VITA

MARTHA JULIA FARAH **OCTOBER, 2007**

Walter H. Annenberg Professor in Natural Sciences 215-573-3531 (w)
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EDUCATION

Harvard University (1978-1983)
Ph.D. Experimental Psychology (1983)
A.M. Experimental Psychology (1981)

Massachusetts Institute of Technology (1973-1977)
S.B. Metallurgy & Materials Science (1977)
S.B. Philosophy (1977)

AWARDS AND HONORS

Fellow, American Association for the Advancement of Science (2007-present)
Fellow, Association for Psychological Science (2007-present)
Gordon Holmes Lecturer, Oxford University (2006)
Walter H. Annenberg Professor in Natural Sciences (2006-present)
Fellow, Society of Experimental Psychologists (2005-present)
Highly Cited Researcher, Institute for Scientific Information (2004-present)
Fellow, Cognitive Science Society (2002-present)
Bob and Arlene Kogod Term Professor of Psychology (2000-2005)
Master Lecturer, American Psychological Association (2000)
John Simon Guggenheim Fellowship (1995)
Distinguished Scientific Award for Early Career Contribution to Psychology, American Psychological Association (1992)
Troland Award, National Academy of Sciences (1992)
Henri Hecaen Award, Neuropsychologia (1990)
Research Career Development Award, National Institutes of Health (1989)
Young Investigators Award, Psychological Sciences Division, Office of Naval Research (1985)
James McKeen Cattell Award for Outstanding Doctoral Dissertation in Psychology, New York Academy of Sciences (1983)
Keenan Award for Innovative Teaching, Harvard College (1983)

EMPLOYMENT

Professor, University of Pennsylvania
Department of Psychology (July 1992 - present)
with secondary appointment in Department of Neurology

Senior Fellow, Center for Bioethics (2005 – present)

Assistant Professor, Associate Professor, Professor, Carnegie Mellon University
Department of Psychology, Carnegie Mellon University. (July 1985 - July 1992)

Visiting Scientist, INSERM
Institut National de la Sante et de la Recherche Medicale, Unite 280, Lyon, France. (Summers, 1985; 1986)

Postdoctoral Fellow, MIT
Center for Cognitive Science, Massachusetts Institute of Technology. (September 1983 - June 1985)

Training Fellow, Boston University
Department of Neurology, Boston University School of Medicine. (May 1983 - June 1985)

FELLOWSHIPS AND GRANTS

2007-2012 National Institutes of Health (NICHD). Research grant (R01) to study *SES, Childhood Experience and the Neural Bases of Learning* (PI).

2007 Charles A. Dana Foundation. Grant to support Administrative Coordinator for Neuroethics Society.

2007-2012 National Institutes of Health (NIDA). PI of subcontract for research grant (R01) on *In Utero Cocaine Exposure: Child Neurocognitive Outcomes*. (PI: Hallam Hurt)

2007-2010 Office of Naval Research. Research grant to study *Performance Enhancement with Stimulants: Individual differences and neurocognitive mechanisms* (PI)

2005-2009 National Institutes of Health (NIDA). PI of subcontract for research grant (R01) on *Adolescent drug use: Exploring neurocognitive precursors* (PI: Hallam Hurt)

2005-2006 National Institutes of Health (NICHD). Minority supplement for C. Gawuga to *Poverty and the Brain.* (PI)

2005-2007 National Institutes of Health (NIMH). Sponsor of S. Gillihan's NRSA fellowship grant entitled *Serotonin transporter genotype and mood regulation*

2005-2006 John Templeton Foundation. Lecture series grant for *Neuroethics: An Interdisciplinary Exploration* (PI)

2004-2007 National Institutes of Health (NICHD). Research grant (R01) to study *Poverty and the Brain.* (PI)

2004-2009 National Institutes of Health (NIMH). Co-PI of Institutional training grant on *Behavioral and Cognitive Neuroscience* (PI: Steve Fluharty).

2003-2004 National Science Foundation (NSF). Conference grant for *Neuroethics: The next step* (PI)

2003-2006 National Institutes of Health (NIDA). Research grant (R21) to study *Normal Impulsivity: A Cognitive Neuroscience Analysis* (PI).

2003-2005 National Institutes of Health (NINDS). Research grant (R21) to study *Mapping the Anatomy of Decision-Making* (Co-PI with Lesley Fellows PI).

2002-2003 National Science Foundation (NSF). Research grant to study *Early Experience and Neurocognitive Developmen*t (PI)

2001-2005 National Institutes of Health (NIDA). PI of subcontract for research grant (R01) on *In Utero Cocaine Exposure: Child Neurocognitive Outcomes*. (PI: Hallam Hurt)

2000 American Psychological Association. Conference grant for *The Relations of Prefrontal Cortex Development to Children's Cognitive and Social Behavior* Co-PI with Nora Newcombe.

1998-2002 National Institutes of Health (NIDA). Research grant (R01) for *Drug studies of dopamine in prefrontal function.* Investigator (PI: Mark D'Esposito).

1997-2002 National Institutes of Health (NIA). Career development award (K02) to study *The Cognitive Neuroscience of Dementia.* (PI)

1997-2002 National Institutes of Health (NIA). Research grant (R01) to study *Semantic memory and vision in Alzheimer disease.* (PI)

1996-1998 National Institutes of Health (NIA). Sponsor of S. Thompson-Shill's NRSA fellowship grant entitled *Models of semantic memory impairment in Alzheimer's disease*

1994-1998 National Institutes of Health (NINDS). Research grant (R01) to study *The neural bases of spatial representation.* (PI)

1994-1995 Krasnow Institute, George Mason University. Small research grant to study *Environmental influences on localization of function in cortex.*

1993-1994 Alzheimer's Disease Association. Research grant to study *Semantic memory in Alzheimer's Disease: A computational approach* (PI)

1993-1995 Office of Naval Research. Research grant to study *Visual structure in images and object descriptions*. (PI)

1993-1995 McDonnell-Pew Program in Cognitive Neuroscience. Sponsor of T.A. Polk's postdoctoral fellowship grant entitled *The role of reading in the functional architecture of cognition.*

1992-1994 University of Pennsylvania Research Foundation. Grant to establish *A data base for cognitive neuropsychology research*. (PI)

1992-1994 National Institutes of Health (NIMH). Sponsor of C. L. Reed's NRSA fellowship grant entitled *The neural bases of somatosensory cognition.*

1991 Grants for symposium, *The neural basis of high-level vision* from:

American Psychological Association
Harmarville Rehabilitation Center
Office of Naval Research

1991-1994 National Institutes of Health (NIMH). Research grant (R01) to study *The neural bases of spatial representation.* (PI)

1991-1993 McDonnell-Pew Program in Cognitive Neuroscience. Research grant to study *Modularity in the visual recognition system: Face selective processing in monkeys and humans.* (PI)

1991-1993 Office of Naval Research. Research grant to study *The functional architecture of visual object recognition: Cognitive and neuropsychological approaches.* (PI)

1989-1994 National Institutes of Health (NINDS). Research Career Development Award (K21) to study *The computational neuropsychology of spatial cognition.* (PI)

1989-1990 Office of Naval Research. Research grant to study *The functional architecture of visual object recognition: Cognitive and neuropsychological approaches.* (PI)

1988-1989 National Institutes of Health. Aphasia Research Center Grant, Boston University School of Medicine. *The Mental Representation and Manipulation of Visual Information in Aphasia.* Investigator (PI: Harold Goodglass)

1988-1989 National Institutes of Health (NINDS). Sponsor of J.L. Brunn's NRSA fellowship grant to study *"The neural mechanisms of priming."*

1987-1989 Alfred P. Sloan Foundation Program in Computational Neuroscience. Research grant to study *The Neural Basis of Spatial Cognition.* (PI)

1986-1988 Office of Naval Research. Research contract to study *The Mental Representation of Spatial Transformations.* (PI)

1986-1988 National Institutes of Health. Research grant (R01) to study *The Neural Basis of Mental Image Generation.* (PI)

1986 Carnegie-Mellon University Faculty Development Program. Small grant for event-related potential research at INSERM U280, Lyon, France. (PI)

1986 Health Research and Services Foundation, Pittsburgh, PA. Research grant to study *The Neural Basis of Mental Image Generation.* (PI)

1985-1987 National Institutes of Health. Aphasia Research Center Grant, Boston University School of Medicine. *The Mental Representation and Manipulation of Visual Information in Aphasia.* Investigator (PI: Harold Goodglass)

1985 Institut National de la Sante et de la Recherche Medicale, French Government. Travelling Fellowship for research collaboration with INSERM Unit 280 in Lyon, France.

1985 European Science Foundation. Travelling Fellowship for European Training Program in Brain Science, Switzerland, January, 1986.

1983-1985 National Institutes of Health N.R.S.A. Postdoctoral Research Training Fellowship.

1981-1982 Peter B. Livingston Memorial Research Fellowship, Harvard Medical School.

1978-1983 Harvard University Graduate Fellowship

PROFESSIONAL ACTIVITIES

Editor:

Associate Editor, **Journal of Cognitive Neuroscience** (2005 – present)
Action Editor, **Cognitive Neuropsychology** (1991 - 1997)
Action Editor, **Cognitive Psychology** (1995 - 2000)

Editorial Board Member:

American Journal of Bioethics – Neuroscience (2006-present)
Behavioral and Cognitive Neuroscience Reviews (2001-2006)
Cognition (1985 - 1996)
Cognitive Neuropsychology (1997 - present)
Journal of Experimental Psychology: General (1988 - 1995)
Journal of the International Neuropsychological Society (1995 - 2004)

Journal of Neuroscience (1995 - 2001)
Memory & Cognition (1988 - 1992)
Neuroethics (2007 – present)
Neuropsychology (1992 - 1998)
Neuropsychology Review (1988 - 1990)
Psychological Review (1996 - 2000)

Special Issue Editor:

Current Opinion in Neurobiology: Cognitive Neuroscience, 2001, 11 (2) Yasushi Miyashita and Martha J. Farah, Editors

Developmental Science: Special Issue on The Developing Human Brain, 2001, 4, (3) Michael Posner, Mary Rothbart, Martha Farah and John Bruer, Editors

Contributor:

Mind Matters, the *Scientific American* Blog on Science and Mind (2007 – present)

Advisory and committee work (national and international):

Association for the Study of Attention and Performance: Advisory Council (1994-2000).

Center for American Progress: Advisory Board, Science Progress (2007-present)

Cognitive Science Society: Board of Governors: (1996 - 2002). Program Committee (1986, 1987, 1991, 1992, 1994, 1999, 2000). Membership Committee (2006)

Cognitive Neuroscience Society: Program Committee (1995).

Foundation for the Advancement of Behavioral and Brain Sciences: Council (2005 - present).

International Neuropsychological Society: Program Committee (1990, 1992, 1996).

MacArthur Foundation Network on Neuroscience and the Law (member, 2007-)

National Science Foundation: Advisory Panel, Program in Human Cognition and Perception (1992 - 1993).

National Institute of Mental Health: Strategic Plan for Depression and Bipolar Disorder: Working Group on Neural and Behavioral Substrates of Mood Regulation (2001); Special Emphasis Panel, Social Cognitive Neuroscience (2002).

National Institute of Neurological Diseases and Stroke: Planning Group, Cognition and Behavior, (1998 – 1999); Training Grant and Career Development Review Committee (2000).

Neuroethics Society: Founding member (2006-present); Executive Committee member (2006-present).

Society for Neuroscience: Public Information Committee (1995-1999); Lindsley Prize Committee (2000-2004); Social Issues Committee (2004-2005).

Sundance Film Festival: Sloan Award juror (2006).

Meetings organized:

The Neural Bases of High-Level Vision. Carnegie Mellon University, May 1990. Three-day meeting of researchers from the US, Canada, UK, Italy and the Netherlands, funded by the American Psychological Association and the Office of Naval Research.

Ethical Challenges in Neurocognitive Enhancement. (co-organizer) New York Academy of Sciences, June, 2003. Two-day meeting of neuroscientists and ethicists, funded by the National Science Foundation.

Neuroethics: The Next Step. Two meetings held in June and July of 2004 at the New York Academy of Sciences, funded by the National Science Foundation.

Implanting Change: The Ethics of Neural Impants. (co-organizer) Three-day meeting held at Penn State University, August 2007, bringing together an international group of neuroscientists, surgeons and ethicists to discuss ethical and societal implications of deep brain stimulation and brain-machine interface technology.

Major University Service, University of Pennsylvania:

Director of Graduate Studies, Department of Psychology, and Chair of Psychology Graduate Group (1996 - 1997)

Director, Center for Cognitive Neuroscience (1999 - present)

Web site

Created and maintain *neuroethics.upenn.edu* (2004 - present)

PUBLICATIONS:

BOOKS

Farah, M.J. (1990). *Visual Agnosia: Disorders of Object Recognition and What They Tell Us About Normal Vision*. Cambridge: MIT Press/Bradford Books.
- Japanese translation, Shinkoh-igaku Publishing Co., 1996.

Farah, M.J. & Ratcliff, G., Editors (1994). *The Neuropsychology of High-Level Vision: Collected Tutorial Essays*. Hillsdale: Lawrence Erlbaum Associates.

Feinberg, T.E. & Farah, M.J., Editors (1997). *Behavioral Neurology and Neuropsychology.* New York: McGraw-Hill.

Farah, M.J. (2000). *The Cognitive Neuroscience of Vision*. Oxford: Blackwell Publishers.

Farah, M.J. & Feinberg, T.E., Editors (2000). *Patient-Based Approaches to Cognitive Neuroscience*. Cambridge: MIT Press.

Feinberg, T.E. & Farah, M.J., Editors (2003). *Behavioral Neurology and Neuropsychology,* 2nd Edition. New York: McGraw-Hill.

Farah, M.J. (2004). *Visual Agnosia,* 2nd Edition. Cambridge: MIT Press/Bradford Books.

Farah, M.J. & Feinberg, T.E., Editors (2005). *Patient-Based Approaches to Cognitive Neuroscience*, 2nd Edition Cambridge: MIT Press.

JOURNAL ARTICLES

Farah, M.J. & Kosslyn, S.M. (1981). Structure and strategy in image generation. *Cognitive Science, 4*, 371-383.

Farah, M.J. & Smith, A.F. (1983). Perceptual interference and facilitation with auditory imagery. *Perception & Psychophysics, 33*, 475-478.

Kosslyn, S.M., Reiser, B.J., Farah, M.J. & Fliegel, S.L. (1983). Generating visual images. *Journal of Experimental Psychology: General, 12*, 278-303.

Farah, M.J. (1984). The neurological basis of mental imagery: A componential analysis. *Cognition, 18*, 245-272.

Reprinted in S. Pinker (Ed., 1985). Visual Cognition. Cambridge: MIT Press.

Reprinted in S.M. Kosslyn & R. Andersen (Eds., 1992). Frontiers in Cognitive Neuroscience. Cambridge: MIT Press.

Farah, M.J. (1985). Psychophysical evidence for a shared representational medium for mental images and percepts. *Journal of Experimental Psychology: General, 114*, 93-103.

Farah, M.J., Gazzaniga, M.S., Holtzman, J.D. & Kosslyn, S.M. (1985). A left hemisphere basis for visual mental imagery? *Neuropsychologia, 23*, 115-118.

Kosslyn, S.M., Holtzman, J.D., Farah, M.J. & Gazzaniga, M.S. (1985). A computational analysis of mental image generation: Evidence from functional dissociations in split-brain patients. *Journal of Experimental Psychology: General, 114*, 311-341.

Levine, D.N., Warach, J. & Farah, M.J. (1985). Two visual systems in mental imagery: Dissociations of 'What' and 'Where' in imagery disorders due to bilateral posterior cerebral lesions. *Neurology, 35*, 1010-1018.

Farah, M.J. (1986). The laterality of mental image generation: A test with normal subjects. *Neuropsychologia, 24*, 541-551.

Greenberg, M.S. & Farah, M.J. (1986). The laterality of dreaming. *Brain and Cognition, 5*, 307-321.

Farah, M.J. (1988). Is visual imagery really visual? Overlooked evidence from neuropsychology. *Psychological Review, 95*, 307-317.

Farah, M.J. & Hammond, K.H. (1988). Mental rotation and orientation-invariant object recognition: Dissociable processes. *Cognition, 29*, 29-46.

Farah, M.J., Peronnet, F., Gonon, M.A. & Giard, M.H. (1988). Electrophysiological evidence for a shared representational medium for visual images and percepts. *Journal of Experimental Psychology: General, 117*, 248-257.

Farah, M.J., Hammond, K.H., Levine, D.N. & Calvanio, R. (1988). Visual and spatial mental imagery: Dissociable systems of representation. *Cognitive Psychology, 20*, 439-462.

Reprinted in Experimenting with the Mind: Readings in Cognitive Psychology, L.K. Komatsu (Ed.) Belmont: Brooks-Cole Publishing Company.

Farah, M.J., Levine, D.N. & Calvanio, R. (1988). A case study of mental imagery deficit. *Brain and Cognition, 8*, 147-164.

Farah, M.J. (1989). Semantic and perceptual priming: How similar are the underlying mechanisms? *Journal of Experimental Psychology: Human Perception and Performance, 15*, 188-194.

Farah, M.J. (1989). Mechanisms of imagery-perception interaction. *Journal of Experimental Psychology: Human Perception and Performance, 15*, 203-211.

Farah, M.J. (1989). The neural basis of mental imagery. *Trends in Neurosciences, 12*, 395-399.

Farah, M.J., Hammond, K.M., Mehta, Z. & Ratcliff, G. (1989). Category-specificity and modality-specificity in semantic memory. *Neuropsychologia, 27*, 193-200.

Farah, M.J. & Peronnet, F. (1989). Event-related potentials in the study of mental imagery. *Journal of Psychophysiology, 3*, 99-109.

Farah, M.J., Peronnet, F., Weisberg, L.L. & Monheit, M.A. (1989). Brain activity underlying mental imagery: Event-related potentials during image generation. *Journal of Cognitive Neuroscience, 1*, 302-316.

Farah, M.J., Wong, A.B., Monheit, M.A. & Morrow, L.A. (1989). Parietal lobe mechanisms of spatial attention: Modality-specific or supramodal? *Neuropsychologia, 27*, 461-470.

Finke, R.A., Pinker, S. & Farah, M.J. (1989). Reinterpreting visual patterns in mental imagery. *Cognitive Science, 13*, 51-78.

Peronnet, F. & Farah, M.J. (1989). Mental rotation: An event-related potential study with a validated mental rotation task. *Brain and Cognition, 9*, 279-288.

Farah, M.J., Brunn, J.L., Wong, A.B., Wallace, M. & Carpenter, P.A. (1990). Frames of reference for allocating attention to space: Evidence from the neglect syndrome. *Neuropsychologia, 28*, 335-347.

Plaut, D.C. & Farah, M.J. (1990). Visual object representation: Interpreting neurophysiological data within a computational framework. *Journal of Cognitive Neuroscience, 2*, 320-343.

Brunn, J.L. & Farah, M.J. (1991). The relation between spatial attention and reading: Evidence from the neglect syndrome. *Cognitive Neuropsychology, 8*, 59-75.

Farah, M.J. (1991). Patterns of co-occurrence among the associative agnosias: Implications for visual object representation. *Cognitive Neuropsychology, 8*, 1-19.

Reprinted in A.W. Ellis and A.W. Young (1996) Human Cognitive Neuropsychology: A Textbook with Readings. Hove: Psychology Press.

Farah, M.J. & McClelland, J.L (1991). A computational model of semantic memory impairment: Modality-specificity and emergent category-specificity. *Journal of Experimental Psychology: General*, *120*, 339-357.

Reprinted in G. Cohen, R.A. Johnston & K. Plunkett (Eds.) Exploring Cognition: Damaged Brains and Neural Networks. Sussex: Psychology Press (2000).

Farah, M.J., McMullen, P.A. & Meyer, M.M. (1991). Can recognition of living things be selectively impaired? *Neuropsychologia, 29*, 185-193.

Farah, M.J., Monheit, M.A. & Wallace, M.A. (1991). Unconscious perception of "extinguished" visual stimuli: Reassessing the evidence. *Neuropsychologia*, *29,* 949-958.

Farah, M.J. & Wallace, M.A. (1991). Pure alexia as a visual impairment: A reconsideration. *Cognitive Neuropsychology, 8*, 313-334.

Reprinted in Neglect and the Peripheral Dyslexias, M.J. Riddoch (Ed.), Hillsdale: Erlbaum Assoc., 1991.

McMullen, P.A. & Farah, M.J. (1991). Object-centered representations in the recognition of naturalistic line drawings. *Psychological Science, 2*, 275-277.

Tanaka, J.W. & Farah, M.J. (1991). Second order relational properties and the inversion effect: Testing a theory of face perception. *Perception & Psychophysics, 50*, 367-372.

Farah, M.J., Soso, M.J. & Dasheiff, R.M. (1992). The visual angle of the mind's eye before and after unilateral occipital lobectomy. *Journal of Experimental Psychology: Human Perception and Performance*, *18*, 241-246.

Wallace, M.A. & Farah, M.J. (1992). Savings in relearning face-name associations as evidence for "covert recognition" in prosopagnosia. *Journal of Cognitive Neuroscience, 4,* 150-154.

Farah, M.J. & Wallace, M.A. (1992). Semantically-bounded anomia: Implications for the neural implementation of naming. *Neuropsychologia*, *30*, 609-621.

Farah, M.J., O'Reilly, R.C. & Vecera, S.P. (1993). Dissociated overt and covert recognition as an emergent property of a lesioned neural network. *Psychological Review*, *100*, 571-588.

Reprinted in G. Cohen, R.A. Johnston & K. Plunkett (Eds.) Exploring Cognition: Damaged Brains and Neural Networks. Sussex: Psychology Press (2000).

Kimberg, D.Y. & Farah, M.J. (1993). A unified account of cognitive impairments following frontal lobe damage: The role of working memory in complex, organized behavior. *Journal of Experimental Psychology: General*, *112*, 411-428.

Tanaka, J.W. & Farah, M.J. (1993). Parts and wholes in face recognition. *Quarterly Journal of Experimental Psychology, 46A,* 225-245.

Cohen, J.D., Romero, R.D., Servan-Schreiber, D. & Farah, M.J. (1994). Mechanisms of spatial attention: The relation of macrostructure to microstructure in parietal neglect. *Journal of Cognitive Neuroscience, 6,* 377-387.

Farah, M.J. (1994). Neuropsychological inference with an interactive brain: A critque of the "locality assumption". *Behavioral and Brain Sciences, 17*, 43-61.

Reprinted in R. Ellis & G.W. Humphreys (1999). Connectionist Psychology: A Text with Readings. Hove: Psychology Press.

Farah, M.J. (1994). Interactions on the interactive brain. *Behavioral and Brain Sciences, 17*, 90-104.

Farah, M.J. (1994) Visual perception and visual awareness after brain damage: A tutorial review. In M. Moscovitch and C. Umilta (Eds.) *Conscious and Unconscious Information Processing: Attention and Performance XV.* Cambridge: MIT Press, 37-76.

Reprinted in N. Block, O. Flanagan & G. Guzeldere (Eds., 1998). The Nature of Consciousness: Philosophical Debates. Cambridge: MIT Press.

Farah, M.J., Rochlin, R, & Klein, K.L. (1994). Orientation invariance and geometric primitives in shape recognition. *Cognitive Science*, *13*, 325-344.

Feinberg, T.E., Schindler, R.J., Ochoa, E., Kwan, P.C. & Farah, M.J. (1994). Associative visual agnosia and alexia without prosopagnosia. *Cortex*., 30. 395-411.

Tippett, L.J. & Farah, M.J. (1994). A computational model of naming in Alzheimer's Disease: Unitary or multiple impairments? *Neuropsychology, 8,* 3-13.

Vecera, S.P. & Farah, M.J. (1994). Does visual attention select objects or locations? *Journal of Experimental Psychology: General, 123*, 146-160.

Farah, M.J. (1995). Current issues in the neuropsychology of mental image generation. *Neuropsychologia*, 33, 1445-1471.

Reprinted in Mental Imagery, M. Behrmann, S. Kosslyn & M. Jeannerod (Eds., 1996), Elsevier.

Farah, M.J., Klein, K.L. & Levinson, K.L. (1995). Face recognition and within-category discrimination in prosopagnosia. *Neuropsychologia,* 33, 661-674.

Farah, M.J., Tanaka, J.W. & Drain, H.M. (1995) What causes the face inversion effect? *Journal of Experimental Psychology: Human Perception and Performance,* 21, 628-634.

Farah, M.J., Wilson, K.D., Drain, H.M. & Tanaka, J.R. (1995). The inverted face inversion effect in prosopagnosia: Evidence for mandatory, face-specific perceptual mechanisms. *Vision Research ,* 35, 2089-2093.

Reed, C.L. & Farah, M.J. (1995). The psychological reality of the body schema: A test with normal subjects. *Journal of Experimental Psychology: Human Perception and Performance*, 21, 334-343.

Polk, T.A. & Farah, M.J. (1995). Late experience alters vision. *Nature*, 376, 648-649.

Polk, T.A. & Farah, M.J. (1995). Brain localization for arbitrary stimilus categories: A simple account based on Hebbian learning. *Proceedings of the National Academy of Sciences*, 92, 12370-12373.

Tippett, L.J., McAuliffe, S. & Farah, M.J. (1995). Preservation of categorical knowledge in Alzheimer's Disease: A computational account. *Memory*, 3, 519-533.

Reprinted in Semantic Knowledge and Semantic Representations. R.A. McCarthy (Ed.), London: Psychology Press, 1995.

Buxbaum, L.J., Coslett, H.B., Montgomery, M.W. & Farah, M.J. (1996). Mental rotation may underlie apparent object-based neglect. *Neuropsychologia*, *34*, 113-126.

Farah, M.J. (1996). Is face recognition 'special'? Evidence from neuropsychology. *Behavioral Brain Research, 76,* 181-189.

Farah, M.J., Meyer, M.M. & McMullen, P.A. (1996). The living/nonliving dissociation is not an artifact: Giving an a priori implausible hypothesis a strong test. *Cognitive Neuropsychology, 13,* 137-154.

Farah, M.J., Stowe, R.M. & Levinson, K.L. (1996). Phonological dyslexia: Loss of a reading-specific component of the cognitive architecture? *Cognitive Neuropsychology, 13,* 849-868.

Reprinted in M. Coltheart (Ed., 1996). Phonological Dyslexia. Hillsdale: Erlbaum Associates.

Tippett, L.J., Glosser, G. & Farah, M.J. (1996). A category-specific naming deficit after temporal lobectomy. *Neuropsychologia*, *34*, 139-146.

Tippett, L.J., Grossman, M. & Farah, M.J. (1996) The semantic memory deficit of Alzheimer's Disease: Category-specific? *Cortex,32,* 143-153.

Reed, C.L., Casseli, R. & Farah, M.J. (1996). Tactile agnosia: Underlying impairment and implications for normal tactile object recognition. *Brain*, 119, 875-888.

D'Esposito, M., Detre, J.A., Aguire, G.K., Alsop, D.C., Tippett, L.J. & Farah, M.J. (1997). A functional MRI study of mental image generation. *Neuropsychologia*, *35*, 725-730.

Farah, M.J. (1997). Distinguishing perceptual and semantic impairments affecting visual object recognition. *Visual Cognition, 4,* 199-206.

Kimberg, D.Y., D'Esposito, M. & Farah, M.J. (1997). Effects of bromocriptine on human subjects depend on working memory capacity. *NeuroReport, 8,* 3581-3585

Polk, T.A. & Farah, M.J. (1997). A simple co-occurrence explanation for the development of abstract letter identities. *Neural Computation, 9,* 1277-1289.

Thompson-Schill, S., D'Esposito, M., Aguirre, G.K. & Farah, M.J. (1997). The role of left prefrontal cortex in semantic retrieval: A re-evaluation. *Proceedings of the National Academy of Sciences, 94,* 14792-7.

Vecera, S.P. & Farah, M.J. (1997). Is image segmentation a bottom-up or interactive process? *Perception and Psychophysics, 59,* 1280-1296.

Farah, M.J., Wilson, K.D., Drain, H.M. & Tanaka, J.R. (1998). What is 'special' about face recognition? *Psychological Review, 105,* 482-498.

Kurbat, M.A. & Farah, M.J. (1998). Is the category-specific deficit for living things really spurious? *Journal of Cognitive Neuroscience, 10,* 355-361.

Polk, T.A. & Farah, M.J. (1998). The neural development and organization of letter recognition: Evidence from functional neuroimaging, computational modeling, and behavioral studies. *Proceedings of the National Academy of Sciences, 95,* 847-852.

Farah, M.J. (1998). Why does the somatosensory homunculus have hands next to face and feet next to genitals?: An hypothesis. *Neural Computation, 10,* 1983-5.

Aguirre, G.K. & Farah, M.J. (1999). Human visual object recognition: What have we learned from functional neuroimaging? *Psychobiology, 26,* 322-332.

O'Reilly, R.C. & Farah, M.J. (1999). Simulation and explanation in neuropsychology and beyond. *Cognitive Neuropsychology*, *16*, 49-72.

Thompson-Schill, S.L., Aguirre, G.K., D'Esposito, M. & Farah, M.J. (1999). A neural basis for category and modality specificity of semantic knowledge. *Neuropsychologia*, *37*, 671-676.

Thompson-Schill, S.L., Swick, D., Farah, M.J., D'Esposito, M., Kan, I.P. & Knight, R.T. (1999). Verb generation in patients with focal frontal lesions: A neuropsychological test of imaging findings. *Proceedings of the National Academy of Sciences, 95, 15855-15860.*

Kimberg, D.Y. & Farah, M.J. (2000) Is there an inhibitory module in prefrontal cortex? Working memory and the mechanisms of cognitive control. In S. Monsell & J. Driver (Eds.) *Control of Cognitive Processes: Attention and Performance XVIII*. Cambridge, MIT Press.

Farah, M.J., Rabinowitz, C., Quinn, G.E. & Liu, G.T. (2000). Early commitment of neural substrates for face recognition. *Cognitive Neuropsychology,* 17, 117-124.

Sitton, M., Mozer, M. & Farah, M.J. (2000). Superadditive effects of lesions in a connectionist architecture: Implications for the neuropsychology of optic aphasia. Psychological Review. 107, 709-734.

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CONFERENCE PRESENTATIONS (LAST 5 YEARS)

Farah, M.J. Scientific, epistemological and ethical issues in the study of mental life after severe brain damage. Talk presented in symposium, "Between life and death: Implications of cognitive neuroscience for the mental, moral and legal status of severely brain-damaged patients" (M.J. Farah, organizer). Talk presented at the14th annual meeting of the Cognitive Neuroscience Society, New York City, 2007.

Farah, M.J. Commentator, Symposium: Does Neuroscience Challenge Moral and Legal Notions of Responsibility? American Association for the Advancement of Science, San Francisco, 2007.

Ford S, Farah M, Shera D, Hurt H. Language processing in childhood as a correlate of adolescent problem behavior. Talk presented at the Pediatric Academic Societies' Meeting, Toronto, 2007. [Abstract: *E-PAS 2007:60:6700.1*.]

Hurt H, Shera D, Brodsky N, Giannetta J, Romer D, Farah M, Betancourt L, Wilson F, Pacewicz L, Gantz C. Gambling in pre-adolescents: a prospective investigation. Poster Presentation. Poster presented at the Pediatric Academic Societies' Meeting, Toronto, 2007. [Abstract: *E-PAS 2007:60:6312.4.]*

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Farah, M.J. Neuroethics: Emerging ethical issues in neuroscience. Symposium presented at the Society for Neuroscience, San Diego, 2004. (Chaired symposium and presented overview.)

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Fellows, L.K. & Farah, M.J. Is the anterior cingulate cortex necessary for cognitive control? Poster presented at the 11th annual meeting of the Cognitive Neuroscience Society, San Francisco, 2004. [Abstract: *Journal of Cognitive Neuroscience, 2004, Suppl.*]

Mozer, M.& Farah, M.J. The relation between activation and computation in functional neuroimaging. Poster presented at the 11th annual meeting of the Cognitive Neuroscience Society, San Francisco, 2004. [Abstract: *Journal of Cognitive Neuroscience, 2004, Suppl.*]

Noble, K.G., McCandliss, B. & Farah, M.J. Normal neurocognitive development and socioeconomic status. Poster presented at the 11th annual meeting of the Cognitive Neuroscience Society, San Francisco, 2004. [Abstract: *Journal of Cognitive Neuroscience, 2004, Suppl.*]

Bishop, S., Farah, M.J. et al. Cognitive control and task-irrelevant emotional distraction. Poster to be presented at the 10th Annual Meeting of the Cognitive Neuroscience Society, 2003. [Abstract: *Journal of Cognitive Neuroscience, 2003, Suppl.*]

Cornew, L. & Farah, M.J. Anxiety and subtypes of prefrontal function: An individual differences analysis. Poster presented at the 10th Annual Meeting of the Cognitive Neuroscience Society, 2003. [Abstract: *Journal of Cognitive Neuroscience, 2003, Suppl.*]

Farah, M.J. & Fellows, L. Ventromedial frontal lobe damage leads to a foreshortened perception of the future, without influencing the temporal discounting of reward. Poster to be presented at the 10th Annual Meeting of the Cognitive Neuroscience Society, 2003. [Abstract: *Journal of Cognitive Neuroscience, 2003, Suppl.*]

Fellows, L.K. & Farah, M.J. Ventromedial frontal lobe damage selectively impairs reversal learning in humans. Poster to be presented at the 10th Annual Meeting of the Cognitive Neuroscience Society, 2003. [Abstract: *Journal of Cognitive Neuroscience, 2003, Suppl.*]

Hanson, J.L., Brotman, M.A., O'Reardon, J., Wang, JH.J., Detre, J.A., R.J.DeRubeis, R.J. & Farah, M.J. Neural correlates of attributional style, a trait marker for vulnerability to depression. Poster presented at the Society for Neuroscience, New Orleans, 2003. [Abstract:*Society for Neuroscience Abstracts*]

Hurt, H., Brodsky, N.L., Malamud, E., Giannetta, J., Savage, J & Farah, M.J. Exploring the neurocognitive outcome of inner city youth with and without gestational cocaine exposure. Poster presented at the New York Academy of Sciences meeting on “The Adolescent Brain: Vulnerabilities and Opportunities,” New York City, 2003.

Hurt, H., Brodsky, N., Malmud, E., Giannetta, J., Savage, J. & Farah, M.J. Exploring the neurocognitive outcome of children with gestational cocaine exposure. Poster presented at the Society for Pediatric Research annual meeting. [Abstract: *Pediatric Research, 2003, Suppl.*]

Noble, K.G. & Farah, M.J. Socioeconomic status and neurocognitive development. . Poster presented at the 10th Annual Meeting of the Cognitive Neuroscience Society, 2003. [Abstract: *Journal of Cognitive Neuroscience, 2003, Suppl.*]

INVITED TALKS (last five years)

Society for Neuroscience David Kopf Featured Lecture on Neuroethics, San Diego, 2007

Implanting Hope: Meeting on Ethical Issues in Neural Implants, College Park, PA, 2007

Thirteenth International Symposium on Logic, Methodology and the Philosophy of Science, Beijing, 2007.
Workshop on Ethics, Imaging and Disorders of Consciousness, Palo Alto, CA, 2007
Smart Drugs, Smart Choices, public event at the Dana Foundation, Washington, DC, 2007
Canadian Institute for Advanced Research meeting on Early Experience Biological and Brain Development, Vancouver, 2007
Dana Foundation public outreach on Smart Drugs, Washington DC, 2007
Participant, Mind and Life Institute Dialogue between Science and Buddism, Dharamsala, India, 2007
Participant, Mind and Life Institute Dialogue between Science and Buddism, Wellesley, 2007
Speaker, Science Outreach at Northwestern University, Evanston, 2006
Lecturer, Wellcome Summer School in Biomedical Ethics, Cambridge UK, 2006
Keynote Speaker and Gordon Holmes Lecturer, Association for the Scientific Study of Consciousness, Oxford, 2006
Stanford University, Psychology Department, 2006
Chi Psi Speaker, Association for Psychological Science, New York City, 2006
Consortium for the Study of Policy Outcomes, Arizona State University and Sandia National Labs, Tempe, 2006
University of Minnesota, Lecture Series on Law, Health & the Life Sciences, Minneapolis, 2006
AAAS symposium, St. Louis, 2006
Symposium on neuroscience in film, Sundance Film Festival, Park City, 2006
Rockefeller University, New York City, 2005.
Hastings Center, New York, 2005
New York State Conference on Infancy, Keynote speaker, New York, 2005
Cardiff Cognitive Neuroscience Seminar Series speaker, Cardiff, 2005
Library of Congress conference on “Hard Science, Hard Choices” (chair of session on Psychopharmacology), Washington, 2005
MIT/AAAS invited lecture “Our Brains and Us: Neuroethics, Responsibility and the Self,” Cambridge, 2005
8th Annual Undergraduate Bioethics Conference, Lecture and Panel Discussion, 2005
American Enterprise Institute, Washington DC, 2005
Grand Rounds, NINDS, Bethesda, 2005
Fischbach Lecture, Marine Biological Laboratory, Woods Hole, 2004
MacArthur Network on Socioeconomic Status and Health, New York City, 2004
“Social Ecology of Early Development,” NIH, 2004
10th Anniversary Meeting, Tuscon Consciousness Meeting, Plenary speaker, 2004
Franklin Institute - WHYY Panel Discussion on Brain Fingerprinting, Philadelphia, 2004
American Neuropsychiatric Association, Course director, Bal Harbor, 2004
RIKEN Brain Science Institute, Colloquium, Tokyo, 2004
Organization for Economic Cooperation and Development, Invited address, Toyko,2004
Feschrift for Michael Posner, Invited presentation, Eugene OR, 2003
British Neuropsychological Association, President’s Choice Address, 2003