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The Capture of the Sun

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On 30 June 1973, the sun was captured across Africa in the afternoon. Scientists knew in advance that there was going to be a total eclipse of the sun that day. For them this was a physical phenomenon subject to scientific prediction and investigation. But for many Africans who witnessed it, the "capture of the sun" was explainable only in their traditional ways of asking or affirming who captured it, rather than how it was "captured".

This and similar pre-scientific explanations of the world, have their meaningfulness within the societies that formulated them according to mythological and mystical explanations of nature. But these same societies are now moving rapidly into scientific ways of explaining or understanding "the capture of the sun".

Within this simple illustration lies a profound change which is taking place among African peoples, namely the incorporation of modern science into a conspicuously different traditional world. The paper of which this is an extract, examines the impact of modern science on African moral values.

Science has its values which are obvious and innumerable. They relate to man's physical or material welfare and environment. But the scientific method, the scientist himself, and the application or utilization of scientific inventions and discoveries, cannot be morally neutral.

In traditional African societies, the life of the individual is intensely related to that of the community.

He says in effect that: "I am because we are, and since we are therefore I am". An elaborate set of moral values evolved to sustain such a philosophy of life. These values like love, justice, friendship, respect for others in the community, etc., remained solid as long as people lived with little or very gradual change. But modern science has suddenly brought about new physical and conceptual situations of living. Therefore traditional symbols of moral values, the element of the mystique in nature, mythological understanding of natural objects and phenomena, rituals and beliefs, have now been called to question by rapid changes being generated by science.

Science has come into the picture of African life with a package of wonders and miracles, and people are tempted or forced to give up their moral integrity in the expectation that science will resolve all human problems. This is a false expectation. But it is often irresistible particularly where, as it does among African peoples, science contrasts so sharply with traditional ways of understanding and utilizing the world around us. No doubt the world of science will eventually edge out, at least to a point, the world of traditional African life. But this process should not and need not be allowed to take place at the expense of moral values which are needed as much in the scientific world as they have been in the traditional and pre-scientific world.

Moral values and the values of science are not mutually exclusive, and Africa seems to have still the time to allow both sets of values to mingle and coexist for the benefit of mankind.

Technology and Taboo Transfer

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The rapidly increasing dependence upon technology which has occurred in the past three decades has brought with it complex ramifications for our world society. Much concern is being given to the interface between technology and society.

Certain aspects of the interface problem are especially acute for developing countries of the Third World. Not only must they make

up for lost time, but they are frequently excessively dependent on outside assistance- financial, managerial and technological. Furthermore, due to severe lack of trained manpower with assessment capabilities technology transferred to LDC's is often bought "whole" packaged and ready to go. No one has the skill, time or inclination to be discriminating in determining which technologies or elements of a given technology are relevant to the problems identified within the given country.

One aspect of the problem of transferring technology to developing nations has been previously studied. Certain prerequisite conditions for application of a given technology may be absent and/ or impossible to stimulate due to operative taboos within that society.

The classic example is transferring birth control techniques to predominantly Catholic countries. There is another side to the problem of transferring technology to LDC's which is much less well understood. This is the fact that most technologies are taboo-laden in themselves. Any given technology has been developed within the constraints of its parent society.

In many cases taboos of that society are irrelevant in the LDC receiving the technology. This means that the LDC, which is already behind and burdened with its own taboo adjustment problems must also accept the added burden of technologies constrained by foreign taboos. Again, the case of birth control is illustrative. Western countries have long been used to the taboo-basis for Catholic objections to population planning.

When transferring birth control to Muslim countries technicians expected the same orthodox-religious framework of objections. Islam, however, frames its objections in a much more malleable context.

Birth control in Muslim LDC's can be achieved more easily. This paper will investigate the full ramifications of the taboo transfer phenomenon and make suggestions for a double-screening process which should be undertaken by those responsible for utilization of technology in LDC's.

Reorientation of Modern Science

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1. Although science and technology have made constant social progress possible, cases of unbalance and maladjustment resulting from their excessive and digressive development have plunged man into unexpected troubles and dangers.

2. Should scientific know-how be sought merely for the sake of pursuit? Must science deal only with perceptible matters? Can science be allowed to affirm nothing but relative value or even discard value altogether? These issues need examination and deliberation.

3. Because the modern man has to face himself, science and philosophy today should be for a fuller study of man himself.

4. As regards human nature and moral value, Chinese philosophers have made remarkable achievements of comprehension and practice. This is an indelible fact that no moderner can brush aside.

5. The Chinese are not without their own scientific and technological accomplishments. But development used to be slow and secluded because the people, while emphasizing the rectification and enrichment of life, frowned upon aimless and endless efforts merely to satisfy greed. Upright modern Chinese people insist that science should serve the causes of democracy and ethics.

6. Instead of studying man only as a natural object, emphasis should be on man as an element of society and a vessel of moral virtue.

7. From the viewpoint of society, moral value has objective aspects. The strength of any concept of value is shapeless but can evolve and take powerful shape. This should be a subject of scientific study.

8. Scientists cannot detach themselves from society or dodge responsibilities in the face of fellow human beings. Since they cannot avoid influences of what they bring to society, scientists should strive for reorientation of science to benefit mankind including themselves.