects (2 during academic year 2004/2005; 2 during academic year 2003/2004; 1 during Spring/Summer 2003)

University of Iowa, Cognitive Neuroscience Laboratory, Department of Neurology:

Honors undergraduate project (Fall 2002- Spring 2004; jointly supervised with another graduate student in the Adolphs lab).

Undergraduate research assistant (6 hrs/week; Spring-Fall 2002).

Summer Undergraduate Research Program student (40 hrs/week; Summer 2001).

High School Science research student from Iowa City's City High school (6 hrs/week; Fall 1999-Summer 2000).

Two student research interns from Germany (40 hrs/week; Fall 1999-Spring 2000).

Medical student doing summer research (40 hrs/week; Summer 1999).

INVITED TALKS

"Emotion vs. Intention: A perfusion fMRI comparison of the neural basis of two social attribution processes." University of Pennsylvania Autism Research Retreat, March 2006.

"Social judgments from movement cues: What can dissociations tell us about the relationships between attribution processes?" Symposium on Social Cognitive and Affective Neuroscience, Princeton University, May 2005.

"Judgments of emotion and personality from pointlight walkers and moving triangles: neuropsychological and functional imaging studies." Department of Psychology Colloquium, Rutgers University, Newark campus, January 2005.

"Simulation and social attribution: dissociable systems for different attributions?" Rutgers Center for Cognitive Science, *What is cognitive science?* talk series, November 2004.

"The role of the amygdala in anthropomorphizing." Symposium on the amygdala in social cognition, American Psychological Society annual meeting, May 2004.

"Neural systems for social cognition from movement." University of North Carolina/Duke University autism research center, April, 2004.

"Neural systems for social perception from movement." *Behavioral and Cognitive Neuroscience Retreat*, University of Pennsylvania, March 2004.

"Social cognition from movement stimuli: emotion, personality, and anthropomorphizing." *Social/Affective Neuroscience Series*, Department of Psychology, Harvard University, February 2004.

"Neural systems for recognizing emotion and personality from movements." *Dance and the Brain* Symposium, Ballett Frankfurt, Germany, January 2004.

"Lesion studies of emotion recognition in humans: faces and body movements." *About faces: A multidisciplinary approach to the science of face perception*. Princeton University. September, 2003.

"Neural substrates for social cognition from motion cues: Lesion studies in humans." University Scholars alumni research lunch, University of Pennsylvania. February, 2003.

“Roles of amygdala, right somatosensory cortex, and left frontal operculum in recognition of emotion and personality from pointlight stimuli.” *Cognition, Brain, and Behavior Colloquium*, University of California, Berkeley. November, 2001.

“Roles of amygdala and right somatosensory cortex in emotion and personality recognition.” Center for Cognitive Neuroscience, University of Pennsylvania. September, 2001.

“Recognition of emotion and personality traits from point-light walkers: Impairments consequent to amygdala and right somatosensory cortex damage.” Institute of Medical Psychology and Behavioral Neurobiology, Eberhard-Karls-University, Tuebingen, Germany. May, 2001.

CONFERENCE PRESENTATIONS AND ABSTRACTS

Padon AA, **Heberlein AS**, Gillihan SJ, Farah MJ, Fellows LK (2005) Dissociation between emotion recognition and subjective emotional experience in subjects with frontal lobe damage. *Cognitive Neuroscience Society Abstracts*.

Gillihan SJ, Fellows LK, Padon AA, **Heberlein AS**, Farah MJ (2005) Mood reactivity and recovery in patients with lesions of dorsolateral and ventromedial prefrontal cortex. *Cognitive Neuroscience Society Abstracts*.

Heberlein AS and Saxe RR (2004) Double dissociation between the neural substrates of emotion and personality judgments revealed via fMRI. *Society for Neuroscience Abstracts* 203.12

Russell T, Carter J, Joiner A, **Heberlein A** (2004) Perception of emotional pointlight displays in paranoid schizophrenia. *3rd Australian Conference for Cognitive Neuropsychology and Cognitive Neuropsychiatry, MacQuarie Center for Cognitive Science*.

Heberlein AS, Scheer K, Vijayaraghavan L, Adolphs R. (2004) Damage to basal ganglia impairs recognition of emotion from body movement. *Cognitive Neuroscience Society Abstracts*.

Morales DA, Fellows LK, Ford S, **Heberlein AS**, Shivde G, Waller S, Wu D (2004) Converging methods in cognitive neuroscience: are we walking the walk? *Cognitive Neuroscience Society Abstracts*.

Heberlein AS, Pennebaker JW, Tranel D, Adolphs R (2002) Subjects with right somatosensory cortex damage use fewer affect words in describing an abstract animated video: a computerized word count analysis. *Society for Neuroscience Abstracts* 517.12.

Heberlein AS, Tranel D, Damasio H, Adolphs R. (2001) Damage to right somatosensory cortex impairs recognition of basic emotions, but not of personality traits, from biological motion stimuli. *Society for Neuroscience Abstracts* 120.8.

Heberlein AS, Ravahi SM, Adolphs R, Tranel D, Damasio AR. (2000) Emotion and personality attributions from point-light films: impairments consequent to bilateral amygdala damage. *Society for Neuroscience Abstracts* 754.9.

Heberlein AS, Ravahi SM, Adolphs R, Tranel D, Damasio AR. (2000) Deficits in attributing emotion to moving visual stimuli consequent to amygdala damage. *Cognitive Neuroscience Society Abstracts* 2000: 56.

Heberlein AS, Adolphs R, Tranel D, Kemmerer D, Anderson S, Damasio AR. (1998) Impaired attribution of social meanings to abstract dynamic geometric patterns following damage to the amygdala. *Society for Neuroscience Abstracts* 463.5.

- Bechara A, Tranel D, Wilson J, **Heberlein AS**, Ross M, Damasio AR. (1998) Impaired decision-making in peripheral neuropathy. *Society for Neuroscience Abstracts* 463.8.
- Birks HL, **Heberlein AS**, Fernald A. (1998) Infants' use of emotional expressions to predict adult action. *Poster presented at the International Conference on Infant Studies, Atlanta, GA.*
- Heberlein AS**, Cook AP, Crawford JD. (1997) Courtship sounds of African fishes: Cues for species and individual recognition. *Talk presented at the Animal Behavior Society annual meeting, University of Maryland.*
- Vaidya CJ, Gabrieli JDE, Rypma B, Mak J, **Heberlein A**, Desmond JE, Glover GH, Austin G, Krikorian GJ, Ridlehuber HW, Strauss HW, Annis FL, Schell H. (1997) fMRI of frontal lobe function in children with attention deficit disorder on and off ritalin. *Society for Neuroscience Abstracts* 341.5.
- Crawford JD, Cook AP, **Heberlein AS**. (1995) Species differences in the acoustic signals of congeneric electric fishes: *Pollimyrus isidori* & *P. adspersus* (Mormyridae). In: Neural mechanisms of Behavior, Proc. 4th Int. Cong. Neuroethology, Cambridge, GB. Georg Thieme Verlag, Stuttgart.

ADDITIONAL RESEARCH EXPERIENCE

- Stanford University, Department of Psychology** (July 1995-July 1997). Research coordinator for Dr. Anne Fernald. Coordinated subject recruitment, running experiments, coding of video, and organization of data for research on infant perception and comprehension of speech and music. Extensive interaction with infants and parents. Trained and supervised approximately 10 undergraduate research assistants each year. Independent research on infant social cognition.
- Stanford University, Department of Psychology** (Summer-Fall 1996) Volunteered a few hours/week in the lab of Dr. John Gabrieli, working with Dr. Chandan Vaidya. Tracing anatomical regions of interest on fMRI brain slices and helping with behavioral testing.
- University of Pennsylvania, Department of Psychology** (May 1994- May 1995). Independent research and lab assistant in the lab of Dr. John Crawford. Undergraduate senior honors thesis research in digital and behavioral analysis of fish acoustic signals.
- University of California, Davis, Research Training Group in Animal Behavior** (Summer 1993). Undergraduate Fellowship in the lab of Dr. Peter Marler. Independent research on song learning in cardinals.

HONORS AND AWARDS

- Fellowship recipient, McDonnell Summer Institute in Cognitive Neuroscience, Squaw Valley, CA, 2003.
- Travel Award recipient, Wisconsin Symposium on Emotion, 2001.
- Fellowship recipient, McDonnell Summer Institute in Cognitive Neuroscience, Dartmouth College, NH, 2001.
- Chapters Graduate Student Travel Award recipient, Society for Neuroscience, 2000.
- Iowa/Presidential Fellowship recipient 1997-2001 (20-25 fellowships given each year of all entering graduate students in the University).
- Benjamin Franklin Scholar 1991-1995 (honors program, University of Pennsylvania).
- University Scholar 1994-1995 (research honors program, University of Pennsylvania).
- National Merit Scholar.

PROFESSIONAL MEMBERSHIP

American Psychological Society (2004-2005)
 Society for Neuroscience (1998-present)
 Cognitive Neuroscience Society (1999-present)
 Animal Behavior Society (1995-1997)

AD-HOC REVIEWING:**Journals:**

Brain Research 3: Cognitive and Behavioral Neuroscience; Cognition; Current Biology; Emotion; Journal of Cognitive Neuroscience; Journal of Neuroscience; NeuroImage; Neuropsychologia; Perception and Psychophysics; Psychological Science; Social Cognitive and Affective Neuroscience

Institutions:

University of Vienna (Internal proposal); National Institutes of Health (Intramural grant)

OUTREACH AND SERVICE

University of Pennsylvania Kids Judge committee: Advised Penn students constructing exhibits for a Kids Judge! (SM) Neuroscience Fair (see below; Spring 2004).

Iowa Children's Museum Member of Science and Engineering Development Team working to design and develop exhibits activities in the Museum's new Science and Engineering wing (2001).

University of Iowa Brain Awareness Week committee Co-chair; partnered with the Iowa Children's Museum and the National Kids Judge!(SM) Neuroscience Fairs Partnership to organize and implement Iowa's first Kids Judge! Neuroscience Fair, an outreach activity in which children from schools all around Eastern Iowa learned about the brain in interactive demonstrations designed and staffed by neuroscience researchers and students. 360 fifth-graders judged the demonstrations and presenters in 4 independent fairs over two days; approximately 90 University of Iowa graduate, medical, and undergraduate students, staff, and faculty were involved over these two days and a public version of the fair on the weekend. More information available at www.kidsjudge.org. (Academic year, 2000-01).

Co-chair, organized a symposium including a well-attended lecture, preceded by a poster session showcasing local neuroscience research (Academic year, 1999-2000).

Participated in Brain Awareness Week outreach visits to local elementary schools (Spring 1998, 1999).

University of Iowa, Careers in Biosciences Seminar Committee. Selected, contacted, and hosted speakers from science-related fields to broaden awareness of careers outside of academia for PhD's in the biosciences (Fall 1999- Spring 2001).

University of Iowa, Neuroscience Graduate Program Curriculum Committee. Coordinated student input for overhaul of graduate program curriculum (Fall 1998- Spring 2000).

University of Pennsylvania, Penn Musicians Against Homelessness. Played in semi-annual chamber music concerts to raise money for local shelters and homeless advocacy programs. Publicity Chair 1992-1994 (Fall 1991- Spring 1995).