

VITA

MARTHA JULIA FARAH

April, 2023

Walter H. Annenberg Professor in Natural Sciences
Director, Center for Neuroscience & Society
University of Pennsylvania
3720 Walnut St.
Philadelphia, PA 19104

215-573-3531 (w)
215-898-1982 (fax)
mfarah@upenn.edu

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

Howard Crosby Warren medal for outstanding achievement in Experimental Psychology, Society of Experimental Psychologists (2021)
Steven E. Hyman Award for Distinguished Service to the Field of Neuroethics, International Neuroethics Society (2019)
British Academy (Humanities and Social Sciences), Foreign Fellow (2018)
Fellow, The Hastings Center (Bioethics) (2014)
Named in "An Incomplete List of Eminent Psychologists of the Modern Era" in APA's *Archives of Scientific Psychology* (2014)
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)
Secondary appointment in Medical Ethics and Health Policy (2015 – 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

2022-2027 National Institutes of Health (NICHD). Research grant to study “Financial Support to Low-income Mothers of Preterm Infants” PI: Margaret Parker, Harvard Univ; Penn subcontract PI: Heather Schofield) R01HD109293

2023-2028 National Institutes of Health (NIA). Research grant to study “The impact of early-life nutrition on socioeconomic status, physical health and cognitive

- function through middle age” (PI: Aryeh Stein, Emory University; Penn subcontract PI: Jere Behrman). R01AG079990
- 2022-2023 Dana Foundation. Pilot grant to develop new programs for Penn’s Center for Neuroscience & Society (co-PI, PI: Anna Wexler)
- 2022-2023 SAS Data-Driven Discovery for Social Good Seed grant on *Understanding why the poor are more depressed and differently depressed*
- 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
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

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 (2010-2015)
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)
Journal of Science and Law (2014 - present)
Memory & Cognition (1988 - 1992)
Neuroethics (2007 - present)
Neuropsychology (1992 - 1998)
Neuropsychology Review (1988 - 1990)
Psychological Review (1996 - 2000)
Psychological Science in the Public Interest (2018 – present)
Seminars in Brain and Consciousness (2009 - 2010)
Trends in Cognitive Sciences (Advisory Board, 2011 – present)

Special Issue Editor:

Journal of Cognitive Neuroscience: Special Section on the Affective Neuroscience of Socioeconomic Status, 2022, Robin Nusslock and Martha J. Farah, Editors

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 (2015) *Springer Handbook of Neuroethics*, Springer.

Selected advisory and committee work (national and international):

American Academy of Neurology: Cognitive Enhancement Subcommittee, Therapeutics and Technology Assessment Committee (2010 - 2014).

BrainFacts.org (a public information initiative of the Kavli Foundation, the Gatsby Charitable Foundation and the Society for Neuroscience), Scientific Board Member (2014-2017).

BrainMind (nonprofit to bridge the translational gap between basic and applied neuroscience) Neuroethics Advisory Committee (2019-present).

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

Dana Foundation: Cerebrum Advisory Board (2018 – 2022)

Franklin Institute: Scientific Advisory Panel, Your Brain exhibit (2008 - 2014); Bower Award Committee (2004)

Institute of Medicine, Neuroscience Forum (2012-2016)

International Neuroethics Society, Co-founder (2006) and Executive Committee Member (2006-2012; 2019-present), Program Committee (2020), Nomination Committee and Membership Committee (2022-2023)

Kavli Human Project, Ethics Board Member (2016-2018)

MacArthur Foundation Network on Neuroscience and the Law, Network member (2007-2012), Senior consultant, (2012-present)

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)

National Science Foundation: Directorate for the Social, Behavioral, and Economic Sciences, Advisory Board Member (2014-2017); Advisory Panel, Program in Human Cognition and Perception (1992 - 1993).

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

Society for Social Neuroscience, Governing Board (2010-2015).

Summer Institute in Cognitive Neuroscience, Board of Directors (2010-2013).

Sundance Film Festival: Sloan Award juror (2006).

World Economic Forum, Global Agenda Council on Neuroscience and Behavior (2013-2014)

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, June 24-29, 2013.

Animal Research Neuroethics workshop. June 9-10, 2016, meeting with specialists in research regulation, ethics and neuroscience, funded by the Alternatives Research Development Foundation.

Leveraging Rarely-Investigated Populations for Research. July 2-3, 2018, co-chaired meeting at National Academies of Sciences, Engineering, and Medicine, with support from and National Institute on Aging.

Poverty and Brain Development in Global Context. February 14-15, 2019, organized 1.5-day international meeting at Perry World House, with support from SAS.

Major University Service, University of Pennsylvania:

Faculty Grievance Committee, chair (2017-2020)

Founding Director, Graduate Certificate Program in Social, Cognitive and Affective Neuroscience (2013-present)

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

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

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

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; and 2nd ed, 2013).

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.

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., Aguirre, 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.
- Tippett, L.J., Miller, L. & Farah, M.J. (2000). Prosopamnesia: A selective impairment in new face learning. *Cognitive Neuropsychology*, *17*, 241-256.
- Polk, T.A. & Farah, M.J. (2001). fMRI evidence for an abstract, not just visual, word form area. *Journal of Experimental Psychology: General*, *130*, 65-72.

Polk, T.A., Stallcup, M., Aguirre, G., Alsop, D., D'Esposito, M., Detre, J. & Farah, M.J. (2001). Neural specialization for letter recognition. *Journal of Cognitive Neuroscience*, *14*, 145-159.

Farah, M.J. (2002). Emerging ethical issues in neuroscience. *Nature Neuroscience*, *5*, 1123-1129.

Reprinted in W. Glannon (Ed., 2007). *Defining Right and Wrong in Brain Science: Essential Readings in Neuroethics*. New York: The Dana Press.

Farah, M.J. Brotman, M.A., R. DeRubeis, Wang, J.J., Detre, J.A., Egeth, M.J., Cornew, L.A., & O'Reardon, J.P. (2003). The mind and the amygdala: A quantitative fMRI study of amygdala perfusion during cognitive mood induction. *Brain and Cognition*, *51*, 183-184.

Farah, M.J. & Rabinowitz, C. (2003). Genetic and environmental influences on the organization of semantic memory in the brain: Is "living things" an innate category? *Cognitive Neuropsychology*, *20*, 401-408.

O'Reardon, J.P., Brotman, M.A., R. DeRubeis, Wang, J.J., Detre, J.A., Egeth, M.J., Cornew, L.A & Farah, M.J. (2003). Prefrontal-amygdala interaction and mood regulation: A perfusion fMRI Study. *Brain and Cognition*, *51*, 184-186.

Wilson, K.D. & Farah, M.J. (2003). When does the visual system use view-invariant representations during recognition? *Cognitive Brain Research*, *16*, 399-415.

Fellows, L.K. & Farah, M.J. (2003). Ventromedial frontal cortex mediates affective shifting in humans: Evidence from a reversal learning paradigm. *Brain*, *126*, 1830-1837.

Tippett, L.J., Blackwood, K. & Farah, M.J. (2003). Vision and visual cognition in Alzheimer Disease: From image segmentation to imagination. *Neuropsychologia*, *41*, 453-68.

Farah, M.J., Illes, J., Cook-Deegan, R., Gardner, H., Kandel, E., King, P., Parens, E., Sahakian, B. & Wolpe P.R. (2004). Neurocognitive enhancement: what can we do and what should we do? *Nature Reviews Neuroscience*, *5*, 421-425.

Reprinted in W. Glannon (Ed., 2007). *Defining Right and Wrong in Brain Science: Essential Readings in Neuroethics*. New York: The Dana Press.

Reprinted (abridged) in Farah, M.J., (Ed., 2010). *Neuroethics: An Introduction with Readings*. Cambridge: MIT Press.

- Tippett, L.J. Gendall, A., Farah, M.J., Thompson-Schill S.L. (2004). Selection ability in Alzheimer's disease: investigation of a component of semantic processing. *Neuropsychology, 18*, 163-173.
- Farah, M.J. & Wolpe, P.R. (2004). Monitoring and manipulating the human brain: New neuroscience technologies and their ethical implications. *Hastings Center Report, 34*, 35-45.
- Reprinted in W. Glannon (Ed., 2007). *Defining Right and Wrong in Brain Science: Essential Readings in Neuroethics*. New York: The Dana Press.
- Farah, M.J. (2005). Neuroethics: The practical and the philosophical. *Trends in Cognitive Sciences, 9*, 34-40.
- Fellows, L.K. & Farah, M.J. (2005). Different underlying impairments in decision making following ventromedial and dorsolateral frontal lobe damage in humans. *Cerebral Cortex, 15*, 58-63.
- Fellows, L.K. & Farah, M.J. (2005). Is anterior cingulate cortex necessary for cognitive control? *Brain, 128*, 788-796.
- Noble, K.G., Norman, M.F. & Farah, M.J. (2005). Neurocognitive correlates of socioeconomic status in kindergarten children. *Developmental Science, 8*, 74-87.
- Fellows, L.K. & Farah, M.J. (2005). Dissociable elements of human foresight: A role for the ventromedial frontal lobes in framing the future, but not in discounting future rewards. *Neuropsychologia, 43*, 1214-1221.
- Gillihan, S. & Farah, M.J. (2005). Is self-related processing special? A critical review. *Psychological Bulletin, 131*, 76-97.
- Noble, K.G., Farah, M.J. & McCandliss, B.D. (2006). Socioeconomic background modulates the effect of phonological awareness on reading. *Cognitive Development, 21*, 349-368.
- Bishop, S.J., Cohen, J.D., Fossella, J., Casey, B.J. & Farah, M.J. (2006). COMT genotype influences prefrontal response to emotional distraction. *Cognitive, Affective and Behavioral Neuroscience, 6*(1), 62-70.
- Farah, M.J., Shera, D.M., Savage, J.H., Betancourt, L., Giannetta, J.M., Brodsky, N.L., Malmud, E.K. & Hurt, H. (2006). Childhood poverty: Specific associations with neurocognitive development. *Brain Research, 1110*, 166-174.
- Noble, K.G., Wolmetz, M.E., Ochs, L.G., Farah, M.J. & McCandliss, B.D. (2006). Brain-behavior relationships in reading acquisition are modulated by socioeconomic factors. *Developmental Science, 9*, 642-654.

Wilson, K.D. & Farah, M.J. (2006). Distinct Patterns of Viewpoint-Dependent BOLD Activity during Common Object Recognition and Mental Rotation. *Perception*, 35, 1351-1366.

Farah, M.J. & Heberlein, A.S. (2007). Personhood and neuroscience: Naturalizing or nihilating? *American Journal of Bioethics – Neuroscience*. (Target Article) 7, 37-48.

Reprinted (abridged) in Farah, M.J., (Ed., 2010). *Neuroethics: An Introduction with Readings*. Cambridge: MIT Press.

Noble, K.G., McCandliss, B.D. & Farah, M.J. (2007). Socioeconomic gradients predict individual differences in neurocognitive abilities. *Developmental Science*, 10(4): 464-80.

Fellows, L.K. & Farah, M.J. (2007). The role of ventromedial prefrontal cortex in decision making: Judgment under uncertainty, or judgment per se? *Cerebral Cortex*, 17, 2669-2674.

Gillihan, S., Kessler, J. & Farah, M.J. (2007). Memories affect mood: Evidence from covert experimental assignment to positive, neutral, and negative memory recall. *Acta Psychologica*, 125(2): 144-54.

Chepenik, L.G., Cornew, L.A. & Farah, M.J. (2007). The influence of sad mood on cognition. *Emotion*, 7, 802-811.

Ford, S., Farah, M.J., Shera, D., & Hurt, H. (2007) Neurocognitive correlates of problem behavior in environmentally at-risk adolescents. *Journal of Developmental and Behavioral Pediatrics*, 28(5), 376-385.

Gillihan, S.J., Farah, M.J., Sankoorikal, G.M.V., Breland, J. & Brodtkin, E.S. (2007). Association between serotonin transporter genotype and extraversion. *Psychiatric Genetics*, 17, 351-354.

Rao, H., Gillihan, S.J., Wang, J., Korczykowski, M., Sankoorikal, G.M.V., Kaercher, K.A., Brodtkin, E.S., Detre, J.A., Farah, M.J. (2007). Genetic Variation in Serotonin Transporter Alters Resting Brain Function in Healthy Individuals. *Biological Psychiatry*, 62(6): 600-6.

Farah, M.J. (2008). Neuroethics and the problem of other minds: Implications of neuroscience evidence for the moral status of brain-damaged patients and nonhuman animals. *Neuroethics*, 1, 9-18.

Reprinted (abridged) in Farah, M.J., (Ed., 2010). *Neuroethics: An Introduction with Readings*. Cambridge: MIT Press.

- Heberlein, A.S., Padon, A.A, Gillihan, S.J., Farah, M.J. & Fellows, L.K. (2008). Ventromedial frontal lobe plays a critical role in facial emotion recognition. *Journal of Cognitive Neuroscience*, 20, 721-733.
- Hurt, H., Giannetta, J.M., Korczyowski, M., Hoang, A., Betancourt, L., Brodsky, N.L., Shera, D.M., Farah, M.J. & Detre, J.A. (2008). Functional magnetic resonance imaging and working memory in adolescents with gestational cocaine exposure. *Journal of Pediatrics*, 152, 371-377.
- Farah, M.J., Betancourt, L., Shera, D.M., Savage, J.H., Giannetta, J.M., Brodsky, N.L., Elsa K. Malmud, E.K., Hurt, H. (2008). Environmental stimulation, parental nurturance and cognitive development in humans. *Developmental Science*, 15, 793-801.
- Farah, M.J., Haimm, C., Sankoorikal, G. & Smith, M.E. & Chatterjee, A. (2008). When we enhance cognition with Adderall do we sacrifice creativity? A preliminary study. *Psychopharmacology*, 202, 541-547.
- Greely, H.T., Sahakian, B., Harris, J., Kessler, R., Gazzaniga, M.S., Campbell, P. & Farah, M.J. (2008). Toward responsible use of cognitive enhancing drugs by the healthy. *Nature*, 456, 702-705.
- Reprinted (abridged) in M.J. Farah, (Ed., 2010). *Neuroethics: An Introduction with Readings*. Cambridge: MIT Press.
- Reprinted in S.A. Hays et al. (Eds., 2013). Nanotechnology, the Brain and the Future. Volume 3 of *Yearbook of Nanotechnology in Society*, pp 235-245.
- Betancourt, L.M., Romer, D., Giannetta, J.M., Brodsky, N.L., Farah, M.J. & Hurt, H. (2009). Executive cognitive functions and impulsivity as correlates of risk taking and problem behavior in preadolescents. *Neuropsychologia*, 47, 2916-2926.
- Farah, M.J., Smith, M.E., Gawuga, C., Lindsell, D. & Foster, D. (2009). Brain imaging and brain privacy: A realistic concern? *Journal of Cognitive Neuroscience*, 21, 119-127.
- Gillihan, S.J., Sankoorikal, G.M., Brodtkin, E.S. & Farah, M.J. (2009). Effect of serotonin transporter genotype on impulsivity and venturesomeness: A preliminary investigation. *Journal of Evolutionary Psychology*, 7, 331-340.
- Hackman, D. & Farah, M.J. (2009). Socioeconomic status and brain development. *Trends in Cognitive Sciences*, 13, 65-73.
- Hurt, H. Betancourt, L.M., Giannetta, J.M., Brodsky, N.L. & Farah, M.J. (2009). Children with and without gestational cocaine exposure: A neurocognitive systems analysis. *Neurotoxicology and Teratology*, 31, 334-341.

- Polk, T.A., Lacey, H.P., Nelson, J.K., Demiralp, E., Newman, L.I., Krauss, D., Raheja, A. & Farah, M.J. (2009). The development of abstract letter representations for reading: Evidence for the role of context. *Cognitive Neuropsychology*, 26, 70-90.
- Gillihan, S.J., Rao, H., Wang, J.J., Detre, J.A., Breland, J., Sankoorikal, G.M.V., Kaercher, K.A., Dow, H.C., Brodtkin, E.S. & Farah, M.J. (2010). Serotonin transporter genotype modulates amygdala activity during mood regulation. *Social Cognitive and Affective Neuroscience*, 5, 1-10.
- Hackman, D.A., Farah, M.J. & Meaney, M.J. (2010). Socioeconomic status and the brain: Mechanistic insights from human and animal research. *Nature Reviews Neuroscience*, 11, 651-659.
- Rao, H., Betancourt, L.M., Giannetta, J.M., Brodsky, N.L., Korkczykowski, M., Avants, B.B., Gee, J.C., Wang, J.J., Hurt, H., Detre, J.A., Farah, M.J. (2010). Early parental care is important for hippocampal maturation: Evidence from brain morphology in humans. *Neuroimage*, 49, 1144-1150.
- Gillihan, S.J., Xia, C., Padon, A.A., Heberlein, A.S., Farah, M.J. & Fellows, L.K. (2011). Contrasting Roles for Lateral and Ventromedial Prefrontal Cortex in Transient and Dispositional Affective Experience. *Social Cognitive and Affective Neuroscience*, 6, 128-137.
- Gillihan, S.J., Rao, H., Brennan, L., Wang, J.J., Detre, J.A., Sankoorikal, G.M.V, Brodtkin, E.S. & Farah, M.J. (2011). Serotonin transporter genotype modulates the association between depressive symptoms and amygdala activity among psychiatrically healthy adults. *Psychiatry Research: Neuroimaging*, 193, 161-167.
- Smith, M.E. & Farah, M.J. (2011). Are prescription stimulants “smart pills”? The epidemiology and cognitive neuroscience of prescription stimulant use by normal healthy individuals. *Psychological Bulletin*, 137, 717-741.
- Farah, M.J. & Gillihan, S.J. (2012). The puzzle of neuroimaging and psychiatric diagnosis: Technology and nosology in an evolving discipline. *American Journal of Bioethics – Neuroscience*, 3, 1-11.
- Reprinted in Chatterjee, A. & Farah, M.J., (Eds., 2013). *Neuroethics in Practice: Medicine, Mind and Society*. New York: Oxford University Press.
- Farah, M.J. & Hook, C.J. (2013). The seductive allure of “seductive allure.” *Perspectives in Psychological Science*, 8, 88-90.
- Hackman, D.A, Betancourt, L.M., Brodsky, N.L., Hurt, H. & Farah, M.J. (2012). Neighborhood disadvantage and adolescent stress reactivity. *Frontiers in Human Neuroscience*, 6, article 277.

- Hackman, D.A., Betancourt, L.M., Brodsky, N.L., Kobrin, L., Hurt, H. & Farah, M.J. (2013). Selective impact of early parental responsiveness on adolescent stress reactivity. *Public Library of Science One (PLoSOne)*, 8(3), e58250.
- Hook, C.J & Farah, M.J. (2013). Neuroscience for educators: What are they seeking and what are they finding? *Neuroethics*, 6, 331-341.
- Hook, C.J. & Farah, M.J. (2013). Look again: Effects of brain images and mind-brain dualism on lay evaluations of research. *Journal of Cognitive Neuroscience*, 25, 1397-1405.
- Ilieva, I.P., Boland, J. & Farah, M.J. (2013). Objective and subjective cognitive enhancing effects of mixed amphetamine salts in healthy people. *Neuropharmacology*, 64, 496-505.
- Ilieva, I.P. & Farah, M.J. (2013). Enhancement stimulants: perceived motivational and cognitive advantages. *Frontiers in Neuroscience*, doi: 10.3389/fnins.2013.00198. eCollection 2013.
- Lawson, G.M., Duda, J.T., Avants, B.B., Wu, J. & Farah, M.J. (2013). Associations between socioeconomic status and cortical thickness in prefrontal cortical subregions. *Developmental Science*, 16, 641-652.
- Attiah, M. A., & Farah, M. J. (2014). Minds, motherboards, and money: futurism and realism in the neuroethics of BCI technologies. *Frontiers in systems neuroscience*, 8.
- Farah, M.J., Smith, M.E., Irena, I. & Hamilton, R.H. (2014). Cognitive enhancement. *Wiley Interdisciplinary Reviews: Cognitive Science*, 5, 95-103.
- Farah, M.J., Hutchinson, J.B., Phelps, E.A. & Wagner, A.D. (2014). Functional MRI-based lie detection: scientific and societal challenges. *Nature Reviews Neuroscience*, 15, 123–131.
- Farah, M.J. (2014). Brain images, babies, and bathwater: Critiquing critiques of functional neuroimaging. *Hastings Center Report*, 44, S19-S30.
- Hackman, D.A., Betancourt, L.M., Gallop, R., Brodsky, A., Giannetta, J.M., Hurt, H. & Farah, M.J. (2014). Mapping the trajectory of socioeconomic disparity in working memory: Parental and neighborhood factors. *Child Development*, 85, 1433-1445.
- Avants, B.A., Hackman, D.A., Betancourt, L.M., Lawson, G.M., Hurt, H., Farah, M.J. (2015). Relation of Childhood Home Environment to Cortical Thickness in Late Adolescence: Specificity of Experience and Timing, *Public Library of Science One (PLoSOne)*, 10(10), e013217.

- Betancourt, L.M., Avants, B.A., Farah, M.J., Brodsky, N.L., Wu, J. Ashtari, M. & Hurt, H. (2015). Effect of Socioeconomic Status (SES) Disparity on Neural Development in Female African-American Infants at Age 1 Month. *Developmental Science*, 19(6), 947-956.
- Farah, M.J. (2015). Cognitive enhancement: Can science and policy catch up with practice? *Science*, 350, 379-380.
- Hackman, D.A., Evans, G.W. & Farah, M.J. (2015). Socioeconomic status and executive function: Development trajectories and mediation. *Developmental Science*, 18(5), 686-702.
- Ilieva, I.P., Hook, C.J. & Farah, M.J. (2015). Prescription Stimulants' Effects on Healthy Inhibitory Control, Working and Episodic Memory: A Meta-analysis. *Journal of Cognitive Neuroscience*, 27(6), 1069-1089.
- Poldrack, R.A. & Farah, M.J. (2015). Progress and challenges in probing the human brain. *Nature*, 526, 371-379.
- Mancuso, L., Ilieva, I.P., Hamilton, R.H. & Farah, M.J. (2016). Does transcranial direct current stimulation improve healthy working memory?: A meta-analytic review. *Journal of Cognitive Neuroscience*, 28(8), 1063-1089.
- Farah, M. J. (2017). The Neuroscience of Socioeconomic Status: Correlates, Causes, and Consequences. *Neuron*, 96(1), 56-71.
- Lawson, G. M., & Farah, M. J. (2017). Executive function as a mediator between SES and academic achievement throughout childhood. *International journal of behavioral development*, 41(1), 94-104.
- Lawson, G.M., Camins, J.S., Wisse, L., Wu, J., Duda, J.T., Cook, P.A., Gee, J.C. & Farah, M.J. (2017). Childhood socioeconomic status and childhood maltreatment: distinct associations with brain structure, *PLOS One*, 12(4): e0175690.
- Last, B. S., Lawson, G. M., Breiner, K., Steinberg, L., & Farah, M. J. (2018). Childhood socioeconomic status and executive function in childhood and beyond. *PloS one*, 13(8), e0202964.
- Lawson, G.M., Hook, C.J. & Farah, M.J. (2018). A meta-analysis of the relationship between socioeconomic status and executive function performance among children, *Developmental Science*. 21 (2)
- Farah, M. J. (2018). Socioeconomic status and the brain: prospects for neuroscience-informed policy. *Nature Reviews Neuroscience*, 19 (7), 428-438.

- Ilieva, I. P., & Farah, M. J. (2019). Attention, motivation, and study habits in users of unprescribed ADHD medication. *Journal of Attention Disorders*, 23(2), 149–162.
- Hao, Y., & Farah, M. (2020). The affective neuroscience of socioeconomic status: Implications for mental health. *British Journal of Psychiatry Bulletin*, 44(5), 202-207. doi:10.1192/bjb.2020.69
- Evans, G. W., Farah, M. J., & Hackman, D. A. (2021). Early Childhood Poverty and Adult Executive Functioning: Distinct, Mediating Pathways for Different Domains of Executive Functioning. *Developmental Science*, e13084
- Farah, M. J., Sternberg, S., Nichols, T. A., Duda, J. T., Lohrenz, T., Luo, Y., ... & Ramey, C. T. (2021). Randomized Manipulation of Early Cognitive Experience Impacts Adult Brain Structure. *Journal of Cognitive Neuroscience*, 33(6), 1197-1209.
- Cascio, C. N., Lauharatanahirun, N., Lawson, G. M., Farah, M. J., & Falk, E. B. (2022). Parental education is associated with differential engagement of neural pathways during inhibitory control. *Scientific reports*, 12(1), 1-13.
- Hao, Y., Bertolero, M., & Farah, M. J. (2022). Anger, Fear, and Sadness: Relations to Socioeconomic Status and the Amygdala. *Journal of Cognitive Neuroscience*, 1-11.
- Kweon, H., Aydogan, G., Dagher, A., Bzdok, D., Ruff, C. C., Nave, G., *Farah, M.J. & *Koellinger, P. D. (2022). Human brain anatomy reflects separable genetic and environmental components of socioeconomic status. *Science Advances*, 8(20), eabm2923. [*corresponding authors]
- Poeppel, T. B., Dimas, E., Sakreida, K., Kernbach, J. M., Markello, R. D., Schöffski, O., Dagher, A., Koellinger, P., Nave, G., Farah, M.J., Masic, B. & Bzdok, D. (2022). Pattern learning reveals brain asymmetry to be linked to socioeconomic status. *Cerebral Cortex Communications*, 3(2), tgac020.
- Hao, Y., Evans, G.W., Farah, M.J. (2023). Pessimistic cognitive biases mediate socioeconomic status and children's mental health problems. *Scientific Reports*, 13 (1), 5191.
- Hao, Y. & Farah, M.J. (2023). Heterogeneity of depression across the socioeconomic spectrum. *Proceedings of the National Academy of Sciences*, 120 (16), e2222069120.

BOOK CHAPTERS, INVITED ARTICLES, COMMENTARIES

- Farah, M.J. & Kosslyn, S.M. (1982) Concept development. In H.W. Reese & L.D. Lipsitt (Eds.), *Advances in Child Development and Behavior, Vol. 16*. New York: Academic Press.
- Farah, M.J. (1988) The neural basis of mental imagery: Converging evidence from brain-damaged and normal subjects. In U. Bellugi et al. (Eds.) *Spatial Cognition: Brain Bases and Development*. Hillsdale: Erlbaum Associates.
- Farah, M.J. (1988) Visual agnosia: Once more, with theory. (A commentary on G.W. Humphreys & M.J. Riddoch's book, "To See But Not To See.") *Cognitive Neuropsychology, 5*, 337-346.
- Farah, M.J. (1988) Visual object agnosia. In L.R. Squire (Ed.) *The Encyclopaedia of Learning and Memory*. New York: Macmillan Publishing Co.
- Peronnet, F. & Farah, M.J. (1988) Shared pathways for mental imagery and visual perception. In M. Denis, J. Engelkamp & J.T.E. Richardson (Eds.) *Cognitive and neuropsychological approaches to mental imagery*. Dordrecht: Martinus Nijhoff.
- Farah, M.J. (1989) Mental imagery and the brain. In J. W. Brown (Ed.) *The Neuropsychology of Visual Perception*. Hillsdale: Erlbaum Associates.
- Farah, M.J. (1989) Learning from text and pictures: A neuropsychological perspective. In H. Mandl & J. Levin (Eds.) *Knowledge Acquisition From Pictures and Text*. North Holland: Elsevier.
- Farah, M.J. (1989) The Neuropsychology of Mental Imagery. In F. Boller & J. Grafman (Eds.) *The Handbook of Neuropsychology, Volume 2, Disorders of Visual Behavior*, A. Damasio (Volume Ed.), Amsterdam: Elsevier.
- Peronnet, F. & Farah, M.J. (1990) Implications du systeme visuel dans l'imagerie mentale: Etude electrophysiologique. In X. Seron (Ed.) *Psychologie et Cerveau*. Paris: Presses Universitaires de France.
- Farah, M.J. (1992) Agnosia. *Current Opinion in Neurobiology, 2*, 162, 164.
- Farah, M.J. & McClelland, J.L. (1992) Parallel distributed processing and cognitive neuropsychology. *Psychiatric Annals, 22*, 148- 153.
- Farah, M.J. (1992) The distributed pineal gland. *Brain and Behavioral Sciences, 15*, 209. (Commentary on D. Dennett and M. Kinsbourne's "Time and the Observer: The Where and When of Consciousness in the Brain").
- Farah, M.J. (1992) Is an object an object an object? Cognitive and neuropsychology explorations of domain-specificity in visual recognition. *Current Directions in Psychological Science, 1*, 164-169.

Farah, M.J. (1993) The neuropsychology of mental imagery. In B. Gulyas (Ed.) *The Functional Organization of Human Visual Cortex*. New York: Pergamon.

Farah, M.J., Wallace, M.A. & Vecera, S.P. (1992). Le "quoi" et le "ou" dans l'attention visuelle: Indications provenant du syndrome d'héminegligence, *Revue de Neuropsychologie*, 2, 29-50, 1992.

Translated and reprinted as What" and "where" in visual attention: Evidence from the neglect syndrome. In I.A. Robertson and J.C. Marshall (Eds.) *Unilateral Neglect: Clinical and Experimental Studies*. London: Taylor and Francis.

Farah, M.J. (1994). Category-specificity in object recognition: Clues from prosopagnosia and alexia. In M.J. Farah and G. Ratcliff (Eds.) *The Neuropsychology of High-Level Vision: Collected Tutorial Essays*. Hillsdale, NJ: Erlbaum Associates.

Farah, M.J. (1994). Visual perception and awareness after brain damage. *Current Opinion in Neurobiology*, 4, 252-255.

Reprinted in L.R. Squire & S.M. Kosslyn (1998). *Findings and Current Opinion in Cognitive Neuroscience*. Cambridge: MIT Press.

Farah, M.J. (1994) Beyond "pet" methodologies to converging evidence. Letter to the Editor, *Trends in Neurosciences*, 17, 514-515.

Farah, M.J. & Galetta, S. (1994) Visual agnosia. *Aging and Vision News*, 6(3), 6-8 New York: The Lighthouse, Inc.

Farah, M.J. (1996) The neural bases of mental imagery. In M.S. Gazzaniga (Ed.) *The Cognitive Neurosciences*. Cambridge: MIT Press.

Farah, M.J. (1996) Visual agnosia. *McGraw-Hill 1996 Yearbook of Science and Technology*, 363-365. New York: McGraw-Hill.

Farah, M.J., O'Reilly, R.C. & Vecera, S.P. (1996). The neural correlates of conscious awareness: Evidence from covert face recognition. In J. Cohen & J. Schooler (Eds.) *Scientific Approaches to the Question of Consciousness*. Hillsdale, NJ: Erlbaum Associates.

Farah, M.J. & Buxbaum, L.J. (1997). Object-based attention in visual neglect: Conceptual and empirical distinctions. In H.O. Karnath & P. Theier (Eds.) *Parietal Lobe Contributions to Orientation in 3D Space*. New York: Springer-Verlag.

Farah, M.J. & Tippett, L.J. (1997). Semantic knowledge impairments in Alzheimer's disease: Insights from connectionist modeling. In J. Reggia, R. Berndt & E. Ruppin, *Neural Modeling of Brain and Cognitive Disorders*. Word Scientific.

- Farah, M.J. (1997). Reply to Rumiati and Humphreys. *Visual Cognition*, 4, 219-220.
- Farah, M.J. (1997). More interactions on the interactive brain: Response to continuing commentaries on "Neuropsychological inference with an interactive brain." *Behavioral and Brain Sciences*, 20, 521-524.
- Kimberg, D.Y., D'Esposito, M. & Farah, M.J. (1997) Executive control, working memory, and the frontal lobes. *Current Directions in Psychological Science*, 6, 185-192.
- Chapters in T.E. Feinberg & M.J. Farah, Editors (1997). *Behavioral Neurology and Neuropsychology*. New York: McGraw Hill
- Farah, M.J. Computational modeling in behavioral neurology and neuropsychology.
- Farah, M.J. & Feinberg, T.E. Visual object agnosia.
- Farah, M.J. & Feinberg, T.E. Perception and awareness.
- Farah, M.J. & Grossman, M. Semantic memory impairment.
- Feinberg, T.E. & Farah, M.J. The development of modern behavioral neurology and neuropsychology.
- Kimberg, D.Y., D'Esposito, M., & Farah, M.J. Frontal lobe function: Cognitive neuropsychological aspects
- Farah, M.J. (1998). Gathering the strands of thought. Review of the journal Trends in Cognitive Sciences, *Nature*, 395, 129.
- Tippett, L.J. & Farah, M.J. (1998). Parallel distributed processing models in Alzheimer's disease. In R.W. Parks & Levine, D.S. (Eds.), *Fundamentals of Neural Network Modeling*. Cambridge: MIT Press.
- Farah, M.J. & Aguirre, G.K. (1999). Imaging visual recognition. *Trends in Cognitive Sciences*, 3, 179-186.
- Feinberg, T.E. & Farah, M.J. (1999). Agnosia. In *Neurology in Clinical Practice*. 3rd Edition, W.G. Bradley et al. (Editors). Woburn: Butterworth-Heinemann.
- Farah, M.J. (1999). Modeling neuropsychological deficits. In R.A. Wilson & F.C. Keil (Eds.) *The MIT Encyclopedia of the Cognitive Sciences*. Cambridge: MIT Press.

- Farah, M.J. (1999). Object recognition, Human neuropsychology. In R.A. Wilson & F.C. Keil (Eds.) *The MIT Encyclopedia of the Cognitive Sciences*. Cambridge: MIT Press.
- Farah, M.J. (1999). The neural basis of mental imagey. In M.S. Gazzaniga (Ed.) *The New Cognitive Neurosciences*. Cambridge: MIT Press.
- Farah, M.J., Humphreys, G.H. & Rodman, H. (1999) Visual object recognition. In M.J. Zigmond, F.E. Bloom, S.C. Landis, J.L. Roberts & L.R. Squire (Eds.) *Fundamental Neuroscience*. pp. 1339-1361. New York: Academic Press.
- Farah, M.J. (2000). Are there orthography-specific brain regions? Neuropsychological and computational investigations. In R. Klein & P.A. McMullen (Eds.) *Converging Methods for the Study of Reading and Dyslexia*. Cambridge: MIT Press.
- Farah, M.J. (2000). Relations among the agnosias. In G.W. Humphreys (Ed.) *Case Studies in the Neuropsychology of Vision*. Hove: Psychology Press.
- Farah, M.J. (2001). Consciousness. In B. Rapp (Ed.), *Handbook of Cognitive Neuropsychology*. London: Psychology Press.
- Miyashita, Y. & Farah, M.J. (2001). Cognitive neuroscience at the millennium. *Current Opinion in Neurobiology*, 11, 147-149.
- Chatterjee, A. & Farah, M.J. (2001). Face module, face network: The cognitive architecture of the brain revealed though studies of face processing. *Neurology*, 57, 1151-1152.
- Davidson, R.J., Lewis, D.A., and ten co-authors including Farah, M.J. (2002). Neural and behavioral substrates of mood and mood regulation. *Biological Psychiatry*, 52, 478-502.
- Farah, M.J. The Agnosias. In A.E. Kazdin (Ed.) *Encyclopaedia of Psychology*. Washington DC: American Psychological Association and Oxford University Press.
- Farah, M.J. (2003). Modeling neuropsychological impairments. In M. Arbib (Ed.) *Handbook of Neural Networks*. Cambridge: MIT Press.
- Farah, M.J. (2003). Perception, memory, and agnosia. In M. Fahle and M.W. Greenlee (Eds.) *The Neuropsychology of Vision*. Oxford University Press.
- Farah, M.J. (2003). Disorders of Visual-Spatial Perception and Cognition. In K. Heilman and E. Valenstein, *Clinical Neuropsychology*, 4th Ed. New York: Oxford.

- Tanaka, J.R. & Farah, M.J. (2003). Holistic representation and face recognition. In M.A. Peterson & G. Rhodes (Eds.) *Analytic and Holistic Processes in the Perception of Faces, Objects and Scenes*. JAI/Ablex.
- Chapters in T.E. Feinberg & M.J. Farah, Editors (2003). *Behavioral Neurology and Neuropsychology*. 2nd Ed. New York: McGraw Hill
- Farah, M.J. Computational modeling in behavioral neurology and neuropsychology.
- Farah, M.J. Frontal lobe function: Cognitive neuropsychological issues.
- Farah, M.J. Prosopagnosia.
- Farah, M.J. Visual perception and visual imagery.
- Farah, M.J. Visuospatial function.
- Farah, M.J. & Feinberg, T.E. Visual object agnosia.
- Farah, M.J. & Grossman, M. Semantic memory impairment.
- Feinberg, T.E. & Farah, M.J. The development of modern behavioral neurology and neuropsychology.
- Caplan, A.L. & Farah, M.J. (2003). Emerging ethical issues in neurology, psychiatry, and the neurosciences. In R.N. Rosenberg, S.B. Prusiner, S. DiMauro, R.L. Barchi & E.J. Nestler (Eds.) *The Molecular and Genetic Basis of Neurologic and Psychiatric Disease*. 3rd Ed. Philadelphia: Butterworth Heinemann.
- Farah, M.J. & Feinberg, T.E. (2003). Prosopagnosia. *Encyclopedia of the Neurological Sciences*. Elsevier.
- Farah, M.J. (2004). Neuroethics. Op-Ed in *Virtual Mentor, Ethics Journal of the American Medical Association*, Vol. 6, No. 8.
- Farah, M.J. & Wolpe, P.R. (2004). Neuroethics: Toward broader discussion (Letter), *Hastings Center Report*, 34(6), 4-5.
- Farah, M.J. (2004). Neuroethics: A guide for the perplexed. *Cerebrum*, 6, 29-38.
- Reprinted in B. Steinbock, A.J. London & J.D. Arras, Eds. (2013). *Ethical Issues in Modern Medicine, 8th Edition*. New York: McGraw-Hill; Excerpt reprinted in (2005) *Shift*, 9, 18-19.

- Farah, M.J. (2004). Bioethical issues in the cognitive neurosciences. In M.S. Gazzaniga (Ed.) *The Cognitive Neurosciences III*, Cambridge: MIT Press.
- Farah, M.J. & Noble, K. (2005). Socioeconomic influences on brain development: A preliminary study. In E. Mayr, E. Awh, & S.W. Keele (Eds.) *Developing Individuality in the Human Brain*. Washington: American Psychological Association.
- Farah, M.J. (2005). Terri Schiavo's Brain. *Blog.Bioethics.net*, March 23, 2005
- Farah, M.J. (2005). Letter to Editor, *Trends in Cognitive Sciences*, 9, 173.
- Farah, M.J., Noble, K.G. & Hurt, H.H. (2005). Poverty, privilege and the brain: Empirical and ethical issues. In J. Illes (Ed.) *Neuroethics in the 21st Century*. New York: Oxford University Press.
- Farah, M.J., Wolpe, P.R. & Caplan, A. (2005). Brain research and bioethics. In J. Gunning & S. Holm (Eds.) *Ethics, Law and Society*. Aldershot: Ashgate Publishing.
- Farah, M.J. (2007). "Enriched environments for humans: Can you study that?" In *Mind Matters*, the *Scientific American* blog on science and mind. March 13. http://blog.sciam.com/index.php?title=title_8&more=1&c=1&tb=1&pb=1.
- Farah, M.J. & Heberlein, A.S. (2007). "Getting Personal" Response to commentators, Neuroscience and Personhood. *American Journal of Bioethics*, Vol. 7.
- Farah, M.J., Noble, K.G. & Hurt, H.H. (2007). The developing adolescent brain in socioeconomic context. In D. Romer & E. Walker (Eds.) *Adolescent psychopathology and the developing brain: Toward an integration of brain and prevention science*. New York: Oxford U Press.
- Farah, M.J. (2007). "Just say 'no' (to yourself)" In *Mind Matters*, the *Scientific American* blog on science and mind. September 11. http://blog.sciam.com/index.php?title=saying_no_to_yourself_the_neural_mechanism&more
- Devinsky, O., Farah, M.J. & Barr, W.B. (2007). Visual agnosia. In Miller, B. (Ed.) *Handbook of Clinical Neurology, 3rd Series: Neuropsychology and Behavior*. Elsevier.
- Caplan, A.L. & Farah, M.J. (2007). Emerging ethical issues in neurology, psychiatry, and the neurosciences. In R.N. Rosenberg, S.B. Prusiner, S. DiMauro, R.L. Barchi & E.J. Nestler (Eds.) *The Molecular and Genetic Basis of Neurologic and Psychiatric Disease*. 4th Ed. Philadelphia: Butterworth Heinemann.

- Farah, M.J. (2007). Social, legal and ethical implications of neuroscience: Neuroethics for short (Editorial), *Journal of Cognitive Neuroscience*, 19, 363-364.
- Farah, M.J. (2008). Rationality is a better basis for ethics than repugnance. Correspondence. *Nature*, 451, 521
- Farah, M.J. (2008). That little matter of consciousness. *American Journal of Bioethics – Neuroscience*, 8, 17-19.
- Farah, M.J. (2009). Neuroethics. In V. Ravitsky, A. Fiester, A. L. Caplan (Eds). *The Penn Center Guide to Bioethics*. Springer.
- Farah, M.J. & Murphy, N. (2009). Neuroscience and the soul (letter). *Science*, 323, 1168.
- Farah, M.J. (2009). A picture is worth a thousand dollars (Editorial), *Journal of Cognitive Neuroscience*, 21, 623-624.
- Farah, M.J. (2009). Neuroethics and Consciousness. In A. Cleermans et al. (Eds.) *Oxford Companion to Consciousness*. New York: Oxford University Press.
- Farah, M.J. (2010). Neuroscience and ethics. Letter to the editor, *New Scientist*, April 17, p. 24.
- Farah, M.J. (2010). My brain made me do it. *New Scientist*, October 19, 2010.
- Farah, M.J. (2010). Mind, brain and education in socioeconomic context. In M. Ferarri and L. Vuletic (Eds.) *The Developmental Interplay of Mind, Brain and Education*. Springer.
- Betancourt, L. M., Yang, W., Brodsky, N. L., Gallagher, P. R., Malmud, E. K., Giannetta, J. M., Farah, M.J. & Hurt, H. (2011). Adolescents with and without gestational cocaine exposure: longitudinal analysis of inhibitory control, memory and receptive language. *Neurotoxicology and Teratology*, 33(1), 36-46.
- Farah, M.J. (2011). Neuroscience and neuroethics in the 21st century. In J. Illes and B.J. Sahakian (Eds.) *The Oxford Handbook of Neuroethics*. Oxford University Press.
- Farah, M.J. & Smith, M.E. (2011). Discussing smart pills versus endorsing smart pills: Reply to Swanson, Wigal and Volkow (2011) and Elliott and Elliott (2011). *Psychological Bulletin*, 137, 751-752.
- Farah, M.J. (2011). Overcorrecting the neuroenhancement discussion (Letter to the Editor). *Addiction*, 106, 1190.

- Farah, M.J. (2011). Ethical, legal and societal issues in social neuroscience. In J. Decety and J. Cacioppo (Eds.) *The Handbook of Social Neuroscience*. Oxford University Press.
- Farah, M.J. (2012). Neuroethics: The Ethical, Legal and Societal Impact of Neuroscience. *Annual Review of Psychology*, 63, 571–591.
- Farah, M.J. & Moreno, J.D. (2012). Neuroethics. Online CME course, Albert Einstein College of Medicine, <http://www.cyberounds.com/cmecontent/art498.html>.
- Also adapted for InterMDnet's The Doctor Will See You Now, <http://www.thedoctorwillseeyounow.com/content/bioethics/art3630.html>
- Farah, M.J. & Hackman, D.A. (2012). SES, childhood experience, and the neural bases of cognition. In V. Maholmes and R.B. King (Editors) *The Oxford Handbook of Poverty and Child Development*. New York: Oxford University Press.
- Farah, M.J. (2012). Review of Robert Whitaker's "Anatomy of an Epidemic: Magic Bullets, Psychiatric Drugs and the Astonishing Rise of Mental Illness in America." *American Journal of Bioethics – Neuroscience*, 3, 65-66.
- Farah, M.J. & Gillihan, S.J. (2012). Diagnostic brain imaging in psychiatry: Current uses and future prospects. *Virtual Mentor: American Medical Association Journal of Ethics*, 14, 464-471. <http://virtualmentor.ama-assn.org/2012/06/stas1-1206.html>
- Hook, C.J., Lawson, G.M. & Farah, M.J. (2013). Socioeconomic status and the development of executive function. In R.E. Tremblay, M. Boivin and R. DeV. Peters (Editors), *The Encyclopedia of Early Childhood Development*, <http://www.child-encyclopedia.com/en-ca/home.html>
- Farah, M.J. (2013). Personhood, Consciousness, and Severe Brain Damage. In A. Chatterjee and M.J. Farah (Editors) *Neuroethics in Practice*. New York: Oxford University Press.
- Ilieva, I.P & Farah, M.J. (2013). Cognitive enhancement with amphetamine: History repeats itself. *American Journal of Bioethics – Neuroscience*, 4, 24-25.
- Jones, O.D., Marois, R., Farah, M.J. & Greely, H.T. (2013). Law and Neuroscience. *The Journal of Neuroscience*, 33, 17624-17630.
- Noble, K. G. and Farah, M. J. (2013). Neurocognitive consequences of socioeconomic disparities: the intersection of cognitive neuroscience and public health. *Developmental Science*, 16, 639–640.

- Buller, T., Shriver, A. & Farah, M.J. (2014) Animals and neuroethics: Broadening the focus of neuroethics (Guest editorial). *Cambridge Quarterly Journal of Healthcare Ethics*, 23, 124-128.
- Farah, M.J., Hook, C.J. & Lawson, G.M. (2014). Toward a reasoned approach to neuroeducation in an era of “neuroeverything.” *Human Development*,
- Farah, M.J. (2015). Developmental Neuroethics, in J. Clausen & N. Levy (Eds.) *Springer Handbook of Neuroethics*, Springer.
- Farah, M.J. (2015). An ethics toolbox for neurotechnology. *Neuron*, 86, 34-37.
- Lawson, G.M, Hook, C.J., Hackman, D.A. & Farah, M.J. (2016). Socioeconomic Status and Neurocognitive Development: Executive Function. In J.A. Griffin, L.S. Freund and P. McCardle (Editors), *Executive Function in Preschool Age Children: Integrating Measurement, Neurodevelopment and Translational Research*. Washington, DC: American Psychological Association Press.
- Farah, M.J. (2016). Child Poverty and Brain Development. In R. Sternberg, S. Fiske, and D. Foss (Eds) *Scientists Making a Difference: The Greatest Living Behavioral and Brain Scientists Talk about Their Most Important Contributions*. Cambridge University Press.
- Farah, M. J., & Hook, C. J. (2017). Trust and the poverty trap. *Proceedings of the National Academy of Sciences*, 114(21), 5327-5329.
- Farah, M. J. (2019). Biological Psychiatry and Socioeconomic Status. *Biological psychiatry*, 86(12), 877.
- Farah, M.J. (2020). Neuroscience and Socioeconomic Status, in *The Cognitive Neurosciences VI*. D. Poeppel, G.R. Mangun and M.S. Gazzaniga (Eds.). Cambridge: MIT Press.
- Bassett, D. S., Cullen, K. E., Eickhoff, S. B., Farah, M. J., et al. (2020). Reflections on the past two decades of neuroscience. *Nature Reviews Neuroscience*, 21(10), 524-534.
- Farah, M. J. (2021). Checking in with Neuroethics. *Hastings Center Report*, 51(1), 3-3.
- Nusslock, R., & Farah, M. J. (2022). The Affective Neuroscience of Poverty. *Journal of Cognitive Neuroscience*, 1-4.

CONTRIBUTED CONFERENCE PRESENTATIONS (Selected, last 5 years)

Hu, L & Farah, MJ Socioeconomic disparities in children’s cognitive performance:

Deficits or differences? Poster presented at SRCD biannual meeting, 2023, Salt Lake City

Farah, MJ et al. Childhood Environment and Adult Brain Structure: Experimental Evidence, SRCD biannual meeting virtual, 2021.

Hao, Y & Farah, M.J. Parsing depression across the socioeconomic spectrum using neuroanatomy, Society for Neuroscience virtual meeting, 2021.

Farah, M.J. Prospects for AI-Enabled Diagnostic Imaging in Psychiatry. International Neuroethics Society virtual meeting, 2020.

Hao, Y. & Farah, M.J. American Psychosomatic Society virtual meeting, Biosocial Affective Neuroscience symposium, 2020

Thomason, M.E., Lenniger, C., Espinoza-Heredia C. & Farah, M.J., Neural correlates of poverty originate in the womb. Poster presented at Gates Grand Challenges, Addis Ababa, 2019.

Betancourt, L.M., Hurt, H., Nichols, T.A., Elci, O. Avants, B.A. & Farah, M.J. Neuroanatomical correlates of socioeconomic status in infancy. Poster presented at Society for Neuroscience, Chicago, 2019.

Farah, M.J., Duda, J.T., Nichols, T.A., Ramey, S.L., Montague, P.R., Lorenz, T.M. & Ramey, C.T. Early educational intervention for poor children modifies brain structure in adulthood. Poster presented at Society for Neuroscience, Washington, DC, 2017.

Nichols, T., Betancourt, L.M., Yushkevich, P.A., Wisse, L.E.M., Avants, B.B., Ashtari, M. Hurt, H., & Farah, M.J. Environmental Influences on early childhood hippocampal growth. Poster presented at Society for Neuroscience, Washington, DC, 2017.

Last, B.S., Jensen, S.T. & Farah, M.J. Neuroanatomical correlates of socioeconomic status in young adults: findings from the Human Connectome Project. Poster presented at Society for Neuroscience, Washington, DC, 2017.

Wittman, L.T., Winkelman, AJ, Lawson, GM & Farah, MJ Reliability of SES effects on hippocampal and frontal brain structure in children and youth: A systematic review. Poster presented at Society for Neuroscience, San Diego, 2016.

Farah, M.J. Ethical issues in the neuroscience of gaming. Society for Neuroscience Social Issues Roundtable, *The Neuroscience of Gaming*, Washington, DC, 2014

Farah, M.J Symposium on Applications of Developmental Neuroscience. Cognitive Neuroscience Society, Boston, 2014.

- 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 (recent)

Keynote address, Cognitive Neuroscience Society, San Francisco, 2023
 University of Arizona, Psychology Dep't, remote lecture, 2023
 University of Virginia, Psychology Dep't, remote lecture, 2022
 British Association for Cognitive Neuroscience, remote lecture, 2022
 Simply Neuroscience (International student-led nonprofit for teaching neuroscience), remote lecture, 2022
 Ethos webinar on early intervention with Ilna Singh and Rose Mortimer, 2022
 Penn Inns of Court, Neurolaw (after dinner talk), Philadelphia, 2022
 Innovators in Cognitive Neuroscience, Putting neuroscience to work to reduce the harms of poverty, 2021.
 Middle East and North Africa International Conference on Ethics and 6th International Conference on Ethics, virtual and in Jordan, keynote address, 2021
 American Psychosomatic Society virtual meeting, Biosocial Affective Neuroscience symposium, 2020
 International Neuroethics Society virtual meeting, Prospects for AI-Enabled Diagnostic Imaging in Psychiatry, 2020
 Cutting Edge Developments in Neuroscience and Law speaker, Forham Law School, New York City, 2020
 Conference on Usos políticos de la evidencia neurocientífica sobre la pobreza, Buenos Aires, 2019
 Fred Kavli Distinguished Neuroethics Lecture, International Neuroethics Society, Chicago, 2019
 Distinguished Lecture in Psychology, University of Missouri, Columbia, 2019
 Symposium on Neuroscience, Ethics and Early Childhood, Medical College of Wisconsin, Milwaukee, 2019
 Symposium on Neuroprediction, Presidential Scholars in Society and Neuroscience, Columbia University, New York City, 2019
 British Neuropsychiatric Association, London, 2019.
 Public lecture, Fralin Biomedical Research Institute, Virginia Tech, Roanoke, 2019.
 Colloquium, Department of Psychology, University of Pittsburgh, 2019
 Cognitive Neuroscience Summer Institute, Tahoe, CA, 2018.
 NAS/NIH meeting on "Leveraging Rarely Investigated Populations." Washington DC, 2018
 Workshop on interdisciplinary neuroscience training, Columbia University, 2018
 Fondazione Menarini The World Writes on the Body: How the Environment Impacts the Phenotype, Florence Italy, 2018
 Sloan Nomis NYU Foundations of Economic Behavior Inaugural Symposium and Retreat, New York City, 2018

Neuroscience Research Center Distinguished Lecture, University of Texas Health Science, Houston, TX, 2018
American Association for the Advancement of Science, NeuroPolicy speaker, Washington DC, 2017
Society for Neuroscience, Professional Development symposium, Washington DC, 2017
Society for Neuroscience, Short Course workshop faculty and organizer, Washington DC, 2017
International Neuroethics Society symposium, Washington DC, 2017
Stanford Neuroscience Institute, Annual Symposium, Palo Alto, 2017
STEM-Law conference commentator, 2017
Aspen Ideas Festival, Aspen CO, 2017
Symposium, Symbioses, New School for Social Research, New York, 2017
New Frontiers in the Neuroscience of Inequality, Round Table, Society for Research in Child Development, Austin, 2017
Coordinating Global Brain Projects meeting, Rockefeller University, New York, 2016
Kavli Futures Symposium, Columbia University, New York, 2016
World Science Festival, Panel Discussion on Consciousness, New York, 2016
National Education Association lecture, Washington DC, 2016
Moral Psychology and Bioethics symposium, Hastings Center, New York, 2016
Ethics colloquium, University of Chicago, 2016
Invited symposium, Cognitive Neuroscience Society, New York, 2016
Institute of Human Development and Social Change, NYU, colloquium, New York, 2016
CMU Psychology Dept Centennial Colloquium, Pittsburgh, 2016
Harvard Dept of Psychology Colloquium, Cambridge MA, 2016
Joint Bioethics Colloquium, NIH, Bethesda, 2016
Columbia University-Hastings Center, New York City, 2015
Workshop on animal models for SES, NICHD, Bethesda, 2015
Society for Research in Child Development, Philadelphia, 2015
Opening plenary symposium, International Congress on Psychological Science, Amsterdam, 2015
Workshop on ethical issues in research, ICPS Amsterdam, 2015
IOM workshop on Noninvasive Brain Stimulation, Washington DC, 2015
Psychology Department, Temple University, Philadelphia, 2015
Franklin Institute Neuroscience and Society series, Philadelphia, 2014
NYAS-Aspen Brain Institute Meeting on Shaping the Developing Brain, New York City, 2014
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
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

