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The Relevance of Scientific Predictions in an Era of High Religious Conscientiousness (*The Implications of Science/Technology in Religion and Society)*

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ABSTRACT
The topic of this paper is apt because it gives the opportunity to write not only in one's academic expertise meant just for the lecture hall but also it offers us opportunity to dwell more comfortably on our cherished zone, science and religion - a general topic that could appeal to all and sundry. When it is a debate where Science and Religion - two areas of knowledge seemingly contrary to each other but in reality and naturally so close and endearing to one another - confront each other, the topic sparks off controversial issues among some people and a comforting thought to the others; but becomes more attractive and thought provoking to the researcher. Religion and Science are not contradictory entities. Example of success from great scholars of the past as the life and work of the Great St Albert - a theologian and a Natural Science master is illuminating and should encourage us in our search for the truth of the matter both from the scientific and from the religious point of view; spurring us to delve more seriously into the idea expressed in the title of this paper. It is not so much to reach Albert's wisdom and insight but to acknowledge the facts as we try to match them with our contemporary socio-cultural world experiences of peculiar scientific and religious pursuits.

INTRODUCTION

On the eve of his feast day we had read at table a synopsis of the life of St Albert the Great. The passage had described him as a theologian as well as a

master of the Natural Sciences. He saw no conflict between Science and Faith. So he would have perhaps been quite at ease with our contemporary Age of the highest level of scientific preoccupations. Albert, the passage added, studied and taught Theology at Cologne and Paris and taught St. Thomas Aquinas there in Paris at the Sorbonne. There I was moved to explain that the University of Sorbonne spoken of is my Alma Mater. I felt very much privileged to quote Saint Albert and Saint Thomas Aquinas as sharing the same Alma Mater with me. Hence, when on the following morning, the feast of St Albert a Senior Seminarian knocked at our door and requested I come to present and read a paper at their annual seminar on the relevance of Science and Religion, though in a normal circumstance I would have refused the invitation I could not say no to it. I felt it almost as an obligation to cease this opportunity offered to congratulate those "Old Boys" Saint Albert and Saint Aquinas, of my Alma Mater for their authentic and alarming intellectual accomplishments in both philosophy and science and their ultimate triumphal Sainthood – indeed job fantastically done!

The understanding of the expression 'The Relevance of Science in an era of high Religious Consciousness' does not go beyond the fact of seeing Science and Religion as two distinct disciplines yet so close to each other and many a time complementary by way of their two identical ultimate goals namely, the search for the truth – their search for the origin of things - the origin of beings or realities and their relative end. For is Science not meant to take care of the material aspects of being and Religion the spiritual and the abstract realities of being? And just as William of Saint-Thierry[1] rightly puts it, the human complex: the animal body (*Corpus Anima)*, the thinking soul *(Animus – Mens)* and the spirit *(Spiritus Cor)* are originally meant to live together in harmony, inseparably, in complementarily and interdependence, so also should one think of Science and Religion as complementary and interdependent at various levels of their existence.

The above facts are the points we are going to expound in this paper focusing on proving the authenticity of the hypothesis and the soundness of the theories that issue from them. Our work is divided into three main Sections: The introductory parts (Section 1) among which are the clarification of terms (definitions of Science and of Religion) the which enables the reader to

[1] In J-m DECHANET, Christian Yoga, Search Press, London, 1970

subsequently have a clearer insight into the real nature of Science *per se* and of Religion *per se* –which touches at their two separate natures their areas of autonomy in Section II.

The Second Section will include their areas of autonomy and reciprocity as well as their functions and usefulness to man. There, certain parallels of the two fields of knowledge will be drawn stressing thus where their autonomy lies to enable us not to confuse issues when we attempt to blend the two in the second part of the Section. For one should realize that though the two – Science and Religion – have meeting points and at certain levels interdependent, each has some clear cut autonomy of its own. Though interdependent and inseparable the body (*corpus anima*) can neither be interchanged for (*animus mens*), the thinking mind, nor for (*spiritus –cor)* the spirit. Each expresses certain autonomy in its own sphere. This approach will also stress, in the second part of the insight, their zones of possible complementarity or the interdependence between them both in the field of knowledge and in the act of building up the harmonization of the human complex in the life of Man and the rest of creation.

In determining clearly that Science and Religion are not conflicting realities so also the question arises whether the two are really living up to their individual nature and their complementarity one to the other? The discussion on this point will come in in Section III of the paper. Here we would be working towards the concluding part where we shall aboard the Problematic of Science and Religion in society. Should we be able to offer any solutions to the problematic?

SPECIFICATION OF TERMS

What is Science? What is Religion?

Science

The title of this paper may present to the reader three principal terminological problems which we should try to avoid by clarifying them at the initial stage of the treatment of the topic. The term science if related to religion should read itself in its widest sense of embracing not only the notional or conceptual aspect of science *per se* but at the level of its being a useful instrument in the development or the progress of Man and life. In this sense we should see science at times as being identical with techno-economic; since neither one nor the other can meaningfully stand alone at the practical and human level.

We have noted elsewhere in our writings that Science is human knowledge based on delimited range of phenomenon derived from empirical observations with the purpose of exploiting those material properties of nature by a techno-economic method, for the service of mankind. One can view science functionally as a techno-economic venture (the discovery or invention and exploitation of natural resources). Science as Natural Science and even the so-called Pure Sciences at a stage cannot dissociate themselves from the Applied Sciences. They maintain constant correspondence among themselves. Equally, technology and the techno-economic cannot be rightly dissociated or separated from science; otherwise science would lose its meaning in the life of Man and society. The science we are treating in this topic is science as a useful art in the life of humans. Without the techno-economic such a science would die a natural death; for it is technology in most if not in all the cases, that begets science. Scientific discoveries and inventions spring from technological endeavors and lead to technological inventions and vice-versa. Hence one should be right to treat science and technology (or the techno-economic)as one entity and identical terms in this paper. When we mention science or the techno-economic in this paper one or the other should be equally understood therein.

Religion

The term religion could also pose for the reader a problem identical to the above. For one can easily draw up a difference between religion as a social institution, a functional entity or religious consciousness as a concept, a notion or a personal quasi-religious-philosophical experience. Religious consciousness, to become religion has to insert and interpret itself within a certain social set up or a culture. Thus religion becomes an aspect of culture as social institution. Religion is not only an emotive reality but also a mental, a historical as well as a social reality in the life of Man. If one removes religion from society it becomes a purely mental and psychological affair. But the thinking mind is only but an instrument in the hands of religious consciousness operating within a society or culture.

Consciousness, Relevance

It is only in society that is, in the practice of science and religion in society, that the two – science and religion- establish their relevance. Relevance

cannot be demonstrated in a social or cultural vacuum. The point pursued here is that religious consciousness as expressed in the title of this paper should be understood on the platform of the existence of religion in social practice. Hence, in the body of our text one should not be confused to see us interpret religious consciousness as a part of social realities of life. Religion as we shall see it in our definition is always at the heart of all social realities implicitly or explicitly. Functionalist theories have always rightly quoted it as the entity that binds society together. It is a unifying agent to the parts of the social system. Religion is intrinsic to society. Religion whatever its shape or form is recognized in all societies. Even the so-called atheistic societies have a form of religion as they adhere to other social realities in the life of Man. Religion or religious practices or value should always be understood as the part of the social and not as something against the science/ techno-economic - the material order of the physical aspect of existence. It is when we mention society that we see more clearly the role of religion in the life of Man.

The Term Relevance in our text is used in the sense of relatedness implying causes and effects. Here we are thinking of the type of relations Science and Religion have from the facts of the co-existence of the two to realities in Man and society -what has Science to do with Religion and its up rise and vice-versa? What are the pros and cons in the co-existence, natural or artificial? How far is it going and should it be encouraged or done away with?

THE NATURE OF SCIENCE & OF RELIGION (Areas of Autonomy)

SCIENCE:

The nature of Science can be described as under three principal parts namely, Scientific Knowledge, Scientific Method and Scientific Justification.

Scientific Knowledge

It is first and foremost that knowledge obtained by experiment and sustained observations, rigorous and objectively tested and systematized in a way to be defined and classified as a general principle. Hence Scientific Knowledge is rooted in two principal assumptions

(i) That one can derive objective knowledge about the world through empirical observation and that the veracity of this knowledge can be ascertained by similar observations of more than one person.

(ii) That there exist biases and values interacting or rather interfering with the observer's observations and analysis no matter the level of objectivity he aims at reaching in them. For facts do not order themselves. A science necessarily involves a logical interrelating of observations and cannot be limited to mere collection of data.

The object of scientific knowledge is made of perception and essence. That is, scientific knowledge is an encounter in perception of the being of the object together with the knowledge of the essence and the form of the same object. For that reason the ranges of scientific knowledge are restricted by their sectional formal intention to being partial knowledge. Hence science should not give room to the total denial of certain forms of invisible realities. It should therefore not be implied that the mere sum of findings of particular sciences (or a subsequent systematic effort to combine them) provides at once total knowledge of a field of scientific reality.

Scientific Method

One can also convince himself of the reality of this truth when he thinks of the nature of Scientific Method: Scientific Knowledge normally implies Scientific Method - choice of object and scientific justification which for the lack of space we cannot delve into in this short paper as we did in our past writings. Rather we could briefly note that Scientific Knowledge confines itself, from the start, to a possible field of experience and set of characteristics of the very object in question. The choice it makes of its subject is strictly defined from its formal aspect based on what does not go beyond its sectional formal intention as implied earlier; hence the knowledge is a partial knowledge of causes and effects of objects in their individuality and in their necessary links.

Scientific Justification

Choice of object is based on a possible field of experience and some features of the object in question. And this choice is strictly defined from its formal aspect. The scientific justification which is confirmed by repeated experiments normally admits room to further judgement on which a scientific judgement is based; as the facts are traced and arranged according to a planned perspective of research and expressly determined rules. Note we are not here dealing with fullness of meaning in its object, and that means that even in the

hypothesis of a completed science we should not claim to have exhaustive knowledge of the whole essential meaning of its object.

The General Inference to be drawn is that scientific principles and theories are necessarily constantly exposed to criticism, further testing and revision within an accumulating tradition of non-dogmatic knowledge. So also science should be understood as a continual sincere search for the truth and not as some may think an indelible fixed up "truth" and all complete way to reality.We may recall that the scientific disciple and methods are principally under the broad classifications of the Natural Science, Behavioral or Social Science, Pure Science, the Nomothetic Science, Ideographic Science, the Pseudo Science and the Applied Science; and with such detailed definition of Science we are now in a better position to delve into the various functions of Science in the human society the which will enable us discern more clearly its relevance to Religion. But before then we should look first into the nature of Religion as we have done for Science; including subsequently its direct relatedness to Science.

RELIGION

We have in our other previous writings treated extensively the fundamental elements of Religion and their origins. We have no intention of repeating those details in our present work; rather we are going directly to state the functions of Religion in society as this singular approach will enable us aboard the more pressing question of the relations between Science and Religion in society and thus relay the key issues involved directly, implicitly and explicitly in our present topic:

It is understood that Religion is not only a social reality but a psychological fact in the life of Man. It equally manifests itself as an emotive, a mental, and an historical as well as rational reality in the life of Man. As he strives to penetrate the deepest significance of being, the being of things because of their origin in the infinite light (to borrow the Thomistic expression) which has its fulfillment only in the Logos, God, their origin and creator, Man naturally reaches out to the religious realities within him and outside him among creation. Thus we say, Man is a religious being *(Homo Religiosus).* Religion manifests itself in him as an emotive, a mental, an historical as well as a social reality in him.. He is not merely capable of going the way of religion, he is summoned emotionally and mentally to do so. “There is in every man”, says

Pascal, "the infinite abyss that can only be filled by an infinite and immutable object, that is to say, only God Himself ".(Pensée, 1657-1658, vii, 425).

Religious traditions are the result of Man's attempt to capture and enshrine his philosophical and spiritual insights so that they are available to the individual as he faces life and its confusions and complexities. Religion is both intensely personal and intensely social. It may help to provide wisdom and techniques by which the individual may free himself from contemporary groups and values; and provide him with freedom to achieve values that transcend the demands of the present social activities or conditions. It is at this platform of Religion as social and cultural fact that we see Religion more clearly as of great importance to scientific research done in any society. The factor comes more readily well-defined for our grasp in the most practical terms when dealing with religion as social institution and as one of the four Basic Social Institutions.

When religious experiences are assembled and codified in a system of beliefs and rites and practices in a way to express the situation of Man in the universe religion emanates as a social factor or as it is normally called, social institution. The beliefs are erected in dogmas and together with their practices are transmitted through organized "priestly" powers. There emerges religion as a socio-cultural institution.

NATURE OF SCIENCE & RELIGION (Areas of Reciprocity)

Cultural & Societal Plain

Why should we not agree with Skolimowski (1979)[2] when he observed that all rationality including scientific rationality is culture-bound? ''Science is not as universal as we usually assume. Its emergence was more or less a matter of chance than of compelling necessity. For any science to be a meaningful science it must always blend itself with some specific cosmology belonging to a specific culture. The cosmological or cultural values and forces are visible in various forms and at various levels in science and technology practices. The same applies to scientific rationality, since all rationality is culture bound." In other words, we are agreeing with the fact that Man is fundamentally a cultural being; thus echoing the hypothesis or rather the acceptation that Man being

[2]*Cultural Values, Science and Technology Beyond the Faustian Bargain in cultures*, the UNESCO Press and La Becconnière Vol. VI no, 1, 1979.

fundamentally a cultural being all human activities, are they intellectual or practical, have their source from this one capability of Man - his cultural capability. Religion as an institution is also culture-bound; and that is where we are basing a large part of the relevance theory we are obliged to face in this paper.

Religion and science are aspects of culture and it is within the cultural framework that the two largely meet both as separate entities and as complementary or interdependent realities. Scientific predictions as well as religious consciousness are born out of Man's desire to solve the problems of life both spiritual and temporal. That is why we said earlier in this paper we were tying science to the technological or the techno-economic in their relation to religious realities.

Just as much as Man is fundamentally religious (*homo religious*) so also is science basically and technically an aspect of culture - a cultural element. Scientific knowledge and technology then are not the cause of their own existence; they rather originate from culture; just as much as religion as a social institution is rooted in culture.

In other words, all sciences including their implicit and resultant explicit technology have a cultural beginning. They are at least born as a response to cultural imperatives namely, the method of providing food and shelter, of looking after the young, of education or the transmission of knowledge to the young, the way of keeping law and order in society, of observing a system of beliefs, thought or ideas, that help in the formation of ideologies, moral codes and norms of a society. The material on which science bases its initial approach to knowledge comes Man's way through culture: Scientific data are always based on certain aspects of cultural object; and as culture flows from Man's rational and social nature, it does pre-acquire a certain degree of both the initial perceptive and formal aspect of those objects of scientific experiment ever before the actual experimental engagement.

In a word, the three fundamental aspects of culture, the technological strictly related to science, the sociological and the ideological, largely related to Religion, are interrelated just as the following schema would elucidate the reality of the connectivity between Religious engagement (within the social complex) and the human practice of science in society:

Empirical Reality Or Science-Techno-logical Reality		Abstract, Mental Or Socio-Cultural Reality
	Man (Animal) ⟷ Man (Homo Sapiens) Human Body ⟷ Human Mind Gesture ⟷ Speech Manners/Behaviours ⟷ Morals	

Schema 1

The scheme above points out to us the empirical orientation of science and technology vis-à-vis the mental and the abstract which are the basis of the cultural or social realities to which the socio-religious typically also belongs. Thus at the same time the schema presents to us the aspects of the reciprocity and interdependence between them.

The connection between cultural comportment (in which is embedded religious comportment) and the scientific/technological reality can be compared to the relations between the human body and the human thought made possible by the nervous system. There is that interrelationship between the empirical (science/ technology) and the socio-cultural world as expressed in the schema 1 above. The fact of reciprocity and interdependence shows also that science/technology can improve, transform or disrupt the socio cultural and vice versa.

The scheme 2 below which we have besides, used more than once in our past writings is equally elucidating:

SCIENCE -TECHNO-ECONOMIC	SOCIO-CULTURAL
(i) Man – Hunter and Gatherer →	Man – Nomad
(ii) Man - Agriculturist and Pastoralist →	Man- Sedentary
(iii) Industrialization →	Civilization

> "Homo sapiens had some considerable portions of his development and progressive social or cultural stages correspond with his science-techno-economic progress. *Grosso modo,* there have been three stages of major transformation:

> "In step (i) Hunting and gathering activities (science/technology) coincided with man as a nomad
> "In stage (ii), agriculture corresponded with science and technology, and led to the social situation - sedentarization. But then, agriculture (science / technology) in due course was reconditioned by the very social consequence (sedentary life) it had been the initial cause. Sedentary life offered and encouraged time and leisure to the working class for inventions of, for example, iron or metal works, ceramics and development of techniques for pottery, basket-work and weaving. These were social adaptations of science and technology.
> "Thus we see that Man is the centre of all evolutionary or developmental activities. He manipulates all science and technology consequences to suit his own ends which are mainly socio-cultural. If ever there are times the social is reconditioned to suit the science-techno-economic, it is only but short lived as it is done with the intention of creating new social facilities and vice-versa.
> "Each science/technology formula necessarily involves a social consequence. The specialization in iron works (Neolithic age), for example, brought about the formulation of the metallurgical, ceramics and glass-ware centres. Such concentration of specialists pre-figured a new type of social grouping that eventually gave birth to building of industrial cities. "

We should equally note here that such a science/techno-economic success could not have won Man totally over to the techno- economic. It rather polarized him from the fact that Man is attracted towards the techno-economic but at the same time cherishes the socio-cultural that indispensably affect the techno-economic. The point being pursued is to prove that Religion, religious activities and aspirations and the end tale of science and technology are interwoven at the societal levels.

The indispensable bond and cooperation between the intellectual, the mental, the symbolic and the empirical, in a word, between the socio-cultural, and the practical or science-technology are part of the realities of being and of life. As said earlier they are embedded in the three fundamental aspects of culture namely, the technological (science and techno-economic)which

expressesthe type, the physical components and quality of the tools- machines, and other empirical make-ups and techniques, used in the means of production, distribution and social consumption in a given society; just as much as religion and the metaphysical tied to the ideological aspects of culture are embedded therein. The latter are expressed in the beliefs, ethics, rituals, art, and other religious practices and myths, obtained in a society. They include equally the philosophies and the legal systems of the owners of the culture. The three fundamental aspects of culture fuse together to permeate the basic social institutions to form the socio-cultural system of the human social group.

Religion & Society

Religion enters ever more conspicuously and permanently it's plain of relevance and interrelatedness with Science and technology, when it is manifested in the life of man and society through socio-religious institutions in particular. That aspect has always been exceptionally attractive to functionalist theories. They see that religion does fulfill prominent and very essential functions in society.

Durkheim, Weber, Parson and a host of others justly view it as the institution that takes the major position in expressing elemental values. Religion is an excellent vehicle for the expression of values and a potent instrument for assuring the acceptability of those values, they say. Religion seeks to sanction orientations towards the world and activity in it at the level of deep and basic concern about supernatural punishment and approval; thus tying itself to the most powerful forces in the universe. For this same reason, religion is capable of quelling violence or of converting violence to order. It is a force of both subordination and legitimization.

Briefly speaking, religion is a highly functional social institution; why because though it may make no obvious contribution to the material well-being of people, it does play a vital role and an integrative one too- the role of coordination. Its central social contribution is keeping society together, presenting, legitimizing and re-enforcing values which are essential to its life. It is even in this light that we can have a glimpse of the other natural relationship between religion and other cultural activities of Man including of course science and technology.

The relationship between religion and social institutions is clear. To speak a bit more in detail we present first the political arena partly as we relayed it in our past writings.

Religion and Politics

Here is where anthropologists have seen alarming clear cut imbrications of Religion and the other social institutions and human practices as science and technology – connection between the sacred or sacredness (Religion) and the political power. It is crystal clear the way in which the political power connives with the power of the sacred; which for lack of space we are not discussing fully here. Religion acts on men and the order of things and from the positive point of view it contributes to the quelling of violence and or the converting of violence to order; while that would be the opposite when it is acting negatively. As it is a source of subordination and legitimization the political power occasionally summons this power of the sacred to legitimize itself as an instrument of command. Thus the two - religion and the political power - manifest solidarity by their joint action in the imposition of conformity of a global order recognized as the condition for all collective existence of men.

The interconnection between the religious and the political are also seen in the relation between law, justice and morals. Though law is different from morals in the sense that law implies a judgment on what it imposes and which infractions it reprimands by the means of sanctions thus serving as the crystallization of the juridical conscience of the group, morals within the religious arena, is absolutely needed to make the whole operation meaningful. Originally, law and justice, have confounded themselves (and still do so to some extent in any human society) in their common quality as having a common mystical element in their nature. For example, in traditional society, the just is opposed to the unjust and the impious. Law, in most cases does confound itself with beliefs, customs and other elements of religion. In Islamic cultures, for example, the Islamic law attaches itself strictly to the Koran, and even in the enlightened and advanced religion as Christianity, the laws of the Christian societies have been based on the precepts of the Bible and can hardly withdraw totally from them.

Lastly, it is clear that ambiguity is inherent to power which makes it indeed always in need of periodic and occasional re-enforcement. It is here once more that the religious and the political overlap. The state, to maintain

complete order needs the helping hand of the other multiple procedures and agents of order the most important of which is the religious conscience of the people. Religious means could be used to support a demand for radical change in the time of serious social crisis. The contrary could also be done – the suppression of the religious institutions of a nation is in fact the dislocation of an essential part of its social system, that is, the destruction of that organ, to borrow the functionalist term, which is essential to its life. To effect a radical and global change on a people`s religion is to radically change their social structure.

Religion and Science / the Techno-economic

One of the accepted principal origins of religion has been the idea that it is a response to certain basic human needs. The basic need of primitive man was security against such threats as famine, disease and destruction by the enemy. As he spent most of his daily life in hunting, agriculture etc., and just as much as he needed to avoid dangers, he needed to safeguard his activities including other means for security derived from his belief in a spiritual world expressed in ritual actions and petitionary prayers, for protection. The modern religious man may still pray for deliverance from plague, pestilence and famine, floods and earthquakes etc., from battle and murder and accidents, and from sudden death. Modern man is still shaking over the danger that threatens him. The hope of obtaining security by the utilization of spiritual forces may be summarized to be one of the roots of religious consciousness and attitude amid science/technology preoccupations.

ETHICS (RELIGION) IN SCIENTIFIC ENGAGEMENTS
(Religion and Man's Relations with His Milieu)

Man's relation with his milieu can be very much controlled by his religious beliefs even up to the point of its determining his mode of production. Among the native Dobu of the Oceanic Islands studied by Malinowski B (*ibid*), certain religious superstitious beliefs derived from myth and magic played very important roles in the economic life of the people. Why did they not change such a mode of production even though it perpetrated poverty in the society, one might ask. Such a change could not have come about without changing first the types of belief already established. In terms of rearing of animals, for

example, productive output or profit were controlled by beliefs in the existence of totemistic animals.

For some Hindu religious groups the practice of the idea of sacred cows (the cow was understood by them as a sacred animal) also existed and had consequences similar to the Dobu case. Certain pagan religions forbid the eating or killing of such animals as the ram or some types of sheep, snake, snails, fish etc.; and people do destroy other types of material goods to fulfil religious obligations. There was even a time the killing of human beings (twins for example) and the practice of human sacrifice existed based on some types of religious beliefs.

In the most recent times in our present era one can easily learn suchlike lessons from the German society of Max Weber[3] 's time. We have often cited this example in our writings. Weber noted that the spirit of German economy fitted well with certain key ethical values of the Christian Germany of his day. Although they derived from quite religious preoccupation and Man's relationship to God, they were nevertheless particularly compatible with values needed for success in the science/techno-economic life. They contained this ethic in its purest form. They required of the believer not only that he believes but that he acts in accordance with that belief. They insisted that people were individually accounted to God for what they did on earth and could not shrug that responsibility off onto others. Hence, they were preoccupied not solely with the afterlife, but with right living in this life as a basic duty and condition of salvation in the next world. These produced attitudes towards life favorable to the effective running of economic enterprises including scientific endeavors. And deviation from this austere code was impeded because of the hold the beliefs themselves had over people's minds, and by virtue of the social control that was exercised by others to ensure that they did not regress.

The point that Weber is making here is that the economic growth resulting from the Christian practice could not be attributed solely to scientific discoveries and predictions or to efficiency of the discovered, invented or prescribed through scientific endeavors but also to the outcome of the practice of those ethics. There we see the interdependence of the two- science /techno-economic and Religion.

[3] Max Weber,

Scientific Undertakings& Religious Beliefs

Scientific endeavors can have a greater advocacy in a society or culture only when allowed by the religious belief or practice of the culture. Among the Dobu as we have pointed out, myth (a religious component) can be rightly considered as being also anterior to such modes of production as agriculture. Among the ancient Dobu of the Oceanic Islands *(ibid)* myth and magic played a very important role in the scientific and economic life of the people since a mode of production can be changed only by a modification or transformation effected by other types of beliefs established from the exterior.

So although Weber agrees with certain point's made by Karl Marx on the importance of the division of labor including the Marxian definition of the superstructure of society, he does not hesitate to bring out certain salient points against the Marxian theory of the roots of concepts, motions and ideas, in relation to the superstructure and the infrastructure of society. Weber rightly insists that there are ideas and notions (in particular religious ideas and notions or concepts) which may have their roots independently of science-based techno-economic economic developments even if they may connect with them. Weber stresses that such ideas, notions and concepts are more autonomous than Marx had allowed and are not simply caused by techno-economic forces.

Ideas can and do affect profoundly practical social behavior, including the economic and scientific engagement without having necessarily taken their existence from them. And these are the religious aspects that override science and technology in some particular social development of a society. Even people's religious beliefs can affect directly their exploitation of their natural resources. They could forego the transformation of some aspects of nature because of the belief they attach to some part of their natural milieu. In the ancient Igbò culture of Nigeria for example, what was called the 'evil forest' was never cultivated or penetrated into even if it appeared to be the most productive 'forest of the land. For the Mbuti of the Congo, the forest was deified (cf. Turnbull, The Forest People) and for this reason they were being diverted from the discovery of another mode of production, agriculture, for example. One could perhaps say that it is rather economic constraint that inspired the religious orientations; but it could still be argued that in that case, religion was needed to give a helping hand to the science/techno-economic to express itself to a certain extent.

THE ANTITHESIS OF THE RELEVANCE & PROBLEMATIC OF THE SITUATION

We have been treating at length the relevance of science and religion in their various forms through the insight into their areas of autonomy and of interdependence and reciprocity as they play their specific roles in society.

At this stage of our evaluation the inevitable interrelation between these two entities namely Religion and Science – areas of autonomy and regions of interdependence and reciprocity, are already clear. Are there ever any clashes between the two? Judging from what we have discovered when looking at their natural state of being there should not be one; but assessing from human handling perspectives of the two there are regrettably some very serious cashes and contradictions the reason for which there could legitimately arise the debates about the proportionality of their relevance or interaction – the key underlying motive for this essay – based on the prospects of causes and effects. Because of limitations of space we shall mention only one of such here on both sides of the equation – Religion and Science.

The Prospects of Science

Within Science one can legitimately talk of rashness in the choice of subjects of research, insufficiency in the pursuit of truth, insensitivity to adverse effects of research and of scientific results, overspending on science and research as against the fight against human poverty and deprivation, to name only but a few. Let's take one of them as an example to be examined a bit in detail namely, scientific rashness:

1. Scientific knowledge or the resultant technological competence can vastly exceed our understanding of the social or cultural which follow from their exercise. And this is so from the fact that for any scientific discovery or technological activity to be of any use to Man, there is always a certain amount of technological operational sequences implicating themselves simultaneously with some elements of the socio-cultural. The application of scientific knowledge and its technology to physical or ideological resources for the production of goods inevitably involves or encounters a multiplicity of cultural values including social relationships and comportment both at the individual and at the societal levels. Problems arise when these scientific technological sequences do not correspond with such cultural values and relations involved or affected.

2. More serious problems may also arise when such consequences of science and its technology are not predicted early enough in the life of the resultant science/technological activity. For example, the discovery of the nuclear energy had resulted in the nuclear weapons, building of nuclear centers, in arms race that menaces world peace, in the production of dangerous nuclear wastes and consequent air poisoning, pollution and other ecological problems, which are having their repercussions on the existent culture and society of mankind. One can easily recall the one time industrial revolution in the 18th - 19th century Europe which unpredictably gave rise to child labor, urbanization problems and the machine age problems.
3. By the time they are discovered the scientific discovery and its technology can be so much part and parcel of the whole economic and societal life fabric of the people concerned that the control is extremely difficult, that is, change at such a stage has become expensive, difficult and time consuming. If we take again the example of the nuclear energy invention we see that the resultant arms race has become equally an economic race and a war for prestige. Though the acute danger of nuclear weapons are clearly evident to all; arms production, economic gain and arms race for prestige have become so interwoven that no country is genuinely prepared to control or give up the race.

Problems of science in society are born each time a human or rather a cultural value among which is of course religious values and its rightful ethical significances are overlooked in a science/technological activity. At such a time science and technology are proving to be a failure to their own very end which is that of helping man to reach self-fulfillment.

Cultural values such as "ethical or moral consciousness pointing man beyond his purely biological nature to look towards a Homo-Sapiens who would have reached the end of his being - his metaphysical Super-Ego - are indispensible to science for reaching its final goal - the enhancement and upholding of knowledge of creation – wonders of it, its marvelous secrets, its riches, its usefulness to Man as well as what would be the tragedy if lost to mankind and its existence.

That is to say, as a means to such an end Man finds he does not find adequate satisfaction in a dry-cut scientific and technological knowledge and practices. As pointed out in one of our previous publications, Man's ideological world keeps suggesting to him to find additional extra-biological dimension

which would set him to master his greed towards sheer scientific endeavors - endeavors denuded of the spiritual. The mental, the religious or the symbolic world have been essential instruments for the curbing of excessiveness and rashness in any of man's scientific and technological rush. That is why, figuratively speaking, there has developed a never-ending struggle and dissatisfaction between the intellectual and the .physiological, between standard human understanding and the scientific-technological usage, whenever the two aspects of life are not treated as complementary in any human activity. Briefly, any overlooking of the role of the socio-cultural in the practice of science and technology has always proved detrimental to science and technology as useful art.

Many a time the difference between success and failure in some areas in the world of science and technology engagements in no way stems from scientific or technical miscalculations on the part of the scientist or technologist. The key difference is that the objectives given to the successful programs are purely technical whereas their objectives could not be a technical but a human one (D. (Collinridge, 1980).The failures of the Green Revolution, the failures of the Nigerian oil boom and the agricultural schemes or the breakdown of the suggested agricultural revolution of the Somali herdsmen are typical examples.

Science/techno-economic success may not have totally won man over to the techno- economic. It at times polarizes Man - Man is attracted towards science or the techno-economic but he at the same time cherishes indispensably his socio-cultural freedom. This has been many a time the cause of wars among Mankind. Religious Freedom and freedom of Expression regarded as inalienable rights have often caused serious friction between science and metaphysical values among men and among nations or cultural groups. Man adheres strictly to his social and cultural nature to which Religion directly and singularly belongs.

In sum, granted Science and technology have laudably been instruments of human evolution and advancement at the same time they have not prevented Man from failing to find total satisfaction in an exclusive science/technological determinism. Why? Because as implied earlier there should always be an indispensable cooperation between the intellectual, the mental, and the symbolic, in a word, the socio-cultural, and the practical scientific-technological world.

4. When compared with its relation to Man Science at certain levels could be one time auto-destructive while at another directly detrimental to human practical, even empirical, progress and up-building. Without prejudice to the admirable accomplishments of science in human history for example, the discovery or invention of the wheel which undoubtedly led to the invention of the printing press, moving picture, the cinema, all the discovery and advancement of means of communication, by road, sea and air – the airplane – even up to the level of the spaceship, the telephone, the most modern - internet, marvelous progress in medicine that is going beyond imagination etc., scientific discoveries and invention can at some levels be detrimental to human progress including religious advancement as an aspect of culture.

Such scientific inventions and propaganda that totally deny invisible realities are playing dangerous games against Man when they rely solely on empirical data to interpret all reality whereas Man is made by empirical/mental and spiritual composition. Scientific prediction becomes an obstacle to Man's spiritual growth as it spends time refuting abstract thinking that is otherwise true in its own nature**.** Scientific discoveries though could be beneficial at some level they could at some other levels be obstacles to the proper mental growth, progress or refinement of the young as is real in the invention of the internet, cell phones and the resultant human addictions. Among the social ills are pornography and other impure pictures and images, bad and immoral books and papers, immoral or false news, lies, tale-telling, calumny, false alarm, fabrication of reality, proliferation of the technics of the manufacture of instruments of war all speeded up by fast means of communication through easy access and proximity by air, land and sea and unprecedented fast distribution and proliferation through the mass media. The easy accesses to instruments and means of premature education of the young about sex (repulsive sexual practices, sexual promiscuity and abortion practices); contraceptive drugs and child pregnancy are not counted out, including, other harmful drugs and drug addictions; and added to that are the spreading and proliferation of all sorts of diseases and sicknesses, and all the adverse effects resulting from the influence of the cinema and moving pictures, even in the world of adults.

Alas! The most menacing is the deadliest of scientific consequence namely, the invention of the atomic bomb and all the highly advanced and perfected instruments of war. Did all not start with the invention of the first firearm which among others opened the door to violence that included the easy capture of humans for slavery practices the most horrifying of which is the Trans-Atlantic Slave Trade – one of the greatest shame of the modern world of scientific inventions? One does not need to talk of the evil results of the Industrial Revolution we mentioned earlier - the horrifying child labor presently echoed in our contemporary practice of the "modern" slavery. just as much as the proliferation of evil through the mass media in our modern era started with the invention of the Printing Press hundreds of years ago.

In a word, Science can surpass itself and turn out to be detrimental to man. All the above mentioned adverse effects of science and their subsequent results are elements that lead Man away from himself or rather they alienate him, creating chaos in some of his onetime natural equilibrium. Is it any wonder then that Man in his state of sobriety, many a time if not always, longs for and searches for a place of refuge to get away from the chaos in order to reach out to his other self or should we say his Inner or True Self – his, Super-ego beyond the "miserable" present through Religion? Though science can be used to enhance and propagate the riches of that self it cannot fully satisfy its longing and aspiration. Why? Because the satisfaction of such aspirations surpasses man. And his refuge cannot be found elsewhere than in the bosom of a Perfect and Immutable Good - God. Should we quote again Pascal's Pensée *(ibid)* "There is in every man the infinite abyss that can only be filled by an infinite and immutable object, that is to say, only God Himself"?

The Prospects of Religion (Religious Belief versus Atheistic Scientific Practice)

The abuse of those natural relatedness and interaction that should exist between science and religion could be expressed in Atheism/ Materialism and Relativism versus Religion as is evident in atheistic communism and atheistic socialism of the recent centuries of human history. These are practically expressed in the disordering, suppression and the distortion of Nature and the Natural Law in the name of science and technology; or in the deification of science as the only source of acceptable truth – putting science first before Man. For example, without repeating the ills we have mentioned above we add that mankind is now faced with the practice of human cloning, the unprecedented

invention and proliferation of related tools, drugs and moving pictures, especially pornographic pictures along which as mentioned above is the destruction of the normal natural education and upbringing of the young, invention and perfection and easy propagation of contraceptive pills of the highest order made easily available even to the young, perfection and multiplication of abortion clinics and instruments, destruction and utilization of baby parts and embryotic cells, in the name of scientific research, commercialization of human cells and bodies, and confusion of human progenies and identity through artificial insemination, scientifically perfected and fastest media and communication gargets as cell phones, the internet that are going completely out of hand, beyond human and scientific control, profanation of religious values, outright religious persecution through deliberate suppression, violence, bigotry, propaganda etc. in the name of scientific advancement.

We do not need to repeat what we have already mentioned earlier about the scientific perfections that have led to the inventions of the deadliest weapons as nuclear weapons and other arms which are leading to the most dangerous arms race in our more and more growing fragile contemporary world. Another of our greatest anxiety now is the menace of climate change arising from scientific inventions for the perfection of speed and energy production in the means of production coupled with the unparalleled avarice and greed they generate.

On the Platform of Religion

We should say on the other hand that Religion as an institution could equally be at fault in rightful generation of human comfort and satisfaction by overstatement or disorientation of religious values, through fanaticism, superstition, presumption, philosophical mediocrity, laziness, laissez-fair attitudes, witchcraft, cultism, syncretism, proliferation of make-believe and mushroom churches for the practice of commerce and monetary engagements, miracle-mindedness (undue adherence to miracle born out of laissez-faire attitude to life and its reality to generate presumption and greed etc.), hypocrisy, persecution and denial of human rights, bigotry, use of violence and internal persecution, exploitation and denial of religious freedom. In any of the above ills what looks like high complimentary religious consciousness is in reality an abuse of the natural and true values of religion we have mentioned

earlier in this paper. That is, religion as social institution has also got a dark side. Social institution as we have remarked is a cultural set up and just as culture is a man-made reality and Man is not perfect so also no social set up is perfect.

High religious consciousness may not always mean consciousness in the right proportion or in the high ethical acceptability for the good of Man. Fanaticism for example, the denial of religious freedom, violence and denial of human right that range even to the level of terrorism, in the name of religion, are far from being religion in the classic sense of the word we have described earlier.

Moreover, high consciousness could be the result of underlying struggle of religious institutional practices to measure up and combat the evil effects of the bad consequences of scientific discoveries on the society. It could equally be the use of scientific inventions to boost up religious evils such as the proliferation of certain types of religious bigotry for the sake of fame, commercial gains and the like. What looks like religious consciousness could be the result of some philosophical mediocrity, or some form of high level and perfected agnosticism.

The right questions we should be asking are perhaps: Are we really religious as we should be? Are we overdoing it, moving it to the wrong direction and away from the right path, right reasons and right results? Or is science even being allowed to act from underneath to have the upper hand with its own dark side to be the cause of the purported consciousness? What do we really mean by high? Is it really high in the good, intelligent and acceptable sense of the consequences of the action?

Let us take as an example the African/Nigerian situation. Here religion appears to be thriving in an alarming rate thriving yet Africa, at least Nigeria is riddled with uncommendable religious practices as bribery, corruption, cultism, proliferation of mushroom churches geared towards commercialization in the Christian arena and fanaticism and denial of human right, terrorism on the Moslem side. In suchlike cases one would be asking whether then the so-called high consciousness is not rather an high materialistic consciousness in disguise; as it is highly perpetrated by the materialistic tendencies of an overwhelming science 'infested' world?

But to answer fully these questions is a topic for another paper that is not much limited as the present one. Hence we conclude with the statements below:

CONCLUSION

Resolving the Problematic?

Could there be resolution of the problematic in relation to the practice of science and of religion as stated in the title of this paper one would ask. We were once faced with harmonization of the two entities as implied and mapped out in the early chapters of the paper; but now we have met with discrepancies within the wall of science itself, and irregularities within religion at the institutional level in society, as we relayed them above. There seems also a sort of peculiar clashes of the two – science and religion in some areas. The clashes are leading us back to the crux of the matter in the overall topic and thus to the conclusion of the topic:

Religion as we have already exposed it leads Man beyond himself to his Super-ego. Religion either in its intrinsic form or in its institutional form is wrapped with the hope it would always fulfill this function[4]. Could this not be the key reason why science, though seen to be indispensable to human progress, has never succeeded in trying to submerge Religion? The greatest example is the awful failure of the atheistic communist revolution and uprising of the Soviet Union and its surrogates of the last century. In fact, looked at from another angle it ironically even boosted the life and activities of religion – the rise of underground churches and missionary audacity and propagation of the Faith which otherwise would never have existed; talk less of the benevolent blood of the martyrs, in a fashion never before seen in modern history.

That however is not to say that religion, on its own part has not got its own pros and cons when thought of at the human institutional levels. We have already pointed out earlier a good number of the problems of religion at its institutional level.

So the question should not be whether or not scientific predictions are relevant to Religious consciousness. Yes they absolutely are. The problematic arises with the disproportionate or mal- oriented action of them on Man either when acting singly in their own natural sphere or in their interaction with one another in human society.

Science is not incompatible with Religion nor is high religious consciousness contradictory to it. They are compatible and interdependent when they naturally play their proper role in the development of one single

[4] Cf Aligwekwe P.E. , Culture, Religion in the Nigerian Socio-political System (ibid), Chapter 2, on the Origin, Social Functions of Religion, The Place of Rituals.

entity namely, Man and his society. Just as *corpus anima, anima mens* and *spiritus cor* cannot be separated without disintegrating the human complex so also one cannot draw a dichotomy between Science and Religion without tearing Man into two separate parts. This has been one of the first part of the focus of our argument in this paper. The resultant insight into this reality matches very well with the thought provoked by the title of this paper the key words of which are "relevance" and "high consciousness". The consciousness may be high disproportionately either as extra attempt to counteract the bad effects of a disorientated science or as effort to cope with its discomforting effects on Man; or because religion itself within its own sphere is malfunctioning by its practice of hypocrisy at the institutional level, or misinterpretation of what should be the real values of religion - a misapprehension of values through false self-defense or greed etc. as we have listed them above.

When a society is duly peaceful and serene a fertile ground is born for harmonious and balanced coordination of science and religious practices; otherwise one would override the other creating unwanted atmosphere here and there for Man; hence high consciousness could be a negative or positive situation of affairs in human condition.

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