EXPLANATION AND THEOLOGICAL METHOD

by Don Wiebe

Religion, Hans Reichenbach has claimed, "is abundant in pictures that stimulate our imagination but devoid of the power of clarification that issues from scientific explanation."[1] Philosophers of science have in general found themselves in agreement with this evaluation of religious discourse. Science, they have almost unanimously claimed, has achieved a generalized theoretical knowledge of the fundamental conditions determining the events and processes of the world, whereas religion has simply spotted superficial analogies which it has confused with proper generalizations and consequently erroneously regarded as explanations. It would appear, therefore, that the long and often acrimonious debate as to the cognitive status of religious belief must, upon analysis of the concept of explanation alone, be concluded. Thus it appears also that the philosophers of religion who have argued that religion's concern lies exclusively in providing man with a "way of life," rather than a speculative" scheme of things," must carry the day.

Nevertheless, there is, to my mind at least, a certain uneasiness that attaches itself to such a conclusion, and that for two reasons. First, to advocate a "way of life" involves, I think, an incipient view of reality—the perceiving of a "scheme of things." It hardly seems possible, that is, to preach an ideal way of life without concomitantly raising questions about the "real" or "ultimate" nature of the individual encouraged to undertake that ideal and of the world in which that ideal is to be put into practice. Second, seldom have the philosophers who have boldly claimed religious discourse to be pseudoexplanatory lavished the same attention upon the theologian's use of the concept that has been received by the scientist's use of it. Almost no attempt has been made by the philosophers to establish the precise nature and structure of "theological explanation";[2] and, unless and until this is done, one can hardly justifiably conclude that "explana-

Don Wiebe is assistant professor of philosophy and chairman of the Division of Liberal Arts, Canadian Nazarene College, University of Manitoba.

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tion" is not a legitimate theological category and that religious discourse is not informative.

I shall in this paper therefore attempt a defense of the concept of "theological explanation" or "religious explanation"—to play the devil's advocate, as it were—in order to redress this imbalance. Although I shall refrain from claiming that my analysis of the concept is wholly acceptable even to scientists, I shall nevertheless suggest that, upon completion of the analysis, the negative conclusion advocated by many to the question of the cognitive status of religious belief is wholly unacceptable. Before I proceed with this task, however, some critical remarks on the generally accepted analysis of "scientific explanation" itself are required. If these remarks are in principle acceptable, and if the analysis of "theological explanation" which follows is free from serious flaw, I suggest that the whole complexion of the science/religion controversy in its methodological form must change: Instead of conflict, one will find that science and religion are essentially similar enterprises.

Scientific Explanation

The aim of philosophical discussion of explanation and particularly of explanation in science is to establish what one might refer to as an operational understanding of the concept. By this I mean simply that the concept is so defined or delineated as to permit one to distinguish in a nonsubjectivistic way between good and weak explanations—that is, by means of logical or at least quasi-logical criteria, rather than merely personal and psychological ones. If, for example, an explanation is explanatory only if it removes the obscurity of the matter under analysis for some particular person, then the notion of explanation becomes psychologically relativized. Insofar, then, as the philosophical discussion of the concept has been an attempt to provide some explicit criteria, so that what counts as an explanation is not wholly dependent upon the person for whom the explanation is offered, I think it is a legitimate and necessary enterprise. However, to admit that such nonpsychological criteria do exist is not to suggest that a proper understanding of "explanation" will or can provide strictly logical criteria which alone will enable one to make the choice between or among alternative explanations in a somewhat mechanical fashion. And yet this seems to be the conclusion reached in many a recent analysis. Most such analyses find their inspiration in the covering-law theory of explanation (or deductive-nomological model) of Carl G. Hempel.[3] According to Hempel, explanations must display the form of a subsumptive argument. That is, the explanandum sentence must be entailed by the explanans sentences. Thus something

has been explained only when it has been subsumed under, accounted for by, a law—when it can be shown to have occurred according to some general regularity.

For the formalist, then, the psychological sense of "intellectual satisfaction," of having achieved some understanding of an otherwise puzzling situation, is entirely irrelevant. It is certainly not, according to them and as I have admitted, a sufficient condition for explanation[4] or even a necessary condition of explanation. Indeed, the whole point of the philosopher's task, it is maintained, is to abstract the notion of "*scientific* explanation" from the commonsense conception of explanation so as to free it from this kind of subjectivistic context. The scientific verb "to explain" is not, that is, a triadic predicate like the commonsense form of the verb. The pragmatic element of the latter involving the notion of "understanding" can consequently be dismissed as entirely irrelevant.

If such an understanding of "explanation" is acceptable, I think it is obvious that religious explanations, so called, are not really explanations at all. But then neither are historical or teleological explanations—as still used in (organismic) biology, for example—for they do not conform to this pattern either. Indeed, the fact that such a model of explanation rules out historical and teleological explanations as nonscientific has often been raised as an argument both against the subsumptive model and for the possibility of legitimate types of religious explanation. Such claims, however, have raised rather complicated debates which I cannot enter into here.

Nevertheless, there is yet another kind of criticism raised against the subsumptive model. Michael Scriven, for example, argues that the subsumptive model is too formal and "mechanistic" to do justice even to what is accepted as explanation by scientists.[5] In lieu of a full-scale, critical attack on the imperialism of this model, therefore, I shall limit myself to further elucidation of Scriven's thesis.

What is meant by "explanation," according to Scriven, is a gain in understanding. The weakness of the subsumptive model, therefore, is to be found in its rejection of the psychological criterion as unnecessary to real explanation, in its too easy rejection of the triadic character of the verb "explain," involving reference to someone explaining something to someone. As Scriven puts it, the mistake "lies in the supposition that by subsumption under a generalization one has automatically explained *something*, and that queries about this 'explanation' represent a request for *further* and *different* explanation," adding that "sometimes these queries merely echo the original puzzlement, and it is wholly illicit to argue that the original matter has been explained."[6] Moreover, claims Scriven, "An explanation that fails to measure up to

its standards may be a great deal more complete than one that does, i.e., it may identify the relevant effective variables and ignore the ineffective ones. . . ."[7]

The subsumptive model, then, claims Scriven, fails to distinguish between "explanations" and "the grounds of our explanations" and so errs in assuming that an explanation must include its grounds within the explanation—that is, laws or lawlike statements. The grounds of an explanation, however, are no more part of an explanation than the grounds for thinking a statement is true are a part of that statement itself. Indeed, if the grounds of an explanation were part of it, no explanations could ever be complete, for, if one insists upon the inclusion of laws in the explanation, one would also have to insist upon the inclusion of the relevant data to justify our beliefs in the initial conditions.

Whereas the subsumptive theorists maintain that one must have in mind laws that exhibit the necessary connections among the phenomena, Scriven maintains that, even though such regular connection is involved, one need not necessarily be able to state it. He writes: "The explanation requires that there be a connection but not any particular one—just one of a wide range of alternatives."[8] Consequently, having reasons for causal claims does not imply the ability to quote laws. This does not deny a stable pattern to scientific explanations, although it does deny the appropriateness of the "mechanical" model of the Hempelians.

A proper scientific explanation, then, according to Scriven, is constituted by a set of propositions which, if false, make the argument incorrect; by the assumption of connections between phenomena, which, if irrelevant, make the argument incomplete; and by a context within which an explanation is either appropriate or inappropriate. To give an explanation is therefore to commit oneself to the truth of the propositions involved, to the adequacy of the supposed causal connections, and to the appropriateness of the explanation as an answer to the question asked (considering the position of the questioner) without, however, having explicitly considered in advance grounds justifying the position or answer in the face of possible criticism. Although such justifications are not to be found within the explanation itself, nevertheless access must be had to them: to truth-justifying grounds, role-justifying grounds, and type-justifying grounds, as Scriven labels them.

Religious Explanation

In the preceding part of this paper I have concerned myself with the question of what patterns of reasoning can provide one with

"scientific explanation," denying with Scriven that such patterns need be deductive. "Explanations" which have available various sorts of defense in response to a variety of possible objections, even though all such defenses may not be embodied in the explanations themselves, have full claim to the title "scientific." Thus one can, I suggest, weaken the deductive model without simply rejecting it outright since this could well lead to a complete psychological relativization of the concept of explanation.

Having outlined (there has been no time to argue the matter in detail) what has good reason to be considered a respectable understanding of "scientific explanation," I shall now move on to the main part of my argument, that is, to a discussion of the possibility of "religious explanation"—the possibility of religious beliefs supplying us with explanations of some puzzlement or other. The specific indictment that religious beliefs, if they make any claim to being cognitively significant, provide us with but pseudoexplanations—with explanatory power only in the spurious sense of "analogism," wherein "our imagination is held in thrall by an awe-inspiring picture"[9]—must now be more closely examined.

Several questions have been raised legitimately by philosophers on the theological reaction to the displacement of religious explanation by scientific explanation: Has not the abandonment of the "God-hypothesis" been a boon to the development of many of the natural sciences? Has not religious explanation been parasitic upon scientific explanation in that religious beliefs have provided explanations for events inexplicable only because of the primitive state of empirical knowledge? What precisely is lost in the abandonment of the concept of religious explanation? Of what precisely does the believer suppose his religious beliefs to be explanatory?

My answer to the first two questions is a simple yes. There is abundant evidence in the history of the relations of science and theology to indicate that the abandonment of the "God-hypothesis," as Laplace referred to it, has been extremely beneficial to the development and progress of the natural sciences—not only in physics but even more so in biology, geology, paleontology, etc. Religious explanations, that is, have been used—erroneously, it turns out—to fill in the gaps left by an immature science. From the religious perspective, this type of understanding of religious beliefs as explanatory was a special object of wrath for Dietrich Bonhoeffer. According to Bonhoeffer, it meant the death, if only gradual, of theism.[10] Although such gaps in our scientific knowledge do exist, religious explanation of the phenomena is ruled out; for scientific explanations, though neither complete nor exhaustive, are in principle, so it is argued, sufficient in themselves to

account for the data. It is claimed that there is no need or value connected with invoking religious hypotheticals and developing "religious explanations" and even the "great questions" facing man.

But if this is indeed the case, then just precisely what religious beliefs explain is a somewhat puzzling affair, for, surely, the questions of life, death, and man can be and have been raised as specifically religious questions requiring a peculiarly religious answer. Such religious answers, it is generally agreed, are those which have had an "integrative" function in the individual's life as well as in that of the community, giving meaning and perhaps viable behavior patterns to one's individual and communal existence.

Consequently, on the understanding above of scientific explanation as a potentially adequate account of all states of affairs in the world, it would appear that religious explanations are of little cognitive value and hence not really explanations at all, despite their value in the past in providing a principle of personal and societal integration. What is being argued here is that, although this is an important reason in favor of religious explanations, it is not sufficient; for the same function, it could be argued, could be filled by "a likely story" or an "awe-inspiring picture" as by an acceptable explanation—a sound and acceptable hypothesis or theory. Whether scientific explanations are better accounts of the states of affairs in question—that is, logically more connected and empirically better justified—is not the question at stake here. What I am trying to show is that the form and structure of religious explanation are essentially similar to those of scientific explanation properly understood and not in a league by themselves, as has so often been claimed. (And unless religious explanations are at least possible in the sense discussed here, it is unlikely that their value to society in the past will continue into the future.)

The first task for the theologian, it appears, is to establish the possibility and describe the nature of the object of religious explanation. Several possible alternatives are open to him—I shall look critically at three of them. The most obvious response to the criticism of religious explanation above is to find an object of religious explanation wholly different from the object of scientific explanation. There are two possible routes in this direction which the theologian might follow.

The first is "the world," that is, both the empirical world in its totality and the sum total of our personal experience (i.e., of human experience, in contrast to the events *in* the world explained by science). That either of these concepts of the world is not an object of scientific explanation, as defined by the deductivists above, seems plain. If explanation is subsumptive, then the whole is inexplicable, for subsumption in this case is impossible. R. B. Braithwaite makes the

point clearly.[11] But this does not, I think, necessarily preclude the idea that ultimate questions are meaningless and without "explanation," as redefined above. But more of this anon.

Believers or theologians of this bent maintain, then, that our religious beliefs explain not some fact in the world but, rather, why there is a world at all. And this, it is claimed, is done by means of reference to that which lies "outside of" or "beyond" the world—reference, that is, to the transempirical. Thus, as Ian Ramsey puts it, the task of religious explanation is in effect to aid science in obtaining "that one cosmic map which remains the scientific ideal."[12] To fail to recognize this type of explanation, therefore, is to fail to fill in certain deficiencies of our scientific explanations, although these deficiencies are of an order different from those consisting of gaps in our present scientific knowledge. Scientific explanations on this account, then, are exhaustive only in a specific, not in a general, sense.

Such a position, however, is not without difficulties. As I have already intimated above, to talk of "the world" is not a straightforward procedure; nor is it a simple matter to speak of the principles of the world as somehow "outside of" the world itself.[13] If, for example, it is denied that the world itself is ultimate, then it might just as easily be denied that the ground of the existence of the world itself requires explanation. To deny the claim is to be arbitrary and irrational, for, as Ernest Nagel puts it, it is "theological gerrymandering . . . dogmatically cutting short a discussion when the intellectual current runs against them."[14]

A second route open to the theologian bent on finding an object of religious explanation other than the object of scientific explanation is that of the "religious experience argument." This argument claims that there is a category of experiences which is other than mere sensation (sense experience). Religious explanation then explains —systematically explicates and accounts for the fact of—this other kind of experience. John Baillie, for example, claims that

> our lives would indeed be poor and savourless if we had no awareness, in which we could repose the least degree of trust, of anything in reality save what we can see and hear and touch and taste and smell. My contention will be that we have even what can properly be called *sense* experiences of other things than these. The human spirit, I shall say, develops certain subtler senses or sensitivities which go beyond the bodily sense. They carry us far beyond such experiences, making us sensitive to aspects of reality of which these, taken by themselves, could not conceivably inform us.[15]

Or again in his criticism of Kant: ". . . the root of all my difficulty with it [i.e., his theory of religion] lies in the fact that, having accepted

the irreproachable doctrine that all our knowledge derives from experience, he then confines our 'experience' to that gained through the bodily senses."[16] We have, then, by faith (according to Baillie) a direct and immediate "sensory" awareness of God which it is the theologian's task to explicate. The certitude with which this experience is transfused, however, is never capable of being distilled into the particular affirmations made about it. Baillie writes: "We are convinced we are in touch with reality, we do know something assuredly, but when we try to express in theoretical terms what we know and are sure of, we never have the same assurance that we have got our answer quite right."[17]

This position, however, as Baillie admits, is not without weaknesses. As C. B. Martin points out, "The addition of the existential claim 'God exists' to the psychological claim of having religious experiences must be shown to be warrantable."[18] The fact that these objects influence men's lives is not to provide such warrantability—for very often imaginal and ideal objects when believed to be actual have profound and fruitful effects. Indeed, this is precisely the point of Curt Ducasse's criticism of religious beliefs as having an explanatory function; that is: "In order to be capable of performing the social or the personal functions distinctive of religious beliefs, beliefs having contents suitable for those functions need not be objectively true nor even clear; they need only be fervently held. If so held, they will work, no matter how vague, crude, or even absurd they may happen to be. . . ."[19]

A third possible reaction to the charge that religious explanations are superfluous, because they really have no object of explanation, is that which claims that religious explanations also explain the phenomena within the world. That is, it is maintained that, if religious explanations are to explain anything at all, they ought to explain the daily round of experiences of which our life is made. This approach does not deny altogether the idea that our scientific explanations are adequate but claims, rather, that the adequacy is of a specific sort and restricted to a certain level of understanding. Alternative and complementary explanations of the same phenomena from other points of view are not therefore ruled out a priori. The point is simply this: When we have finished with our physical analysis of the phenomenon in question, there remains a fresh sense to be made out of the pattern of events—a fresh sense which is necessary for a proper (total) understanding of the phenomenon in question. A flashing light, for example, may be adequately explained on a physical level in terms of wavelength, emission rate, frequency, and various other characteristics; and yet this may not be exhaustive in an absolute sense, for the

same flashing light might also be explained in terms of Morse code as communicating a message. The two explanations of the flashing light, that is, are both acceptable and necessary for a fuller understanding: They are complementary. In a similar way, therefore, so claims the theologian, both a biological and a religious explanation are required for a complete understanding of issues such as birth, life, death, etc.

It might well be argued that for the religious believer to adopt such a view of "complementarity" in explanatory schemes may be simply to use it as an escape hatch when the pressure of scientific progress on religious belief becomes very great. Yet the complementarity of two descriptions can be guarded against admitting nonsense. According to D. M. MacKay, who advocates such a view of complementarity, there are four conditions that must be fulfilled for two such descriptions to be logically complementary. I shall but list them here. First, they must have a common reference. Second, each must account for all the elements of the common reference exhaustively or at least in principle be able to do so. Third, they must make different assertions because, fourth, the preconditions of the use of the concepts in each are mutually exclusive, so that the significant aspects referred to in one are necessarily omitted from the other.[20]

This does not mean, however, that this approach to religious explanation altogether evades the difficulties encountered in the other two or that they give no account of our experience in this world, for this latter view is, in a sense, but a more comprehensive view that includes the other two. Its approach, however, is a little more "down to earth," so to speak, than theirs. The first position, for example, in explaining "the world" simultaneously "explains" things in the world by giving them a broader location or placement. It provides a broader perspective, that is, for viewing events in the world. Similarly, it may include the "religious experience" approach, for, although religious experience is not directly concerned with our sensory experience, it is nevertheless inseparably related to it. As even Baillie admits, even though God confronts us more than any other presence, he is never present to us apart from all other presences. Only " 'in, with and under' other presences is the divine presence ever vouchsafed to us."[21] However, the advantage of the third approach is its directness and inclusiveness, as I shall delineate somewhat more fully below.

It might be argued that even such a direct approach to the problem of the object of religious explanation, however, cannot guarantee even the possibility of religious explanation. Although religious explanation might have a useful role or function at present, it has been argued that it will not do so as our scientific knowledge grows. The claim is that religious explanation, even in the sense described above,

is but a neatly disguised variant of the old "stops in the gaps in our knowledge" type. Thus, although religion may now provide a complementary argument for a certain phenomenon, there is no guarantee that that explanation will not eventually be reducible to a nonreligious or nonsupernatural explanation. There is nothing in the idea of complementarity to exclude the possibility of a higher (scientific?) mode of representation, synthesizing the two complementary ones. The present debate in biology as to whether organismic biological explanations are irreducibly fundamental or in fact reducible to molecular biological explanations may well illuminate the problem. Although at present the particular type of explanations used in organismic biology are essential, it is argued that new knowledge will ultimately make them superfluous.[22]

The question, then, of just what it is that religious explanations are explanatory of is rather complex and difficult to answer straightforwardly. I have in effect suggested that they somehow concern all three "objects" discussed above—that, although they concern such ordinary questions of happenings in the world as "What is life?" or "What is death?" they do so only in the sense of creating a broader context in which these questions might be asked. In creating that context, they legitimately raise questions about the world as such, as well as about a species of experience to which the label "religious" peculiarly applies. In creating this broader context, the quest for religious explanation is an attempt to go beyond scientific explanation, seeing the latter as somehow inadequate. The question to which religious explanation is the answer, then, may not be a question which has a straightforwardly empirical and logical answer. Nevertheless, the answer provided by religious explanation may still be a "scientific" one (i.e., in the broad sense of rational or reasonable) in that it is directed toward legitimate why-questions and bears in all essentials the same general structure as answers to scientific questions. Consequently, religious explanations function in the same way as do scientific explanations. Religious explanations, too, are concerned about what there is and are concerned about it in a critical fashion. I shall now focus attention on this latter aspect of the rational structure of the religious explanation.

The question of whether religious explanations are both rational and objective, as are their scientific counterparts, can perhaps best be answered by means of an analysis of some particular religious explanation. This analysis need not show whether the explanation proffered is true or false, but it must show that a decision as to truth or falsity is applicable to it. The structure necessary for this need not, as I have already suggested, be of the deductive type. A looser structure

will do, as long as a justification of the explanation has recourse to sound defenses against the three types of possible attacks listed by Scriven: charges of inaccuracy, inadequacy, and inappropriateness.

An appropriate example might well be the explanation of the contingency of the empirical world since, according to the theist, natural science that stops short of theistic culmination has the appearance of an arbitrarily arrested growth. James Richmond outlines the essentials of such an argument as follows:

> . . . the more we contemplate the natural order in its entirety, the more we are impressed by the remarkable order, value and regularity we find there; the prolonged contemplation of this generates in us the conviction that the sheer quantity of intelligibility we find throughout the natural world (despite disorderly and dysteleological elements) requires some kind of explanation other than mere fortuitousness . . . and the "explanation" . . . must somehow be in terms of a transcendent, personal (because intelligent) being involved in, yet unobservable within the spatio-temporal natural order.[23]

One's system of religious beliefs or theology, then, must in some sense be an explanation of a puzzling world—a world, moreover, that can be satisfactorily explained only by reference to that which is "beyond" and "other than" the world. If the world were in no sense a puzzle, there would be no need for explanation at all; and if, providing the world were puzzling, the questions raised by it were answerable from within the world process, the explanation would not be a religious or theological one. Thus, if theology is to be significant, claims Richmond, "it must by necessity refer to the divine existence in order to explain what would otherwise be left puzzling and unclear; its intellectual attraction must reside in its power to make plain what is obscure."[24]

We must now examine whether such an argument contains any blatantly inaccurate statements, fails to explain what it is supposed to explain because it does not bear on the matter at all (for example, in terms of causal connections between the apparently disparate elements), or is irrelevant to the context in which the question was asked as to the existence and nature of the empirical world.

There is, I think, little question as to the access to type-justifying grounds in connection with this argument or explanation. A why-question about the existence of the empirical world, as long as by "world" one does not mean "all that there is," is certainly not in itself absurd. This may be seen in contrasting it with what Paul Edwards refers to as "the super-ultimate why-question." In the latter, claims Edwards, the word "why" has simply lost all meaning, rather than exhanging its old meaning for a new one. He writes:

In *any* of its familiar senses, when we ask of anything *x*, why it happened or why it is what it is—whether *x* is the collapse of an army, a case of lung cancer, the theft of a jewel, or the stalling of a car—we assume that there is something or some set of conditions, other than *x*, in terms of which it can be explained. We do not know what this other thing is that is suitably related to *x*, but unless it is in principle possible to go beyond *x*, and find such another thing, the question does not make any sense."[25]

Therefore, if in asking why "the world" exists, rather than nothing, meaning by "the world" the totality of all things, the question is so all-inclusive as to make it "*logically* impossible to find 'anything' which could be suitably related to that whose explanation we appear to be seeking."[26] It is at least conceivable, therefore, that there may be contexts in which questions such as "Why does the world exist?" or "Why am I here?" can legitimately be raised. They are raised, in fact, in an effort to find out just what one is faced with in existence.

Truth-justifying and role-justifying grounds may be a little harder to come by, but they are by no means nonexistent. On truth-justifying grounds, the argument against religious explanation is not so much that the statements used in the argument are false but, rather, that they are statements of a kind that can be neither true nor false—that they are, rather, meaningless. This, of course, was raised in its most vehement and perhaps crudest form in this century by the positivists of the Vienna Circle, although it has seen some refinement since then. On role-justifying ground, one would be required to show how reference to some transempirical reality, if possible, would bear on empirical reality. I shall not in either case develop detailed replies to such criticisms but, rather, shall indicate how they might be answered.

The first objection might well be labeled "the cognitivist challenge." It can be dismissed if it is possible to show that such transempirical statements, "God-sentences," for example, can be made checkable or falsifiable in at least an indirect, if not in a direct, way. And this can be done by distinguishing between "criteria" for a truth statement and "evidence" for the same—a distinction not generally recognized by the positivists. It is another matter for something to be the case than for one to know or have reasons to believe that it is the case. "Criteria," then, concern the conditions determining the meaning of a cognitive sentence, and "evidence" concerns the conditions under which the truth or falsity of the statement is ascertained. It is possible, that is, to state what the truth conditions of a sentence are, independently of the availability of evidence. Such criteria, as R. S. Heimbeck points out, can be derived from entailment or incompatibility relationships that such transempirical sentences have with more directly empirical statements. He writes: "An entailment-rule, therefore, of

the form 'p entails q' can function as a rule for the meaning of the sentence employed in making 'p' a rule in which 'q' exhibits at least part of the meaning of the sentence 'p.' And incompatibility-rules also can function to demarcate the meaning of 'p,' but they do so negatively by laying down what meanings are rejected by 'p.' "[27] Transempirical sentences, therefore, are capable of being cognitive because they are open to empirical falsification, even if only indirectly.

The second objection to the relevance of such odd statements to empirical reality is, then, also answered by the foregoing discussion. I shall elucidate this aspect of relevance even further by brief reference to Richmond's attempt to show that there are occasions in our experience which bring us to using equally "odd" assertions and explanations—explanations that require a move to concepts such as "beyond this world," "outside of the world," etc. Richmond claims to have found in talk about "selves" a justifiable analogy upon which to rest his case for a transcendent explanation of the world. A consistent empiricism, he points out, finds it extremely difficult to talk adequately of "selves" or "souls" as a result of "illegitimately forcing upon a hugely significant area of our experience an epistemological straitjacket—namely, an epistemological account formulated specifically for the areas of the natural and human sciences." If, however, one comes to the discussion of the self via "*one's own inner experience of what is involved in thinking and living,*" he claims, one can only conclude "that there is a certain irreducible *duality* attaching to our understanding and explanation of ourselves," so that not only physical but also spiritual attributes must be used in our description.[28] He concludes, therefore, that we cannot say of human beings that they are either inside or outside the spatiotemporal world—that they are, in a sense, both inside it and outside it. Here, then, we have a case in point, he claims, in which the logic of inside and outside is understandably applied; and this "makes intelligible the use of such words within the context of a metaphysical explanation of the world as whole in terms of an ultimate non-spatio-temporal being."[29]

Enough has been said, I think, to show that religious beliefs or religious explanations are in some senses similar in structure and function to scientific beliefs and scientific explanations. They, too, have recourse to justificatory arguments when subjected to criticism from without. Although they emphasize the importance of the psychological criterion, they nevertheless do not make it the only necessary requirement of explanation. Whether they do in fact withstand the criticism is not a matter of concern at the moment. It might be argued, for example, that Richmond's talk of duality with regard to persons does not really escape Gilbert Ryle's criticism of "the ghost in

the machine" types of dualisms, although Richmond thinks it does. But this would be a matter of argument over whether Richmond's explanation was a good one or a weak one and not an argument over whether it could be accounted as an explanation at all.

NOTES

1. Hans Reichenbach, *The Rise of Scientific Philosophy* (Berkeley: University of California Press, 1951).

2. The phrase is G. F. Woods's; see his *Theological Explanation* (Welwyn, Hertfordshire: James Nisbet & Co., 1958).

3. Carl G. Hempel, *Aspects of Scientific Explanation* (New York: Crowell Collier & Macmillan, 1965).

4. Woods appears to have taken it as such: "The acid test of any explanation is whether it explains. . . . [If] a steady scrutiny of a proffered explanation shows that matters remain obscure, we cannot escape from the obscurity by calling what is offered an 'explanation' of the problem" (p. 38). This lack of interest in nonpsychological criteria characterizes his book. Although a serious flaw, it nevertheless does draw attention to the oversight of the importance of the psychological element in explanation.

5. Michael Scriven, "Explanations, Predictions and Laws," in *Readings in the Philosophy of Science,* ed. B. A. Brody (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970). The deductive model seems to imply a symmetry of explanation and prediction, as is particularly clear in R. B. Braithwaite, *Scientific Explanation* (New York: Harper & Bros., 1953), pp. 335, 337. Such a thesis is clearly undermined, I think, by the analyses offered by Stephen Toulmin, *Foresight and Understanding* (New York: Harper & Row, 1961), pp. 38, 60, and by N. R. Hanson, "On the Symmetry between Explanation and Prediction," *Philosophical Review* 68 (1959): 349–58.

6. Scriven, p. 97.

7. Ibid., p. 99. Indeed, according to Scriven, not even Hempel's own paradigm of a good, physical science explanation (n. 3 above, p. 246) truly fits the deductive-nomological pattern.

8. Scriven, p. 90.

9. Reichenbach (n. 1 above), p. 9.

10. See Dietrich Bonhoeffer, *Letters and Papers from Prison* (London: William Collins Sons & Co., 1967), pp. 103–4.

11. Braithwaite (n. 5 above), p. 347.

12. Ian Ramsey, *Religion and Science: Conflict and Synthesis* (London: S.P.C.K., 1964), p. 79.

13. See, e.g., A. Flew, *God and Philosophy* (New York: Dell Publishing Co., 1969), p. 194, and P. J. McGrath, "Professor Flew and the Stratonician Presumption," *Philosophical Studies* 18 (1969): 150–59.

14. As quoted in *The Encyclopedia of Philosophy,* ed. Paul Edwards, 8 vols. (New York: Macmillan Co., 1967), 8:299.

15. John Baillie, *The Sense of the Presence of God* (London: Oxford University Press, 1962), pp. 52–53.

16. Ibid., p. 100.

17. Ibid., p. 8.

18. C. B. Martin, "A Religious Way of Knowing," in *New Essays in Philosophical Theology,* ed. A. G. Flew and A. MacIntyre (New York: Macmillan Co., 1955).

19. C. J. Ducasse, *A Philosophical Scrutiny of Religion* (New York: Ronald Press, 1953), p. 148.

20. See D. M. MacKay, "Christianity in a Mechanistic Universe," in *Christianity in a Mechanistic Universe and Other Essays* (London: Inter-Varsity Fellowship, 1965), and " 'Complementarity' in Scientific and Theological Thinking," *Zygon* 9 (1974): 225–44.

21. John Baillie, *Our Knowledge of God* (London: Oxford University Press, 1939).

22. This thesis has seen some significant disagreement, however; see P. T. Mora, "Urge and Molecular Biology," *Nature* 199 (1963): 212–19.
23. James Richmond, *Theology and Metaphysics* (London: SCM Press, 1970), p. 108.
24. Ibid., p. 2.
25. Edwards (n. 14 above), p. 301.
26. Ibid.; M. Heidegger is quite right, therefore, in claiming that Christians cannot ask the question he himself considers the fundamental philosophical question, namely, "Why is there anything at all rather than nothing?" (*Introduction to Metaphysics* [New Haven, Conn.: Yale University Press, 1959], pp. 6–8). But what sense that question makes is altogether another matter.
27. R. S. Heimbeck, *Theology and Meaning: A Critique of Metatheological Scepticism* (London: George Allen & Unwin, 1969), p. 53.
28. Richmond (n. 23 above), pp. 130–31.
29. Ibid., p. 133.