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THE BRAIN IN THE WEST: FROM DIVINE INSTRUMENT TO HUMAN ESSENCE

A Course of Study by Steve Fuller

This ten-week module surveys the history of Western thought from the standpoint of the brain, a locus of increasing interdisciplinary interest in the early twenty-first century. The evolution of our understanding of this organ has charted humanity's changing relationship to the divine, the natural, and the social.

The key objectives of this module are as follows:

- An appreciation of the centrality of the brain as a site of not only contemporary scientific and policy-making interests, but also of cross-disciplinary understanding—a clear case of blind men trying to make sense of an elephant.
- A grasp of the sociological contexts in which conceptions of the brain have been implicated, especially in terms of defining the evolutionary limits of humanity.
- A reciprocal grasp of how various planned and unplanned developments in human history have potentially altered the character of the brain, including the relationship to its possessor.
- An awareness of the relatively seamless way in which classic questions from theology and philosophy have been translated into the modern scientific discourses of medicine, psychology, and neuroscience.

Two of the assigned books, McGilchrist (2009) and Taylor (2004), may serve as general-purpose reference books providing cross-disciplinary overviews of the history of Western enquiries into the nature of the brain. Though both authors are trained in contemporary neuroscience, they differ in outlook: McGilchrist is more humanistic and positive, Taylor more social scientific and critical.

Students will also be required to watch at least one of the following five classic films of the past fifty years—all cheaply available on DVD—in which the brain figures prominently in the technologies of social control. The assignment may take one of two forms: (a) an academic critique of one or more aspects of the film in light of issues raised in the module; or (b) a dramatic script based on one or more aspects of the film

This syllabus is elaborated and contextualized in *Preparing for Life in Humanity 2.0* (London: Palgrave Macmillan, 2012).

in light of issues raised in the module. The five films and their general relevance to the brain are as follows:

- *The Manchurian Candidate* (1962)—programming assassins
- *A Clockwork Orange* (1971)—rehabilitating delinquents
- *Minority Report* (2002)—anticipating crime
- *The Eternal Sunshine of the Spotless Mind* (2004)—erasing memories
- *Inception* (2010)—implanting thoughts

Weekly Module Content

1. Introducing the Cult of the Brain

This session discusses how and why the brain became the defining organ of the human condition from the seventeenth to the nineteenth centuries: exploring the path from Descartes's fixation on the pineal gland at the brain's base, through Swedenborg's focus on the cerebral cortex, to the Freudian view of the self as an extension of the entire nervous system (Gross 1998). Originally treated as the meeting point between our animal and divine natures, the brain came to be regarded by an increasingly atheistic science as a secular fetish, a view which if anything contemporary neuroscience has helped to revive (Hecht 2003).

2. The Brain's Access to God

The brain was often seen as the organ for tapping into our divine natures, even if the heart or liver were regarded as more crucial for normal life functions. Two models of such tapping—both prominent in Platonic Christianity—were the “arts of memory” and the “course of study,” the former drawing on our divinely inspired creativity, the latter on the prospect of our re-absorption into God's mind. Together they formed the basis for the scientific method in the seventeenth century (Yates 1966).

3. The Brain Merges with God

The “view from nowhere” to capture the divine standpoint that Newton arguably rendered humanly accessible, which brought into focus the nature of our capacity for “second-order thought”; that is, to see the world as if standing outside of it. The modern history of this prospect begins in the seventeenth century with “theodicy,” which invited systematic

speculation on God's motives (Nadler 2008) and later developed into the logical and later computational puzzles associated with cybernetic models of the brain (Wiener 1950, 1964).

4. The Brain's External Relations to Mind

In the seventeenth and eighteenth centuries the two main problems of the philosophy of mind arose, both highlighting the brain as translation device: How is mind related to body, and how do minds relate to each other? The former was defined in terms of "foreign exchange" (*commercium mentis et corporis*); that is, how much of the right sort of matter is needed for the expression of intelligence? The latter was addressed by finding a basis for calibrating human similarity: Was it our common descent from God, à la Descartes, or our common life situations, à la Adam Smith?

5. The Brain's Internal Relations as Mind

The eighteenth and nineteenth centuries saw the rise of "associationism" as an account of thought based on neural conductivity, which seeded many ideas about the role of contiguity and similarity in establishing mental patterns, not least that higher (a.k.a. divinely oriented) forms of thought are produced by the "synthesis" or "integration" of nervous energy. Thus, the defining human attribute of "free will" came to mean the capacity to determine the brain's focus of "attention." Post-Darwin, associationism was increasingly identified with behavioral conditioning that was neutral regarding the brain's nature, while presuming the manipulability of innate associative tendencies (Passmore 1970).

6. Composing the Brain

The two main modern views of the brain's organization emerged in the nineteenth century as offshoots of medical enquiries: (1) a "modular" view that envisaged the organ as subject to a micro-version of the social division of labor; and (2) a "holistic" view that depicted the brain as an especially sensitive self-organizing form of matter. The former tended to favor more direct, the latter less direct medical interventions, which in turn served to bifurcate the history of psychiatry in the twentieth century (McGilchrist 2009).

7. Combining Brains

Paradigms also emerged for characterizing the common or collective features of brains, especially as they adapt to changing historical circumstances. Prior to clear

empirical accounts of genetic transmission, theories of “common sense” and “collective memory” existed as alternative accounts of the acquisition and transmission of our humanity, which over the course of the nineteenth century came to be known as “culture” (Valsiner and van der Veer 2000). The recent growth of evolutionary psychology and “neurohistory” provides a new context for exploring how mass exposure to psychotropic elements in the environment (e.g., diet) have re-wired human brains, resulting in new forms of sociality and self-expression (Smail 2007).

8. The Global Brain

As the cult of the brain peaked in the twentieth century, the evolutionary prospect of a “world brain” loomed either as a single unitary entity or a parallel distributed process. The former case was described in sacred (Teilhard 1961) and secular (Wells 1938) terms, both stressing tendencies towards amplification and standardization in global communications. The latter was originally depicted as updating the classic geopolitical “balance of power” (Deutsch 1963), though Wikimedia nowadays provides a postmodern version based on the endless differentiation and democratization of knowledge production.

9. The Mass Mediated Brain

From the printing press to the Internet, the mass media have functioned—both intentionally and unintentionally—to reform the brain’s powers, leaving the organ better able to cope with the ever-expanding mental ecology in which it has been embedded. This matter may be seen in positive or negative terms, as well as approached from the brain or the media side, resulting in four prospects: brain-positive (Dehaene 2009), brain-negative (Greenfield 2003), media-positive (McLuhan 1964), media-negative (Lanier 2010).

10. Conclusion: Brains Shaped, Washed, and Sold

Finally we reflect on the extent and import of humanity’s attempts to control its brains. The history of this ambition recapitulates the Reformation (“evangelism”) and Counter-Reformation (“propaganda”) roots of modern “brainwashing,” which may be seen as, respectively, a cathartic purge of unsavory associations or a reinforcement of latent virtues. The introduction of brain scanning in the field of “neuromarketing” represents a more invasive and personalized development along this trajectory (Taylor 2004).

Reading List

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