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“Man versus Writer: Exploring the Ways That Literature Can Expose the Harmful Effects of
Enhancement Technology”

Mankind, especially in this modern, high-tech age, is obsessed with perfection. Whether they want to lose five pounds, graduate at the top of their class, or conquer nature, humans inherently desire self-improvement as well as the improvement of their surrounding world. As a result of technology becoming more enhanced and revolutionized, people now have more power over themselves and nature than ever before. While this feat is incredible and great, possessing the power to manipulate what is pure and organic also harbors numerous potential dangers. With recent enhancement technology, including steroids, cognitive enhancers, and plastic surgery, people are trying harder than their ancestors ever did to reach the perfection that has now been made to seem more attainable. Women are frequently undergoing surgery to alter their physical appearance. Many white collar workers and students are turning to drugs like Prozac, Adderall, and Ritalin to keep up with the demanding pace of the professional world. There are many harmful effects that result from this enhancement technology movement; not only in terms of health, but social order as well. People turn to their imaginations in order to explore the possible consequences of physical enhancers and neuroenhancers and, quite often, these ideas are published; not in academic journals or scholarly articles, but in fictional short stories, novels and other literary texts. Literature plays a key role in touching on facets of culture because it can explore scientific possibilities, specifically enhancement technology, without leading to any genuine or real-world consequences. Knowledge of the body and enhancement technology can

be powerfully mediated by language and stories. Fictional works, including Nathaniel Hawthorne's "The Birthmark," Aldous Huxley's *Brave New World*, and Mary Shelley's *Frankenstein*, can illuminate people's understanding of the enhancement technology debate and enhancement technology's impact on society.

Nathaniel Hawthorne's short story, "The Birthmark," concentrates on cosmetic enhancement and encourages readers to consider the dangers of striving for physical perfection. "The Birthmark" tells the story of Aylmer, a scientist hungry for control over Nature, and his beautiful wife, Georgiana. Aylmer's passion for dominating Nature goes hand in hand with his obsession over perfection. Very soon after Aylmer's marriage to Georgiana, he notices a birthmark on her left cheek, and brings Georgiana's attention to it, recommending that she have it removed. Georgiana originally thought nothing of this minute blemish, but her self-consciousness grows and grows the more Aylmer fixates on its imperfection. Eventually, Georgiana can no longer cope with her husband's frustration over her perceived flaw. Georgiana agonizes to Aylmer: "Danger is nothing to me; for life, while this hateful [birth]mark makes me the object of your horror and disgust, - life is a burden which I would fling down with joy. Either remove this dreadful hand, or take my wretched life!"(Hawthorne 346). Georgiana explains to her husband that she now experiences her birthmark as a hindrance to feeling any joy whatsoever. Her birthmark is no longer a unique characteristic, but an obstacle that restricts her husband from seeing her true self. She is so fraught over her imperfection that she allows Aylmer to perform a procedure to rid her of the birthmark, and while the procedure succeeds, Georgiana dies as a result of the treatment. The manner in which Hawthorne creates Georgiana's character, content with her physical appearance until criticized, reflects the way that contemporary media impacts modern society. Many women, and even men, experience insecurity with their outward

appearance, feeling desperate and willing to give anything in order to alter the way that they look. Carl Elliot, a Professor in the Center for Bioethics at the University of Minnesota, explains that in modern society (especially individualistic, competitive cultures such as American culture) individuals feel that it is vital to be up to par when it comes to status, appearance, popularity, etc. Almost everyone feels concern over how they are observed by others, and they want to be perceived in a positive light; having the respect, and even admiration, of others. (366). Georgina is the perfect example of this concept, desperate for her husband's approval and reverence. Hawthorne's wild exaggeration of this insecurity and Aylmer's reaction to his wife's minuscule "flaw" make it simpler for readers to examine the dispute over cosmetic enhancement objectively and clearly, without their subjective experiences distorting the issue.

Fiction is simultaneously informative and entertaining in a way that academic writing is not, shedding light on important issues in an appealing way and providing readers with captivating allegories that exaggerate, but mirror, their own world and what is happening around them. The U.S. President's Council on Bioethics has used "The Birthmark" as a foundation to discuss medical enhancement. Elliot describes an account of the Council's chairman, Leon Kass, using Hawthorne's short story as the base for discourse over "enhancement technologies," that improve a person's physical appearance, disposition, intelligence, and emotions to go beyond what humans are naturally capable of. Enhancement technologies are more often than not medical technology that was originally intended to "cure or control illness," for instance, drugs like Prozac and Adderall meant for people who suffer from depression or attention deficiencies (364). Elliot explains how "Kass was widely criticized for having the Council begin its deliberations by reading fiction...the problem with 'The Birthmark' is not that it is fiction or even that it casts a skeptical eye on medicine...[but] that it fails to capture the motivations and

fears that drive the demand for enhancement technologies”(Elliot 365). Kass’ use of “The Birthmark” was met with skepticism after the Council on Bioethics’ deliberation regarding medical technology; however, “The Birthmark” is actually a remarkable example of the “motivations and fears” that cause people to utilize enhancement technologies. Both Aylmer and Georgiana represent and symbolize different reasons to desire perfection. Aylmer sees Georgiana’s birthmark as a “fatal flaw of humanity which Nature...stamps ineffaceably on all her productions, either to imply that they are temporary and finite, or that their perfection must be wrought by toil and pain”(Hawthorne 345). Aylmer sees imperfections as a sign of mortality, and hopes that removing Georgiana’s birthmark will somehow give her permanence along with perfection. Georgiana’s motivation to perfect herself stems from the desire to please her husband. In the presence of Aylmer, “she place[s] her hand over her cheek to hide the terrible mark from [his] eyes” (Hawthorne 348). Because Georgiana knows that her husband is not tolerant of the blemish, she grows self-conscious of her complexion and is willing to give up her life for a chance to please Aylmer. While there are arguments against using works of fiction as valid examples to support the bioethics discussion, Kass was able to see the potential benefits of examining fiction to elucidate scientific concerns.

As “The Birthmark” reveals, fiction can serve as a reminder of the hazards of violating bioethics and the dangers of having scientific power over what is organic; many literary texts reveal the strong relationship between literature and science. Aldous Huxley’s novel *Brave New World* is an example of literature that highlights the dangers of using neuroenhancers. Huxley’s novel toys with a drug called “soma,” an “ideal pleasure” drug used to escape the pressures of day to day life. Steven Weiss, the Vice President of the Southern Association for the History of Medicine and Science, asserts that “Huxley’s vision of the future was extremely prescient and

that advances in biotechnology and neuropharmacology now threaten to alter human nature and thus undermine the very basis of human dignity”(Weiss 83). The novel does not mean to undermine all people who take antidepressants, only people who have no neurological or psychological need for antidepressants like Prozac. Weiss goes on to explain that “Soma, as Huxley remarked, packs a triple punch for the inhabitants of his futuristic society: it serves as a hallucinatory tranquilizer; a euphoric which stimulates both the mind and the body; and a blissful release from tension and anxiety” (84). This fictional drug may seem far-fetched, but does not stray too far from the neuroenhancers available at the pharmacies today. Elliot supports the concern of “undermin[ing]...human dignity” by explaining that the capacity to control for human physicality, in terms of appearance, intelligence, and emotional well-being, will inevitably accompany stressful feelings of dread. People’s abilities will no longer be unique to those who possess them; neuroenhancers and physical enhancers alike cause a great race for people to struggle through, trying to stay afloat by balancing a variety of aptitudes and talents that are no longer special, but standard (372). Huxley’s fictional drug, Soma, puts pressure on his future society’s population to remain mentally stable or ‘perfect’. *Brave New World* very much resembles an experiment, exposing a population to a stimulus, the drug, and observing the population’s dependent reaction to the stimulus. Novels have a certain authority when examining controversial issues in a scientific manner.

More than asking readers to contemplate the morality of physical enhancement and cognitive enhancement, literature asks readers to evaluate what it means to be human and where to draw the line between natural improvement and artificial enhancement. Mary Shelley’s novel, *Frankenstein*, is a classic example of ‘man versus nature’. It’s important to note that Shelley’s fictional work was a product of her time’s political, social, and scientific environment. Dr. Henk

van den Belt from Wageningen University explains that “Mary Shelley herself took pains to point out the theme of her gothic novel was not entirely the product of her own imagination. In fact, the subject matter resonated with scientific ideas that had circulated around 1800...” (Belt 260). Shelley consciously pulled inspiration for her novel from the scientific community of the nineteenth century, and because it so perfectly and uniquely discusses the issues of biotechnology and physical enhancement, Shelley’s renowned piece of literature is frequently used to support scientific discussions regarding the ethics of enhancement technology. “Bioethicist Bernard Rollin, for example, referred to the Frankenstein story when discussing the ethical and social aspects of animal biotechnology. At the height of the British food scare around genetically modified foods in 1998, the Prince of Wales single-handedly poured oil on troubled waters by launching the term, ‘Frankenfoods.’ Mary Shelley’s creature is yet again unearthed in connection with synthetic biology” (Belt 261). *Frankenstein* is a timeless parable that exemplifies the dangers of tampering with scientific power over nature.

One might argue that works of fiction, such as “The Birthmark,” do not offer solutions to the enhancement technology conflict; however, valuable pieces of literature provide insight into the incentive behind the use of physical enhancers and neuroenhancers. A problem cannot be solved until the root of the dilemma is located and identified. Through the allegory of Aylmer and Georgiana, Hawthorne illustrates how insecurities with physical appearance, and the desire to perfect, result from society creating inexplicably high standards and people then trying to adhere to those ideals. Eliot explains, “A society shapes the identity of its people by reflecting an image back to them. And if that image does not serve as the basis for self-respect and dignity, it can be psychologically damaging. It is a desire to avoid this kind of damage that drives the demand for many enhancement technologies” (367). Identical to the way that Georgiana hopes

to avoid the psychological damage that comes with disapproval from her husband, people will do whatever it takes to avoid disapproval from modern society. Though “The Birthmark” does not openly offer any kind of solution to this dilemma, Hawthorne does subtly disclose one. The answer to reducing the use of enhancement technology will not be achieved by restricting use of the technology itself, but developing a process that will help eliminate the bizarrely high standards that are being set forth by the media.

Fiction has the ability to inform in a manner that could be considered more effective than non-fiction; with the ability to appeal towards its readers’ emotions. Fiction has an advantage over nonfiction; fiction’s capacity to investigate experiments that would be unethical in the natural world is incredibly helpful and valuable when trying to teach a populace about the different angles of controversial issues, such as the use of enhancement technology. Literature can remind its readers of the hazards that come along with violating bioethics and it also asks them to contemplate the morality of physical and cognitive enhancement. Fiction serves a greater purpose than merely providing readers with entertainment; fiction can effectively communicate knowledge regarding issues in the political and scientific communities in an accessible and relatable way.

Works Cited

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