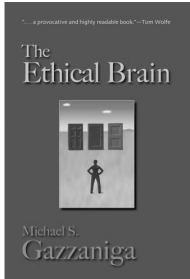


Dissecting the Ethical Brain

Benjamin Bienia*

Department of Biology
Lake Forest College
Lake Forest, Illinois 60045



By Michael S. Gazzaniga
Dana P (2005)

On September 12, 2006, Edmund D. Pellegrino, Chairman of The President's Council on Bioethics said, "To advance human good and avoid harm, biotechnology must be used within ethical constraints. It is the task of bioethics to help society develop those constraints and bioethics, therefore, must be a concern to all of us."

Evolution through natural selection has endowed our species with the innate capacity to process information by the use of our brains. Through natural gene selection, our ability to process this information varies from individual to individual. What if the genome dictating the variation of an individual's intellect, athletic ability, or even personality, can be enhanced by pharmaceuticals or brain therapy? How can we differentiate between an embryo and human life? When do powerful brain imaging technologies, that can literally "read" you brain, cross the abstract line of an individual's privacy and right to self? How do we diffuse the gray cloud that surrounds ethics today? Michael S. Gazzaniga, an outspoken member of the President's Council on Bioethics, may not have all the answers, but he provides much insight in his critically acclaimed book, *The Ethical Brain*. This thrilling eye-opener helps us debunk many medical ethical dilemmas our society has come to face in recent years with insightful developments in the field of neuroscience.

Gazzaniga, a world-renowned neuroscientist, argues that the field of neuroethics alleviates much uncertainty about the arbitrary limitations imposed on life. He explains that through a scrupulous understanding of how the brain and its underlying mechanisms work, humans will be able to pursue a true set of universal ethics. According to Gazzaniga, "it is the job of neuroethics to use what we know about how the brain works to help better define what it is to be a human and how we can and should interact socially". *The Ethical Brain* helps define the intangibles that encompass ethical dilemmas through his exceptional understanding of the brain mechanisms in an easily digestible manner for the reader.

What marks the beginning of human life? This has been the million dollar question stem cell researches, policy makers, and the rest of the

biomedical world have been debating. Gazzaniga initially embarks upon the notion that consciousness is the *pièces de résistance* of human life itself; without a brain you are unable to sustain a conscious life and therefore, undeserving of the moral status of a human (23). Through a detailed synopsis of the path to a conscious life, Gazzaniga is able to genuinely convey his belief that embryo research has validation on the basis of good intention and only during the pre-embryonic stage.

Gazzaniga elucidates the immense apprehension that commonly follows scientific progress, especially in gene and brain enhancement, rationalizing that the notion of hyperagency is misplaced and that the extremes such as the humanzee are often something of science fiction. Gazzaniga acknowledges the possibility of negative side effects, but reminds us that "in the end, we humans are good at adapting to what works, what is good and beneficial, and in the end, jettisoning the unwise, the intemperate, the silly and self-aggrandizing behaviors that will always be present in certain proportions in our species" (53). *The Ethical Brain* provides an insightful testimony for the enhancement of the human brain using precedents as well as substantiating evidence in a fluid argument that carries itself.

The complex judicial system, which is based on recollection and testimony, may be forever changed from recent understanding of how the brain works. Gazzaniga relays the flaws associated with memory and suggests innovative brain scanning and brain fingerprinting as a possible alternative to incriminate or acquit a defendant. Gazzaniga makes the stunning revelation that each person is responsible for his or her actions, indicating that the insanity plea holds no value in a courtroom. He explains, "brains are automatic, rule-governed, determined devices, while people are personally responsible agents, free to make their own decisions" (90). The author exemplifies the possibility that soon the fate of a defendant may not lie in the deliberation of the courtroom but at a click of a button. Gazzaniga enthralls the reader with riveting accounts of endless possibilities the field of neuroscience has brought upon the judicial system at the turn of the twenty-first century. Distinguishing from whether or not a defendant was associated with a terrorist group or crime scene, by means of brain fingerprinting, has the reader drooling for more.

The Ethical Brain controversially reassesses our position on moral beliefs, particularly on our religious beliefs. The author claims that humans react to an event, interpret it, and from their interpretation beliefs emerge about rules to live by (146). Startling evidence has shown that religious visions or "religiosity" could have an organic basis within the normally functioning brain. Gazzaniga is quick to point out that the temporal lobes are active during the perception of intense religious experience and during auditory hallucinations. He adds that disruption of this region by electrical stimulation, epilepsy, or overexcitement, might cause such out-of-body experiences (161). As a result, this new evidence introduces a gripping reality for society and possibly the way we may view religious beliefs.

The Ethical Brain is a lively confrontational and thought-provoking book about the world of

* This paper was written for FIYS 106 Medical Mysteries, taught by Dr. Shubhik DebBurman.

neuroethics and its solutions to numerous social problems. Gazzaniga illuminates scientific findings in this enjoyable read in hopes that it will write a new page in the understanding of bioethics. After reading the book, one walks away with not only academic merit but with a greater sense of self. This father of cognitive science will have you basking in his fruit of enjoyable scientific discovery and understanding.

Note: Eukaryon is published by students at Lake Forest College, who are solely responsible for its content. The views expressed in Eukaryon do not necessarily reflect those of the College.

References:

Gazzinaga, Michael. The Ethical Brain. New York: Dana P, 2005.

"The President's Council on Bioethics." Bioethics. 12 Sept. 2006
<http://www.bioethics.gov/topics/neuro_index.html.>