

Demon Out of Freezer and the Havoc Around it: A Bioethical Analysis of Carole Stivers'

The Mother Code

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ABSTRACT

The present paper "Demon Out of Freezer and the Havoc Around it: A Bioethical Analysis of Carole Stivers' *The Mother Code*" attempts to bring out the need for bioethics in the technologically modified world. The novel gives a detailed analysis of the problems created due to lack of bioethical values among the scientific community. Medical Humanities is the major aspect of this work, as the work deals with bio warfare and the devastating results of bio war. In *The Mother Code*, Carole Strives brings to readers the realities of biopolitics and the results of power landing in the wrong hands. It also sheds light on the brutal realities of the aftermaths of bio war and the struggles to contain bioagents. The paper focuses on the lack of ethical values among the scientific community and the price to be paid for it.

Keywords: Power, Biopolitics, Bio war, Bioagent, Biopower.

Human race, ever since its creation, has spread across continents. The hunger of man for resources often leads to conflict. This is evident across centuries and remains the major reason for war over the centuries. With the advancement of technology and technological equipment, war, and the aftereffects of war have also undergone tremendous changes. The quest for power makes man blind about the suffering of others. "Power has its principle not so much in a person as in a certain concerted distribution of bodies, surfaces, lights, gazes; in an arrangement whose internal mechanisms produce the relation in which individuals are caught up" (*Discipline* 202). The concept of power changes with the type of person it is associated with. Greed for power remains the major reason for half of the world problems. Power is a universal concept. It remains constant in every aspect of man's life. "Between every point of a social body between a man and a woman, between the members of a family, between a master and his pupil, between everyone who knows and everyone who does not, there exist relations of power." (*The History of Sexuality* 187).

Biopower (140) is a means of controlling large population. The major aim of biopower remains the betterment of public health. It is a way of controlling human bodies. It refers to the power over human bodies by an external agency. Vernon W Cisney and Nicolae Morar in their work *Biopower Foucault and Beyond* says,

"Biopower exposes the structures, relations, and practices by which political subjects are constituted and deployed, along with the forces that have shaped and continue to shape modernity. But it is untimely in that its relevance is necessarily dissimulated and masked—the mechanisms of power always have a way of covering their tracks. Before we can elaborate on this concept of biopower—the very etymology of which already points us toward the emergence of life into politics—it would behoove us to look at what power itself is, or what we typically think power itself is" (1).

Biopower in the hands of disciplined individuals brings positive outcomes in society. It can create an organized society for a holistic wellbeing of all the individuals. With the concept of biopower comes the term 'biopolitics' (*Society must be Defended* 241).

Biopolitics is a term popularized by Michel Foucault. According to him, Biopolitics aims to study the demography of the target population and seeks to take control of it. Control over a population is exercised through the introduction of various epidemics. Epidemics have the power of creating large number of deaths in a short period of time. Thus, with the ability to bring down a large-scale population to its half or a quarter, it affects population altogether. "Biopolitics' other field of intervention will be a set of phenomena some of which are universal, and some of which are accidental but which can never be completely eradicated, even if they are accidental. They have similar effects in that they incapacitate individuals, put them out of the circuit or neutralize them" (246). This is to control the population of a country, so that no country would overpower world politics using modern technological advancements or physical war. This often results in biological war, also called bio war. Terrorism often has a political inclination which has its base in oppressive political policies. It focuses on intentional violence on the part of humans. "Bioterrorism refers to the intentional release of biological agents or toxins for the purpose of harming or killing humans, animals or plants with the intent to intimidate or coerce a government or civilian population to further political or social objectives" (*INTERPOL Bioterrorism incident pre-planning and response guide* 1). It uses biological agents, especially pathogens, to harm the peaceful non-violent population of a country. Bio war involves a process in which deadly microbes are created and preserved under isolation. These laboratory-created deadly microbes are often called bioweapons. Richard Preston, in his book *The Demon in the Freezer* says, "Bioterrorism is like fire. It can start in a small way and spread and it may be impossible to stop once it begins."

The potential with which the bioweapons can spread is highly unpredictable. The moment it is unleashed, it can undergo transformation through mutation. Hence it has the capacity to outstand man's predictions. The risk associated with bioweapons is larger than expected. *It* "is a weapon of mass destruction that in the event of its use it could leave entire region uninhabitable for generations (*Germ: Biological weapons and America's Secret war*). Thus, unleashing bioweapons on earth can deprive not just the current generation of the basic needs of life but also future generations.

Carole Stivers is an American author and scientist. *The Mother Code* is her only work. She received her Ph.D. in Biochemistry. This is evident in her work too. The book is set in the future and looks on at the possibilities that man's development projects could lead to. It brings out the impact of technological development on man's future, and how a single mistake on man's cognition can bring the entire human race to the verge of extinction. It echoes with the saying that the higher one climbs, the harder the fall is.

James is a scientist in gene engineering. Technology has developed too much to alter genomic sequence of the human body, to cure genetic diseases. The advancements of genetic engineering into a highly matured science enables the engineering of human embryos prior to implantation. As James says,

Over a decade before, scientists at the University of Illinois had developed a type of nanoparticulate DNA called nucleic acid nanostructures—NANs, for short. Unlike native, linear DNA, these small spherical forms of synthetic DNA could easily penetrate a human cell membrane on their own. Once inside the cell, they could insert themselves into the host DNA to modify targeted genes. The possibilities seemed endless - cures not only for genetic abnormalities but also for a whole host of previously intractable cancers (7, 8).

While James returns from a conference on Gene treatable diseases, he is picked in from the airport by the U. S. Army to assist in the bio warfare that has gone out of control. The U. S. Army has

launched a project called “Tabula Rasa” (10) in Afghanistan. The American army has released a bioagent called IC-NAN, which is a sequence of nano particulate DNA. Nanoparticulate DNA sequence is a hybrid version of DNA and nanoparticles. When a victim inhales this nanoparticulate DNA, his lungs cells are infected. A normal human lung cell will be replaced every thirty to fifty days. While a victim infected with nanoparticulate DNA will produce more and more defective cells rather than healthy cells. “These mutated cells would overgrow good tissue, impeding proper lung function and eventually invading the body, robbing other organs of nutrients. The desired result was akin to an aggressive lung cancer— a slow but inexorable death” (12).

Tabula Rasa is deployed in Afghanistan for six months. The bio agent makes more havoc, much beyond expectation. The weapon has been created to leave no traces of its origin. As Dr Garza says:

“IC-NAN was designed for this purpose. A synthetic nucleic acid nanostructure, or NAN, mimics the activity of a virus, but it cannot be replicated by the contaminated individual. So it is not contagious. In addition, this NAN was engineered so that if it was not inhaled within a few hours, it would degrade” (15).

The linear form that it degrades to will not be able to enter the human cell. Only the spherical form of the NAN can enter the human cell. Thus, the IC-NAN released into the atmosphere through drone will enter human body. Once it degrades it no longer will be able to infect the humans. It only kills those who are infected and leaves no traces of its origin. But surprisingly, the linear form is taken up by the archebacterium present in the desert sands. Archebacterium is an organism that has the ability to replicate with each cell division. When the linear NAN enters the archebacterium they are given a new spherical form once again. The moment the new spherical NANs are synthesized in the archebacterium, it causes the archebacterium to explode, rereleasing the spherical NAN back into the environment. Thus, a new cycle starts with fresh IC-NAN and infects more humans.

Nature always has the master stroke for all things. Even though human to human transmission of the disease is not possible, little bugs from nature can sustain IC-NAN in nature for a longer period.

Another archebacterial species has the ability to take the linear NAN, multiple them in large amount of spherical NAN and excrete them back in the air. Through breathing, they infect humans.

James is the head of the antidote preparation team. An antidote would counter the IC-NAN and its attack on the human lungs. Before the antidote can be brought to the market, the bioagent creates havoc. The bioagent spreads at a terrific rate. Those infected die in a few weeks. The life of entire human race is at risk. Before the scientific team rolls out the counter measures, the monster conquers at a much faster pace. The loose monster has no distinction of the land mass and the region it goes through. As it passes through a land mass, it leaves behind only dead bodies. Bodies pile up everywhere, leaving the medical community in a dilemma regarding the measures to be taken.

Man's greed to conquer the land mass and resources comes with a baggage of responsibilities. Medical field that deals with human life should emphasize more on ethical practices. Ethical Concerns in the medical field is one of the major questions that the world is facing. With technology reaching newer heights, the concern for morality also remains greater. Malicious acts on the part of the scientific community can do more harm to the world than the commons. The major concern for this remains due to their ability to manipulate life on earth. Fear of creating super bugs with altered genomic sequences that can wipe out humanity is on the rise. Introducing genetic materials that can cause harmful diseases at a fast rate also remains a major concern.

As in the introduction of the novel, IC-NAN with the ability to kill human beings remains the reason for wiping out of much of the earth's population. The inability of the characters to think what is right remains the major cause for all the problems. The demons in the freezers are set free by the scientific community, thinking it would only harm their enemies. Biological agents can be as catastrophic as nuclear weapons.

The greatest part of the danger in the bioweapons remains not in setting them loose but in containing them. With the aim of destroying a nation, it can wipe out the entire human population.

It is very important that in an era of technology integrated life, humans raise a generation high in morals and ethical values, and that they give utmost importance to righteousness. Only a morally righteous generation can make sure that both technology and power are in safe hands. This will ensure that the world is a better place to live in.

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