SCIENCE, TECHNOLOGY, RELIGION, AND THEOLOGY*

Schubert M. Ogden

What is the bearing of scientific and technological change on religion and theology, broadly construed?

Needless to say, this is a very large question to which I shall not pretend to offer an answer. My purpose, instead, is simply to open up a few perspectives from which we may reflect on the question in our subsequent discussion.

I

The first point I want to make is to challenge the popular view that science and technology, on the one hand, and religion and theology, on the other, are simply two different approaches to the same problem, and therefore could be in genuine conflict with one another or, alternatively, could under certain circumstances be synthesized. I grant, of course, that much that has passed for science and theology has led to genuine conflict between them or, in other cases, to syntheses of one kind and another. But I believe it can be shown that, when science and theology are most fully themselves, they are different approaches to different problems, or, perhaps, similar approaches to different problems--but in any case, not approaches to the same problem, since they have to do with problems of quite different kinds.

Let me illustrate what I mean. It is often supposed that the Judaic-Christian doctrine of the creation of the world and man by God has to do with the same kind of problem or question as is properly dealt with by natural science. Thus many persons have thought that acceptance of the hypothesis of organic evolution and of man's descent from less complex forms of life makes it impossible to accept the doctrine of creation--or, at least, requires one radically to reinterpret it, for example, along the familiar lines, "Some call it evolution/And others call it God." My view, however, is that this supposition entails a serious logical confusion--a confusion as serious as taking figurative language literally (or vice versa!) or supposing, say, that the mathematical theory of numbers has some deep religious significance. The religious or theological doctrine of creation is really concerned to answer an altogether different kind of question from that which the special sciences are trying to answer. Ludwig Wittgenstein alluded to this in a famous statement in the Tractatus Logico-philosophicus: "Not how the world is is the mystical, but rather that it is." The question answered by the hypothesis of evolution is precisely a question as to how the world is; the doctrine of creation, on the other hand, is an

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answer to the question which inevitably arises from the fact that it is.

If this view is correct, whatever the bearing on religion and theology of science and technology, it cannot entail the displacement of the former by the latter. Even the most radical scientific and technological change will not do away with man's fundamental religious question (unless, of course, it succeeds in doing away with man himself). On the contrary, such change can only make that question stand out ever more sharply and clearly, purified, as it were, of everything merely adventitious to it. The overall effect of scientific and technological change is not the displacement of religion and theology but their differentiation.[1]

One argument in support of this conclusion is worth briefly expanding. It is commonly recognized that the general effect of technology is to extend indefinitely the range of man's control of his natural environment (including man himself so far as he is a part of that environment); and in so-called developed nations such as our own many of the things that once were quite beyond human powers now seem virtually certain to be realized, at least for the relatively few of us who share in the development. But it is only to a superficial view that the modern growth of technological control removes the essential insecurity of human existence and the corresponding need for some religious (or quasi-religious) faith. In fact, it is arguable that our insecurity today is, if anything, far greater than in any previous age of human history. The price of growing technological mastery is the increasing interdependence of the whole human community and the placing of more and more of the conditions of life in the hands of that most undependable of all natural masters, man. Thus we have already reached the stage where the possibilities of everyone of us, not to mention the continuation on this planet of life itself, depend on the wisdom and restraint, or the lack thereof, of a few fallible mortals such as ourselves. Clearly, technology destroys some dependencies, but just as clearly it also creates new ones. Moreover, all of us today are painfully aware that technology--or, at any rate, our use of technology--has exacted the high price of gradually destroying a habitable human environment.

II

But now, in what sense, exactly, is it the differentiation of religion and theology, rather than their displacement, that science and technology tend to bring about? Here I would like to propose three theses by way of suggesting some of the main effects on religion and theology of modern scientific and technological developments. I should perhaps explain that what I shall mean by "religion and theology" in this connection is what may fairly be described as their classic forms as they have found expression in our Western cultural tradition. I am

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[1]See especially R. G. Collingwood, Faith and Reason: A Study of the Relations between Religion and Science (London: Ernest Benn, Ltd., 1928).

assuming, of course, that these forms are neither the only nor necessarily the most adequate such forms, and that they are in any case only that--forms. As my first comment will have indicated, I see the substance of religion and theology, as distinct from their forms, to lie in a fundamental interest peculiar to our existence as human beings and in the kind of question to which that interest naturally gives rise.

(1) Scientific and technological change has led to the ever-expanding domination of the whole of our common life by the scientific picture of the world.--By "the scientific picture of the world" I mean that understanding of ourselves and of our environment which is the correlate of scientific method. The chief defining characteristic of this understanding is the assumption that the world is a lawfully ordered context of cause and effect in which whatever happens has its proper place and to which whatever is claimed to happen must somehow be referred if the claim is to stand. This assumption not only has become second nature for educated persons in the modern world, but is more or less constantly represented and reinforced by the most ordinary institutions and practices of everyday contemporary life.

So far as its bearing on religion and theology is concerned, it can be summarized succinctly as the exclusion of the supernatural, the miraculous, and the mythological as in any way relevant to accounting for or explaining the particular happenings disclosed in our experience. Symbolic here is the famous reply of astronomer Laplace to the question of why he had said nothing about God in his scientific writings: "I have no need of that hypothesis."

(2) Scientific and technological change has led to the radical restructuring of human life, with the result that the so-called second creation has increasingly become more important to contemporary men than the first.--By the "second creation" I mean, of course, the product of man's rather than God's, creativity. Although one of the apparent differentia of human existence as such is the capacity to create culture, and thus to live in a world of symbolic meaning over and above the world of nature, it is only since the scientific-technological revolution began in earnest in the seventeenth century that the radical implications of this human capacity have become clear. Modern Western man--and, increasingly, the rest of mankind as well--has quite literally transformed the whole human setting.

To take one example, we commonly speak today of the process of urbanization, meaning thereby not only the rise and expansion of great urban centers and areas (such as on our Eastern seaboard, say), but also the radical transformation of the whole shape and style of life even of those who do not live in these great cities. What has made this process possible, and why does it continue? Well, clearly, the principal part of the answer is technology and, behind technology, science. Cities can be as large as they are only because of the new possibilities for transportation and communication that modern science and technology have opened up.

As to the effect of all this on the traditional forms of

religion and theology, the answer is the reorientation of men away from all forms of "otherworldliness," both religious and metaphysical, to a preoccupation with changing and more fully realizing the possibilities of good in this world. The British theologian, J. H. Oldham, has summarized the essential point both clearly and well: "The present human situation is determined and dominated by two main influences. The first is the rise of modern science and the growth of technology. The other is the resolve of man to use his increasing knowledge and technical skill to shape his environment, his society, and himself and to control his own destiny."[2]

(3) Scientific and technological change has led to a critical-empirical outlook on life generally, in the sense that men today consider experience and reason to be the only final authority, not only as regards science, but as regards the other spheres of human life and thought as well.--This point is so generally conceded that I hardly need to elaborate on it. To be sure, there are those who have supposed that it is an implication of such a critical-empirical outlook to deny that there is any kind of reality beyond what science alone is competent to tell the truth about. But I hold that this implication can be held to follow only be begging a question which the critical-empirical outlook as such leaves open. It is one thing to affirm the validity of the scientific method and to insist on its complete autonomy within the field where it alone logically implies. But it is clearly something different to affirm that this is the only valid means to knowledge we have because it circumscribes the limits of the entire cognitive sphere. Even so, I find that most reflective persons today have a low tolerance for any appeal to authority, in whatever realm, as more than, at best, a penultimate or provisional appeal.

But if this is so, the conclusion is obvious that the age of religious and theological authoritarianism is now behind us. If religion and theology are still to make good on such claims to truth as they advance, this can only be by showing that these claims have warrant and backing in our common experience and thought as human beings. This seems to me to be true, I repeat, even if one holds, as I do, that science is neither the only nor even the most important kind of question that we can put to our experience.

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[2] Life Is Commitment (New York: Association Press, 1959, p. 13).