

Theme 1 – Searching for the Common Ground

Presentation: Science and the Environment: a Theological Approach

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Science claims great prestige and respect in our culture. Many people look on it as a power that can cure almost every evil in life. Scientists speak and are listened to with immense authority, because science has managed to claim for itself access to the Truth and the capacity to produce practical results.

Religion, on the contrary, certainly in western societies, has for a long time been deprived of the authority and prestige it enjoyed in the past. It is only in certain circles in our society that a religious truth or doctrine would enjoy more authority than a scientific pronouncement, and this not without a considerable degree of hesitancy on the part of the believer.

What then is the 'use' of religion in tackling such problems as the protection of the environment? Why not leave such matters to the scientists alone? Furthermore, how can science and religion work in common on such matters, given the fact that the former has got factual 'know how', while the latter seems to dwell in celestial places, detached from the realities of life? Is it only by way of complementarity that religion and science can cooperate on environmental issues, the one by contributing inspiration and the other knowledge? Or is there a deeper and organic relationship between these two that can justify their cooperation on such issues?

The dichotomy between religion and science

It can be argued that science, in its modern form, had its origins in religion, particularly in Christian theology. The founders of modern science include such names as Descartes, Leibniz and Newton who were at the same time theologians. In the Jewish tradition, particularly in the later period of the Old Testament when Judaism came into creative contact with Hellenic thought, nature was looked upon by the believer as endowed with rationality. To believe in God would automatically mean to recognise that there is a rationality in creation itself which the human mind could, and perhaps should, explore.

Modern science was born in the thirteenth century when two theological doctrines were crystallised and projected by Christian medieval theologians, namely that creation is rational and that it is at the same time contingent. The belief in rationality led science to the search for causes and explanations that account for the way things are in nature. The faith that creation is contingent, that is, not an extension of God's nature but different from it and possessing its own laws, meant that in order to know nature it is necessary to study nature as it actually is. On the basis of a combination of these two beliefs, modern science was able to embark on the investigation of the way nature is and operates (contingency) with the help of concepts and ideas such as measure, size, quality and cause, borrowed from philosophy (rationality).

Science, therefore, seems to be historically a child of theology. The fact that few of us would be conscious of that today shows that a dramatic change has taken place in the course of history. The child grew up and revolted against its mother and science and religion parted ways.

Tradition represents the Church as the oppressor of scientific research. In condemning Galileo, the archetypal modern scientist, for his Copernicanism, the Church is said to have opened the way to the dichotomy between religion and science. However, the causes of this dichotomy are deeper and more complex and have to do with profound transformations in western thought. I suggest that these transformations are closely related to the question of the environment.

The former Archbishop of York, Dr. John Habgood, theologian and scientist, concludes that the authority and self-sufficiency that science acquired vis-a-vis religion was due not so much to a conflict between scientific freedom and ecclesiastic oppression or theological dogmatism, but to the growing spirit of an atomistic and mechanistic approach to nature which has characterised western thought and mentality since the Middle Ages.

Descartes confirms this analysis in words that reveal at the same time the serious effects that the self-sufficiency of science has had with regard to the natural environment. He wrote in his *Discours de la methode*:

One could find a technique by which the powers and energy, of fire, water, air, the stars, the skies and all the other bodies that surround us, exactly as we know the techniques of our craftsmen, could be applied in the same way to all proper uses so that we might become masters and possessors (*maîtres et possesseurs*) of nature.

Science has fulfilled Descartes' dream with great success, thanks to its mechanistic approach to nature, its specialisation and its independence from religion, acquiring in this way great prestige and authority in a world seeking happiness. Through its achievement we have indeed become 'masters and possessors of nature'. But is this not precisely the cause of our ecological crisis?

However, religion has its own share in the responsibility. Pushed by science to the realm of mythology and striving to gain recognition and authority in a world seeking happiness, religion in the West entered into competition with science in an attempt to satisfy the growing demands in the market of happiness. It too encouraged human beings to become

'masters and possessors of nature' in the name of either the Bible, which seems to present God as ordering Man to 'dominate the earth', or of a spirituality which exalts human rationality as the divine image in Man over against the debased and sinful materiality of the rest of creation. Religion and science opposed each other in many ways but they seem to have collaborated a great deal, albeit unconsciously, for the destruction of God's creation.

The environment, a challenge to both religion and science

In our own days things are changing rapidly in both science and religion and this is bound to affect the role they will play in the ecological crisis.

First of all, the entire philosophy of specialised knowledge is being questioned in both science and theology, particularly in the former. For example, it is becoming increasingly clear to scientists that zoology and botany are not as clearly distinct disciplines as they were traditionally thought to be: you cannot understand the bee without studying the flowers that determine its life, its whole being and its nature. This environmental interaction and interdependence can be extended ad infinitum: everything depends on everything else.

This new holistic approach to knowledge can have important environmental implications for both science and religion. The extinction of a certain species affects the rest of the species. The human being itself is decisively affected by every change in the natural environment. If science moves consistently from the traditional fragmentation of knowledge towards a holistic approach, religion (Christian theology in particular) must revise its views about the human being and admit that humans are inconceivable without their organic relationship with the rest of creation. Christian theology would have to accept the basic claims of the evolutionary ideas of biology, and understand Man as an organic part of the family of animals. There is no essential threat to the Christian faith in accepting the evolutionary theory in its basic principle, that is, the idea that the human being represents the last point in a biological process, although there is no need to accept Darwinism in its detailed description of this evolution. The Bible itself speaks of the creation of Man in the last day and out of natural elements already in existence.

Such an holistic approach would exercise a beneficial influence on people's attitudes to the environment, but this can be effective only if science and religion coincide in their views about the world and the place of the human being in it. The environment can then serve as a catalyst in restoring the organic relationship between science and religion.

Secondly it is becoming clearer to both science and theology that not only is Man dependent on the rest of creation for his existence, but that the reverse is equally true, namely the rest of creation depends on the human being for the realisation and the fulfilment of its existence. Environmentalists need to revise the common assumption that Man needs the rest of creation whereas the rest of creation does not need Man. Religion - certainly Christian theology - is anthropocentric in its cosmology and would insist that the human being is indispensable to creation. There are signs today that science is moving in the same direction, in the Anthropic Principle which states that the universe is made up in such a way as to make sense only if the human being is presupposed. True humanity requires its organic link with the rest of creation but the latter, too, needs humanity in order to fulfil itself. If the Anthropic Principle is accepted by scientists -and there is evidence that the discussion it has provoked is moving in this direction - a healthy and creative rapprochement will take place between religion and science which will have significant implications for ecological thinking.

Thirdly, it is noteworthy that ever since quantum theory won the day in science it has become difficult to eliminate the human being from the process of scientific 'truth'. The observer, we are now told, affects reality in the process of the experiment. What is then left of the traditional subject/object dichotomy? If there is no such thing as a pure 'object' in science, it is no longer possible to operate in scientific research without involving the human person in it. This notion of person, usually regarded as a subject pertaining to sociology, psychology and theology, is now becoming crucial for science too. Science must open its borders to meet with theology and the human sciences if it is to understand correctly its own nature.

Fourthly, it is of crucial importance to note the significance of culture for science. In spite of its tendency to dominate the entire human community, there can be no doubt that western science is influenced by, if not dependent upon, western culture in a decisive way. What would science look like if other cultures were to influence it? Is an African or an Asian science not a conceivable thing? In such a case religion would play a decisive role.

Finally we should note the appearance in our time of hostility towards science because of growing concern for the environment. New Age and all sorts of semi-religious movements are promoting ecological thinking which excludes rationalism and, by implication, science. Where should we stand on this matter? I believe that the environment can be protected in a healthy way only if religion and science open up their boundaries to each other and meet in a creative way. Only by overcoming the traditional dichotomy between these two can we work successfully for the protection of the environment.

Towards a creative cooperation of science with religion

As a theologian I should like to propose the following ways in which one could conceive a cooperation of religion and science for the purpose of protecting the environment:

1. The way of ethics

Religion is recognised as a moral force, having something to say about the way people should behave. This is particularly true of western Christianity. It is becoming customary to seek the view of the Church on how the scientific advances of our time could be controlled so that humanity may be protected from the terrifying consequences of many of the achievements of science. In a period of rapid growth of bioethics, is it not time for the systematic development of a discipline of eco- or environmental ethics, to be given shape and content by theologians and scientists working together? The creation of an international institute of eco-ethics would be a challenge of historic magnitude for the religious and scientific leaders of the world. It would bring together representatives of religious and scientific communities with the responsibility of advising the world's political leaders on environmental ethical questions and to work out a code of environmental ethics which would eventually be invested with the power of international law.

2. The way of motivation

Environmental awareness and behaviour require motivation. Religion can undoubtedly provide motivation for ethical behaviour but science is not necessarily a source of ethical conduct. Surely the promotion of knowledge is not the only motive in scientific work. If it is true to itself, science never believes that its findings are final and its conclusions infallible. The scientist can hardly perform his scientific work properly without realising that the particular knowledge that emerges from it reveals only a tiny part of the world's reality.

The motivation of the scientist and that of the theologian meet at the point of understanding the world as an unbreakable organic unity whose integrity has to be assumed and respected in order for any particular aspect or fragment of its knowledge to be true. Thus, both religion and science, if they wish to be true to themselves, accept that every revelation of reality, whether religious or scientific, can only make sense if the world is respected in its mysterious wholeness.

3. The conceptual way

For centuries scientists and theologians have been using their own, separate, exclusive, esoteric languages. This has made it difficult, if not impossible, for an environmental or ecological language to develop that would involve theologians and scientists at the same time. Technical language may have to remain for internal use on both sides, but when it comes to the environment a common language must be found. For such a common language to develop it will be necessary to work out a conceptual framework shared by both religion and science. We must arrive at a cosmology common to both scientists and theologians and we must also agree on what constitutes knowledge and truth. Agreement will also be necessary on method as well as content. We must stop taking it for granted that theology and religion are about 'spiritual' and 'metaphysical' realities while science is about 'material' matters. The environment is both a spiritual and a material reality.

Conclusion

Science and religion need to forget their traditional opposition towards each other and reach cooperation at the deepest level in order to protect Man's natural environment from the dangers confronting it. Recent developments in both disciplines not only facilitate but demand such a cooperation. There is no doubt that religion and science are, each in its own way, responsible for the ecological crisis we are facing. It is their duty to undo the harm they have done and it is only by working together that they can achieve this.