

Bio-Weaponry, an Index of a Degenerating Humanism: A Philosophico-Theological Excursus

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Abstract

Humanity devoid of sound ethical values is like a rudderless ship which sails aimlessly and accepts any intervening moral current as the ideal for human existence. Biotechnologists and pharmacists are imbued with the knowledge of germs and microorganisms as they strive to produce therapeutic drugs for the wellbeing of man. These germs can be transformed into biological weapons in some covert bio-weapon laboratories by some states and non-state actors in order to appear relevant, powerful and unconquerable before the comity of nations. Biological weapons are programmed to effectively eliminate and annihilate human beings, animals and plants depending on the needs of their users or manufacturers. International humanitarian law regulates conflict to minimize human suffering. However, the world has recorded the devastating effects of bio-weapon on a number of occasions. Consequently, the primary objective of this work is to evaluate the moral implications and impacts of bio-weapons in the 21st Century and proffer solutions to save lives.

Keywords: Bioweapon, Ethics, Bio-Technology, Power, Humanism, Theology

Introduction

Biological weapons are pragmatic technological artifacts. They are quite effective in eliminating and annihilating human beings, animals and plants. They are also called germ weapons. They consist in “any of a number of disease-producing agents – such as bacteria, viruses, rickettsia, fungi, toxins, or other biological agents – that may be utilized as weapons against humans, animals, or plants” [1]. Biological weapons are used for biological warfare (or germ warfare). Consequently, biological warfare is “the use of living organisms (e.g., bacteria, virus) or biochemical agents (e.g., chemical neurotoxins) as strategic military weapons to cause harm in humans, animals, or plants. In contrast, bioterrorism implies the use of bio-weapons by terrorists. This is contrary to bio-warfare which is the use of bio-weapons by nations or states [2]. Unlike bio-terrorism, biological warfare is considered to be “the government sanctioned use of biological weapons to attack a clearly defined force or civilian population” [3].

It is worthy to note that this is quite different from nuclear warfare. Biological weapons are often tactically applied to gain advantage over an enemy and subsequently subdue him. This

could either be lethal or nonlethal. Bio-weapons could be developed in a bio-laboratory, and later stored by a sovereign nation. They could as well be developed by non-national groups (which could be labeled as terrorists) who intend using them in a conflict. This weapon could be delivered by bombs, drones, missiles or through any other means available. However, it is worthy to note that the use of biological weapons in warfare is not permissible under International Humanitarian Law.

This law is specifically meant to regulate armed conflicts and provide directives on how wars should be conducted to avoid or minimize collateral damages. According to Rule 73 of the IHL, “the use of biological weapon is prohibited” [4]. This regulates usage of weapons in warfare with the primary objective of protecting both the soldiers involved and the civilians from the severe effects of these weapons. Consequently, the use of biological weapons during conflicts is legally termed a war crime [5].

The Making of Biological Weapons

Biological weapons are products of man’s creative intelligence. They are done with the assistance of technology. Their usage

in armed conflicts is a war crime according to the international humanitarian law. However, if usage of bio-weapon is a war crime and has already been prohibited by the International humanitarian law, then, what wonders on the moral justifications for their creation. This is a pertinent ethical question begging for some moral answers. According to Larry Hickman, Dewey argues that technological instruments are not value neutral but already have values attached to them by their inventors; they are “teeming with values and potentialities that form the basis for intelligent selection of ends-in-view, or things to be done” [6].

Not just any type of values but good values supposedly. This argument often exonerates technological inventors and takes the burden of blame off their shoulders whenever their inventions are misused, abused, misapplied and used wrongly. A good example is the Russian creator of the AK47 assault rifle. He was Mikhail Kalashnikov (a Lieutenant General) who before his death felt sorrow at the unregulated distribution and unguarded usage of the weapon he produced with good intentions. However, he “took pride in his invention and in their reputation for reliability, emphasizing that his rifle is ‘a weapon of defense’ and ‘not a weapon of offense’” [7].

Though Kalashnikov attached some good values to the weapon he created by terming it ‘weapon of defense’, the same weapon has been misused and abused by many terrorist groups around the globe. This has led to the death of many innocent civilians unjustly. The same applies to other weapons invented solely for self-defense purposes. Be that as it may, the movement of light and heavy weapons can still be regulated by any sincere government. This can be achieved when all the security apparatus and architecture within a country decide to be alive to their responsibilities. This will apply mostly to the patrol teams, Customs and the Immigration Services.

Brief History of Biological Warfare

The usage of bio-weapons in warfare has a long history. Biological weapons in a loose sense could be referred to as weapons of mass destruction given the fact that they can cause mass deaths. However, it must be noted that it is incapable of causing the destruction of infrastructure, and buildings [1]. Man, nations and states have been obsessed with power and have been fighting to remain powerful and relevant within the comity of nations. The quest for power has pushed man and nations into the production of bio-weapons in order to be able to subdue others, instill fear and control them to do their bidding. History is awash with stories of how bio-weapons have been used for warfare and for political assassinations in the past. The usage of biological weapons may appear military in all its ramifications, but they are actually controlled by politicians [8]. Political leaders always pull the strings from behind the scenes to perpetrate all sorts of political assassinations just to remain relevant and appear powerful.

There are some usages of bio-weapons recorded in history. In the year 184 BCE, a Carthaginian General, Hannibal employed the use of bio-weapons and won a war against the King of Pergamum (Eumenes II) [9]. Hannibal took stock of his military hardware and discovered that he was ill-prepared to face his enemy. Consequently, he directed his soldiers to collect highly venomous snakes to fight the battle.

These poisonous snakes were packaged in clay pots and thrown into the enemy ships. These snakes rattled the enemies and caused commotion in the ships which made Eumene’s fleet retreat. He employed the same tactics in 198 CE against the Roman army of Emperor Septimius Severus to the same effect. But he used scorpion this time. There is equally record of the Romans’ usage of beehives in wars. There was the case of the Emperor of Germany, Frederick Barbarosa. He employed the contamination of water supplies with poisonous substances. The British colonizers spread smallpox among Native Americans in the 18th and 19th centuries. Napoleon used malaria against the British troops in the summer of 1809, etc. [9].

This lends credence to the fact that biological weapons had roots in ancient times and have continued to grow in the 21st Century. There have been cases of usage of bio-weapons by some non-state actors and sponsored groups (terrorists) in the cotemporary times. A religious cult group in 1995 known as AumShinrikyo once launched an attack with sarin gas in Tokyo metro in Japan. Also, the world will not forget in a hurry the case of the “anthrax letters” after the attack on the World Trade Center in New York which led to the death of five people [10]. The world is still grappling with the problem of Covid-19 which has generated a lot of accusations and counter accusations on the bases of its origins. Some still allege that it must have escaped from a secret biological laboratory given its devastating impacts on humanity and on the world economy. Biological weapons are real, and their lethal impact cannot be denied.

Some Nations at the Forefront of the Production of Bio-weapons

The issues surrounding bio-weapons are very peculiar. This is because they are highly undetectable, very volatile and unpredictable. They operate very stealthily and have the propensity to annihilate a large populace in a matter of hours and days. There are some pertinent questions that need cogent answers: are bio-weapons still being produced today not minding the stiff position taken by the International Humanitarian Law against its creation? Which nations still develop these deadly weapons today? What moral justification do they have for the production of these deadly weapons? According to the United State of America Intelligence, “South Africa, Israel, Iraq, and several other countries have developed or still are developing biological weapons” [11].

Some other sources include Iran, Libya, China, Russia and North Korea in the list. But there are also evidences of several American biolabs in Africa with their operations all classified so that it is difficult to know exactly to what purpose they are doing this. So, the big states inter-accuse each other of criminal affairs on biolabs in Africa [12].

The above citations bear eloquent testimony to the fact that bio-weapons are still being produced by some developed and developing nations around the globe. This poses a great danger and threat to human existence since germs do not have any respect for the territorial integrity of any nation. Germs (bio-weapons) have no respect for either local or international borders and can quickly have high global impacts.

This alone should have sent a very strong signal to the entire world about the lethal nature of these germs. But human greed,

selfishness and insatiable quest for power keep driving man into doing the unthinkable just to remain relevant within the global political stage. It is worthy to note that biological warfare (bio-terrorism-biological attack) could be unleashed either on human beings or on agricultural products (agro-terrorism) which is a deliberate or calculated attack against commercial crops or live-stock population [13].

Man needs food and agricultural products to sustain and perpetuate his existence on earth. So, when food shortage is induced through agro-terrorism, it will have adverse impact on human population. Furthermore, the world is currently at the cutting edge of technological development. Many citizens of the world today have either embraced technology or are in the process of becoming technologically aware.

Consequently, the astronomical growth recorded in the field of biotechnology implies that some countries well-grounded in pharmaceutical productions can now have the knowledge and the intellectual wherewithal to develop bio-weapons. To lend more credence to this, “advances in biological research likely will permit development of a new class of advanced biological warfare (ABW) agents engineered to elicit novel effects. In addition, biotechnology will have applications supporting ABW weaponization, dissemination and delivery” [15]. This further implies that there is the possibility that many unknown nations and entities are currently running secret germ laboratories in the name of running pharmaceutical companies. Some of these countries and entities can invest in the technological development of bio-weapons in some secret laboratories in their respective countries under the guise of enhancing their pharmaceutical companies.

Large chunks of taxpayers’ monies are sunk into such money guzzling, hazardous and life-threatening projects. These are funds that would have been invested exclusively into research for the development of medicines to combat or contain a series of ailments that pose a threat to humanity. What are the values attached to bio-weapon development by their inventors? Are these values intended for the good of humanity or merely to serve the financial and political interests of the myopic and selfish individuals that want to stay relevant among the world superpowers? These are some questions begging for answers. It does not seem that man will stop producing lethal weapons until he answers these questions sincerely, objectively and realistically. Thus, this is a path leading him to self-annihilation.

The Imperceptible, Intractable, Toxic and Volatile Nature of Bio-Weapons

Biological weapons are not like AK47 assault rifles, RPG (rocket propelled grenade), missiles, tanks, jet fighters, military drones, land mines, bombs, etc. These could be used for precise offensive and defensive purposes. Military experts know the impact radius and diameter of every bomb, mine, grenade, etc. and can use them to good effects in order to control the level of harmful effects within an area.

However, the same cannot be applied to biological weapons. It is extremely difficult to exert the same amount of control over bio-weapons since they are often imperceptible and undetectable to human senses without the aid of technology. A good example

is the ravenous corona virus (Covid-19) that mercilessly ravaged the entire world. There were many conspiracy theories surrounding it. While some argued that it originated from a bio-laboratory in Wuhan, China, others claimed that it was tactically created by USA and sent to China. The then President of the United States of America, Mr. Donald Trump, in one of his national broadcasts referred to the virus as “a Chinese virus” [15].

The Chinese government got infuriated by this seemingly unguarded utterance and made a counter claim that it was rather the US government that created the biological weapon and unleashed it on China when American soldiers participated in the World military sports event hosted by it [16]. Be that as it may, it is worthy to note that Covid-19 had the signatures and features of bio-weaponry signed all over it. It was not perceptible to the human eyes without the aid of some medical equipment. It had no respect for territorial integrity or border of any nation; it spread very fast, was difficult to contain, was lethal to human health and impacted negatively on the world population, psychology and economy.

Furthermore, a brief analysis will be made here in order to drive home the point more clearly. Assuming that Covid-19 was actually created either by the United States of America or China for some political reasons; assuming equally that their sole targets were the citizens of other countries around the globe; then, why did the virus not respect the territorial boundaries of both countries by unleashing its ravenous and lethal germs on their citizens? Unless the plotters simply had the agenda of reducing world population, whatever the boomerang effect on its people. What if actually the virus was developed by USA to cripple both the reputation and the economy of China; has it respected the territorial integrity of the United States of America? The answer to the latter is no. The virus ravaged almost every country in the world including the United States of America and China. For the sake of greater clarity, the United States of America and China were among the worst hit by the Covid-19 [17].

The point being made here is that it is extremely difficult to control the range and impact of biological weapons. It could be created in the remotest parts of Afghanistan, but its impacts could be felt all over the world sooner or later because the world has been reduced to a global village through breathtaking technological advancements today. People travel a lot by air, and this could be a means of spreading it to the utmost ends of the earth. The radius of bio-weapons impact is often very difficult to determine. Consequently, they can sooner or later come for the lives of those who invented them, and the hunter becomes the hunted.

The impacts of the (covid-19) corona virus pandemic have been quite devastating to the entire world. Africa, Asia, Europe, Australia, Latin America, etc. have lost many of their vibrant citizens to this virus. It literally brought the world to its knees politically, socially and economically. This was occasioned by restrictions on human movements, air travel bans and restrictions placed by some countries on many affected countries. Many aviation companies and oil producing nations of the world almost went into liquidation and economic recession. Health facilities around the globe were overstretched beyond their limits and humanity faced extinction in some of the worst hit nations.

In the light of the above, some urgent actions need to be taken to stem the tide and regulate the production of bio-weapons. Man in his selfish quest for superpower has been constantly creating monsters to sustain such powers. But will the issue of corona virus compel the world to close all her biological weapon programs and laboratories? This question is a very difficult one to answer since man remains a bundle of possibilities. It is akin to asking if some countries interested in procuring new F16 jet-fighters from the USA will change their minds just because seven F16 jet-fighters crashed within one month around the globe.

This may not change their minds because man remains insatiable in his quest for powers. Only the United Nations Organization (UNO) seems to wield the powers to place a ban on bio-weapon development. However, the future looks bleak and the possibility of achieving a perfect control of bio-weapon programme by UNO seems impossible since members of UNO are mostly some of the heads of states that spearhead and champion such programmes.

Moreover, the same applies to nuclear weapon development. It is equally extremely difficult to control its impacts when it explodes. A worst-case scenario is when it falls into the hands of extremists or jihadists. This accounts for the reason why the state of Israel and the United States of America are bent on not allowing the government of Iran to continue with her uranium enrichment programme. This is equally of serious concern to the UNO. It is feared that Iran might not adhere strictly to the UN regulations on nuclear weapons if they are allowed to keep enriching their uranium and subsequently create nuclear weapons.

At least this is what has hitherto been diffused though happenings in the world today subject one to doubt almost every unverifiable socio-political affirmation. The world has not recovered from the shock of the nuclear bomb dropped by US in Hiroshima Nagasaki, Japan. The impacts were devastating and have been felt for quite a long time. Many children born at the time were deformed and many adults developed one health complication or the other.

The Ethical Implications of Bio-weapon Research and Production

Man's quest and love for power and influence seem insatiable. Human history is awash with stories of risks, and ignoble things men have done just to acquire power and remain politically relevant. Unquenchable craving for powers remains the brainchild and driving force for the creation of biological weapons. Men went into production of biological weapons out of the greedy compulsion to remain politically powerful and relevant. So, they are bent on sacrificing human lives to achieve their inordinate political aims and desires. They are ready to kill and maim to become relevant and appear powerful in the society. This implies using human lives as means to achieving ends instead of perceiving human lives as ends in themselves. This is inhuman and unethical in the light of Immanuel Kant's Categorical imperatives.

Immanuel Kant was an erudite German philosopher and one of the Enlightenment thinkers (Witzel, 2016). He was a prolific thinker and writer perceived as a controversial figure in modern Western Philosophy. Most of his writings still dictate the pace of modern ethics and give many thinkers a sense of direction today.

This makes him to be branded as the 'father of modern ethics' whose ethical postulations are perceived as guiding stars for humans as they strive to live as higher animals imbued with the sense of rationality [18]. He appears to have been travelling on a different intellectual wavelength among his contemporaries.

Kantian ethics is often deduced as deontology because it places a high premium on the sanctity of the human person and perceives human life as a priceless gift which cannot be traded for any material object. Deontological ethics "are the ethical theories that place special emphasis on the relationship between duty and morality of human actions" [19]. These theories portray the fact that there are some near absolute (or absolute) ethical rules or values that every rational human being is expected to adhere to in order not to violate any human moral rights. The outright implication is that there are certain human decisions or actions that are not morally permissible since they trample on people's moral rights to exist and live harmoniously in society.

These include things like kidnapping, shedding of human blood, stealing, raping and telling lies against one's neighbours. Alexander Larry asserts that: "in contemporary moral philosophy, deontology is one of those kinds of normative theories regarding which choices are morally required, forbidden, or permitted. In other words, deontology falls within the domain of moral theories that guide and assess our choices of what we ought to do (deontic theories), in contrast to those that guide and assess what kind of person we are and should be" [20].

In the light of the above, it is obvious that deontology still holds sway today as man continues to grapple with the socio-economic changes and challenges in the world. Humans still fight for the preservation of life and human rights. Deontology as an ethical theory is at the forefront of this pursuit. It insists that there are certain actions that should never be visited by human beings. This ethical stand is perceived as a universal moral law. Such laws cut across every race and culture. They must prevail in all circumstances and at all times. Kant's version of deontology is explicitly captured in his categorical imperatives which state that human beings are neither objects nor instruments for achieving ends.

It is crystal clear that Immanuel Kant has come a long way in the field of ethics. He was resolute in his determination that humanity must be protected, and that man must not be abused in an attempt to achieve some selfish ends. This compelled him to come up with his incisive categorical imperatives to substantiate his ethical claims or stands. According to him, these imperatives are binding universally and the first formulation states: "act only in accordance with the maxim whereby you can at the same time will that it should become a Universal law" [21].

This maxim must be applicable everywhere in society without any preferential treatment to anybody. All humans are to appear equal before it. This could, to some extent, be likened to the golden rule which states that one should treat others in the same way one would want others to treat them. So, one should not kill if one hates to be killed by another and one should not steal if it will hurt one when one's property is stolen.

The second formulation of Kant's categorical imperative follows from the first and it states: "act in such a way that you treat hu-

manity, whether in your own person or in the person of any other, never merely as a means to an end but at the same time as an end” [22]. The primary objective of this formulation is to fight the objectification of man under any guise. Human beings are not objects for achieving some ends. Rather, human beings are the end in themselves. So, it is impermissible morally to treat human persons as merely having instrumental values. Man’s value is intrinsic and should be respected and held in high esteem at all times.

Consequently, Immanuel Kant’s arguments are meant to portray the fact that all moral laws must be aimed at particular ends and that all rational human beings must be the expected ends. So, it is an ethical aberration to perceive man as possessing instrumental value which can be toyed with indiscriminately. This is not morally permissible since man remains the only being endowed with the sense of rationality. Man is a higher animal with inherent values. There are third and fourth formulations of Kant’s categorical imperatives, but we shall dwell only on these two (the first and second formulations) since they serve the purpose we are aiming at.

According to Chackalackal, Kant unequivocally states that one should behave and act in such a way that one does not treat any human being as an instrumental means to an end but as an end itself [23]. This is a universal ethical principle that should guide human actions as man strives daily to remain sane and civil in the society. Consequently, it is an ethical abnormality to keep developing bio-weapons for the sole purpose of the extermination of human and plant lives (including agricultural products) just to acquire power and remain relevant politically. These deadly pathogens and viruses are very difficult to contain and eradicate even when they accidentally escape from a laboratory where they are being created. They are invisible and imperceptible to the ordinary naked human senses.

These two attributes alone make them very difficult to contain if they eventually escape from laboratories. Any weapon whose radius of impact cannot be determined and controlled by its creators and users is not worth producing from a moral point of view. What is the use of a weapon that can annihilate both criminals and the innocents recklessly and disproportionately? Bio-weapons have no respect for the borders and territorial integrity of any nation. They can diffuse rapidly in the air and spread from place to place while remaining imperceptible to human senses.

This is unlike guns, bombs and other military armaments that are perceptible to human senses and whose radius of impact can be controlled to a larger extent. The perfect moral principle for this case scenario is that man should stop inventing, creating and producing weapons he cannot effectively control and properly regulate when it is unleashed on humans. No matter the amount of value attached to biological weapons prior to their development; they remain morally wrong since they will end up being ungovernable, uncontrollable and untraceable when released even by their developers.

Moreover, rapid growth is being recorded in the field of biotechnology in many countries of the world today. These are places where people are working assiduously for the advancement

of more efficient drugs to combat new diseases and microbes posing threats to human lives. However, it is worrisome to discover that the intellectual and technological growths in biotechnology imply also that some countries and private organizations who run pharmaceutical companies and engage in pharmaceutical productions have been equipped with the knowledge and the intellectual wherewithal to develop bio-weapons. Snell, in his paper *Biological Weapons and the Pharmaceutical Industry* highlights the roles played by pharmaceutical and biotechnology companies in the creation of bio-weapons for political assassinations [2].

He observes that some countries ostensibly float pharmaceutical industries for manufacturing of medicines and drugs for curative purposes when in actual sense they are used for covert bioweapon research programmes or production. He further substantiates his claims by citing the Biopreparet Biotechnology Company (in the former Soviet Union) and the Roodeplat Research Laboratories (in South Africa) as two of the many covert bio-weapon research production centers in the world today [2].

This is not farfetched since the primary objective of pharmaceutical companies is to produce antibiotics and drugs capable of combating ailments or microbes posing as threats to human health and existence. These drugs are always tested prior to their being administered into human bodies to combat diseases. Consequently, they are often tested on either genetically modified germs or germs gotten directly from human bodies in order to ascertain their potency and therapeutic efficacy.

Since Biotechnologists can create germs in order to test the efficacy of their pharmaceutical products, such germs can equally be used as biological weapons if they fell into wrong hands especially those of terrorists. It is common sense and a known fact that “several major international terrorist organizations, such as the Osama Bin Ladin-associated Al Qaeda network, are believed to have the financial resources and political contacts needed to access state-of-the-art bio-weapon disease cultures and production technologies” [13].

The devastating impacts of bio-weapons in the wrong hands (like terrorists and suicide bombers) will be unimaginable if humanity keeps paying lip service to the control of bio-weapon programmes around the globe. Extremism is gaining wide acceptance around the globe within some religious circles and the world should forge a common front, take a stand and make bold moves towards controlling bio-weapon development more effectively.

More attention and searchlight should be beamed on the pharmaceutical companies around the globe. Using Nigeria as a case study, she has a lot of pharmaceutical companies and many enterprising biochemists and pharmacists. According to the report by Pharmapproach: “pharmaceutical companies in Nigeria are vibrant, with over 115 registered pharmaceutical manufacturers which in addition to providing dependable high-quality pharmaceutical products to medical professionals and patients in various communities in Nigeria and West Africa, have also contributed immensely to the economic growth of the nation” [24].

Given the advancements recorded in the field of biotechnology in recent times, pharmacists and biochemists are equipped with

the basic knowledge of bio-weapon development given the nature of their field of study. Their school curriculum and other areas of study in their schools endow them with the intellectual wherewithal on how to create and manipulate germs and microorganisms for creation of effective antibiotics. Furthermore, Nigeria as a nation is currently purportedly very polarized along tribal, ethnic, political and religious lines.

One of her most disturbing national issues today is the problem of insecurity and there is the fear that some religious extremists and terrorists in the country might discard their guerilla warfare tactics and resort to the use of biological weapons in their attacks. They might be encouraged by the devastating impact of Covid-19 (which has the characteristics of germ-weapon) and decide to explore the bio-weapon option. Moreover, their sponsors seem to be very wealthy and have the financial muscle to employ any biochemist to embark on the project of developing bio-weapons. It is unethical to permit the creation of bio-weapons and the United Nations Organization and humanity should stop paying lip-service to these moral issues.

The Theological Bent to the Question

Human beings have always had a sense of the transcendent. This is where the philosophical intersects with the theological. Sociates always referred to the daimonion. This was a reality he considered divine (Berman). Plato referred to the world of ideas or the ideal world (Schilder); and Aristotle was aware of the unmoved mover and reflected on it (Amadio). These indicate a realm that goes beyond the ordinary daily.

But also, it indicates an awareness of man's natural limits, further considerations of which could restrain him in some very imprudent judgments and decisions. This sphere has constantly held man in check from venturing too far beyond reasonable excesses. Even if the religious mentality did inhibit some measure of rapidity in growth, and in many modern cases, attract the criticism of the philosophers, yet the transcendental mindset has never lost its value.

One of the values that such a mindset engenders will be in the reinforcement of the morals that have to do with life. The Christian religion particularly through its ethics influenced several theories and even philosophical doctrines in general. Such Christian thinkers as Augustine and Thomas Aquinas, took up what was already present in earlier philosophers and elaborated them in line with Christian principles to guide humans.

That is why there are things like the just war theory. Its principles are inspired by reason, but their ultimate foundation is in the awareness that man is not just a materialistic piece of item dumped in the universe. He has a responsibility and can be held accountable. Doctrines that neglect the immaterial dimension of man, that abhor discourse of the immortality of man, and that undermine other worldly views automatically downplay the absolute importance of keeping off weapons of mass destruction.

Unfortunately, all this is dashed to the winds in contemporary times. This is because there are no more binding thoughts of the afterlife. There are no more consequences feared to be incurred beyond whatever one may validly and practically obtain here. The sense and the idea of the transcendent is almost totally abrogated in the minds of leaders and those who control the leaders who are seen by the masses to be in control.

A chief monitor can be corrupt. He may think to hide it and every other person appears to be blind to it. But someone surely discovers that the monitor stands not on equal grounds but on privileged presumptions. Nothing is hidden forever. Somehow the desire to acquire a status of enjoying the same privileges arises in observers. The consequence is that in the end, there is nothing to be feared. The moment the consideration of an eternity is removed, the time concern for interminable consequences

becomes obliterated, when one thinks that there is nothing to this life but to live it once, then all the floodgates of inhumanity are thrown wide open.

It is not for nothing that Dante Alighieri depicts the Epicureans of his day as being in hell. It is precisely because they denied the afterlife [25]. This has the consequence of gross and maximal impunity. This is the underlying theological factor that sustains the production and actual use of weapons of mass destruction like bio-weapons.

In that case, whoever defies his personal death, can take any risk. Similarly, any nation whose policy makers think that what really matters is their immediate livelihood, pleasure survival and that they are not accountable to anyone, can manufacture anything without bounds or restrictions. The issue of limits to either nuclear or bio-weapons, become mere lip service. Restraining provisions become only mere formalities to be enforced on others for a theoretical claim of the adherence to ethical values.

This is the major reason the issue of bio-weapons is not something that concerns strictly small nations or underdeveloped groups. Just like most flying animals that are larger than rodents are birds, similarly, most of the bio-weapons manufactures are also the big decision makers of this world. The new ones being manufactured are unlike the ancient ones. Those were simple biological deterrents that could be easily tamed and handled; like cats to tame rats or lines to tame wild boars. The bio-weapons indicate a nearly absolute disregard for rules, fairness, humanity and sensibility. The nihilistic undertone of any atheistic dispassion or insensitivity to damages for the advantage of a mere war winning, is the maximal disregard of that dimension which distinguishes man not just as an intelligent primate but as a spiritual being.

This is a dearth of the natural theology which every man intuitively in himself. That is what makes each man not only a philosopher but also a theologian irrespective of his or her religion. It is a devaluation of the ultra-mundane aspect of man which from a philosophical anthropological point of view is constitutive of man. Christian theological-anthropologically, bio-weapons and nuclear ones are indicators of lost values and a diminished humanism. It is a depreciation of the essential attribute of man as a being which recognizes its creatureliness.

Recommendations

Beautiful philosopher, John Dewey is very emphatic in his position that mere lip service and beautiful rhetoric alone cannot engineer the desired moral change in our world today. He further argues that well thought out plans must be crafted, and appropriate actions taken to bring about the desired change in society. In his words: "We may desire abolition of war, industrial injustice, greater equality of opportunity for all.

But no amount of preaching goodwill or the golden rule or cultivation of sentiments of love and equity will accomplish the results. There must be a change in objective arrangements and institutions. We must work on the environment not merely on the hearts of men. To think otherwise is to suppose that flowers can be raised in a desert or motor cars run in a jungle. Both things can happen and without a miracle. But only by first changing the jungle and desert" [26].

The United Nations Organization (UNO), world leaders and humanity have paid much lip-service to the problem of bio-weapons in the world. It is time to walk the talk. Nothing can save man except his sincere resolve and unwavering determination to either regulate germs creations for only pharmaceutical purposes

or close all the bio-weapon laboratories and programmes around the globe. Bioweapons are the agents of human destruction if they are allowed to fall into the hands of terrorists and religious extremists. Only man can save humanity by taking urgent and pragmatic steps for its proper regulations [27].

Man has been endowed with the sense of rationality to conquer and transform his society. He is equipped with the intellectual, scientific and technological wherewithal to shape his existence to suit his taste. This knowledge should be properly applied to saving humanity from the threats posed by bio-weapons through some well thought-out proactive measures [28].

The entire discourse is something that suggests a sapiential dimension of creatureliness in man that must be rediscovered if man is to survive himself. In fact, the only positive attribute that may be assigned to these artifacts called weapons of mass destructions, but which are really indices of deteriorated humanism, having existed, is that they call man to employ his head and his heart, his faith and his reason, his intelligence and his intuition, his knowledge and morals. They are a wake-up toll to educators and leaders of all spheres [29, 30].

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