PHILOSOPHICAL, RELIGIOUS, AND SCIENTIFIC SYMBOLS*

The similarities and differences between philosophy, religion, and science constitute one of the most persistent problems in the history of thought. It was Tertullian who asked: "What, indeed, does Athens have to do with Jerusalem, what concord is there between the Academy and the Church?" Later, and in a more intensive way fifteen centuries later, the question was asked, what concord is there between the laboratory and the Church? If we assume that knowledge is one, do we not imply that there are necessary affinities and interrelations between philosophical, religious, and scientific knowledge? These questions persist to this day, and the intent of this paper will be realized if it can be shown in what manner philosophy, religion, and science have certain affinities, but more important, what significant differences prevail.

The basic motivations and distinguishing marks of philosophy, religion, and science are, respectively, wonder, awe, and relation. Wonder as the basic motivation in philosophy has being as its object; awe and the experience of incompleteness as the basic motivation in religion has God as its object, and the quest for explanation and the understanding of the relation of things, as the basic motivation in science, has the space-time world as its object. The history of philosophy, religion, and science is the story of the objectification of the objects of these basic motivations. Not only the history of these and other disciplines but any contemporary thought in its attempt to get back to original world being or original human being by breaking down or going beyond objective or universal structure, is in itself a form of objectification. The problem of knowledge, the contemporary phenomenological thrust notwithstanding, continues to be the intricate and illusive relation of subjectivity and

* This article is an abbreviated version of a paper read at the annual meeting of The Society for Philosophy of Religion, Durham, North Carolina, February 25, 1971.
objectivity. The persistent urge to knowledge is itself the persistent urge to objectification, and because in such a process there is always a lost dimension of human existence, we always return, in a variety of ways and methods to recapture that loss. Such a principle was taken seriously by the early Greek philosopher, Anaximander, namely, his idea of the Boundless, and has been most adequately developed in contemporary thought in Jaspers’ philosophy of the encompassing, especially his illumination of *Existenz* and transcendence. Many of the following observations on philosophical symbols, as well as the delineation of the different levels of consciousness are indebted to his philosophy.

Philosophy, we said, has being as its object. But instead of understanding being as that out of which all else proceeds and exists, we tend to approach the knowledge of being as though it were on the same level as objective knowledge of beings in the world, beings which to a considerable degree, can be known and mastered. In traditional metaphysics and ontology being has been reduced to some form of objectivity, that is, either to object-being, self-being, or being-in-itself. However, both object and self continue to remain obscure. Both reveal and conceal something. Both are modes of being but not the source of being. The same is true of thought about the object or self. Being cannot become comprehensible through the knowledge of universal structures because the universal structures themselves are only modes of being. To this being which unveils itself and yet remains veiled we give the name of the encompassing. The encompassing is that which announces itself as objectively present, but never can become object. It is the open totality as the ground of all being and as such it is the basic philosophical ground. It is the nature of the encompassing that makes us take seriously the limits of knowledge in every field of endeavor. Consequently, cipher and symbol have relevance for every field of discipline; they always stand for the veiled nature of any object of experience, whether it be the object of sensory experience, perception, conception, or thought. The difference between cipher and symbol is the persistent propensity of the latter to become objectified. The function of philosophical symbols is to engage in a counter-movement, to be on the side of the cipher, to resist becoming an objectified or interpreted symbol. For philosophy everything can become symbol and all symbols are symbols of transcendence. All objectivity and all sub-
jectivity becomes symbol, and therefore symbol-status constitutes the completion of the consciousness of being.

In all three activities – philosophical, religious, and scientific – there is the relentless urge to structure, conceptualize, and objectify. From the perspective of the encompassing as the basic philosophical ground, including the perspective from philosophical symbols, we can already anticipate the necessity for speaking about religious and scientific symbols. In all three disciplines symbols remain genuine only to the extent that they see myth, conceptualizations, and analogies for what they are. There is then a basic similarity in all three activities, which, nevertheless, eventuate in important differences.

What follows is an attempt to show both the similarities and differences between religion and science, but to show that the rapprochement which would make bedfellows of science and religion is not as significant as the differences which place them on the opposite side of the corridor. The rapprochement and the corridor are largely the consequence of religious activities and scientific activities taking place on similar, but also different levels of consciousness.

**Similarities**

Negatively one of the most obvious similarities between science and religion is that scientists can’t agree on what science is and neither can theologians nor philosophers of religion agree on what religion is. Both make knowledge claims, but refrain from making absolute knowledge claims. Scientists make no claim to absolute knowledge of physical reality and theologians make no claim to absolute knowledge of God. It is asserted by some that in their endeavor for knowledge both enter into a faith relationship. According to Whitehead science is an enterprise in which reason is based on a faith. “It has remained predominantly an anti-rationalistic movement, based upon a naive faith... It springs from direct inspection of the nature of the things as disclosed in our own immediate present experience.”¹ The scientific quest, like the religious and philosophical quest, has its doubts, anxieties, moments of desperation, its valley of despair, and in its pilgrimage it does not

arrive at certainty, but a trust in the order and consistency of nature without the certainty that theories correspond to nature.

As in religion the counterpart of faith as a human activity or response is revelation, so allegedly there are times when scientific faith has revelation as its counterpart. C. A. Coulson, a theoretical physicist deeply committed to portraying science as a definite religious activity, writes “I want to be able to look at science, its methods, its presuppositions, its basis, its splendid success and its austere discipline, and then I want to be able to say: Here is God revealing himself for those with eyes to see,” and Buel Trowbridge writes in his book, *Religion for Our Times*, that “we must expect to find God revealed within the law-abiding universe, not outside it.”

Both science and religion make use of symbols. So important for science are symbols that Philipp Frank believes “the main activity of science... consists in the invention of symbols from which our experience can be logically derived. This system is the work of the creative imagination which acts on the basis of our experiences”. He adds that the work of scientists is probably not fundamentally different from the work of the poet. What the scientist makes of sense data is always a created thing. There is no such thing as gravitation, electron, mass, or energy sensible to the touch. All these are creations or symbols which do not exist without the creation. In a similar way Bronowski can say:

“What the human mind makes of the sense data, and thinks about, is always a created thing. The construction is true or false by the test of its behavior... There is, of course, no such thing as gravitation sensible to the touch... all these are real creations... They are symbols; they do not exist without the creation. Solid as it seems, there is no such thing as mass; as Newton ruefully found, it cannot be defined. We experience mass only as the behavior of bodies, and it is a single concept only because they behave consistently.”

The use of symbols, brought about by the limits of their disciplines, makes bedfellows of the scientist, artist, theologian, and philosopher.

A challenging and informative comparison of science and religion on the level of empirical existence and consciousness-as-such is made by Harold Schilling in his book, Science and Religion. Although aware of significant differences, the main thrust of the work is to show science and religion as complementary, reciprocal, as partners—not antagonists. The comparison is unique in its interpretation of science and religion as two communities. The Christian community as a way of life, of faith, and thought is compared with the way of life, faith, and thought of the scientific community. Schilling is especially concerned to dispel the stereotype view of the scientific method which allegedly consists of a certain number of precisely demarcated steps, which, if followed, insure success. This has its counterpart in the Christian community wherever it is believed that the scriptures are the consequences of God’s direct line to private and special secretaries who pass on to us the unadulterated religious truths. Schilling says, “Far from being machine-like, science is a characteristically human enterprise that is intensely personal, as well as social and communal”. In thinking of science as a community, he divides the community into the pioneers and the colonizers. In the frontier state

“science is exploratory and adventurous. Its ideas are tentative and always in flux. More often than not they are audacious guesses or vague hunches that rarely conform to orthodox patterns of thought and often seem illogical and thoroughly unscientific... Sooner or later the pioneers are followed by the colonizers who consolidate gains, establish order, permanence and respectability, and replace the crooked paths by straight highways... In this stage ideas conform more nearly to canons of orthodoxy and the hunch is replaced by logical derivation and elegant proof.”

The comparison of the two communities in terms of pioneers and colonizers has a certain appeal, and, in relation to the Christian

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7 Ibid., p. 35.
faith, it is the hazardous task of New Testament scholars and biblical theologians to single out the pioneers and colonizers in the Christian community of the first century. At least one is on the safe side by saying that the central faith of the New Testament has not been replaced by "logical derivation and elegant proof". For the scientist the search is often long, arduous, self-denying, circuitous, and painfully disappointing, but in the end the answer for him at least, if confirmed by other members of the community, is relatively simple. In religion faith, which is both the beginning and the end of the religious quest, is never simple.

Science and religion are also bedfellows in that within both there is the irresistible urge for unity and totality. In science there is the urge to discover unity both in the plurality of nature and in the wide variety of human experience, and in religion the persistent desire to reconcile the universe and everything therein with the Creator. Science and religion, and philosophy as well, are bedfellows in that not any one of them, nor the combination of them, can give us the unity we seek. In religion in the symbol of Creation, the Word of creation, we embrace this unity in faith. In science we embrace unity in the different theories whose functions are to unify in conceptual structure as much empirical experience as possible. But the unity of the sciences, religious unity, and ontological unity remain Idea. What we have is the transcendence of the world and the transcendence of God. Neither theology, nor ontology, nor philosophy of science, nor science can give us the unity of knowledge and the unity of the world that we seek. Even if science should return to a more ordered and more unified view of causality it would not give the desired unity of knowledge and reality for it would still remain "reality" as seen through the symbols, and scientists are reluctant to identify the symbols with the reality to which they point. We are left with transcendence and the only unity we can have among the philosophical, religious, and scientific symbols, is a unity in transcendence which can no longer be unity as understood in immanence.

Differences

The main differences between science and religion are most adequately understood in terms of different subject matter and different levels or modes of consciousness as they relate to the problem of
knowledge. Being aware that the object of religion is God and the object of science is nature or the world, that religion concerns itself with the mystery of disclosure or revelation, the I-Thou encounter, and that science concerns itself with the mystery of discovery, the I-It encounter, we are well on the way in understanding in what manner the religious symbols are primarily on the level of Existenz and transcendence, and the symbols of science are on the level of empirical existence and consciousness-as-such.

Empirical existence is experience permeated by sensations, feeling, willing, and thought. As empirical existence I am my body, my sensory experience, my labors, sufferings, likes and dislikes, my fears and hopes. It furnishes the data for both the natural and social sciences. As empirical existence I tend to think, respond and act like those about me without completely surrendering my individuality. It is the level on which, in terms of sharing and cooperating, both science and religion as communities participate in human endeavors and projects. On this level we gather our data, make our observations and experiments and have our ideas of good and bad, right and wrong, beautiful and ugly, success and failure. It is the level of cultural conditioning. Consequently, it is the basis on which we can formulate a psychology and sociology of religion. In religion, it is the level on which religion becomes the captive of culture, but also the level on which is generated the richness of the varieties of religious ritual and worship as well as religious activity committed to a constructive transformation of culture.

As consciousness-as-such I am a self essentially identical with any other self. As consciousness-as-such I can be replaced, but the possibility of replacement does not mean identity of empirical experience. Consciousness-as-such is selfhood; it is subjectivity as the condition of all object-being, and as such it is the order of life and things upon which I can depend and in which I trust. If it is fair to say that the heart of science is that aspect of science which gets into textbooks, then the heart of scientific activity takes place on the level of consciousness-as-such.

As Existenz I am transcendence, but I am also aware of the transcendence that is other than Existenz. Continuing to draw on Jaspers' analysis of the human situation, as Existenz I am possibility, decision, unconditional acting, communication, historicity, and most important, I am freedom. As Existenz I am this present moment which
is rooted in the historical and which anticipates the future. As possible **Existenz** I am a mode of being which holds itself back as possibility and as such does not exist for consciousness in general. **Existenz** is that which never can become object. The **Existenz-Thou** encounter is even less capable of becoming object. **Existenz** is the authentic level of religious phenomena to the extent that it is openness and response to the divine-transcendent disclosure. This central aspect of religion in terms of its immediacy can never adequately get into theology books, not even into sacred scriptures without distorting or falsifying itself.

The central aspect of science is general subjectivity or consciousness-as-such as the basis for all objectivity. To be sure the scientist as a man and as **Existenz** is not replaceable, but the scientist as scientist is. What is science to one member of the community, in order to retain the name of science, must become science for other members of the community. The guesses, hunches, and exploratory nature of the pioneer stage of science must be excluded from "science proper" if the observations, experiments, and theories are to gain respectability and acceptance. Science observes, measures, experiments, and its theories must be compelling, universal and predictive. Religious symbols in their relation to every particular instance or every moment of historicity can never be universal in the sense that science is universal.

It is especially the case as science speaks about scientific faith and revelatory experiences or insights in science that we need to differentiate between different levels or modes of consciousness. What in the beginning of a scientific project is mere hunch, complex, antirational and circuitous is in the end relatively simple. In fact, one of the objectives of science is that of simplicity and workability, whereas a vital religious faith is the relentless and restless encounter of trust and defiance which affects our whole being. If scientific faith has within it the element of the psycho-somatic and ecstatic, at least, the question of one's whole being is not at stake. It is not the question of one's own authentic freedom, not decision and possibility of one's mode of being, but rather the involvement of one's intellectual and aesthetic being in relation to the being of the world. In religion not only one's intellectual, aesthetic, and social being, but one's whole being comes into question and because this is the case, religion touches the limit situations of human existence – struggle, anxiety,
suffering, despair, death, and it grasps for meaning in the light of this human condition.

It is claimed that in both scientific and religious activity there are revelatory experiences. Take for example the statement from Sir Lawrence Bragg:

“When one has sought long for the clue to a secret of nature, and is rewarded by grasping some sort of answer, it comes as a blinding flash of revelation: it comes as something new, more simple, and at the same time more aesthetically satisfying than anything one could have created in one's own mind. This conviction is of something revealed, and not something imagined.”

The more I read such and other ecstatic accounts, be they from music, painting, or religion, the more I am inclined to leave open the question of being, the question of reality and human existence - the more I find myself drawn to an understanding of being through particular spirit-types, that is, through the exceptions in history, whether they be exceptional experiences or exceptional persons. In the attempt to understand science we go to the scientific geniuses, to understand art, to the artistic exceptions, and so it is with poetry and religion. To do this means to become more open, but at the same time, more critical. I have no quarrel with those who say that “reality” or “being” can break through, reveal or unveil itself in the ecstatic experience of some scientists, saints, reformers, poets and other artists. I can not deny the religious content of the ecstatic experiences and revelatory insights of these men. However, I would want to regard these experiences as taking place, more often than not, on the level of the aesthetic, as was suggested in the above illustration, instead of on the level of the religious. I would want to assert that the ecstasy of scientific insight, as well as the artist’s ecstasy, in terms of content, is significantly different than that of religious ecstasy or awareness. In scientific ecstasy the givenness consists of a clarity of momentary objectification in which an abstracted and particularized aspect of world phenomena is seen in relation to other aspects. The givenness of scientific ecstasy is essen-

tially an awakening of the potential within the human dimension; therefore the content of the ecstasy or insight becomes relatively simple after the experience of immediate awareness. It is for this reason that the scientist often says, “Now, why didn’t I see this before?”

As possibility, freedom, and decision we are confronted with limit-situations: struggle, suffering, estrangement, guilt, limited knowledge, death. There is no escape from our finiteness. Both in our life of thought and in our life of action we are brought to the brink or to the abyss. And yet we love life and cling to life; we become enthusiastic about making the greatest possible value experience available to all mankind. Religion is man’s ultimate search of and ultimate response to whatever gives meaning to his experience of value, but more important, to his limit situations, that is, to his confrontation with disvalue. Being as transcendence cannot give meaning to the extremities of our existence. It is only as the awe of transcendence becomes objectified and, in some religions, personalized that there arise the symbols of religion which relate themselves, on the one hand to transcendence objectified, namely, Creator, Divine Love, Divine Forgiveness, Divine Justice, and, on the other hand to the corresponding human response objectified or correlating human situation: creatureliness, sin, faith, grace, redemption. Both sets of religious symbols are answers to man’s experience of value and disvalue, to the true, the good, and the beautiful, but more particularly, to his limit situations. Being as transcendence you cannot worship, but being as transcendence become personal, become Thou, can be worshipped. The divine symbols are carriers of meaning encountered and grasped in faith arising out of the historical community and/or historicity. An aspect of this faith and these symbols, contrary to scientific faith and symbols, is the trust that some of the meaning encountered in the symbols does not arise out of human experience, but comes into human experience.

Scientists themselves are aware of the confusion that can result from the failure to distinguish between religious and scientific symbols. Coulson points out that for some of the older scientists the role of God has so diminished with the advance of science that God survives in the vaguest mathematical form. We all know the danger of this approach – further scientific advance may prove God to be a poor mathematician or geometer. Coulson rightly warns against
making God the "God of the gaps" as is the case when no longer being able to measure the position and velocity of an electron and having to surrender the rigid determinism so dear to causality, we refuse to abandon the idea of causality and ask God to take control of causes wherever we are no longer able to fill them in. In this approach symbols are ever standing by to be baptized as religious symbols, only to be excommunicated as they become scientific symbols and are no longer needed as religious fill-ins.

Some scientists fully admit that the scientific symbols are the creations of their own mind. Says Coulson:

"For we admit unashamedly that the atom is a fiction of our own... there is no force of gravitation except in our own minds as they try to comprehend the falling stone, there is no electron except in our imagination as we seek to understand the behavior of the wireless valve... yet we dare not reject them; for they are our children, the fruit of our minds."\(^9\)

From this we can know that both scientists and theologians play the role of creators. The scientist is aware in what way he "creates" nature by creating knowledge about nature, and the theologian is aware in what sense he "creates" God by creating knowledge about God. Both science and religion are objectifications and the manner in which this takes place remains our crucial problem. It is worthy to note that the striving of scientists to construct or create the different symbols is motivated by the need to find a pattern of relations which will be more fruitful for understanding and explaining present experiences, correlating them, and at the same time leave room for new observations and relations. Religious symbols neither explain nor correlate our limit situations with our other experiences. Instead, from beyond human experience religious symbols are disclosures or manifestations to the human situation which without them remains bereft of essential meaning. The religious symbols speak to human existence caught in the ambiguities, absurdities, and the antinomial structure of concrete situations. In religion as in science there is the persistent urge for unity and whole-ness; therefore religion creates for itself a variety of theodicies none

\(^9\) Coulson, op. cit., pp. 33, 35, 37.
of which can be wholly satisfactory. In freedom and in sensitivity to one's own ambiguous situation, and at the same time concern for the human condition of others, one always breaks through the various theodicies. Nevertheless, religious symbols offer a restoration and a healing which is not possible from within the human dimension.

If the glory of science is the conceptual schemes, symbols, or patterns, which are the constructs into which scientists breathe the living spirit, then the glory of religion is the faith that in and through the religious symbols the living spirit is imparted to man. The religious symbols are symbols in which our being is deeply and personally involved. They speak to us about our freedom, our anxiety, our sin, our joy, our reconciliation, but they do this in the context of an I-Thou encounter. They are other than philosophical and scientific symbols in drawing me away from preoccupation with analysis of self-being and the being of the world, neither of which is able to restore my fragmentary being. The religious symbols are symbols which sustain me in my choice between being and non-being. The scientific symbols have no such function. They are essentially detached and impersonal, and derive their value in establishing relation to and among other quantitative, objective, and impersonal phenomena. Science, especially physical science, is not interested in the private, deeply personal life of an individual and finds itself frustrated by a person's private and peculiar experiences which cannot be communicated and shared with others.

The scientists define concepts by mathematical symbols, i.e., formulae or equations, which transmit meaning largely by showing relations to other concepts already understood and approved by the scientific community. Religious symbols derive their meaning, not so much by relating or organizing human experience already understood, but by bringing to the human situation depth of meaning and purpose which cannot be present without them. Science is interested in the causal relation of phenomena, and in spite of the new physics causality remains a dominant category. In religion, freedom, decision and historicity in their relation to the Divine symbols become the dominant "categories", and mathematical formulae are farthest removed from the existential situation.

In religion there is an overlapping of the symbol and that which is symbolized. We know that in certain types of religious experience,
in the alleged immediacy, even the symbol as mediacy is questioned or denied. In fact such spirit-types would question whether it is consistent to speak of immediate religious awareness and religious symbols at the same time because for them divine love, mercy, and justice taken as symbols become too abstract and bloodless to demand worship. We are torn between the desire to allow for authentic immediate religious awareness and the desire to avoid idolatry. We compromise as best one can by having the symbols overlap, partake, or participate in its referend. It is only in this immediacy or in the overlapping of symbol with that which is symbolized that the deepest religious meaning is encountered. In religion the symbols can be read in different ways. The experience of the symbol varies according to the situational context of a particular *Existenz*. This is not the case in science. In science there is a definite delineation between symbol and its referend, and the function of the symbol is explanatory and predictive in terms of consciousness-as-such and universal trustworthiness. In religion God as symbol finally becomes that about which there can be no further predications. In science the symbol is a means; in religion the symbol is both means and end.

Man's attitude toward his ultimate situations - struggle, suffering, anxiety, etc. - crystallizes into ideas and as these ideas become objectified and systematized we have the beginning of different world-views, different ways of doing metaphysics. All rationalisms and all structured systems are man’s protective shells and answers to his total experience, but more particularly, to his ultimate situations. Man cannot live without some protective epidermis, without some form of schematization of what it all means. But the restless, ambiguous, antinomial and demonic life of the spirit continues to break through all encrustations. In other words, objectified metaphysics and ontologies are like snake skins that must be shed again and again.

World religions grow up very much like world-views, but the former have a longer life span, a greater durability. This is because the religious symbols of a historical community cannot be created and destroyed in the same manner as has been the case with the philosophical symbols of philosophical systems. In the religious community the content of the religious symbols continues to change but the symbols persist. What makes one religion more authentic than
another religion for its adherents is the development and conceptualization of the religious symbols within a historical community in such a way that they most adequately give meaning to their ultimate situations and to the experience of value.

In philosophy we also speak of a philosophical faith, and we use language which approximates "revelation talk". Philosophers speak about being responsive to being, about the unconcealedness of being, about being unveiling itself, unfolding itself, or making itself known. The main difference between philosophy and religion is that religion, for the most part, concerns itself with the extremities of human existence plus a response to those situations through the symbols of disclosure or revelation as experienced, interpreted, and perpetuated by a particular historical community. The religious symbols, like the philosophical, inescapably take place on the level of *Existenz* and transcendence, but unlike the genuine philosophical symbols they become crystallized, objectified, and interpretable, and more often than not, the source of being becomes clothed with symbols that are personal. Religious symbols are most personal; philosophical symbols are less personal, and scientific symbols are least personal. Philosophical symbols resist both the propensity to conceptualization and the cultural conditioning of a particular historical community. Both philosophical and religious symbols can lead to resolve, commitment, and perseverance, but the philosophical symbols demand a situation of greater risk and tragedy; they are what they are without the rules, religious experience, and creedal basis of a religious cult. Philosophy wants to proceed in an open-ended living struggle to come to itself through transcendence that makes demands on us, but cannot be made personal without objectifying it and thereby losing the central meaning of transcendence.

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