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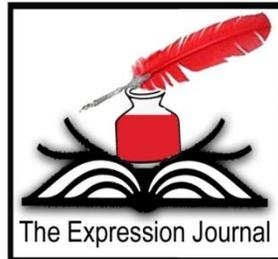
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MUTATION: A QUESTION MARK ON ETHICS IN PRACTICE OF GENETICS

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Abstract

Taking off from Mary Wollstonecraft Shelley's *Frankenstein*, the paper traces the obsession of mankind with the myth of creation and his attempts to understand the mystery of life and recreate it, outshining God in the process. The present paper is a question on the moral validity of man playing god through genetic engineering for improving the quality of an offspring and bettering the human race based on a scrutiny of Robin Cook's *Mutation* wherein the author uses the conflicting viewpoints of a scientist father with the psychologist mother regarding their ten year old son to question man's attempts at 'creation' of life. Cook deals with the dilemma of fiddling with nature in his novel which is increasingly finding itself at the center of the controversial Man vs. God debate. The paper studies Robin Cook's medical thriller *Mutation* to locate echoes of *Frankenstein* and also question the validity of Man vs. God debate as captured in the book. Through a comparison of the plot and characters of the two books, it tries to seek a ground zero in the battle of science and ethics.

Key-Words

Ethics, Genetic Engineering, Power Lust, Emotion vs. Intellect, Neophobia,
Science vs. Religion.



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Ever since the invention of the wheel, curiosity has led mankind on the path of discovery. The breakthroughs in the different disciplines of knowledge have made mankind the supreme race on the earth. Every new leap on the path of innovation has made mankind more confident of its capabilities. On the whole man has solved mysteries relating to every field of life. Creation is a mystery which has intrigued man since the beginning. From *Genesis* to the various *Puranas*, there are many theories as to how the universe originated and the human beings came to inhabit the earth. The process of gestation also garnered a lot of interest as an attempt to understand how life is created. Many studies and experiments in this field led to a clearer understanding of how life replicates itself. Further experiments resulted in attempts at cloning. Human cloning has been a constant point of debate ever since the first animal was cloned. Quite a number of movies made in Hollywood have dealt with the issue of human cloning and questioned the ethics of factory-manufacturing and Xeroxing humans.

The present paper is a question on the moral validity of man playing god through genetic engineering for improving the quality of an offspring and bettering the human race based on a scrutiny of Robin Cook's *Mutation* wherein the author uses the confronting/conflicting viewpoints of a scientist father with the psychologist mother regarding their ten year old son to question man's attempts at 'creation' of life. As early as 1989, Cook deals with the dilemma of fiddling with nature in his novel which is increasingly finding itself at the center

of the controversial Man vs. God debate. The paper compares Cook's novel with Mary Shelley's *Frankenstein* which, again, is a critical commentary on the same theme. Using *Frankenstein* as the starting point, this paper explores *Mutation* as the natural successor of the said work by pointing out the similarities and magnification of the horror-quotient of Shelley's novel in the subsequent novel.

Cook's mutation is suspiciously resonant of Mary Wollstonecraft's *Frankenstein*. Apart from the fact that the names of the scientists are similar, there are other coincidences like the monster is eager to learn, just like VJ who is an avid learner. Both of them learn quickly. Vj kills David and Janice while the monster kills Victor's brother and nanny. The monster claims to be superior to its creator, just as Vj asserts and proves his intellectual superiority over his father.

When *Frankenstein* opens, we meet Victor Frankenstein who is exploring the use of electricity for creating life. For the purpose, he fashions a monster out of parts from dead people. When his experiment succeeds he is terrified by his own creation and shuns it. The monster has feelings and wants to be loved but his terrifying appearance alienates everyone from him. He requests for a she-monster and Victor obliges, only to be filled with doubts in the middle of the work. He destroys it and the monster in turn kills his beloved on their wedding night. The monster raises the question as to why Victor brought him to this world if he was unable to make anyone love him. The monster destroys himself in the end but leaves the reader wondering if the fault for his actions was entirely his own. *Frankenstein* explores the grey regions where the intent of the monster and its maker is put to question, where right is not exactly right and the wrong does not appear entirely faulty.

The story has its echoes in *Mutation*. Centering on the family of Dr. Victor Frank – a researcher and founder-partner of Chimaera Inc., who is actively engaged in research on Embryology and infertility and dabbles in genetic engineering on the side – the medical thriller explores a dark world where ethics are sacrificed on the altar of research. In his desire to 'culture' the perfect son, Dr. Victor induces a mutation and alters the gene-sequence of their future child. The child, born thus, has a superior intelligence due to the increased number of neurons in his brain as compared to an ordinary human. The child however is susceptible to the antibiotic Cephalochlor. Quickly attaining the milestones of natural growth, he is the pride of the parents, who constantly have him on the show. By the time we meet a ten-year old VJ, his elder brother David and his nanny Janice are dead due to a rare form of liver cancer. His mother Marsha is worried by an obvious lack of friends around VJ. She has suspicions that he doesn't respond to her emotional needs. She blames science for this apparent lack of emotions in VJ. She "was often obsessed with the thought that being conceived in a petri dish had somehow frozen his emotions" (*Mutation*29).

As a practicing psychologist, she senses that something is definitely out-of-place, but she cannot exactly pinpoint what irks her. She misses David who was a normal child, warm and loving. VJ is too independent. She says, "There's something odd about his behavior.... He's too secretive, too adult" she began to weep." Sometimes he just frightens me" (*Mutation* 45).

At first Victor dismisses Marsha's fears as paranoia. He thinks that the loss of David has made her paranoid. But there are things weighing on his conscience. VJ is a part of his failed experiment, and he feels obliged to defend any lapses on VJ's account. "He'd wanted his son to be exceptional, not abnormal in any kind of deviant way"(*Mutation* 45).He is also conscious of the violation of medical ethics in the conception of VJ. He admits to Marsha "I was afraid to try it on monkeys. I was afraid of success. I kept seeing that old movie *Planet of the Apes* play in my mind"(*Mutation*90). Even while revealing VJ's secret he "seemed to feel he could minimize the enormity of his sin if he confined himself to a purely scientific description (*Mutation*91)". He confesses "When I did it, it seemed like a good idea. But later I knew it was wrong. I lived in terror until VJ was born"(*Mutation*91-2).

Victor is just a scientist succumbing to the temptation of science. The wish to pioneer a revolution in the area of genetics leads him to adopt questionable means. Science does not permit genetic experiments on humans on both moral and ethical grounds. Yet policy has never been clear. People do find loopholes in any and every argument. Consequently, many a time ethics are sacrificed during scientific experiments because of lack of clear directives of any kind. "Policy has never been clear."Victor said, pleased not to have to deal with the ethical issue. "There was a notice published in the Federal Register forbidding such experimentation, but it only covered institutions getting federal grant money. It did not cover private institutions like Chimaera"(*Mutation*98-9).

Victor is relieved that he has done nothing illegal but he also realizes the moral lapse that he has allowed himself in his zeal for science. Victor knows that his act was '*indefensible*'. In his moments of doubts he does think clearly but soon enough, his scientific temper clouds his moral judgment. What must be understood clearly is that ethics and emotions are two different things. By succumbing to emotion and ambition, Victor is left with no space for ethics. Goaded on by the desire to 'create' the most intelligent child, he puts all the issues about ethics at bay and carries on with his research. However, he is devastated when, at the age of three, VJ suddenly loses his phenomenal IQ in a freak incident. When VJ is ten Marsha starts worrying about his solitary behavior. He seems to have no friends. Around this time two exceptionally gifted children die at the day care center of Chimera due to an unexplained edema of their brains. Victor is worried because at three VJ had lost his intelligence and these two children were biological siblings of VJ, containing the same gene as VJ.

Marsha subjects VJ to a battery of psychological tests. She is astounded when the results are anomalous. A second opinion from her friend unsettles her and she starts investigating VJ's life. She is shocked to find that VJ's teacher too had died from the same liver cancer as David and Janice. She brings it to the notice of her husband who, reluctantly, runs tests on the tissues preserved from the three victims. The final analysis reveals that the three had been injected with live cells containing a nucleotide sequence which induced anomalous cancer-like growth in specific areas of liver, ultimately causing their deaths. Marsha's investigations lead to startling revelations and soon the shocked parents realize that VJ is the mind behind the day-care murders and the deaths of David, Janice and teacher. The most disturbing thing for Marsha is that VJ had never lost his brilliance. He had faked the drop in his intelligence so he could carry on his experiments without interference from his parents and teachers. The truant character of VJ is evident from the notes he fakes to be let off school for his experiments at Chimera labs. But Victor finds nothing amiss in his lying as he thinks VJ was actually doing it for a valid reason.

Initially jubilant at the breakthrough that VJ has achieved in gestation techniques at a mere ten, Victor is soon led to question the work-ethics of VJ when he learns of the means he has used to attain these ends.

Victor's head reeled. Didn't VJ realize he couldn't blithely experiment with real people? There were laws to think of, ethics. But the possibilities were irresistible. And who was Victor to judge? Hadn't he engineered the conception of the extraordinary boy he had before him now" (*Mutation* 263).

This realization leads Victor to dig deeper into VJ's personality. He is forced to agree with Marsha that VJ's whole life with them is a sham. Although VJ admits to his truant behavior he has no qualms about it. For him nothing is good or bad, he has no use for morality. He will go almost any length to fulfill his goal. When David threatened to disclose the whereabouts of his secret lab, VJ had mercilessly murdered him by infecting him with cancerous cells. Determined to conceal his reality, he murders everyone who tries to penetrate his shell. He thinks nothing of blackmail. To fund his project he uses recombinant DNA technology to harvest a 'marketable product' which is cocaine. He associates with drug traffickers and holds his parents hostage. He steals the embryos and induces mutation in them to lower their IQ in order to create servants who would obey him. He is not bound by the ethical codes of social conduct. For him emotion is a far-fetched contraption. And Victor realizes too late that in the process of creating a genius, he has created a monster. Now it is up to him to end this trail. It is between the creator and the created. Victor ultimately wipes out all traces of VJ's lab by flooding it and in the process, both Victor and VJ drown.

The book raises questions about the human ambition to better itself. Like fire, science too is a bad master. Although science has given us aids to promote longevity by providing life-saving drugs, vaccines and life-support tools, it has also led to experiments which might change the face of earth and the future of the generations to come. Already, parents-to-be are opting for genetic engineering to conceive the baby of their dreams. It is true that no one can guarantee the moral character of a child whether he is conceived naturally or engineered in a petri dish. It is also true that environment plays a decisive role in the development of a child's personality. Yet there are issues dogging the validity of genetic engineering techniques. When genetic engineering was first applied for altering the gene-sequence of plants for increased production and disease resistant varieties of crops, it was hailed as a revolutionary technique. Later, this technique was extended to research in animal genealogy for cloning. At the time, it was seen as a breakthrough in the field of medicine which could provide the cure for many illnesses and would bring about revolutionary changes in the field of organ transplants. By altering the gene sequence in animals, scientists had hoped to increase the yield of consumable products from animals, which it did as per the expectations. Yet, fear of the unknown resulted in the restrictions imposed in the field of research in human cloning and genetic engineering. Despite the umbrella ban on research in this field, scientists carry on research in this area. Just as Victor exploits the ambiguities in the rules governing research, there are others opting for dubious means to achieve their ambitions. The European Countries decry the GM (genetically modified) products. In India, BT Brinjal and cotton crops faced a lot of criticism and opposition. Hue and cry was raised by religious authorities when the arrival of Dolly, the first cloned sheep was announced in 1996. The apprehension of the human race regarding such experiments portends the questions and doubts regarding the legitimacy of fiddling with nature. Man seeks accomplishment in novel ideas but sometimes they push him to the extremes of belief. Theology has always acted as a check on the seemingly irrational whims of science. It is true that we cannot push the limits of science unless we think out of the box. Yet every new innovation brings with it the fear of the unknown consequences. The ethics of research demand that we innovate. In 'creating' these forms of life are we following in the footsteps of Frankenstein? Though it is possible for us to create life using the technological advancements of science, is it really advisable to actually do so? The moral dilemma of Frankenstein's monster, his curse of lifelessness grows one step further in the character of VJ. While Mary Shelley's monster had emotions despite being fashioned from parts belonging to dead people, VJ is an intelligent monster grown in the laboratory by the means of science interfering with the works of God. There is no morality, ethics, sentiments or feelings in his composition, just cool intellect and reason – a reason which does not stop him from holding his parents hostage, dealing in Cocaine, hobnobbing with illegal arms dealers and plotting murders. For him everything has only utilitarian purpose, even his mother.

The fear of the unknown sometimes fills us with apprehensions regarding the future outcome of any action. Fed constantly upon a fear of apocalypse, we mistrust advancements which lead our minds to hysteria of imagined catastrophes. On the other hand science fuels man's ambition into exploring virgin grounds. As Ron Auch says, "In Mary Shelley's classic novel, *Frankenstein*, the brilliant young Dr. Frankenstein was victimized by his own lust for power. He wanted the power to control life and death by creating a life, a life that would be immortal, never subject to death, or the ravages of old age" (Auch 31). He further says, "Although Shelley's book is just a horror yarn, it does accurately depict one recurring theme in man's history: man's desire to be like God, to have at least just a taste of God's Omnipotent power to control." (Auch31) What is needed is a judicious and selective use of medical technology for the betterment of the human race. The question is of choice – where to draw the line in case of experiments which have the potential to alter the face of the world as we know it and how to strike abalance between the lure of the fame and money on the one hand and ethics on the other.

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