Placing Neuroethics in its Place

Rachel Hastings
Department of Biology
Lake Forest College
Lake Forest, Illinois 60045

The year is 2114 and the earth is scorched by the many wars that have been waged on it. A proper justice system is nonexistent because the common belief is every crime a person commits is a result of a certain brain dysfunction. Criminals are sent to doctors and given drugs to ensure they will behave. The people are little more than robots. These are potential scenarios that might occur as a result of our technological advances. Although there are benefits to advances like brain imaging techniques, they tend to create ethical concerns such as the rejection of free will, which is why a universal set of neuroethics, a brain based philosophy of life, needs to be in place.

Advances in neuroscience have found their way into the courtroom, a place where they should not be so easily welcomed; advances such as lie detector tests, which relies on neurochemicals to guess how a person might behave. Michael S. Gazzaniga, the author of The Ethical Brain, disagrees with this practice stating "'mind reading' technologies do not, in fact, read the mind" (Gazzaniga 119). A lawyer might have the defendant take a lie detector test, in which he fails, prompting the jury to believe he is guilty regardless of if he is. The first problem this highlights is there is too much that is unknown in the realm of neuroscience (Aggarwal 240). The second problem is that devices such as the lie detector cannot test for intentionality (Aggarwal 240).This is a common mistake jurors make; they assume that just because the brain image or the lie detector suggested a behavior that the person acted on it. While Gazzaniga's stand is not unfair, there are still benefits to neuroscience in the courtroom. Consider Zachary Short who was found guilty of shooting a police officer to death in Aiken, South Carolina (Blume 9). PET and MRI scans were done later that expressed brain damage consistent with that of Fetal Alcohol Syndrome and environmental toxin exposure (Blume 18). The PET and MRI scans were done only after Short's was evaluated extensively by a psychiatrist who recommended the scans, to support a conclusion that was already. Because of the scans, Short was not served the death penalty. Neuroscience should be used in courtrooms when it is supported by other lines of evidence and when its purpose is to encourage compassion and not to exculpate or justify a crime (Blume 7).If it is to be used in the courtroom, there must be regulations placed upon it because of its potential for abuse.

Technological advances reveal that the brain is powerful enough that it might determine our every action eradicating the idea of free will. This is supported by our unconscious integration of words (Gazzaniga 95). Questioning free will also means questioning whether we should be held responsible for our actions. Gazzaniga argues the compatibilist side of this debate, the belief that we still have free will despite living in a deterministic world (Timpe). He states "the idea of responsibility, a social construct that exists in the rules of a society, does not exist in the neuronal structures of the brain" (Gazzaniga 102). While he believes the brain is somewhat deterministic, he argues we should still be held responsible for our actions. He argues the John Locke's theory of "free won't" (Gazzaniga 93), which is the idea that we have enough time to veto an unconscious decision. It is not only possible to believe in free will, it is necessary. In a study led by Kathleen D. Vohs, we find that individuals who do not believe in free will are more likely to cheat when compared to individuals who believe they were responsible for their actions (Vohs 53). This suggests that people who do not believe in free will are more likely to make unethical decisions because they believe they cannot be held responsible for their actions. Free will not existing because of a deterministic brain seems to lead to the belief that we have no ethical responsibilities. To avoid this conclusion, neuroscience should be left out of the free will debate.

The problems that arise as a result neurotechnological advances that make it possible to doubt the existence of free will requires a universal set of neuroethics. The more advances we make, the greater our power and our ability to make unethical decisions especially if we believe we are not responsible for our actions. Some critics of universal ethics argue that it is impossible on account of the fact that human beings are so different. While this is true, our major moral beliefs regarding actions such as killing and incest are actually quite similar. There are certain beliefs that seem to have been hardwired into us by evolution. We also all seem to follow the "IDR Cycle". The "IDR Cycle", explained by Elizabeth Bader, is how most people are first narcissistic when entering mediation, then they deflate as they start to recognize the arguments of others, finally the party starts to weigh choices until there is a resolution (Bader). We want to come to resolution and a resolution will be made as we come to accept the beliefs we all share. Gazzaniga also supports this idea. His mandate for neuroethics is "to use our understanding that the brain reacts to things on the basis of it's hard-wiring to contextualize and debate the gut instincts that serve the greatest good-or the most logical solutions- given specific contexts" (Gazzaniga 177). The only problem is that it is not through specificity that universal neuroethics will be achieved. Aristotle believed that "we must be content if, in dealing with ethical subjects; we succeed in 'presenting a broad outline of the truth'" (Andorno 6). It is possible for us to be united in our general beliefs, but as for more specific beliefs such as when abortion should be legal, it is impossible to come to a universal conclusion. Universal ethics are easier in application to a more general situation, like the idea of personal responsibility. It is even easier when the universal sets of ethics are based on principles of neuroscience. Neuroscience provides hard facts that are difficult to argue with emotions and they help us understand each other.

The advances we are making in the field of neuroscience can be dangerous especially when it is applied to the concept of free will, which is why it is necessary for there to be a universal set of ethics based on neuroscience in place. Neuroscience should be disregarded when it comes to free will, limited when it comes to technology in the courtroom, and used to guide us towards a loose universal code. With such great leaps in our understanding of the world and ourselves, the potential for corruption is even greater. We are like children with playthings, who need a set of guidelines to ensure that we do not self-destruct. Albert Einstein once said "I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones." We must unite in a common set of beliefs based on neuroscience to avoid such a destructive end.

*This author wrote the paper as a part of BIOL130: Biology Inquiry: Deadly Shape Hostage Brain under the direction of Dr. DebBurman

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. Articles published within Eukaryon should not be cited in bibliographies. Material contained herein should be treated as personal communication and should be cited as such only with the consent of the author.

References

Andorno, R. (2012). Do our Moral Judgements Need to be Guided by Principles?. *Cambridge Quarterly of Healthcare Ethics, 21*(457-465), 457-465.

Bader, E. (2009).The Psychology of Mediation: Issues of Self and Identity and the IDR Cycle. *Pepperdine Dispute Resolution Law Journal, 10*, 2

Blume, J. (2011). Life, Death, and Neuroimaging: The Advantages and Disadvantages of the Defensive Use of Neuroimages in Capital Cases"Lessons from the Front. *Cornell Law School Legal Studies Research Paper Series, 62*(11-18), 1-25.

Gazzaniga,M. S. (2005). *The ethical brain*. New York : Dana Press.

Neil, A. (2009). Neuroimaging, Culture, and Forensic Psychiatry. *Journal of the American academy of Psychology and the Law Online, 37*(2), 5.

Timpe, K. (n.d.). Internet Encyclopedia of Philosophy. Free Will. Retrieved April 2, 2014, from http://www.iep.utm.edu/freewill/#SH3b

Vohs, K. D., & Schooler, J. W. (2008). The Value Of Believing In Free Will: Encouraging A Belief In Determinism Increases Cheating. *Psychological Science, 19*(1), 49-54.

I