

## THE METHODS AND GROUNDS OF RELIGIOUS KNOWLEDGE

*by F. S. C. Northrop*

The instruments for the control of technology for good ends are morality and religion. Consequently never before was the need for an effective moral and religious knowledge more pressing than it is today. Unless we can find a social morality and a religion with the power to win men to its ways everywhere throughout the world mankind may be doomed.

The unique character of World War II points to the same conclusion. Strictly speaking, this war was the first world war. The previous war was a purely European conflict. World War II, on the other hand, started in the Orient when the Japanese invaded Manchuria. It then spread and encircled the world.

These facts mean that the issues confronting us now in peace as well as in war are worldwide issues, affecting the Orient as much as they affect the Occident. It becomes evident also that the problem confronting our world now becomes that not merely of reconciling conflicting Western nationalistic and humanistic ideologies but also of

F. S. C. Northrop is Sterling Professor Emeritus of Philosophy and Law, Yale University. This article, slightly revised, is chap. 23 of the author's *The Logic of the Sciences and the Humanities* (New York: Macmillan Co., 1947) and reprinted here with the author's permission. © 1977 by F. S. C. Northrop.

[*Zygon*, vol. 12, no. 4 (December 1977).]

## ZYGON

peacefully merging the radically different political, moral, and religious values of the East with those of the West. For such an undertaking a truly global, as opposed to a provincially Eastern or a provincially Western, morality and religion are essential.

### FAILURE OF AUTONOMOUS MORALITY AND RELIGION

The question immediately arises: Is our present moral and religious knowledge adequate for either of these two tasks? An examination of the evidence relevant to this question forces one to reply in the negative.

A morality or religion which would control scientific technology must be one which can connect itself in some way with contemporary science. This contemporary Western religion in both its Roman Catholic and Protestant forms is incapable of doing.

Roman Catholicism possesses a moral theory and a religious doctrine which are connected intimately with science. Unfortunately, however, this science is that of Aristotle and the medieval world, not that of Galilei, Newton, Einstein, Planck, and the modern world which has made possible the release of atomic energy. Thus the ethical and religious humanism or the attendant society which Roman Catholic doctrine would define as good is not one which can comprehend fully, relate itself to, or control the contemporary scientific technology.

Contemporary Protestant doctrine, on the other hand, can connect itself with no science whatever. This is the case because traditional modern moral idealism and traditional and recent modern Protestantism affirm that moral philosophy and religion are autonomous subjects, standing on their own feet with grounds of justification quite independent of natural science and having nothing to do with natural science. Such a morality and religion are of no use to control scientific technology since by definition and their own claims they have no connection with science and technology. An autonomous morality or religion perchance may give one an egocentric personal ethics and a subjective personal religion, but it is not adequate to generate and provide the objective social and international instruments necessary to control the atomic bomb, for before one thing can hope to control another thing it must connect itself with that other. And this an autonomous morality and religion cannot do.

The reasons for this unfortunate state of contemporary moral philosophy and religion are worthy of note. In the late Greek and Medieval periods the scientific conception to which the majority of scientists were led by their investigations in mathematics, physics, chemistry, astronomy, biology and psychology was that made articulate in the physics and metaphysics of Aristotle. Saint Thomas

Aquinas in formulating present Roman Catholic orthodoxy took this Aristotelian scientific conception of man and nature and identified the basic concepts of theology, such as the soul, its immortality, and God the Father, with explicit technical scientific elements in this Aristotelian science. God the Father, for example, was identified with the Unmoved Mover or final cause in Aristotelian and medieval physics. The soul of man was identified likewise with the formal or final cause of the living body of Aristotle's psychology. This final cause of nature and man, or God the Father, was not in the world naturally and perfectly because of the stubbornness of prime matter in the Aristotelian physics in resisting the imposition of the divine formal cause. Thus for God or the Unmoved Mover to be revealed to man in the world some representative of God the Father had to come into the world. It is precisely in this fact that the divinity of the historical Christ found technical meaning in terms of the accepted scientific knowledge of the medieval world. Thus it is to be noted that Roman Catholic ethics and theology essentially were connected with Greek and Medieval science.

Protestantism began with the Reformation. This Reformation initially did not depart from the medieval conception of man and nature. Luther in his Lutheranism and Calvin in his Presbyterianism held a medieval conception of both. The only thing which these and the other Protestant reformers questioned was the claim of the Roman Catholic Church to be the sole earthly representative of this medieval theology and Christianity.

The decisive departure from the medieval scientific and philosophical foundations for religion came not with the Protestant Reformation but with the development of modern physical science. It was Galilei's analysis of the motion of the projectile which led to the discovery of a new definition of force and inaugurated the break from Aristotelian science and philosophy to that of Descartes and Newton of the modern world. And it was this new science which made inescapable the construction of a new philosophical theory of man and nature. This new modern philosophy was inaugurated first by Descartes and later for the English-speaking world by Locke.

As formulated by Descartes this modern philosophical theory of man and nature seemed to provide adequate meaning for the concepts and doctrines of the Christian religion. Descartes began man's knowledge with a demonstration of the existence of the self, moved on to a demonstration of the existence of God, and culminated in a demonstration of the existence of an external world. As the assumptions of modern philosophy developed, however, these demonstrations by Descartes turned out to be unconvincing if not invalid.

## ZYGON

With Locke similarly Christian doctrine seemed initially to be justified. It was not long, however, before certain misgivings arose. According to Locke's philosophy all the facts of experience are accounted for when one assumes that the whole of reality is to be conceived as an aggregate of free and independent mental substances or minds acted on by the material substances or atoms of Newton's physics. The mental substances, or minds, like the physicists' atoms, were conceived of as without parts; hence they were indivisible and indestructible. Thus the modern Lockean man had merely to identify the concept of soul in Christian doctrine with Locke's mental substance to have the doctrine of the immortality of the soul provided with content and validity in terms of modern scientific and philosophical knowledge.

When one turned, however, to the basis for the concept of God, difficulties began to appear. Since every fact in nature was accounted for supposedly by the material atoms of physics and chemistry and their mechanical laws, and all the characteristics of human beings were accounted for by the mental substances, little justification remained for believing in anything more than the mental and material substances alone. God was no longer to be conceived, as in medieval science and philosophy, as the formal causal factor in nature since nature, according to modern Newtonian physics, is the effect of material entities operating according to purely mechanical laws. This made all the traditional medieval arguments from causality or design in nature to the existence of God untenable. Thus if a meaning for the belief in God was to be justified in terms of modern knowledge this meaning and justification would have to be found in man alone. But man was accounted for in terms of his independent, completely free, solitary mental substance.

The suggestion was made that God be defined as the creator of the mental and the material substances. This doctrine is deism. Scientists, philosophers, and theologians soon concluded, however, that this deistic solution of the problem is quite unsatisfactory.

Also, for scientific and philosophical reasons which space does not permit us to indicate here, Locke was led to define his mental substance or person as an entity which has no ideas in its consciousness except as material substances acted upon it to give rise to sense impressions. Thus Locke called this modern mind or mental substance a *tabula rasa*, a blank tablet. This entailed Locke's theory of ideas, namely, that the only meanings a mind can have in it are meanings referring to sense data or associations of such sense data. Once this is admitted, Bishop Berkeley had no difficulty in showing that Newton's and Locke's concept of a material substance is meaningless and hence

nonexistent, and Hume had similar ease in demonstrating that Locke's and Berkeley's concept of mental substances is equally meaningless and nonexistent. If the only possible sources of meaning and of meaningful objects in man and nature are sense data or associations of sense data, then minds and material objects must be mere sequences and associations of sense data also. In this manner positivism in natural science and William James's theory of the self in psychology, as nothing but the sequence of the associated sense impressions, arose. Upon this basis there is no soul with a persisting identity to be immortal. The self is merely a certain temporary sequence of associated sense impressions, a "flow of consciousness" as James termed it. With this development of the assumptions of modern science and philosophy, not merely the traditional doctrine of God but also the traditional Christian doctrine of the immortality of the soul became meaningless and untenable. Thus it happened that as the Protestants moved away from Medieval Rome further and further into the modern world, priding themselves upon their freedom of thought and their acceptance of modern knowledge, the more the traditional doctrines of Western religion became mere empty words devoid of philosophical and scientific content and the greater became the discrepancy between what the student learned about man and nature during the six days of the week in his courses in physics, psychology, and sociology and what he heard in the university chapel on Sunday morning.

Such was the state of religion in the modern world when Kant came upon the scene. Kant was an expert mathematical physicist before he became a philosopher. He thoroughly understood Newton's physics and used its experimentally verified laws to solve certain astronomical problems and to discover the nebular hypothesis. This intimate knowledge of physics made Kant aware of the inadequacy of Locke's theory of ideas and the attendant philosophy of Hume. This inadequacy forced Kant to the construction of new philosophy of science in which sensed factors given empirically after the manner of Hume are combined with a formal systematic theoretical factor given, as Kant supposed, by the knower *a priori*.

That scientific knowledge does involve these two empirical and theoretical factors cannot be denied. Thus Kant's theory was very important.

Unfortunately, however, this Kantian philosophy of natural science left no meaning, as Kant himself noted, for morality and religion. In fact, the situation was worse than when Kant came upon the scene. In previous modern thought the problem had been a serious one since Newton's physics, because of its doctrine of mechanical causation,

seemed to make man nothing more than a mere cog in a vast cosmological machine. Upon this bias the moral and the religious life become meaningless since both, for most thinkers, presuppose genuine human freedom of choice and regard remorse for bad choices and evil conduct as something real. One can hardly, however, be blamed for anything which one does and have genuine remorse for it if the decision was really made by the mechanical universe and not by a free act upon one's own part. In Kant's philosophy of science the situation was made even worse, for not only was the object of scientific knowledge completely determined and necessary but also man's knowing of the scientific object was subject to the same absolute necessity. This followed because the a priori "forms of sensibility" and "categories of the understanding" which Kant's scientist brought to the knowing of nature were characterized by *Allgemeinheit und Notwendigkeit*, that is, by universality and necessity. Thus for Kant, and for all German and other modern idealistic philosophers following Kant, not merely nature itself but also man's knowing of nature was characterized by absolute necessity and hence provided no meaning for the freedom necessary for the moral and religious life.

Consequently Kant seemed to have no alternative but to set up morality and religion as independent autonomous subjects having no connection with science. This occurred in Kant's *Critique of Practical Reason*. This point is tremendously important because it explains why the modern man came to the notion of an autonomous ethics and religion having no basis in science.

The immediate effect was most exhilarating. Man found himself in the happy position of being free to believe anything about morality and religion which the demands of the moral free will suggested. From this belief came the Romantic Movement in Prussian politics, in German militarism, and in modern literature. No longer could scientific evidence present any difficulties for ethics or religion since supposedly Kant had shown that science has nothing to do with these subjects.

Unfortunately the consequences in the long run were not so salutary. The ethics and religion which this gave one turned out to be exceedingly formal and verbal. Thus the empty verbalism which appeared in the Protestantism which followed Locke, Berkeley, and Hume returned in a slightly less obvious but nonetheless real form in the later Protestantism which followed the German idealism of Kant and his successors. Furthermore, ethics and religion were robbed of one of their previously most important functions in life, the function, namely, of pulling together every phase of man's knowledge and experience into a single, moving, triumphant whole. This an in-

dependent and autonomous ethics or religion cannot do. They constitute, even if taken on their own terms, but one item in man's knowledge and experience, standing over against the increasingly important scientific item. Thus the task of putting these two factors together falls inevitably and necessarily upon some other factor in man's experience than his ethics or his religion.

It was precisely this consideration which gave rise to the philosophy of Kant's successor, Fichte. The problem took on the technical philosophical form of the question concerning the relation between the philosophy of science of Kant's *Critique of Pure Reason* and the philosophy of morality and religion of his *Critique of Practical Reason*. Fichte answered this question by reducing the former to the latter. Immediately, however, certain consequences of this reduction arose which transformed the individual, initially free, Kantian moral man into a mere expression of the necessary historical development of the consciousness of the Absolute. Thus this Kantian moral philosophy which began with an emphasis upon the freedom of the individual man ended with the reduction of man to a moral and cultural historical determination which was as rigid as the determination of Kant's philosophy of natural science. Moreover, this Fichtean and Hegelian autonomous moral and religious philosophy identified the divine and the good with the actual historical development of Western cultural institutions, a development which reached its perfection, according to Hegel, in the German *Kultur* of the nineteenth century and which was smashed in the defeat of the Kaiser's Germany in the first major war of this century.

Notwithstanding the verbal emptiness of the Kantian theory of an autonomous morality and religion and the *reductio ad absurdum* of the Hegelian theory, this notion of an autonomous morality and religion still persists in contemporary Protestant moral and religious thought. One independent consideration has supported this conclusion. This consideration has to do with the ethical character of technological instruments.

The recent traditional moralists and humanists noted quite correctly that scientific instruments by themselves are ethically neutral. Considered in isolation, they can be used for good or bad ends. From this truth the false inference was made that therefore values must have some other basis than science. Thus again the notion of an autonomous ethics and religion arose.

What this conclusion overlooked is that there is more to science than its technological instruments. There are also (1) the theory without which the instruments would not have been invented and (2) the method by which this theory is grounded in or related to immediately

apprehended fact. And, as the sequel will show, neither of these two factors is ethically neutral. Each contains within itself the various factors available for human knowledge in the nature of things which, when pursued in isolation by different peoples, make the ideas and values of the diverse cultures of the world in considerable part what they are.

This brings us to the second fact in the contemporary world which necessitates a conception of morality and religion quite different from the current one. This fact, it will be recalled, is the global character of World War II and the international character of the problems of its peace.

#### WORLD RELIGIONS: CULTURAL DIFFERENCES AND EPISTEMOLOGICAL PROBLEMS

It has been noted that the major problem confronting the world is that of merging the differing cultures of the East and the West. This makes it impossible any longer to conceive of an adequate morality and religion in purely Western terms. For the problem of merging Oriental and Occidental cultures brings us face to face with the fact that the philosophy and religion of the Far East are different from those of the West in either their Hebrew, Roman Catholic, or Protestant form.

A few considerations will make this clear. The four major religions of Far Eastern origin are Confucianism, Taoism, Buddhism, and Hinduism. None of these religions is theistic. None has a religious prophet without whom one cannot be saved. The treatises in terms of which each has been conveyed tend to be poetic, intuitive, and aesthetic in character.

The major religions of Western or Middle Eastern origin are Judaism, Christianity, and Mohammedanism. All these religions have a divinely inspired prophet without whom one cannot be saved. Each is theistic in form. For this reason Japanese Shintoism is more like a Western religion than it is like the other religions of the Far East. This is not unconnected with the historical fact that the Japanese revived this theistic Shintoism in order as quickly as possible to create a strong nationalistic state of the Western type. The major treatises of the religions and cultures of the West are abstract, technical, logically reasoned, and doctrinal in form. This shows itself in the logical methods used by Socrates and Plato in ethical and religious inquiry, in the dry abstract form of the metaphysics of Aristotle, in the technical definitions and syllogistic reasoning of the *Summa Theologica* of Aquinas, in the mathematical character of the *Principia* of Newton,



and in the equally abstract and technical terminology of the natural and moral philosophy of Kant.

All these differences between the philosophy and religion of the Far East and those of the Middle East and the West have their basis in a more fundamental distinction having to do with the methods to be used in gaining trustworthy knowledge. The Oriental religious sage-and-philosopher is always insisting that while formal scientific methods and inference may be very important for practical purposes they are of no use whatever to take one to knowledge which is philosophically real or religious. The latter type of knowledge the Oriental always maintains is to be known by intuition or immediate apprehension alone and by contemplation of that which is given in immediate apprehension and intuition. The Oriental sage also maintains that nothing determinate, that is, definite in character, is immortal. All determinate things are transitory. Thus Nirvana, Tao, Jen, and Brahman, the names for the divine factor in man and nature in the Orient, are not describable by any determinate properties whatever. These Far Eastern religions do not affirm the existence of a determinate divine factor in things, nor do they believe in the immortality of the unique, determinate, differentiated personality.

The theistic religions of the West believe in the immortality of the determinate personality and in a divine being with determinate characteristics. This, in fact, is the definition of theism. The divine is a being whose character can be designated by a determinate thesis.

These differences become clear if certain very elemental considerations concerning the nature of human knowledge are noted. All that anyone possibly can know in any field of experience or knowledge whatever must be of one of two kinds or a combination of both: One can know what one immediately apprehends without any theoretical acts of faith or logical inference taking one beyond the immediately apprehended. Or one can know that which, by an act of the mind, one infers from the immediately apprehended. All these distinctions between Oriental philosophy and religion and Western philosophy and religion will become clear if one assumes that the West has tended to identify the scientifically true, the philosophically real, the morally good, and the religiously divine with the inferred unseen factor in the nature of things, whereas the Orient has restricted scientific knowledge, philosophical reality, moral goodness, and religious divinity to the immediately apprehended portion of our knowledge alone.

To understand the sources of these differences between the East and the West we may best begin by noting the part of our knowledge

## ZYGON

which is given by intuition and immediate apprehension with all inference and theory neglected as far as this is humanly possible. Can we not say that it is a continuum differentiated by the colors, sounds, odors, pains, and pleasures which our senses convey to us? To distinguish this immediately apprehended continuum, given in intuition, from the unseen space-time continuum of mathematical physics, given by the scientific method of postulation, let us term the immediately apprehended continuum "the differentiated aesthetic continuum." Within this differentiated aesthetic continuum two immediately apprehended factors can be distinguished. One of these factors is the aggregate of differentiations, that is, the specific, immediately sensed colors, sounds, odors, pains, and pleasures with their finite temporal duration and spatial extension. The other factor is the immediately apprehended continuum apart from these differentiations. The latter can be appropriately termed "the undifferentiated aesthetic continuum." Since the Oriental sages tell us that the divine is to be found by intuition or immediate apprehension, it must be identified with one of these two factors. Since they tell us also that the divine is not determinate in character, it becomes evident that it is the indeterminate aesthetic continuum to which the terms Nirvana, Tao, Jen, and Brahman must refer.

The divine object in the West is an unseen God the Father. This means that He cannot be known by the aesthetic intuition after the manner of the divine being of the Orient. Christ tells us that His kingdom is not of this world. Saint Paul asserts that the things that are seen are temporal and that it is only the things which are unseen which are eternal. All the theistic religions affirm in addition that the determinate personality is immortal. Certainly this is not true of the self given with immediacy in the aesthetic intuition. As Plato, Hume, and Kant in the West and the Hinayanistic Buddhists in the East have noted and as is evident to common sense, all immediately apprehended personalities pass away. Thus it is obvious that if a religion is going to affirm the doctrine of the immortality of the determinate personality the real in knowledge must be identified not with the self given with immediacy in the aesthetic intuition but with the self inferred from the immediately apprehended self. Similarly there is no immediately apprehended form in nature as a whole which is immortal. Thus if the divine is to be a determinate being embracing more than man it is with a determinate factor inferred from the immediately apprehended and not with the immediately apprehended alone that the divine must be identified.

Let us call the immediately apprehended factor in knowledge and reality the aesthetic component, and the unseen inferred factor the

theoretic component. Oriental religion then becomes defined as one which identifies the divine with the timeless factor in the aesthetic component. Western religion becomes similarly defined as one which identifies the divine with the timeless or invariant factor in the theoretic component.

This explains why the Far Eastern religions do not need a religious prophet if the divine is to be revealed to man and why the Western religions must have one. If the divine is given with immediacy, then it is here in the world of immediate intuition already without the mediation of a divinely inspired representative. Thus all that religious sages in the Orient have to do is to direct one's attention to the factor given with immediacy with which the divine is identified. If, however, the divine is identified with an unseen factor in the nature of things, then obviously the only way in which man can know God with the immediacy of the aesthetic intuition is by a divinely inspired being representing God coming into the world of immediacy. Hence the religious prophet without whom man in the theistic religions cannot be saved becomes essential.

All these considerations indicate that an adequate religion for the contemporary world, one which is to give expression to and combine the moral and religious thought of the East with that of the West, must relate the intuitive, emotional type of religion of the aesthetic component of reality with the inferred, more doctrinal, theistic type of religion of the theoretic component of reality. Such a religion has a chance of gaining the response of the whole world since it permits each religious group and each portion of the world to preserve its own integrity and self-respect, contributing something to the totality of the good and the divine, instead of forcing one part of the world to give up its traditional morality and religion by being converted to that of another part of the world. The latter type of religion has no hope of practical success. Moreover, it is as erroneous in theory as it is inadequate in practice. Thus the practical and the ideal solution for the humanistic portion of the international problems of our time is the development of a more perfect, truly international morality and religion which combine the theistic, Western identification of the divine with the theoretic component in things with the Oriental grounding of the good and the divine in the aesthetic component of things.

SCIENCE AND THE REVITALIZATION OF THE UNSEEN  
REALITIES OF WESTERN RELIGIONS

It must be emphasized, however, that the Western world does not at present possess an adequate religion even of the Western type. This is because the development of modern moral and religious thought has

distorted Western religion. This becomes clear when one asks the following question which every religion of the Western theistic type must face: How is it possible to know a factor which cannot be seen? To this question there is only one effective and correct answer: Unseen factors can be known only by inference.

Immediately a second difficulty arises. How is one to distinguish a faulty inference or act of faith from a valid one? Only if there is an answer to this question can truth about unseen factors be distinguished from falsehood, or orthodoxy avoid confusion with heresy.

The only answer to this question is as follows: Trustworthy, unseen factors can be distinguished from erroneously inferred ones only by means of the logical and scientific methods developed by the West for making trustworthy inferences about the unseen. Otherwise the fantasies of a moron or the obsessions of a crank become as trustworthy conceptions of the divine which is unseen as the doctrines of a true, theistic religion.

This means, however, that nothing corrupts Western religion as unequivocally and thoroughly as does the current contention in contemporary Western Protestant humanistic circles that religion and morality are things which the methods of logic and science cannot touch. Recently these moralists have turned to the philosophy of intuition of Bergson and to the *existence* theory of Kierkegaard and Heidegger. This movement toward religion based on intuition rather than on reason is a healthy one, but what it gives is not the religion of theism of the West but the religion of intuition of the Orient. Also none of these three Western philosophers is content to remain with nothing but the deliverances of intuition since intuition for all its merits is quite inadequate to account for Western knowledge and institutions. Thus what actually is provided in these recent religious philosophies is neither a genuine religion of intuition of the Oriental type nor a genuine religion of doctrine of the theistic, Western type but a muddled confusion of both in which an inadequate conception of the intuitive factor is mixed with a false or immature conception of the theoretic, theistic element in religion.

Two things are required to restore the integrity of Christianity or any other religion of the theistic type. The first is the pursuit of the emphasis upon intuition in Western philosophy which has occurred recently. This pursuit can be effective only if the intuitive element in human experience is separated from the theoretic element so that it is gained in its purity. The methods appropriate for this are not those of recent Western thinkers, such as Bergson and Kierkegaard, but those of the Orient, where an art, a philosophy, a religion, and a culture grounded in the aesthetic intuition have been pursued for centuries.

There is one factor, however, in the West which will aid in this undertaking. It is the recent painting to be found in the work of the Impressionists, and especially of Paul Gill and Georgia O'Keeffe, who have separated the intuitive element in experience from the inferred, external, commonsense, or theistic theological objects, so that we get the intuitive aesthetic component of experience in its purity. Such developments are purely negative, however, so far as Western religion is concerned. They prevent it from being confused with what it is not.

What are the positive requirements? Because theism goes counter to the deliverances of immediate apprehension by affirming that a determinate factor in man and the nature of things is immortal, when the aesthetic intuition and sense awareness reveal all determinate things to be mortal, the only basis for theism must be in a factor not given with immediacy in the aesthetic intuition but inferred from it. Consequently the first requirement for the restoration of the integrity of Christianity is the development upon the part of contemporary man of a confidence in the existence of inferred unseen factors in knowledge.

To this end, no department of Western knowledge is more effective than natural science, especially mathematical physics since the world of man and nature which it reveals to us has characteristics differing radically from what we immediately apprehend. Yet these objects and space-time structures of mathematical physics constitute the most trustworthy knowledge which Western man possesses at the present moment. Certainly we do not immediately apprehend electrons in the four-dimensional space-time continuum with its metrical properties as defined by Einstein's tensor equation for gravitation, or the electromagnetic waves travelling through apparently empty space with a velocity of approximately 186,000 miles a second. Yet we believe in the existence of all these unseen factors and processes, and it is by means of them that the United States Navy was able to destroy the Japanese Navy in the blackness of night in the Battle of the Solomons, when nothing was visible by immediate intuition.

These and all other inferred unseen objects, such as God the Father or the immortal soul of theistic religions, can be known and distinguished from illusory inferred objects only by the empirical and logical scientific methods which science and philosophy and medieval theology developed. Moreover, it is not the business of the theologian to determine whether such an unseen, inferred, theoretically known component of reality exists or not, or what its character is. This is the business of the scientist.

The reason for this is that it can be known effectively and in a

trustworthy form only if all the immediately apprehended data of man and nature are taken into account. The theologian, or the philosopher, by himself is quite incapable of doing this. The immediacy of experience exhibits so many facts that the task of determining them and then inferring the correct unseen factor in the nature of things from them must be divided among a large number of specialists, such as astronomers, physicists, chemists, biologists and psychologists. The philosopher, or the theologian, who is concerned with the theoretic as opposed to the aesthetic component in knowledge, when he proceeds correctly and effectively therefore must begin his task, as did Plato, Aristotle, Aquinas, Descartes, Locke, and Kant, after the scientist has completed his inquiry and verified by logical, mathematical, empirical, and experimental means the theory designating the unseen theoretic component in things and its character. A religion of the theistic, Western type arises if within the scientifically inferred and verified unseen, theoretically known component in things timeless, invariant relational factors can be found with which the objects of religion are identified. The justification for this identification is that religion is by definition the subject which is concerned with those factors in man and nature which are invariant with respect to time, or in other words immortal. Once those identifications are made, the meaning of doctrines like God the Father, the immortality of the soul, and the divinity of the prophet takes on empirically verified scientific content and meaning.

This is precisely what occurred in medieval times with Aquinas using the medieval science and its philosophy of science of Aristotle. It is precisely this which needs to be done by contemporary philosophers and theologians using the verified theories of contemporary science.

Thus it is to be emphasized that modern philosophers and theologians have been attempting to provide an understanding of ethics and religion and their content in entirely too cheap and easy a way. They have fallen into the error of supposing either that morality and religion in their existent form are their own justification or that a religion of the theistic type is given by intuition, thereby on the one hand leaving contemporary religion without any content and without any conception of the way in which it can relate itself to anything else or on the other hand confusing and corrupting Western religion by identifying it with intuition, which will give only religion of the Oriental, nontheistic type. Or to put the matter positively, before Western religion can take on the content and integrity which are its birthright, leaders in religious thought and ceremonies must undergo a far more technical and rigorous training than they receive at present.

In addition to a knowledge of the Bible after modern biblical criticism has whittled down the statements of Christ to the few words which remain after the contributions of editors are removed, contemporary students must be thoroughly trained in logic and in analysis of scientific method, for only thus will the distinction between the immediately apprehended and the theoretically and logically inferred take on specific content and meaning; only then can the theories of science be understood in those aspects which are relevant to philosophy and religion; and only then will the criteria be known for distinguishing trustworthy knowledge of unseen factors in man and nature from untrustworthy theories of such factors. Also such students must be grounded in the philosophy of Western science, including Greek science first and contemporary science afterward. The philosophy of Greek science is essential because there one sees how science, when its verified hypotheses are analyzed, defines a philosophy and how such a scientifically meaningful and verified philosophy, when proper identification of its terms with moral and theological concepts are made, provides a definition of the correct moral and religious doctrine. The contemporary philosophy of science must be studied because the scientific theory of the unseen theoretic component in things which was adequate to and verified for the empirical facts known in Greek or even medieval times is no longer adequate for the additional empirical evidence known in our day.

Such a theistic religion, with such content and foundations, has some chance of directing the release of atomic energy to good ends, since being essentially connected with the theory and philosophy of contemporary science it has a way of effectively relating itself to the scientific technology which it would control.

THE NEED FOR AND POSSIBILITY OF GLOBAL RELIGION:  
THE THEORETIC AND THE AESTHETIC COMBINED

But even when all this is done a final problem will remain: the problem, namely, of relating this scientifically grounded, theoretically known theistic component of divinity to the Oriental aesthetic component known by immediate intuition. This is the basic problem of the philosophy of religion and the philosophy of culture of the present moment. Its solution is already known in principle. It centers in the epistemic correlation between the aesthetic and theoretic components of all things.

In any event, certain things are clear. There is an inferred unseen factor in the nature of things which constitutes trustworthy knowledge. This Western science—and especially contemporary, deductively formulated Western science—has made abundantly clear.

## ZYGON

Upon the assumption of its existence all the greatest social, political, religious, and technological achievements of Western civilization rest. Furthermore, with the primary and invariant in this unseen scientifically known factor in the nature of things Western moralists and theologians, when they know their method, identify the good and the divine. Also there is an immediately apprehended factor in the nature of things given by intuition. The existence of this factor Oriental intuitive philosophy and recent Western painting have made evident. Our task becomes that, therefore, of learning the character and content of the theoretic theistic component and the intuitive aesthetic component and then putting them together.

When this is done our world will possess a moral and religious knowledge which, because of its essential connection with the theory and philosophy of science, should have the means necessary to control the otherwise ethically neutral technological instruments of science. And, because of its roots in the traditional culture of the East as well as the West, this humanism should possess the truly international character necessary to call forth the support of men the world over.

A morality and religion of this character may seem altogether too abstractly philosophical and scientifically technical to win the allegiance of men. Such a conclusion, however, would be erroneous. It arises because the emotional, moving, luminous character of the aesthetic factor given by intuition has not been developed here and also because the use of art to convey the theoretic component has not been indicated here. When these two omissions are removed, there are ample evidences of appeal to the heart as well as to the mind of men.