

VITA

MARTHA JULIA FARAH

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Walter H. Annenberg Professor in Natural Sciences
Director, Center for Neuroscience & Society
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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

Science Educator Award, Society for Neuroscience (2013)

American Academy of Arts and Sciences (2010)

Marquis' *Who's Who in America* (2010)

Dana Alliance for Brain Initiatives (2009)

Royal Society for the Encouragement of Arts, Manufacture & Commerce (2009)

William James Fellow (Lifetime Achievement Award), Association for Psychological Science (2008)

Fellow, American Association for the Advancement of Science (2007)

Fellow, Association for Psychological Science (2007)

Gordon Holmes Lecturer, Oxford University (2006)

Walter H. Annenberg Professor in Natural Sciences (2006)

Fellow, Society of Experimental Psychologists (2005-present)

Highly Cited Researcher, Institute for Scientific Information (2004-present)

Fellow, Cognitive Science Society (2002)

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)

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

University of Pennsylvania

Walter H. Annenberg Professor in Natural Sciences (2006 – present)
 Professor, Department of Psychology (1992 - present)
 Founding Director, Center for Cognitive Neuroscience (1999 – 2010)
 Founding Director, Center for Neuroscience & Society (2009 – present)
 Secondary appointment in Department of Neurology (1992 – present)
 Secondary appointment in Graduate School of Education (2012 – present)
 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)

GRANTS

- 2014-2019 National Institutes of Health (NIMH). Training grant on *Behavioral and Cognitive Neuroscience*, 5 predoctoral slots (co-PI with Ted Abel)
- 2011-2016 National Institutes of Health (NIDA). Blueprint for Neuroscience Research Science Education Award (R25) *Neuroscience in Your World: A Partnership for Neuroscience Education Across the K-12 Spectrum* (one of two PIs, with Jayatri Das of The Franklin Institute)
- 2011-2014 MacArthur Foundation Law and Neuroscience Project. PI of subcontract in partial support of *Neuroscience Boot Camp* (PI: Owen Jones, Vanderbilt)
- 2010-2011 National Institutes of Health (NINDS). Conference grant (R13) to support CME *Conference on Clinical Neuroscience and Society* (PI)
- 2009-2013 National Science Foundation. Research and education grant to develop a *Neuroethics Learning Collaborative* (PI)
- 2009-2010 MacArthur Foundation Law and Neuroscience Project. PI of two subcontracts in partial support of *Neuroscience Boot Camp* (PI: Michael Gazzaniga, UCSB).

- 2008 Greenwall Foundation. Grant to support student travel to the first annual meeting of the Neuroethics Society (co-PI with Mark Frankel, AAAS)
- 2007-2014 National Institutes of Health (NICHD). Research grant (R01) to study *SES, Childhood Experience and the Neural Bases of Learning* (PI)
- 2007-2008 Charles A. Dana Foundation. Grant to support *Administrative Coordinator for Neuroethics Society*.
- 2007-2014 National Institutes of Health (NIDA). PI of subcontract for research grant (R01) on *In Utero Cocaine Exposure: Child Neurocognitive Outcomes*. (PI: Hallam Hurt, CHOP)
- 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, CHOP)
- 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 Development* (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-Schill'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
 Harmorville 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

Journal editor:

- Associate Editor, *Journal of Cognitive Neuroscience* (2005 – 2009)
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 -2009)
Frontiers in Theoretical and Philosophical Psychology (2010-present)
Journal of Cognitive Neuroscience (2009-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)
Seminars in Brain and Consciousness (2009 – present)
Trends in Cognitive Sciences (Advisory Board, 2011 – present)

Special Issue Editor:

Developmental Science: Special Issue on Neurocognitive Consequences of Socioeconomic Disparities, 2013, 16(5). Kimberly G. Noble and Martha J. Farah, Editors

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 I. Posner, Mary Rothbart, Martha J. Farah and John Bruer, Editors

Handbook Section Editor:

Developmental Neuroethics, for J. Clausen & N. Levy (in press) *Springer Handbook of Neuroethics*, Springer.

Contributor:

Mind Matters, the *Scientific American* Blog on Science and Mind (2007 – 2009)

Advisory and committee work (national and international):

World Economic Forum, Global Agenda Council on Neuroscience and Behavior (2013-present)

Neuroscience Forum, Institute of Medicine (2012-present).

Senior Consultant, MacArthur Foundation Network on Neuroscience and the Law (2012-present)

External Advisory Board, European Union RoboLaw Project (2012-present)

Member, Cognitive Enhancement Subcommittee, Therapeutics and Technology Assessment Committee, American Academy of Neurology (2010-present).

Governing Board, Society for Social Neuroscience (2010-present).

Board of Directors, Summer Institute in Cognitive Neuroscience (2010-present).

Executive Committee Member and Co-founder, International Neuroethics Society (2006-2012).

MacArthur Foundation Network on Neuroscience and the Law (2007-2012)

Earlier work (selected, alphabetical):

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

Center for American Progress, Science Progress: Advisory Board (2007-2013)

Cognitive Science Society: Board of Governors: (1996 - 2002).

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

Franklin Institute: Bower Award Committee (2004); Scientific Advisory Panel, Your Brain exhibit (2008 - present)

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)

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 2-day 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 26-28, 2007, and funded by the University, 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.

Animal Neuroethics Workshop (co-organizer). One-day meeting held at Indiana University, Bloomington, June 11, 2009, and funded by the Poynter Center for the Study of Ethics and American Institutions at the University, bringing together scientists, ethicists and policy specialists to discuss the implications of neuroscience research on pain for animal welfare practices.

Interpreting Neuroimages (co-organizer). Hastings Center Workshop series held at Penn, funded by the Dana Foundation, with E. Parens and J. Johnston. Workshop I, January 4-6, 2009; Workshop II, February 25 & 26, 2010; Workshop III, September 15-16, 2010

Neuroscience Boot Camp 2009, 2010, 2011, 2012, 2013, 2014 upcoming. Direct and teach in 9-day meeting held at Penn, teaching basic cognitive and affective neuroscience to nonscientist professionals and graduate students, including legal scholars, educators and scholars in the humanities and social sciences.

Penn Conference on Clinical Neuroscience and Society (co-director). Two and a half day meeting offering CME and Psychology CE credit for clinicians, funded by small grants from industry and Penn, July 23-25, 2010.

Penn Conference on Clinical Neuroscience and Society (co-director). Two and a half day meeting offering CME and Psychology CE credit for clinicians, funded by NINDS and Penn, July 22-24, 2011.

Penn Visiting Fellowship in Neuroscience & Society. Directed and taught in NSF-funded eight-day meeting for neuroscience graduate students and postdocs from around the country to learn about the ethical, legal and social implications of their field, May 29 – June 8, 2012.

Penn Visiting Fellowship on Teaching Neuroethics. Directed and taught in NSF-funded five-day meeting for neuroscience faculty from around the country to develop the ability to teach neuroethics at their home institution, scheduled for June 24-29, 2013.

Major University Service, University of Pennsylvania:

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

Founding Director, Center for Cognitive Neuroscience (1999 – 2010)

Founding Director, Center for Neuroscience & Society (2009 – present)

Founding Director, Graduate Certificate Program in Social, Cognitive and Affective Neuroscience (2013-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. [Japanese and Italian translations forthcoming]

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

Farah, M.J., Editor (2010). *Neuroethics: An Introduction with Readings*. Cambridge: MIT Press.

Chatterjee, A. & Farah, M.J., Editors (2013). *Neuroethics in Practice: Medicine, Mind and Society*. New York: Oxford University 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 critique 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. Umiltà (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 stimulus 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.
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CONTRIBUTED CONFERENCE PRESENTATIONS (Selected, last 5 years)

Farah, M.J. Neuroethics. Symposium on *Neuroscience and Law*, Society for Neuroscience, San Diego, 2013.

Farah, M.J. Ethical and societal implications, Symposium on *Brain-Machine Interfaces*. American Association for the Advancement of Science, Boston, 2013

Farah, M.J. Effects of poverty on the developing brain. Featured symposium at Pediatric Academic Societies on *Consequences of Childhood Poverty: Implications for Pediatric Practice and Research*, Boston, 2012

Farah, M.J. Socioeconomic status and the developing brain. Symposium on *Nature and nurture in the developing mind and brain: insights into the origins of cognition* at the biannual meeting of the Cognitive Development Society, Philadelphia, 2011

Farah, M.J. Organizer and speaker, Society for Neuroscience Social Issues Roundtable, *Child Poverty and Human Capital: New Insights from Neuroscience*, San Diego, 2010

Farah, M.J. Chair and speaker, Symposium on *Commercialization of Neuroscience*, Neuroethics Society first annual meeting, Washington, 2008.

Farah, M.J. Chair and speaker, Symposium: *Poverty and Brain Development: Findings, Mechanisms and Social Implications*. American Association for the Advancement of Science, Boston, 2008.

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 the 14th 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.*]

Hurt H, Giannetta J, Korczykowski M, Hoang A, Betancourt L, Brodsky N, Shera D, Farah M, Detre J. Functional Magnetic Resonance Imaging (fMRI) and Working Memory in adolescents with and without gestational cocaine exposure (COC). Poster presented at the Pediatric Academic Societies' Meeting, Toronto, 2007. [Abstract: *E-PAS 2007:60:6312.5.*]

INVITED TALKS (last five years)

Rita G. Rudel/Lucy G. Moses Lecture, Columbia University, 2014

Pennsylvania State Education Association, Philadelphia, 2014

American Psychiatric Association, Ethics Track, New York City, 2014

Colloquium, Psychology and Neural Science, New York University, 2014

AAAS-U Maryland conference on Pain, Neuroimaging and the Law, Baltimore, 2014

Keynote address, World Congress on Brain, Behavior and Emotion, Montreal, 2014

Invited colloquium on The Broader Applicability of Insights from Developmental Cognitive Neuroscience, Cognitive Neuroscience Society, Boston, 2014.

Pontifical Academy of Sciences, Vatican, 2013

Colloquium, Center for Bioethics, New York University, 2013

American Psychiatric Association, Ethics Track, San Francisco, 2013

Colloquium, University of Chicago, 2013

Presentation to Read Out and Read Special Interest Group, Pediatric Academic Societies, Washington, DC, 2013

Keynote address, Center for Culture, Mind and Brain Annual Conference, University of Michigan, Ann Arbor, 2013

Arthur Miller Lecture on Science and Ethics, MIT, Cambridge, 2013

Keynote address, opening conference of Edmond J. Safra Center for Ethics, Tel Aviv, 2013

Neuroethics: East meets West, Seoul National University, 2013

Teaching Neuroscience: Connecting with the Humanities, SfN Workshop, New Orleans, 2012
22nd Annual Neuropharmacology Conference, New Orleans, 2012
Visiting Scholar Lecture Series, Rockhurst University, Kansas City, 2012
Biosecurity meeting, AAAS Center for Science, Technology, and Security Policy, Washington, DC, 2012
Capital Hill briefing on brain development, AAAS and Reps. Chaka Fattah and Brian Bilbray, Washington, DC, 2012
NIH Director's Lecture, Bethesda, 2012
Bloomsburg University, Health Sciences Symposium, keynote speaker, Bloomsburg, PA, 2012
Hyatt Memorial Lecture, St. Joseph's University, Philadelphia, 2012
Latin American Meeting of the Society for Social Neuroscience, Buenos Aires, 2011
Workshop on teaching neuroethics, International Neuroethics Society meeting, Washington, DC, 2011
Committee on Ethical and Societal Issues in National Security Applications of Emerging Technologies, National Academy of Sciences, Irvine, CA, 2011
Colloquium, Columbia University, New York City, 2011
Nobel Conference, Gustavus Adolphus, St. Peter MN, 2011
Capital Hill briefing on neurotechnology, AAAS and House Armed Services Committee, Washington, DC, 2011
Brain Matters II plenary lecture, Montreal, 2011
Stress and the Brain conference, Johns Hopkins University, Baltimore, 2011
Center on the Developing Child, Harvard University, Cambridge, MA, 2011
Crosley Lecture on Ethics, University of New England, Portland, ME, 2011
Law and Brain, First Annual Meeting, New York City, 2011
Institute of Medicine, Board on Children, Youth and Families, Washington, DC, 2011
Presidential Commission for the Study of Bioethical Issues, Washington, DC, 2011
Johns Hopkins School of Public Health, Baltimore, 2011
National Institute for the Teaching of Psychology Annual Meeting, Tampa, FL, 2011
Center for Inquiry, 2010
Society for Social Neuroscience, San Diego, 2010
Workshop on teaching neuroethics, Neuroethics Society Annual Meeting, San Diego, 2010
Building Better Brains, Aspen Brain Institute and New York Academy of Sciences, Aspen, 2010
International Conference on Cognitive Science, Beijing, 2010
Bioprediction workshop, MacArthur Foundation and AAAS, Washington, DC, 2010
Faculty, Future of Medicine Cruise, American Humanist Association, Bahamas, 2010
Association of Science and Technology Centers, Annual Meeting, Honolulu, 2010
Episcopal Academy, Philadelphia, 2010
University of Chicago Law School, Chicago, 2010
Emory University, Neuroscience program, Atlanta, 2010
Hastings Center workshop, 2010
Educon, Franklin Institute, Philadelphia, 2010
Learning and the Brain, MIT, Cambridge, 2009
Workshop on Human Enhancement, McLean, Virginia, 2009
American Society for Bioethics and Humanities, invited symposium presentation, Washington DC
Brain Matters, invited symposium presentation, Halifax, 2009
Toward a Common Morality conference, United Nations, 2009
Office of Naval Research grantees meeting, Palo Alto, 2009

Society for Philosophy and Psychology, Bloomington, 2009
Association for Psychological Science, award address, San Francisco, 2009
Workshop on Personality and Economic Behavior, University of Chicago, 2009
Penn Academy, Pebble Beach, 2009
Hastings Center Workshop, 2009
Dupont Summit, Policy Studies Organization, Washington, DC, 2008
Society for Neuroscience preconference workshop on professional skills, 2008
Abelson Seminar, American Association for the Advancement of Science, Washington, DC, 2008
World Economic Forum-SEED Brainstorming, Boston, 2008
Georgetown University Neuroscience Program, 2008
British Association for Psychopharmacology, Harrogate UK, 2008
Society for Philosophy and Psychology, Philadelphia, 2008
Bilderberg Group, Chantilly VA, 2008
Invited symposium on The Role of Brain Imaging in Advancing Psychological Science, Association for Psychological Science, Chicago, 2008
Social Ecology of Early Development program meeting, NICHD, Bethesda, 2008.
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
Participant, Mind and Life Institute Dialogue between Science and Buddhism, Dharamsala, India, 2007