

The Brains Behind the Dilemma

Allison Fair

Department of Biology
Lake Forest College
Lake Forest, Illinois 60045

In the novel, *The Social Construction of Reality*, Peter L. Berger and Thomas Luckmann (1967) write, "The world of everyday life is... reality by the ordinary members of society in the subjectively meaningful conduct of their lives. It is a world that originates in their thoughts and actions, and is maintained as real by these" (p. 17-18, par. 2). As human beings, we tend to base our judgements on personal beliefs. In fact, as Berger and Luckmann (1967) mentioned, that is how we shape the world around us. Political views, social constructs, and economical standpoints seem to divide us from those with different perspectives. In *The Ethical Brain*, Gazzaniga highlights this issue by illustrating the pros and cons of "hot topics" in society and tries to diminish biasness by providing a more objective form of evidence from the brain to support or disprove issues. Although not all aspects of the brain are known and measurable and other perspectives may have valid points, it is often difficult to argue against a biological standpoint because it is concrete. I believe that neuroethics should fully guide society because it eliminates external factors that could vary amongst people with individual experiences and biases.

Abortion is one of the most controversial topics in society because there are many different ways to look at this one topic. Gazzaniga (2005) explains why abortion is ethical before the 23-week post-conception period by examining the brain's capabilities in the womb; while looking at the issue from a neurological perspective, he writes that an embryo's brain would not be competent in an external environment (p. 7). He states, "The brain at Carnegie Stage 23, which has slowly been developing from roughly the fifteenth day is hardly a brain that could sustain any serious mental life" (Gazzaniga, 2005, p. 8, par. 1).

The lack of nervous system maturation before a fetus has been developing for 23 weeks has been echoed by other sources. According to PubMed Central, "...good evidence exists that the biological system necessary for pain is intact and functional from around 26 weeks' gestation" (Derbyshire, 2006, par. 9). When dealing with abortion, people have different beliefs on when cells are developed enough to be considered a human. Gazzaniga (2005) brings up the continuity argument to contrast his neuroethical beliefs but mentions that this idea stems from a religious standpoint (p. 9). Although these ideas may hold personal value, they do not stand against evidence that has been tested and proven. The individuality associated with religious beliefs may make one feel strongly about a topic, which can lead to arguments with little reasoning involved. Gazzaniga (2005) makes this clear when talking about how to determine consciousness (9). He writes, "The example of brain death illustrates how rules and regulations on bioethical issues can be formed and influenced by beliefs that have nothing to do with the accepted scientific facts" (Gazzaniga, 2005, p. 10, par. 2). Looking at the abortion issue from anything other than a neuroethical perspective is not valid; it would lack facts that are necessary to justify this ethical dilemma.

Neuroethics should not only be applied to the ethics of life or death situations. Gazzaniga (2005) brings up the fate or free will argument by depicting the brain's potential to be aware of a specific stimulus before one is conscious of it (92). However, he undermines this idea by stating, "People are free and therefore responsible for their actions; brains are not responsible" (Gazzaniga, 2005, p. 89, par. 2). In order to bring this issue into the social realm, it was imperative for Gazzaniga to put down the impact of the brain in the refutation of free will. Through this ethical issue, Gazzaniga shows that one cannot always use neuroscience to predict a particular outcome, but it must always be considered when evaluating ethical issues. For instance, Gazzaniga composes a well-rounded argument on why free will is possible, but he can only make this claim by disproving the brain's effect on the control of oneself. Although I do not fully agree with this point, I see the necessity of using the brain to evaluate free will. In *Scientific American*, Nichols (2011) states, "...psychologists widely agree that unconscious processes exert a powerful influence over our choices...we presume that we can generally sense all the influences on our decision making—and because we cannot detect deterministic influences, we discount them" (par. 8). Whether one agrees

or disagrees with the brain's effect on ethical issues, it is evident that this fact must be taken into consideration before allowing for the influence of outside perspectives. No social view will have as much concrete evidence as a neurological stance on an issue. One's upbringing can play an immense role in sculpting their view of what is socially acceptable in society, leading to few conflicts getting solved.

Although it is possible for fate and free will to be looked at from different standpoints, the argument detailing the reliability of memories must revolve around the brain. Gazzaniga (2005) stresses that memories can be tainted or influenced by outside information, time, and biases (126). Despite the evolutionary benefits of holding on to the major concepts of a memory (Gazzaniga, 2005, p. 121), both true and made-up memories affect the same parts of the brain, showing one's vulnerability toward creating fake memories (Gazzaniga, 2005, p. 138). Even those with impeccable memory have shown the facility in incorporating inaccurate pieces of information into one's recollection. In order to show that everyone's memory is affected by the world around us, people with highly superior biographical memories (HSAM) were given a series of tests to understand how advanced their memory is (Patihis et. al, 2013). However, the results from the memory tests were far from promising (Patihis et. al, 2013). In the *Proceedings of the National Academy of Sciences*, Patihis et. al (2013) states, "HSAM individuals showed normal levels of susceptibility to misremembering nonexistent news footage when misleading suggestion or imagination exercises were given" (par. 15). This shows that even the brains of people who are believed to have stellar memory cannot reminisce in a fully factual manner. Bioethics is completely concrete, memory is not.

Many believe that certain ethical issues cannot be assessed through bioethics. Although I feel it would be wrong to discredit any other perspective that does not deal with the biology of the brain, I also think that it would be unjust to put any viewpoint before it. Through the chapters in *The Ethical Brain*, as well as highly debated topics hitting headlines today, it is clear that many people will never see eye to eye because of differing opinions. At a time where the divide between nations is at an all-time high, it is essential that people begin to look at issues from a standpoint in which evidence is accessible. Opinions can only get so far when it comes to solving disputes. The factuality of bioethics simply cannot be undermined by viewpoints that are supported by beliefs. Whether or not one decides to agree that bioethics should guide society is up for debate, but one simply cannot argue against the value of concrete evidence with neuroscience.

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

- Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, N.Y.: Doubleday.
- Derbyshire, S. W. (2006). Controversy: Can fetuses feel pain?. *BMJ: British Medical Journal*, 332(7546), 909. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440624/>
- Gazzaniga, M. (2005). *The ethical brain*. New York: Dana Press.
- Nichols, S. (2011, November 1). Is free will an illusion? Retrieved from <https://www.scientificamerican.com/article/is-free-will-an-illusion/>
- Patihis, L., Frenda, S. J., LePort, A. K., Petersen, N., Nichols, R. M., Stark, C. E., McGaugh, J & Loftus, E. F. (2013). False memories in highly superior autobiographical memory individuals. *Proceedings of the National Academy of Sciences*, 110(52), 20947-20952.