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Contributing Consciously to the Culture of Life: Science and Religion in Encountering Personal and Collective Death

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Abstract: The author relates always life to death. Then he affirms that today we are confronted not only with the personal death of individuals, but also the (possible) collective death of the human species as a whole. In such a context, any analysis of death (and life), according to the author has to take up the larger challenge confronting us, that of our collective extinction. Religions are called to respond to the task of fostering life individually and preserving it collectively. In the face of challenges of grave magnitude, our response includes all the resources at our human disposal. Today the solution to the problem of personal death and possible cosmic annihilation includes the insights and capabilities that we derive from religions and sciences, understood in a general sense. So the author pleads for cooperation between science and religion where they can critique and enrich each other so that the chance of furthering personal life and preserving biological life is at its maximum.

Keywords: Personal death, cosmic annihilation, transhumanism, doomsday arguments, religious violence.

0. Introduction

“I have come so that you may have life, life in abundance “ (Jn 10: 10). This simple and straight-forward statement, I believe, sums up religion in general and Christianity in particular. But today we are confronted not only with the personal death of individuals, but also the (possible) collective death of the human species as a whole. In such a context, any analysis of death (and life), I believe, has to take up the larger challenge confronting us, that of our collective

extinction. Religions are called to respond to the task of fostering life individually and preserving it collectively.

In the face of challenges of grave magnitude, our response includes all the resources at our human disposal. I believe that today our human solution includes the insights and capabilities that we derive from religions and sciences, understood in a general sense. I further believe that when religion and science can critique and enrich each other, the chance of furthering personal life and preserving biological life is at its maximum.

0. 1 Affirming Life in Its Fullness

In the classic book *The Denial of Death*,¹ Earnest Becker talks about humanity's curse, that is, its knowledge of death, conscious and not — dead human beings engage in denying the horror, the horror of creation and of destruction. He describes several ways in which that denial manifests itself. They could be through an avoidance, through absorption or through collective, ritualized and institutionalized denials of death. Another attempt at denying death is through a heroic transcendence of death, or at least the illusion of the transcendence of death. It is this denial of death that creates what Becker calls "man's tragic destiny. " [H]e must desperately justify himself as an object of primary value in the universe; he must stand out, be a hero, make the biggest contribution to world life, show that he counts more than anything or anyone else." Although we deny death, we are aware that whatever we do on this planet has to be done in the lived truth of the "terror of creation, of the grotesque, of the rumble of panic underneath everything." ² Whatever is achieved must be achieved from within the subjective energies of creatures, without the deadening, with the full exercise of passion, of vision, of pain, of fear, and of sorrow.

Becker affirms that the problem in our day is not that there isn't enough knowledge (about life and death). The problem is that there isn't enough integration of this knowledge into a kind of wisdom that would properly summarize the accumulated knowledge. He acknowledges the difficulty in claiming that there is one direct insight into what causes (almost) all of the neuroses of life, which is the inability of people to see and overcome the ultimate paradox of life, that we live and die at the same time.

Countless times Becker makes the point in his book that the way most people live with these paradoxes is a “lie in the face of reality.” That is, starting from childhood, most people use all kinds of repressions to pretend that they are not going to die. Much of society is based on symbolic systems for people to feel heroic, because when we achieve heroism we feel that we have transcended our mortality. Much of this heroism is in fact false, even disempowering, because for example most pointedly with entertainers and athletes we often project our need for heroism onto them.

Becker proposes all our thinking patterns and all our social structures are designed to shield us from knowledge of death. Trapped in an existential nightmare, we have no choice but to make up illusions to distract us from the unthinkable truth.

0. 2 More than Personal Immortality

It is in this background that of the collective amnesia or denial of death that I want to focus on life and its fullness. Without in any way diminishing the tragedy of death, I want to focus on the preciousness of life – both personal and collective. For I believe that at the moment life is threatened – both my personal life and the collective life of humanity. When we truly become aware of this threat and live our precarious and precious existence authentically and joyfully, we contribute not only to the extension of our own life (personal immortality) but to the survival of human and biotic life (evolution of life).

Further I believe that the two pillars that can contribute to the fostering of life today are religion and science, both understood in generic senses. So in the first part of this section we shall examine the ambiguous contribution of both science and religion to countering life/death. A healthy interaction between them, it is proposed, will improve the chances of individual well-being and collective wholeness (salvation).

1 Contribution of Science to Life

Though it is difficult to define science, people have a general understanding of what science is. The Oxford dictionary says, “Science in the broadest sense refers to any knowledge or trained

skill, especially (but not exclusively) when this is attained by verifiable means.” Elsewhere I have tried to describe science in terms of three C’s: Concreteness, Critique and Challenge.³ In this section, I want to understand science in a general manner and see briefly how it has contributed negatively and positively to a culture of life/death.

1.1 Negative Consequences on Science

The vast majority of people are enamoured by science and sees it as a positive factor in promoting human welfare. A typical statement by none other than Bertrand Russell shows it. He claims: “With the death of religion goes superstition, oppression and hatred. With the success of science comes understanding and freedom and love.”⁴ In spite of all my respect for his scientific acumen and social involvement, I must still hold that his was a naive view, widely shared by the common public.⁵ There are various ways in which science has promoted the culture of death.⁶ Though space prevents me from going into the details, I can mention some of them.

The Crises

The ecological crisis caused by the emission of and the depletion of the ozone layer is to a large extent caused by science.⁷ The possibility of a nuclear war which could wipe out life from our planet would not be there without modern technological advancement.⁸ Auschwitz – at least in magnitude – would not be possible.⁹ Added to them are the harmful byproducts (“collateral damages”) associated with any new scientific discovery.

The Doomsday Argument

The Doomsday argument was conceived by the astrophysicist Brandon Carter in 1983.¹⁰ Originally some fifteen years ago, it has since been developed in a *Nature* article by Richard Gott, and in several papers by philosopher John Leslie and especially in his recent monograph *The End of The World*. It has since been independently discovered by Holger Bech Nielsen. Similar theories predicting an end to the world from population statistics were proposed earlier by Heinz von Foerster, among others.¹¹ The Doomsday argument¹² is a probabilistic argument that claims to predict the future lifetime of the human race given only an estimate of the total number of humans born so far. Briefly it tries to predict the doom of humanity based on available scientific evidences and statistical methods.¹³

1.2 Positive Contribution of Science

In spite of these reservations, I do not in any way condemn science as anti-human and pro-death. On the other hand, when we look at today's civilization, we see the tremendous growth that science has brought about even in the spiritual realm.

A basic understanding of science and technology has become indispensable for anyone living in today's world, because technology – a product of science – has become an important part of people's lives. Science education aims at increasing common knowledge about science and widening social awareness. The process of learning science begins early in life for many people; school students start learning about science as soon as they acquire basic language skills, and science is always an essential part of the curriculum. Science education is also a very vibrant field of study and research. Learning science requires learning its language, which often differs from colloquial language. For example, the terminology of the physical sciences is rich in mathematical jargon, and that of biological studies is rich in Latin names. The language used to communicate science is rich in words pertaining to concepts, phenomena and processes, which are initially alien to children.

Tremendous Development of Science and Society

Due to the growing economic value of technology and industrial research, the economy of any modern country depends on its state of science and technology. The governments of most developed and developing countries therefore dedicate a significant portion of their annual budget to scientific and technological research. Many countries have an official science policy, and many undertake large-scale scientific projects - so-called "big science". The practice of science by scientists has undergone remarkable changes in the past few centuries. Most scientific research is currently funded by government or corporate bodies. These relatively recent economic factors appear to increase the incentive for some to engage in fraud reporting of the results of scientific research.¹⁴

Therefore it is no exaggeration to claim that science has made our lives more comfortable (e.g. aeroplane, mobile telephones), has improved human health (discovery of penicillin and the present

medical practices) and extended the human life-span. Science has significantly contributed to the promotion of life, and helps us to understand the very life that is part of us.¹⁵

Life-Extension Techniques¹⁶

The best case I can find of science furthering human life and well-being is the attempt to extend our life-span indefinitely and even eliminate physical death altogether. Transhumanists today hope to eliminate physical death altogether. Using information and techniques from nanotechnology, artificial intelligence, cryonics and human genome projects, they hope to arrive at a time when human beings will be able to live forever. Obviously, no mainstream scientist believes that physical death can be overcome. But as I have pointed out elsewhere, it has crept into the unconscious of a powerful section of “progressive humanists”, and their search for the elimination of physical death may bear fruit.¹⁷

One of the pioneers of transhumanist movements, Hans Moravec, dreams that the brain can be downloaded into a computer system. Eternal life is just around the corner! As Moravec muses: “With enough dispersed copies [of ourselves], our permanent death would be unlikely”¹⁸

Thus it is right for me to claim that science has an ambiguous relationship with regard to human progress and well-being. On the one hand, it has led to unimaginable progress. On the other hand, it has been the cause of unmitigated suffering and pain. So science has contributed both to human life as well as to human death! So we may ask if science (technology) has become a religion of menace:

On a deeper cultural level, these technologies have not met basic human needs because, at the bottom, they have never really been about meeting them. They have been aimed rather at the loftier goal of transcending such mortal concerns altogether. In such an ideological context, inspired more by prophets than by profits, the needs neither of the mortals nor of the earth they inhabit are of any enduring consequence. And it is here that the religion of technology can be rightly considered a menace.¹⁹

Scientists like J. Robert Oppenheimer,²⁰ Alfred Bernhard Nobel²¹ and Albert Einstein²² typify such ambiguous stands towards science and life.

2 Contribution of Religion

Just as science, it is difficult to define religion. Religion is found in almost every culture and it may be understood as the basic vision of life providing us with meaning for our existence. Elsewhere I have tried to understand religion in terms of three V's: Values, Vocation and Vision.²³

2.1 Negative Consequences of Religion on Life

If I focus on the negative consequence of religion, it is in no way to affirm that this is its predominant contribution. I want to deal with only three basic facts that have led to real tragedies in the name of religion: the crusades, religious terror and conflict with science.

The Crusades²⁴

The crusades were a series of military campaigns—usually sanctioned by the Papacy—that took place during the 11th through 13th centuries. Originally, they were Catholic Holy Wars to recapture Jerusalem and the Holy Land from the Muslims, but some were directed against other targets, such as the Albigensian Crusade against the Cathars of southern France, the Northern Crusades, and the Fourth Crusade which conquered Constantinople. The Crusades were an incredibly violent undertaking, even by medieval standards. It is sad to note that crusades have been at least indirectly justified by claims such as:

The aim of Christianity is not to fill the earth, but to fill heaven. Why should one worry if the number of Christians is lessened in the world by deaths endured for God? By this kind of death people make their way to heaven who perhaps would never reach it by another road.²⁵

In his reports about the conquest of Jerusalem, Chronicler Raymond of Aguilers wrote: "It was a just and marvellous judgment of God, that this place [the temple of Solomon] should be filled with the blood of the unbelievers."²⁶ St. Bernard is said to have announced before the Second Crusade that "The Christian glories in the death of a pagan, because thereby Christ himself is glorified."²⁷

Religious Terror and Violence

*Terror in the Mind of God*²⁸ explores the use of violence by marginal groups within five major religious traditions: Christianity (reconstruction theology and the Christian Identity movement, abortion clinic attacks, the Oklahoma City bombing, and Northern Ireland); Judaism (Baruch Goldstein, the assassination of Rabin, and Kahane); Islam (the World Trade Center bombing and Hamas suicide missions); Sikhism (the assassinations of Indira Gandhi and Beant Singh); and Buddhism (Aum Shinrikyo and the Tokyo subway gas attack). Juergensmeyer interviews participants in and advocates of violence (notably Mike Bray, Yoel Lerner, Mahmud Abouhalima, Simranjit Singh Mann, and an anonymous ex-member of Aum Shinrikyo), but he is less interested in individual psychology than in the “cultures of violence”, broadly construed. A particular focus is on the theological justifications for violence and the bases for its authorisation. Overall the treatment is not, except perhaps in the area of theology, much deeper than that of (quality) newspaper reporting, but it is enlightening to have the different religious traditions treated side by side.

The second part of *Terror in the Mind of God* looks at common themes and patterns in the cultures of violence described in part one. One is the idea of violence as performance, with symbolism often taking precedence over more strategic considerations in such matters as choice of targets and dates. Here there are obvious connections with religious ritual. Another theme is the placing of violence within the context of a cosmic war, a symbolic and transcendent conflict; accompanying this, the movement’s casualties become martyrs and their opponents are demonised:

[Religious violence] has much to do with the nature of the religious imagination, which has always had the propensity to absolutize and to project images of cosmic war. It also has much to do with the social tensions of this moment of history that cry out for absolute solutions, and the sense of personal humiliation experienced by men who long to restore an integrity that they perceive as lost in the wake of virtually global social and political shifts.²⁹

Related to this is the valorisation of the warrior (religious violence often involves ex-military personnel), coupled with male bonding and an appeal to men “on the margins”. (Juergensmeyer comments in passing that only in terrorist groups motivated by secular political ideologies have women taken an active part. Apart from this there is no attempt at a comparison between religious and secular terrorism, something which might have made the common features of religious terrorism clearer.)

Juergensmeyer concludes *Terror in the Mind of God* with suggestions for the future of religious violence that are certain to be controversial, arguing that “the cure for religious violence may ultimately lie in a renewed appreciation for religion itself” and in acknowledgement of religion in public life.³⁰

Religion vs Science

Another less violent, but equally harmful, aspect of religions is the popular impression that religion is against science. The classic case of such a conflict is Galilee Galileo

The Harvard scientist, the late Stephen J. Gould, showed that the warfare theory between science and Christianity was very much the creation of two late 19th century writers - Andrew Dickson White and John William Draper - to subserve their own personal interests. Many scholars have argued that the “warfare thesis” was more a creation of certain historians with vested interests rather than of historical data. Job Kozhamthadam shows that the interaction between Christianity and modern science passed through three different stages: encouragement, estrangement and engagement.³¹ Today we are arriving at a stage where science and religion can criticise, dialogue with and enrich each other.

But there are still some centres which fosters the counter view. The creation-evolution controversy that still rages in some parts of the world gives the impression that religion is other-worldly and God is involved only in the spiritual dimensions of human beings.³²

2.2 Positive Contribution of Religion to Life

Against the Culture of Death

Without doubt, religion has mitigated the sufferings of humanity. Right from the beginning (be they shamans, magicians or prophets), religions have been agents of healing and wholeness. It is in this context that we can understand the Church's stand against euthanasia and for the rights of the unborn. The Church has always stood for the rights of human beings and has stood against the "culture of death."

Meaning and Salvation

Further, religion gives its adherents a sense of identity and purpose. providing them with meaning, religion makes their lives worthwhile. And the greatest solace and comfort that religion gives is in terms of the divine assurance that "everything is well with oneself and with the universe." Thus religion gives its adherents "salvation" or "freedom from bondage."

Science-Religion Dialogue

Today we are facing renewed interest both in science and religion. Numerous attempts have been made to foster cooperation and dialogue between them without trespassing on their legitimate boundaries. Many centres in India and abroad have sprung up fostering creative and promising areas of dialogue between science and religion.³³

I can very well sum up this section by affirming that in spite of all the good intentions of religious leaders, there has been harm done in the name of religion. In spite of the ennobling religious experiences of the followers of one group of religion, in spite of the compassion and love that religion promotes, there have been tragic cases of abuse of power. Similar to science, religion too is ambiguous in its relation to human well-being and growth.

3. . Collective Venture of Life in Abundance: Personal Fulfilment and More

Confronted with the ambiguous situation provided by both religion and science in fostering life, we are reminded of the words

of Fritjof Capra: "Science does not need religion, religion does not need science; but humans need both."³⁴ Since both are ambiguous in dealing with life, a critical, contextual and creative interaction will reduce their ambiguity and force them to be more transparent and open. In this process humanity will be the winner. Hence I believe that a mutually critical and creative interaction between science and religion can help us to promote life, in spite of its fragility.

Today we have become sensitive to the harmony or order (*rta*) needed for the preservation of life and for the well-being of a human individual. An individual can feel whole (salvation) only when one is at home with oneself, with others and with the larger cosmos (including the Divine). Only when one can maintain this balance, can one feel well and whole. This is the uniqueness of life and the unique role played by religions.

Similarly religion has been instrumental in purifying us of our "sinfulness," or tendencies to evil and death. By creating a sense of value and vision and helping us to overcome the sense of guilt and offering us forgiveness and reconciliation, religion affirms and promotes deeper life. Most of the religions offer us "personal salvation", which is narrowly understood as the "survival of the individual soul."³⁵ Without belittling the survival of the soul, true religions provide us with an ambience to flourish and live our lives to the full. By promoting human solidarity and cooperation, by promoting a sense of cosmic wholeness and well-beings religions do enhance our self-image and thus counters the culture of violence and inauthenticity.³⁶ True religions provide us with a deep experience of God and take us to the people in need of us.

Similar to religion, science too can promote life and counter the forces of evil in its own way. It is true that the domains of science and religion may be different.³⁷ Science can very well be an extremely powerful tool to improve our human situation and to foster the life on planet earth.

Briefly I can claim that just as science is not the cause of the violence in the world, though science has caused it to some extent, so too science can foster life and prosperity. Just as religion is not the cause of the deadly sins of the world, though it has played a part

play in it, so too religion can also be part of the solution that humanity is searching for.

The ultimate questions of human beings are so profound and multifaceted that religions and religious vision would be involved in the answer. Our religious vision gives us perspectives that take us beyond ourselves. It helps us to reach out to others and to widen our horizons so that our interest goes beyond our own personal salvation. It urges us to commit ourselves to this world and seek for solutions that are more than life-extension techniques. It urges us to focus on issues even larger than life after death. In such a way we would be living the values of the Kingdom of God or *Ramarajya*.

Such a life gives us a sense of fulfilment that comes also from self-emptying. It provides us with a sense of identity that involves joyful sacrifices and enhances our life even through pain. Such a life enlarges our vision to include others (even enemies), so that we can love our enemies and be respectful of others who are different from ourselves.³⁸

4. Conclusion: Contribution to Life

Such an attitude of creative openness helps us to take life seriously and play with it. It also

enables us take death earnestly, and not run away from it. In this process, we shall be relishing every moment of our lives and even death. We can try to capture a healthy and holistic response to it through the classical Indian ways of relating to God and world: *Jnanamarga*, *Bhaktimarga* and *Karmamarga*.

Jnanamarga (The Way of the Head)

Jnanamarga realises the fragility of life and responds to the threat and “evil designs” that are very much present in our contemporary culture. The deep rooted craving for *thanatos* must be faced with ruthless intellectual honesty and rigour. We may have to admit at times that we do not have the ultimate answers, but can live with these questions. This makes us people of ruthless honesty, ready to realise the deep-rooted causes of sin, violence, terrorism and inequality and injustice in the world and in our own hearts.

Bhaktimarga (The Way of the Heart)

Bhaktimarga urges us to be involved in these life and death issues with passion and devotion. This calls for affective maturity and readiness to live with uncertainty and insecurity.

pray. In this sense, we can “fight against” death by befriending it. We need to accept death as part of life and learn to grow old gracefully.³⁹ With a sense of transparency and innocence that comes only from spiritual depth, we can pray and surrender ourselves unconditionally into the hands of God. This makes us people of genuine openness, enlarged consciousness, and great sensitivity to the concerns of our neighbour and of the cosmos.

Karmamarga (The Way with the Hands)

Urges us act disinterestedly and passionately and foster life in its diversity. Going beyond narrow boundaries, we can devote ourselves and work not only for the welfare of the whole world (*loksangraha*) but also of the individual neighbours, who may not be “our own.” So when, with a sense of urgency and compassion we act with zeal and indifference, we will accept our own death (and life) and transcend death individually and collectively. Thus we can collectively counter the culture of collapse and catastrophe. This makes us people of unwavering hope: fostering goodness, nobility and holiness (going beyond civility, decency or diplomacy).

So the denial of death is in fact the denial of life. Refusal to acknowledge the fragility of life is refusal to accept its preciousness. Since science and religion can contribute to fostering life, a culture of life could be more easily cultivated by a healthy and critical exchange of ideas and visions between them. This would be today’s answer to the existential trauma of death that we all experience in our daily lives. Today’s crises require us to respond both personally and collectively by fostering life in its fragility and by countering death, (individual and collective annihilation). In this venture science and religion offer us realistic hopes of affirming and transcending life as well as death.

Notes

1. Earnest Becker, *The Denial of Death*, Free Press, 1973. The quotations below are from this book.
2. Earnest Becker, *The Denial of Death*, Free Press, 1973.
3. Kuruvilla Pandikattu, "Dialogue between Science and Religion for Preserving and Fostering Life," in Job Kozhamthadam, *Science, Technology and Values: Science-Religion Dialogue in a Multi-Religious World*, ASSR Series2, Pune, 2003, 36-37.
4. Bertrand Russell, *Science and Religion*, OUP, 1997.
5. I do appreciate his deep involvement in social issues, including his crusades for eliminating nuclear weapons and hunger. His scientific and mathematical skills are very admirable.
6. See for instance, Pope John Paul II, Bishops Must Stand Firmly on the Side of Life, Against the Culture of Death - Encouraging Those Who Defend It: Ad limina address of the Holy Father to US Bishops of California, Nevada and Hawaii, October 2, 1998.
7. Since these reasons are well known to the general audience, am not elaborating them. For a Jewish perspective on ecological problem see Rabbi Prof. Yehudah Levi "How Can We Solve the Ecological Crisis?" <http://www.dvar.org.il/jstudies/ecolevi.html>. He mentions that ozone layer depletion will lead to some three million new cases of skin cancer and over fifteen million new cases of cataracts in the first decade of the twenty-first century. Further I believe scientists and scientists should not take up the moral or religious space.
8. For more details on the possible nuclear catastrophe, Cresson Kearney, "The Dangers from Nuclear Weapons: Myths and Facts" which is taken from his book *Nuclear War Survival Skills*, <http://www.areyouprepared.com/nuclear-survival/s6.htm>. The author claims that "The dangers from nuclear weapons have been distorted and exaggerated, for varied reasons. These exaggerations have become demoralizing myths, believed by millions of Americans." Still he admits that a nuclear war "would be the worst catastrophe in history, a tragedy so huge it is difficult to comprehend." Another more damaging assessment is found in an interview by Don Nordin for Co-op radio Vancouver, "The Dangers of Nuclear War: Interview with Michel Chossudovsky". "I mean down the drain, and that's a self-destructive statement because it presents war as a peacekeeping operation and it presents nuclear weapons as some kind of harmless toy and military analysts are fully aware of the implications. Again they are too 'polite'".

to ultimately address these issues in a broad public arena.” <http://www.globalresearch.ca/index.php?context=viewArticle&code=20060119&articleId=1755>.

9. Auschwitz, (Konzentrationslager Auschwitz-Birkenau) the Former Nazi German Concentration Camp, Auschwitz was the largest of the Nazi German extermination camps, along with a number of concentration camps, comprising three main camps and 40 to 50 sub-camps. The name Auschwitz is the German name for the nearby town, situated about 60 kilometers (37 miles) west of Kraków in southern Poland. Beginning in 1940, Nazi Germany built several concentration camps and an extermination camp in the area, which at the time was under German occupation. The Auschwitz camps were a major element in the perpetration of the Holocaust; at least 1.1 million people were killed there, of whom over 90% were Jews. The three main camps were: Auschwitz I, the original concentration camp which served as the administrative center for the whole complex, and was the site of the deaths of roughly 70,000 people, mostly Poles and Soviet prisoners of war. Auschwitz II (Birkenau), an extermination camp, where at least 1.1 million Jews, 75,000 Poles, and some 19,000 Roma (gypsies) were killed. Auschwitz III (Monowitz), which served as a labor camp for the Buna-Werke factory of the IG Farben concern. See <http://en.wikipedia.org/wiki/Auschwitz>.
10. Carter, B. 1983. “The anthropic principle and its implications for biological evolution”. *Phil. Trans. Roy., Soc., Lond.*, A310, pp. 347-363.
11. Nick Bostrom, “Investigations into the Doomsday Argument” in www.nickbostrom.com.
12. John Leslie, *The End of the World: The Science and Ethics of Human Extinction*, Routledge, 1998.
13. See also John Leslie.. “Doomsday Revisited”. *Phil. Quat.* 42 (166) 1992, 85-87.
14. http://en.wikipedia.org/wiki/Science#Science_and_social_concerns.
15. It is here that the recent developments in the Human Genome Project become significant. More than “playing God” HGP attempts to understand life so that we can facilitate the flow of it.
16. For an elaborate treatment see Kuruvilla Pandikattu, “Physical Immortality: Human Longing. Scientific Basis and Religious Response,” *Disputatio Philosophica: International Journal on Philosophy and Religion* 3/2001 pp. 93-110.

17. Though I do not personally believe that death will be overcome one day, I cannot categorically deny that science is incapable of doing it. It is noteworthy that there are a couple of bodies kept in “deep freeze” waiting to be resuscitated at the “appointed time.” Due to the prevalence of internet, there are many amateurs and scholars who can easily share their information and their dreams. Such an atmosphere will change the human future, though most probably, not in ways planned by us.
18. David Noble, *The Religion of Technology: The Divinity of Man and the Spirit of Invention* 1999, Penguin, 162.
19. David Noble, *The Religion of Technology: The Divinity of Man and the Spirit of Invention* 1999, Penguin, 206-7. See also his Noble, D. F. 1977. *America by Design: Science, Technology and the Rise of Corporate Capitalism*. New York: Alfred A. Knopf. 1984. *Forces of Production. A Social History of Industrial Automation*. New York: Alfred A. Knopf. and 1992. *A World Without Women: The Christian Clerical Culture of Western Science*. New York: Alfred A. Knopf.
20. J. Robert Oppenheimer (April 22, 1904 - February 18, 1967) was an American theoretical physicist, best known for his role as the scientific director of the Manhattan Project, the World War II effort to develop the first nuclear weapons, at the secret Los Alamos laboratory in New Mexico. Known colloquially as “the father of the atomic bomb”, Oppenheimer lamented the weapon’s killing power after it was used to destroy the Japanese cities of Hiroshima and Nagasaki. After the war, he was a chief advisor to the newly created Atomic Energy Commission and used that position to lobby for international control of atomic energy and to avert the nuclear arms race with the Soviet Union. After invoking the ire of many politicians and scientists with his outspoken political opinions during the Red Scare, he had his security clearance revoked in a much-publicized and politicized hearing in 1954. Though stripped of his direct political influence, Oppenheimer continued to lecture, write, and work in physics. A decade later, President John F. Kennedy awarded him the Enrico Fermi Award.
21. Alfred Bernhard Nobel (October 21, 1833, Stockholm, Sweden – December 10, 1896, Sanremo, Italy) was a Swedish chemist, engineer, innovator, armaments manufacturer and the inventor of dynamite. He owned Bofors, a major armaments manufacturer, that he had redirected from its previous role as an iron and steel mill. In his last will, he used his enormous fortune to institute the Nobel Prizes. (www.wikipedia.com).

22. On August 2, 1939, just before the beginning of World War II, Albert Einstein wrote to then President Franklin D. Roosevelt. Einstein and several other scientists told Roosevelt of efforts in Nazi Germany to purify uranium-235, which could be used to build an atomic bomb. After reading the letter, the President put money into building an American atomic bomb. Einstein thought it would be used to frighten the Nazis. He never thought it would be used. But two months after the Nazis were beaten, the bomb was ready. It was shortly after the letter of Einstein that the United States Government began the serious undertaking known then only as "The Manhattan Project." Simply put, the Manhattan Project was committed to expediting research that would produce a viable atomic bomb. Over the course of six years, from 1939 to 1945, more than \$2 billion was spent during the history of the Manhattan Project. The formulas for refining uranium and putting together a working atomic bomb were created and seen to their logical ends by some of the greatest minds of our time. Chief among the people who unleashed the power of the atom was J. Robert Oppenheimer, who oversaw the project from conception to completion. At 5:29:45 (Mountain War Time) on July 16, 1945, in a white blaze that stretched from the basin of the Jemez Mountains in northern New Mexico to the still-dark skies, "The Gadget" ushered in the Atomic Age. Upon witnessing the explosion, its creators had mixed reactions. Isidor Rabi felt that the equilibrium in nature had been upset — as if humankind had become a threat to the world it inhabited. J. Robert Oppenheimer, though ecstatic about the success of the project, quoted a remembered fragment from the Bhagavad Gita. "I am become Death," he said, "the destroyer of worlds." Ken Bainbridge, the test director, told Oppenheimer, "Now we're all sons of bitches." <http://inventors.about.com/library/weekly/aa050300a.htm>.
23. Kuruvilla Pandikattu, "Dialogue between Science and Religion for Preserving and Fostering Life," in Job Kozhamthadam, *Science, Technology and Values: Science-Religion Dialogue in a Multi-Religious World*, ASSR Series2. Pune, 2003. 37. I am of the opinion that while religion should not take up the scientific space it has to regain the moral and spiritual space it has sadly abdicated (For example Einstein, Hawking, Dennett or Dawkins should not be the religious spokespersons of our times, just as theologians should not speak on behalf of science.)
24. For an overly critical assessment of crusades see <http://atheism.about.com/od/crusades/>.
25. Quoted in *The Crusades: A History*; Second Edition. Jonathan Riley-Smith quotes the above from a report written by Humbert of Romans in

- the 1270s. I am not in a position to check the veracity of this statement. If it is true, I would say that it is a tragic statement.
26. Raymond of Aguilers, on the massacre of Muslim and Jewish prisoners of war following the capture of Jerusalem on July 15, 1099. Quoted from the "Holy Horrors."
 27. en.thinkexist.com/quotation/the_christian_glories_in_the_death_of_a_pagan/171713.html
 28. Mark Juergensmeyer, *Terror in the Mind of God: The Global Rise of Religious Violence*, University of California Press, 2000.
 29. www.dannyreviews.com/h/Terror_God.html.
 30. Tragically, all major religions can justify violence, and religion has long been associated with terrorism. Ever since there was good and evil, religious people have pondered whether using evil to fight evil is good in the name of justice or self-defense. There may be some kind of connection between attachment to the idea of God and a proclivity toward violence. The most common resort to violence occurs when a religious group feels threatened and thinks of itself as a chosen people. Less common is the compulsion to slaughter others in the name of a deity, and even less common (although not insignificant) is the role of sexuality in the mindset of religious fundamentalists who kill. Religions also spawn sects, cults, and alternative religions, and religious terrorism (terrorism in the name of religion) likewise tends to spawn offshoots and factions. A sect is an offshoot of an established religion (Mormons, for example), and most either die off or expand into a major denomination like the Mormons did. A sect-based religious group is more likely to play the role of the victim, not the aggressor. A cult, on the other hand, is a more dangerous, spiritually innovative group (the Branch Davidians, for example) headed by a charismatic leader who usually has other aims than to become a major denomination. Many cults are harmless, but others are into mind control and some are into mass suicide. Still other cults have a doomsday orientation, and these tend to be ones which engage in religious terrorism (such as Aum Shinri Kyo). Any sect or cult can become involved in religious terrorism or it can just worship terrorism (a terrorism cult). The motives can be wide-ranging, from engaging in psychic warfare to expressive behaviors that are homicidal, suicidal, or both. Cults are usually more dangerous than sects. (<http://faculty.ncwc.edu/TOConnor/429/429lect13.htm>).
 31. "Science and Religion: Past Estrangement and Present Possible Engagement," in *Contemporary Science and Religion in Dialogue*, ASSR

- Series*, vol. 1., ed. Job Kozhamthadamdam. Pune: ASSR Publications, 2002.
32. The Discovery Institute at Seattle is one example. See www.discovery.org.
 33. The Indian Institute of Science and Religion (www.iisr.in), located at Pune, is such a centre. The most famous centre abroad is the Templeton Foundation (www.templeton.org), which awards every year the Templeton Prize for progress in science and religion. Instituted by Sir John Templeton, it is the largest monetary award in the world.
 34. See Kuruvilla Pandikattu, "Dialogue between Science and Religion for Preserving and Fostering Life," in Job Kozhamthadam, *Science, Technology and Values: Science-Religion Dialogue in a Multi-Religious World*, ASSR Series2, Pune, 2003, 43.
 35. Today we are aware that we need not merely SOS (Saving Our Soul) but saving our planet, saving our lives, saving our biotic life.
 36. See my "Towards a Spirituality for Life," *Jnanadeepa: Pune Journal of Religious Studies*, 7/2 July 2004, 56-72.
 37. Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life*, Ballantine Books, 1999. See his special emphasis on "NOMA" for "non-overlapping magisteria" between science and religion.
 38. Even if we die in the process of fighting against death, if we do it joyfully, it is our little contribution to foster life.
 39. See my article "Affirming Life Authentically, Accepting Death Gracefully," *Vidyajyoti: Journal of Theological Reflection*, November 2004, pp. 813-820.