

“Life of Brain”

Selves and Societies in the Age of the Brain and Mind Sciences (~1940 +)

Objectives:

This class investigates into the history and culture of the psych- and neurosciences in “Western” societies of the 20th and 21st centuries. We will consider the decades during and after the Cold War. With this periodization, we will cover the time when cybernetic perspectives evolved, when the brain became synaptic and plastic, when the mind and brain sciences became increasingly experimental, when different methods of testing, neuroimaging, and data processing arose, and when the neurosciences became institutionalized and acquired a highly policy-relevant voice. The course will be framed by a consideration of the *ne(ur)oliberal subject*: In what contexts does it exist? What are its characteristics? What role do the psych- and neurosciences play in creating, maintaining, or challenging this concept? And, finally, what is the role of the humanities and social sciences in the “Age of the Brain” (Littlefield & Johnson 2012)?

This class rests entirely on the contributions of each participant. The discussions will be driven by our interdisciplinary curiosity and guided by the assigned readings. We will commence with an introduction to contemporary debates around the mind/brain sciences in the humanities and social sciences. Subsequently, we will dig more deeply into the specifics of how the past and contemporary psych- and neurosciences acquire data, how they process them, and how their results eventually create new knowledge about brains, minds, and whole populations far beyond the laboratory. In particular, we will inquire into the use and reproduction of social categories through the scientific engagement with (non-)human research subjects and machines, such as humanness, intelligence, health, age, ethnicity, and sex/gender. We will talk about the extent to which these categorizations rest on, contrast, or comply with the concepts of ever-changing plastic, probabilistic, and enhanceable brains.

Schedule and Readings:

Font color black: selection of relevant readings; font color grey: supplementary readings.

1/21 Introduction: Psych-/Neuro-Cultures and Debates

Scott Vrecko (2010), "Neuroscience, Power and Culture: An Introduction"

Fernando Vidal (n.d.), "Psychology and Classifications of the Sciences"

Susan L. Star (1989), *Regions of the Mind: Brain Research and the Quest for Scientific Certainty*

Nadine Weidman (1999), *Constructing Scientific Psychology: Karl Lashley's Mind-Brain Debates*

Christina E. Erneling & David M. Johnson (eds.) (2005), *The Mind as a Scientific Object: Between Brain and Culture*

1/26 Neuroscience and Biopolitics in the 20th and 21st Centuries

Nikolas Rose & Joelle M. Abi-Rached (2013), *Neuro: The New Brain Sciences and the Management of the Mind*

Joelle M. Abi-Rached & Nikolas Rose (2010), "The Birth of the Neuromolecular Gaze"

Troy Duster (2003), *Backdoor to Eugenics*

2/9 Methods of the Mind/Brain Sciences I: Overview

Matt Carter & Jennifer C. Shieh (2010), *Guide to Research Techniques in Neuroscience* (selected chapters)

François Clarac (2013), "From Neurophysiology to Neuroscience: New Technologies and New Concepts in the Twentieth Century" in: C. Giovanni Galizia & Pierre-Marie Lledo (eds.), *Neurosciences—from Molecule to Behavior: A University Textbook*

Anne Beaulieu (2003), "Brains, Maps and the New Territory of Psychology"

Jill G. Morawski (ed.) (1988), *The Rise of Experimentation in American Psychology* (selected chapters)

- Simon Cohn (2008), "Making Objective Facts from Intimate Relations: The Case of Neuroscience and Its Entanglements with Volunteers"
- Michael E. Lynch (1988), "Sacrifice and the Transformation of the Animal Body into a Scientific Object: Laboratory Culture and Ritual Practice in the Neurosciences"
- Ivana Konvalinka & Andreas Roepstorff (2012), "The Two-Brain Approach: How Can Mutually Interacting Brains Teach Us Something about Social Interaction?"
- Nicolas Langlitz (2010), "The Persistence of the Subjective in Neuropsychopharmacology: Observations of Contemporary Hallucinogen Research"
- Andreas Roepstorff (2009), "Navigating the Brainscape: When Knowing Becomes Seeing" in: Cristina Grasseni (ed.), *Skilled Visions: Between Apprenticeship and Standards*
- Ludwik Fleck (1935), "Scientific Observation and Perception in General" in: Robert S. Cohen & Thomas Schnelle (eds.) (1986), *Cognition and Fact: Materials on Ludwik Fleck*

2/23 Methods of the Mind/Brain Sciences II: Brain Imaging & Data

- Kelly Ann Joyce (2008), *Magnetic Appeal: MRI and the Myth of Transparency* (excerpts)
- Morana Alač (2008), "Working with Brain Scans: Digital Images and Gestural Interaction in fMRI Laboratory"
- Morana Alač (2004), "Negotiating Pictures of Numbers"
- Joseph Dumit (2014), "How to (Not) Do Things with Brain Images" in: Catelijne Coopmans et al. (eds.), *Representation in Scientific Practice Revisited*
- Sarah de Rijcke & Anne Beaulieu (2014), "Networked Neuroscience: Brain Scans and Visual Knowing at the Intersection of Atlases and Databases" in: Catelijne Coopmans et al. (eds.), *Representation in Scientific Practice Revisited*
- Anne Beaulieu (2001), "Voxels in the Brain: Neuroscience, Informatics and Changing Notions of Objectivity"
- Anne Beaulieu (2004), "From Brainbank to Database: The Informational Turn in the Study of the Brain"
- Suparna Choudhury et al. (2014), "Big Data, Open Science and the Brain: Lessons Learned from Genomics"
- Natasha D. Schüll (2005), "Digital Gambling: The Coincidence of Desire and Design"
- Martha J. Farah (2014), "Brain Images, Babies, and Bathwater: Critiquing Critiques of Functional Neuroimaging"

Neuroscientific Authority

Deena Skolnick Weisberg et al. (2008), "The Seductive Allure of Neuroscience Explanations"

Martha J. Farah & Cayce J. Hook (2013), "The Seductive Allure of 'Seductive Allure'"

Imaging

Andreas Roepstorff (2001), "Brains in Scanners: An *Umwelt* of Cognitive Neuroscience"

Joseph Dumit (2004), *Picturing Personhood: Brain Scans and Biomedical Identity*

Morana Alač (2011), *Handling Digital Brains: A Laboratory Study of Multimodal Semiotic Interaction in the Age of Computers*

Morana Alač (2014), "Digital Scientific Visuals as Fields for Interaction" in: Catelijne Coopmans et al. (eds.), *Representation in Scientific Practice Revisited*

Anne Beaulieu (2000), "The Brain at the End of the Rainbow: The Promises of Brain Scans in the Research Field and in the Media" in: Janine Marchessault & Kim Sawchuk (eds.), *Wild Science: Reading Feminism, Medicine and the Media*

Anne Beaulieu (2002), "Images Are Not the (Only) Truth: Brain Mapping, Visual Knowledge, and Iconoclasm"

Sarah de Rijcke & Anne Beaulieu (2006), "Essay Review: Taking a Good Look at Why Scientific Images Don't Speak for Themselves"

Anne Beaulieu (2002), "A Space for Measuring Mind and Brain: Interdisciplinarity and Digital Tools in the Development of Brain Mapping and Functional Imaging, 1980–1990"

Digital Technologies

Linda Derksen (2000), "Towards a Sociology of Measurement: The Meaning of Measurement Error in the Case of DNA Profiling"

Bruno Latour (1999), *Pandora's Hope: Essays on the Reality of Science Studies* (chapter 6: "A Collective of Humans and Nonhumans")

Lev Manovich (2013), *Software Takes Command*

Natasha D. Schüll (2012), *Addiction by Design: Machine Gambling in Las Vegas*

3/16 Cognition, Life, and Machines

Roberto Cordeschi (2002), *The Discovery of the Artificial: Behaviour, Mind and Machines Before and Beyond Cybernetics*

John Johnston (2008), *The Allure of Machinic Life: Cybernetics, Artificial Life, and the New AI* (Part III, "Machinic Intelligence")

Jean-Pierre Dupuy (2002), *The Mechanization of the Mind: On the Origins of Cognitive Science* (excerpts)

Otniel E. Dror (2001), "Counting the Affects: Discoursing in Numbers"

Jamie Cohen-Cole (2005), "The Reflexivity of Cognitive Science: The Scientist as Model of Human Nature"

Jamie Cohen-Cole (2014), *The Open Mind: Cold War Politics and the Sciences of Human Nature*

3/30 The 'Clinical' Brain

Emily Martin (2007), *Bipolar Expeditions: Mania and Depression in American Culture*

Jonathan Metzl (2009), *Protest Psychosis: How Schizophrenia Became a Black Disease*

Mind/Brain-Specific

Tanya M. Luhmann (2011), *Of Two Minds: An Anthropologist Looks at American Psychiatry*

Gilles Deleuze & Félix Guattari (1987), *A Thousand Plateaus: Capitalism and Schizophrenia*

Paula J. Caplan & Lisa Cosgrove (eds.) (2004), *Bias in Psychiatric Diagnosis*

Joseph Dumit (2005), "The Depsychiatrisation of Mental Illness"

Francisco Ortega & Suparna Choudhury (2011), "'Wired up Differently': Autism, Adolescence and the Politics of Neurological Identities"

Matthew Wolf-Meyer (2011), "Natural Hegemonies: Sleep and the Rhythms of American Capitalism"

Suparna Choudhury & Laurence J. Kirmayer (2009), "Cultural Neuroscience and Psychopathology: Prospects for Cultural Psychiatry"

General

Stephen Kern (2006), *A Cultural History of Causality: Science, Murder Novels, and Systems of Thought*

Ian Hacking (1999), "Making Up People"

Ian Hacking (1990), *The Taming of Chance* (in particular chapters 13, 19, 21, 23: "Regimental Chests," "The Normal State," "The Autonomy of Statistical Law," "A Universe of Chance")

Geoffrey C. Bowker & Susan L. Star (1999), *Sorting Things Out: Classification and Its Consequences*

4/6 Brain, Mind, Self—Human and Non-Human

Giorgio Agamben (2003), *The Open: Man and Animal* (excerpts, including chapter 9: “Anthropological Machine”)

Pieter R. Adriaens & Andreas de Block (2010), “The Evolutionary Turn in Psychiatry: A Historical Overview”

John D. Greenwood (2009), “Materialism, Strong Psychological Continuity, and American Scientific Psychology”

Joseph Dumit (2003), “Is It Me or My Brain? Depression and Neuroscientific Facts”

Fernando Vidal (2009), “Brainhood, Anthropological Figure of Modernity”

Emily Martin (2010), “Self-Making and the Brain”

The Self

Elizabeth Lunbeck (2000), “Identity and the Real Self in Postwar American Psychiatry”

Rebecca Lemov (2011), “X-Rays of Inner Worlds: The mid-Twentieth-Century American Projective Test Movement”

Emily Martin (2000), “Mind-Body Problems”

Sex/Gender

Rebecca Jordan-Young (2010), *Brain Storm: The Flaws in the Science of Sex Differences* (excerpts)

Anne Fausto-Sterling (2000), *Sexing the Body: Gender Politics and the Construction of Sexuality* (chapter 5: “Sexing the Brain: How Biologists Make a Difference”)

Michael Pettit (2012), “The Queer Life of a Lab Rat”

Jill G. Morawski (1985), “The Measurement of Masculinity and Femininity: Engendering Categorical Realities”

Human vs. Non-Human

Terrence W. Deacon (1998), *The Symbolic Species: The Co-evolution of Language and the Brain* (excerpts)

Marga Vicedo (2009), “The Father of Ethology and the Foster Mother of Ducks: Konrad Lorenz as Expert on Motherhood”

Tania Munz (2005), “The Bee Battles: Karl von Frisch, Adrian Wenner and the Honey Bee Dance Language Controversy”

Gregory Radick (2005), "Primate Language and the Playback Experiment, in 1890 and 1980"

Gregory Radick (2000), "Morgan's Canon, Garner's Phonograph, and the Evolutionary Origins of Language and Reason"

Michael Pettit (2009), "The Problem of Raccoon Intelligence in Behaviourist America"

Andrew Fenton (2012), "Neuroscience and the Problem of Other Animal Minds: Why It May Not Matter so Much for Neuroethics"

4/13 Plasticity

Catherine Malabou (2004), *What Should We Do with Our Brain?*

Books Forum "Cultural Brains and Neural Histories," *BioSocieties* (2011) 6

Victoria Pitts-Taylor (2010), "The Plastic Brain: Neoliberalism and the Neuronal Self"

Natasha D. Schüll & Caitlin Zaloom (2011), "The Shortsighted Brain: Neuroeconomics and the Governance of Choice in Time"

Tobias Rees (2010), "Being Neurologically Human Today: Life and Science and Adult Cerebral Plasticity (An Ethical Analysis)"

Suparna Choudhury & Kelly A. McKinney (2013), "Digital Media, the Developing Brain and the Interpretive Plasticity of Neuroplasticity"

Jonna Brenninkmeijer (2010), "Taking Care of One's Brain: How Manipulating the Brain Changes People's Selves"

William Connolly (2002), *Neuropolitics: Thinking, Culture, Speed*

Gilles Deleuze (1992), "Postscript on the Societies of Control"

4/27 Wrap-Up

Helge Kragh (2002), "Problems and Challenges in the Historical Study of the Neurosciences"

Roger Cooter (2014), "Neural Veils and the Will to Historical Critique: Why Historians of Science Need to Take the Neuro-Turn Seriously"

Michael Pettit & Ian Davidson (2014), "Can the History of Psychology Have an Impact?"

Transdisciplinary Neurosciences

Melissa M. Littlefield & Jenell Johnson (eds.) (2012), *The Neuroscientific Turn: Transdisciplinarity in the Age of the Brain*

Francisco Ortega & Fernando Vidal (eds.) (2010), *Neurocultures: Glimpses into an Expanding Universe*

Daniel Ansari, Bert De Smedt & Roland H. Grabner (2012), "Neuroeducation: A Critical Overview of an Emerging Field"

Dustin Tingley (2006), "Neurological Imaging as Evidence in Political Science: A Review, Critique, and Guiding Assessment"

Neuroethics

Jonathan D. Moreno (2006), *Mind Wars: Brain Research and National Defense*

Jonathan D. Moreno (2003), "Neuroethics: An Agenda for Neuroscience and Society"

Martha J. Farah (ed.) (2010), *Neuroethics: An Introduction with Readings* (excerpts)

Critical Studies

Suparna Choudhury & Jan Slaby (2011), *Critical Neuroscience: A Handbook of the Social and Cultural Contexts of Neuroscience* (selected chapters)

Suparna Choudhury, Saskia K. Nagel & Jan Slaby (2009), "Critical Neuroscience: Linking Neuroscience and Society through Critical Practice"

Des Fitzgerald et al. (2014), "What's so Critical about Critical Neuroscience? Rethinking Experiment, Enacting Critique"

Suparna Choudhury (2009), "Culturing the Adolescent Brain: What Can Neuroscience Learn from Anthropology?"

Maarten Derksen, Signe Vikkelsø & Anne Beaulieu (2012), "Social Technologies: Cross-Disciplinary Reflections on Technologies in and from the Social Sciences"