ON BEING RELIGIOUSLY HUMAN

by J. W. Bowker

What does it mean to say that someone is "religiously human"? To which one might well reply: What does it mean to ask what it means to be religiously human?

The question seems strange, to say the least, when one remembers that in English the adverb "religiously" has come to mean "overscrupulous," or "attentive to detail." In 1979 there was a fire in the Manchester Woolworths, in which ten people died, and a company spokesman commented: "There was no sprinkler system. That depends on a local authority's requirements—and they do vary. We comply with them religiously but in this case, there was no such requirement."[1] In the same issue of the paper which contained that report there was an article on British car workers who move to Germany for higher wages. The article pointed out that they are in for "a number of shocks, including the high cost of living and the fact that work begins at 7.12 a.m. sharp. The starting time is so precise because the employees have won an 18 minute breakfast break. . . . As in all German companies the hours are rigorously, almost religiously, applied by the management. Persistent latecomers face dismissal."[2]

So the word "religiously" has begun to acquire a new meaning, somewhat different from the many meanings it used to have. It is a transformation similar to that experienced by Canon Demant of Christ Church who, at the time of the January sales, caught sight of a large notice in the window of a tailor's shop in Croydon, announcing: "These trousers are being offered at a great sacrifice"; and he reflected how much our thought forms have changed from biblical times.

So the point of asking this question about being religiously human is not to ask what it means to be overscrupulously human; it is to ask whether there are characteristic human activities which require the word "religious" to describe them—in much the same way that we can

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ask what it means to be politically human, or artistically human, or authentically human, and the like.

What then does it mean to be religiously human? It means sacrificing lambs and goats—and occasionally human beings as well; it means building Chartres cathedral, the Golden Pagoda of the Buddha, and the Great Pyramid; it means praying, meditating, levitating, worshipping, withdrawing into silence, and speaking with tongues; it means being baptized, being circumcised, never cutting one's hair, and having one's head shaved; it means crossing oceans and continents on pilgrimage, in missionary endeavor, for the fighting of jihads or for crusades or for holy wars; it means loving one's neighbor as oneself and excommunicating him to a fate far worse than death; it means the inspired creation of music, art, icons, symbols, poetry at the very furthest stretch of the human imagination, and yet it also means banal sentiment and what Rose Macaulay once called "bleeding hearts in convent parlours";[3] it means having a soul and not having a soul; it means faith, martyrdom, hypocrisy, vindictive cruelty, self-sacrificing love. It means virtually everything, for religion represents both the means and the product of the human animal's deepest and most extensive search for its own meaning, for the truth and destiny of its own nature and of the universe in which its life is at present set. How can we even begin to grasp and understand something so vast that it embraces virtually the whole of everything? How, to put it more practically, can we possibly study religion, whether in school or university, or simply for our own interest because, to revert to the familiar line of Terence, "Homo sum; humani nil a me alienum puto"? That line indeed is familiar. What we sometimes overlook is the question in the play, *Heauton Timorumenos*, which evoked it:

> Chreme, tantumne est ab re tua otii tibi,
> Aliena ut cures; eaque, nihil quae ad te attinet?[4]

Surely the study of religion is exactly the kind of subject which can be most easily dispensed with in a time of economic depression and cuts in the education budget? Religion, we are often told, belongs to the infancy of the human race. It belongs to those days of superstition and magic, which have now been displaced by science and technology. Certainly therefore it has a place in historical study: Religion motivated all sorts of people to do all sorts of vile and devious things, such as believing that women have no souls and that three ones are one, to quote Karl Marx's summary of the absurdity of religious beliefs: "Must philosophy adopt different principles for every country . . . in order not to contradict the basic truths of dogmas? Must it believe in one country that $3 \times 1 = 1$, in another that women have no souls and in yet another that beer is drunk in heaven?"[5]

However, the power of religion is not located simply in that past which Carl Sandburg described as "a bucket of ashes." It is obvious that religion has an equal power and consequence in the present, as a resource, inspiration, and constraint in the construction of human life. Consider the events in Iran, the end of the Jones Church in Guyana, the continuing and bloody struggles in Northern Ireland, Pakistan, Lebanon, the Philippines, between Arabs and Israel, or even the millions who turned out to see and hear the Pope as he told them, to quote the cartoon in the *Washington Post*, "contraception, no; married clergy, no; homosexuality, no; women priests, no; abortion, no; tolerance, yes."

And if from that recital we feel that the power of religion is mainly dangerous, repressive, and destructive (if, say, we consider the status and opportunities accorded to women in the major religious traditions), then we have to consider also the creativity of religion—that we have just come through, for example, one of the greatest ages of Christian poetry that the English-speaking world has known.

There is then no question of the continuing power and consequence of religious beliefs and institutions in the construction of human life and society. But how then do we catch so vast an ocean in the small sieves of human understanding particularly when so much of the religious subject matter has to do with unseen realities (or what are claimed to be realities) and with private or internal states of consciousness, to which the observer has little access?

Contrasting Styles in the Study of Religion

At the present time there are two extremes in the study of religion. At one extreme are those who share the view of the literary critic Allen Tate "that historicism, scientism, psychologism, biologism, in general the confident use of the scientific vocabularies in the spiritual realm, has created or is at any rate the expression of a spiritual disorder."[6]

Of this extreme the best example is Mircea Eliade, for whom, in religious studies, we are trying to identify what he calls "the transpersonal realities" which constitute, and recur across the globe in the behavior of, *Homo religiosus*, religious man. Thus the data for the historian of religion are the *sui generis* spiritual creations of mankind, particularly those which recur extensively both in time and space, just as the data for the literary critic are the autonomous works of literature, and for the art critic they are the autonomous creations of art:

> Works of art, like "religious data" have a mode of being that is peculiar to themselves; *they exist on their own plane of reference*, in their particular universe. . . . A work of art reveals its meaning only insofar as it is regarded as an autonomous creation; that is, insofar as we accept its mode of being—that of an artistic creation—and do not reduce it to one of its constituent elements (in

the case of a poem, sound, vocabulary, linguistic structure, etc.) or to one of its subsequent uses (a poem which carries a political message or which can serve as a document for sociology, ethnography, etc.).[7]

Thus for Eliade there is no question of the historian of religion having to master the techniques of the linguist, the ethnologist, the historian or whatever. He may indeed rely very heavily on their researches. But he has his own subject matter and his own means of interpreting it; and this means that the study of human religiosity is nothing more—or less—than an exercise in creative hermeneutics. Therefore the model, for Eliade, toward which the interpreters of religion should aspire, are the interpreters of culture, such as Jacob Burckhardt: "The case of Burckhardt illustrates admirably what we understand by the expression 'creative hermeneutics.' Indeed, his work is more than a respectable work, one volume among others in the vast historiographic literature of the nineteenth century. This book helped to *form* the historiographic consciousness of the nineteenth century. It enriched Western culture with a new 'value' by revealing a dimension of the Italian Renaissance that was not evident before Burckhardt."[8]

At the other extreme from "creative hermeneutics" lies the well-worn road of reductionism—the attempts to explain religious phenomena in terms of underlying demands imposed on human organisms in a universe which is determined, by the natural sciences, as a closed system.[9] Reductionism has had a bad press, and deservedly so when it has sallied forth in its imperialistic armor to rescue positivist maidens from the dragons of metaphysics. Reductionism can go as lunatic as any other human enterprise. But what needs to be grasped far more clearly in any attempt to understand what it means to be religiously human is, first, that reductionism, reducibility, and redundancy are not simple concepts or procedures, and, second, that in a careful and technical sense reductionism is a highly necessary and virtuous animal. In brief, it is obvious that the universe to be intelligible must be highly redundant. If the universe did not present itself informatively in a highly redundant manner, then the whole of the universe would itself be the message. Clearly we cannot—and do not have to—understand the whole of the universe in one great gulp of comprehension, like a Gollum swallowing a Hobbit, although some mystics do claim to have comprehended the whole meaning of the universe in a single moment of vision; but it is yet another implication of redundancy that they cannot tell us what it is that they have seen. But redundancy in this technical sense carries with it the possibility of translation and thus of reducibility—and if of reducibility then also of intelligibility—because it was one of the earliest points established by C. A. Shannon and W. Weaver that the greater the redundancy in a

message, the less information can be carried but the more intelligible it will be.

Constraint and its Importance in Understanding Behavior

All this has had a very important implication for the human attempt to understand itself and its environment. In particular, it has led to a much clearer sense of the limitations and provisionality which are necessarily inherent in any attempt to give an account of phenomena or data, as much in the sciences as in the areas of inquiry where this is more immediately obvious, such as sociology or history. The recognition of the limitations of inquiry at the bounds of evidence is focused on the word "constraint," for while there will, in each case of human inquiry, be a great deal of method which will be highly idiosyncratic (depending, obviously, on what is being investigated), there remains a common concern with the specification of relevant constraint; and it is this concern with constraint which makes the study of religion a great deal more accessible and which links it, even with its own highly idiosyncratic subject matter, securely to other disciplines and methods of account and explanation.

Put in the most broad and general way possible, the point is this: when we are studying any phenomena, including human phenomena, at some point it is always appropriate to ask to what extent we can discern and specify the constraints which controlled this particular event or outcome into its singularity, namely, the appearance which is presenting itself evidentially as instantiating datum to the inquirer.

Whether we wish to know why Caesar crossed the Rubicon, or why an apple falls, or why coal burns and stones do not, we are always asking, at least in part, what the constraints are which have controlled these eventualities into their outcome, namely, the way in which they instantiate themselves as data, pressing themselves on our attention and calling out for an explanation or for an account to be given of themselves. Clearly at some levels—and certainly in the case of Caesar—the account is complicated by self-organization or intentionality: "The cause is in my will," as Shakespeare's Caesar says of himself.[10] Intentionality both functions as a constraint and is itself constrained; and access to the total constraint over intentionality is simply not possible. Nevertheless the concern with constraint remains fundamental in any account of behavior.

At the most basic level the word "constraint" sounds restrictive, as indeed it is: For a physicist a constraint is an external limitation generally expressed in terms of a set of fixed parameters worked into the equations of motion in such a way that motion is only free within the limits of the constraint. In this sense a constraint might be regarded, as H. H. Pattee claims, "as an *alternative description* which generally

ignores selected microscopic degrees of freedom in order to achieve a simplification in predicting or explaining the motion."[11] The reason for that claim is that if the laws of motion are assumed to specify the detailed behavior of matter as completely as possible, there would seem to be no scope for the imposition of more constraints when the laws of motion impose what amounts to total constraint on the detailed behavior of the system. However, the value of the specification of constraint lies in the fact that it is by virtue of the external constraints that the laws of motion are specifically delimited, or specialized, or applied, so that they can correctly describe the motion in the system on which the constraints have been imposed.

This means that although the notion of constraint is indeed restrictive, it is also, in its realization, extremely liberating precisely because it *is* restrictive. This is the main thrust of Pattee's argument, referred to above. Pattee's concern is with "physical theories of biological coordination" because, as he puts it, "biological organization is manifestly different from the order of the non-living world, and the study of biology is largely the search for the nature of this difference."[12] The fundamental observation is that the elaboration and multiplication of constraint, far from reducing the freedom of behavior, enables it: "Co-ordination in biological organisms takes the form of hierarchical control levels which at each level provide greater and greater freedom or adaptability for the whole organism by selectively adding more and more constraints to its component parts."[13]

It follows that "the imposition of new constraints results in some corresponding freedom in the behavior of the organism."[14] This corresponds to the familiar cybernetic point (as expressed by W. R. Ashby), that where a constraint exists, advantage can usually be taken of it.[15]

Obviously then there is a critical balance here between the "givenness" of constraint in nature (which carries with it the searching question of how such constraints arise spontaneously from initially homogeneous conditions) and the specification of constraint as an operational decision by, say, a physicist in order to enable explanation.[16] As Pattee puts it, "one of the problems of the origin of the constraints of coordinated systems is to account for an objective embodiment of an alternative description. In other words, constraints are most easily explained as the invention of the physicist who sees a new way of looking at a problem which is much simpler or more useful than taking into account all degrees of freedom with equal detail."[17] That is an extreme statement since it somewhat presupposes the answer to the question in a relativist direction. However, what is much more to the point, as Pattee continues, is that the specification of constraint is necessarily a delimitation and abstraction from the

total data, which may indeed be evoked by the data but in which an abstractive decision has been made that in order to say something about something there is no need to say everything about everything: "The concept of constraint must represent a selective loss of detail or a predetermined rule of what is to be ignored. Speaking in this way emphasizes what appears to be a strong subjective element, since the implication is that someone or something must choose what to ignore about the system."[18]

Thus the point of this discussion is that even if the specification of additional constraint can only be an alternative description of the universal constraint in its particular operation and application, the analysis of particular constraint is not thereby made superfluous: It becomes all the more important because the aggregates of complex behavior would elude us forever if we were compelled to rely on the laws of motion alone. The specification of constraint relies on an abstraction from the (theoretical) possibility of studying all the available degrees of freedom in equal detail, and the abstraction is adopted because it enables the handling of particular problems within the data.

Abstraction and Constraint

But if that is so, it follows that the procedures of abstraction are necessarily artificial and incomplete: To comprehend a little of anything we are accepting that we do not have to comprehend the whole of everything; and we are also accepting that usually we cannot specify (and do not need to specify) the total constraint controlling an eventuality into its outcome, particularly in the case of complex behavior. This is obvious if you ask yourself what constrained you into the outcome of reading this particular article. The immediate constraints may be relatively accessible (and they may also be highly idiosyncratic and accidental); for example, you are a subscriber to this journal and determine your own conduct to read every article in order to get your money's worth. But what constrained you into being a subscriber? Or into an interest in subject matter of this kind? Here the constraints may be running back into a long history, ultimately even (in terms of the brain's ability to interpret its environment) into the genetic programs.

It becomes clear that nobody attempting to answer the question "Why is *X* reading this article?" would try to specify the total range of constraint: He would specify the constraints most immediately relevant to the question he has asked and his purposes in asking it. In a similar way the epistemological disciplines of human inquiry are differentiated by the abstraction of the issues (content) and by the determination of what will count as a sufficient specification of con-

straint (nature of account or explanation). Sociology, psychology, and history (to take random examples) abstract from the total data of human (and, in the case of the first two, animal) behavior particular relations and events and offer as proposals the constraints which seem most immediately to have controlled those relations or events into their outcome.

The abstractions are abstractions: One cannot study the whole of everything; and that remains true even if, with someone like Jay W. Forrester, one is attempting to understand the interactions obtaining in the total world system. For him the world system is "man, his social systems, his technology, and the natural environment; these interact to produce growth, change, and stress."[19] Even then the point about abstraction is clear:

> In constructing a computer model of a social system, the selection and arrangement of information about the real system is crucial. Generally we are handicapped not so much by a shortage of information as by an excess of information from which to choose. Not only is there far more information available than it is appropriate to include, but also the information is unstructured. The unrelated fragments of information must be organized. Organizing the information yields the structure of the model. Formation of the model should be guided by the principles of structure that are common to all dynamic systems.[20]

Once again, we have an operational decision which actually yields (or should yield, according to Forrester) its own new discipline: "A new professional field is emerging—the profession of social dynamics."[21] It is obvious therefore that there cannot be a sharp division among sociology, psychology, and history (to keep to those examples); nor can there by sociology *simpliciter*, psychology *simpliciter*, history *simpliciter* but further abstractions from the data which come to be known as small-group sociology or industrial psychology or economic history or whatever.

Equally the designation of constraint is delimited by the directness and specificity of the claimed constraint in relation to the abstracted problem within the data: A psychologist (to take an entirely imaginary example) may well abstract those data which have evoked the term "schizophrenia" and may try to specify the constraints which have controlled human beings into those behaviors which have been described by the imprecise and overcomprehensive word "schizophrenia." No doubt the laws of motion constrain a schizophrenic as much as they constrain the planets, but no psychologist has time to specify the total range of constraint in such detail; similarly an economic historian may have to take account of the fact (if it were a fact; the example is imaginary) that a chancellor of the exchequer develops one of the conditions known loosely as schizophrenia when he (the economic historian) is attempting to specify the constraints

which have controlled the British economy into collapse; but he is less likely to feel the same necessity as the psychologist to specify the constraints which controlled that individual's behavior into that particular outcome. In other, more general, words, a decision has to be made (whether consciously or not) about what will be included and what excluded in the specification of constraint in relation to any particular abstraction—from the total data—which constitutes the problem or question.

It is the artificiality or the incompleteness of this process of abstraction and constraint which evokes different disciplines and methods in human inquiry. The incompleteness is reinforced by the frequency with which, even when a more limited range of constraint has been decided operationally, we are unable to specify the total range of constraint even within the limit. Our inabilities are derived of course from the nature of evidence. Suppose we wish to determine the constraints which controlled Caesar into crossing the Rubicon: We may include, within what we regard as relevant to the outcome in terms of constraint, Caesar's own understanding of the situation at the time and the messages and dispatches which he received from Italy during the preceding three weeks. But while we may infer either or both with some degree of probability, we do not have direct access to either (for different reasons) in terms of evidence and therefore cannot specify them with anything more than a degree of possibility or probability (that in itself being determined by whatever has left some evidential trace). Still the value is not to be underestimated of thinking through very carefully, in relation to any abstracted question or problem, the theoretical range of possible constraint, even when the actual specification of that constraint is elusive. It is an important exercise (at least if we wish to avoid oversimplification) to survey the possible range of constraint which would be desirable in any not too inadequate account (no account is ever adequate), even though the whole range cannot be exhibited in detail or in evidence.

Finally it has to be remembered that although the abstracted foci of human inquiry are necessarily incomplete (they are abstractions), they are not wholly arbitrary. The process and method of, for example, history and sociology are always on the move, but they are recognizably continuous because, as abstractions, they are evoked by recurrent characteristics in the data—by the datum, for example, in the case of history, that humans experience time as a linear (though, in the case of some of them, cyclical) movement, or by the datum, in the case of sociology, that humans associate in complicated and varied ways and must often subordinate their individual inclination to the group demand. On the other hand, it is obvious from this account that human beings construct their worlds at least as much as they are constructed

by them—and many at the present time would say, much more so. There is no single account, lying in the data and waiting to be observed, in what presents itself evidentially to human consciousness. Not surprisingly therefore we may learn as much about human behavior from the novelist or the poet as from the scientist—and many would say, much more!

The important consequence of this is that the procedures of abstraction and the specification of constraint are operational decisions, however much they are evoked by data. Since usually it is impossible to specify the total range of constraint, we have to decide at what point we say of the possible specification of constraint, Thus far and no further (i.e., *a*, *b*, *c* are sufficient to account for the outcome under investigation, even though there is a much more extensive series of actual though less immediate constraint).[22] As a result, the account that is offered will be heavily influenced by the operational decisions (or, far more often, assumptions) that have been made. Thus if a psychologist (constrained, among much else, by the prevailing, though transitory, values which enable him to get a job and to get his papers published) decides operationally to allow as constraint only that which could be recognized by a physicist or biochemist in their operation of abstraction and specification of constraint, the consequent picture of human behavior will be severely delimited. That is precisely (to take an example) what D. J. Lewis did: "Psychologists study their subject matter in very much the same fashion that other scientists study their subject matter. They make their precise observations and they conduct experiments. Even though the object of study may be another human, the psychologist must treat this human objectively, in the same fashion that physicists, chemists and biologists treat their subject matter. As far as the science of psychology is concerned, the fact that its subject matter is frequently the human being makes no difference. The science-wide rules of objectivity and precise measurement still apply."[23]

That is a clear operational decision of what will count as a sufficient specification of constraint over the outcomes in observable human behavior. But others (e.g., John C. Eccles and R. W. Sperry) would claim that consciousness is a constraint (a causative operator) on human brain behavior. Their claim is that the nature of the data, abstracted for explanation or account, requires a more extensive specification of constraint if those explanations or accounts are to be more adequate in relation to what is observed. To put it more colloquially, the oversevere limitation of constraint by Lewis (which tends obviously to reductionism) leads to an account of human behavior which misses the complexity and richness of the ways in which humans experience and operate themselves.

Information and Human Behavior

What then happens when these considerations are applied to the understanding of religious belief and behavior? First and most obviously we have to recognize that the term "religious" (or rather that to which it is taken to refer) is an abstraction from the total data and that the drawing of a boundary around what is to count as religion or the religious is an operational decision, as is the setting of a limit on what will count as a sufficient specification of constraint. But—as with other abstractions—the decisions are not wholly arbitrary. They are evoked by the characteristic nature of the data—and that is true, even though no satisfactory definition of religion can ever be obtained. Thus the first task in religious studies—and in trying to understand dispassionately what it means to be religiously human—is to map and describe the characteristic behaviors, events, objects, etc., which seem to require a word "religious" to describe them; and that is the task of phenomenology at the first and preliminary level.

But equally these considerations remind us that if the study of religious belief and behavior is an abstraction from the total data, by the same token it locates that behavior *in* the totality of the data—within, that is, the only common subject matter of which we can be relatively certain (although we know very little about it), namely, the human person and experience and the universe within which that humanity is set.

That is admittedly a rather large subject. It suggests that not even Alexander Pope was sufficiently expansive when he observed that "the proper study of mankind is man." It would seem to be the case that the proper study of mankind is everything. But that is no disadvantage for the study of religion. Indeed it is an important gain because it offers a more neutral ground on which to stand not only between different religions, but also between religious systems which claim supernatural or extranatural constraints over outcomes in this universe and scientific systems which rely on an operational decision that this universe is a closed system.[24] The point is that when we study the sort of universe that this one appears to be (and we do not have many others available for study at the present time), we know that we are trying to understand the flow and transaction of energy. One of the virtues of the transaction of energy is that no matter how inevitable the claims of entropy and the laws of thermodynamics may be, the intervening dispositions of energy are locked into forms of appearance which can be of great stability and interest—planets, or Cruise missiles, or pterodactyls, or the President of the United States.

The point of basic importance is this: One of the characteristics of relatively stable expressions of fundamental energy conditions is that they are information bearing. Information is simply one form which

the energy flow or energy transaction of this universe takes. The process of information is one of the modes of energy flow or transaction in the universe, which means, incidentally, that information does not have to be in verbal form. We can see this if we consider the snow which falls on a field. The snow is information laden in two main ways: First, the snow is a consequence of the environmental conditions in supercooled clouds; in these conditions, since the saturation vapor pressure over water is greater than the saturation vapor pressure over ice at the same subfreezing temperature, ice crystals grow while coexisting water droplets correspondingly evaporate, thus converting water molecules from water to ice. Snow is thus information laden in the first sense, in that it tells us that those (and other) environmental conditions have obtained and have, so to speak, impressed themselves on the available molecular forms as constraint.

But there is then a second sense in which that snow may be information laden: It will bear the marks of any further disturbance. To give an obvious example, it will bear the marks of birds that have alighted on it in a vain search for worms, or of animals that have run across the field. But on the other hand, the snow will not bear any traces of the birds which fly over the field (unless they excrete redundant waste as they go); nor will it bear any trace of the worms which tunnel under it.

This means that there is a real and serious limit to the amount and kind of information which different forms of energy transaction are able to receive and transmit. Bricks and bottles are very limited in that respect; bulls and buffaloes are somewhat limited; but you and I are nothing like so limited. The human form of energy transaction is indeed human precisely because it has such a very high potential as a receiver and transmitter of information, not least because we have verbalized information, that is, we have devised codes of language and of nonlinguistic symbols which dramatically enhance the flow of information.

In some respects, the human animal is not that different from other animals, where the genetic process of information is concerned and in some religious traditions the connections between animals and humans are precise and direct, particularly those traditions which believe in rebirth and reincarnation. But humans and other animals are more obviously connected in the mechanisms through which they pick up information from and about their environment. Once we grasp the perspective on the universe that it represents the continuing transaction of energy, then it becomes obvious that we can represent environmental events as changes in the level or distribution of energy. It follows that any biological information handling system will have to have receptors which are sensitive to different forms of energy and which can transmit that sensitivity in the nervous system with suffi-

cient reliability for the information to trigger appropriate action; and that will be true for all animals, whether human or not.

But from this point the gap opens, not disjunctively but certainly very widely, between the human and other organic information processing systems. The translation into coded representation of signal inputs of pattern and intensity, as they arrive at the receptor sites, has reached such complexity and economy in the human brain that "information" takes on a higher level of function—to such a degree indeed that "you" become aware of "yourself." You become, in other words, informed consciousness, picking up cues of information and organizing them mentally, not simply from disturbances in the natural environment but also from disturbances in the humanly contrived environment, from such inputs as newspapers, TV, Grandma's reminiscences of her childhood, tracts for the times, even occasionally from university lectures. On this basis also mental pictures, intentions, imaginations proliferate and become operative in the forming of human life.

Information and Systems

So important has the process of linguistically and symbolically coded information become to the continuity and life construction of the human animal that it has not left the process of information flow to chance. It has organized the process and transmission of what it believes to be fundamentally important information. If that seems a little heavy, we can put the point a bit more elegantly by saying with Bernard of Chartres that we see further than our ancestors only because we stand on the shoulders of giants. That gurgling, burbling, slurping, burping infant which has so many discoveries to make in its prolonged and protected childhood (and beyond) does not actually have to discover everything. It does not have to go back to square nought and invent the wheel and the fire for itself. At appropriate moments it is initiated into communities and reservoirs of wisdom and knowledge; and because that initiation is, as a generalization, so indispensable for the living of a successful and appropriate life (i.e., for surviving in any particular context or generation) the process of what is regarded as fundamentally indispensable information is highly systematized and often also highly ritualized.

Schools and universities are particularly obvious examples of systems of information process—information not being confined to verbal items. But so also are religions. Religions are systems of information process in which fundamentally important resources of information are made available, which, if they are appropriated into individual lives, will bring those lives to what the system in question designates as an ultimately successful conclusion—to satori, or nirvana, or

moksha, or paradise, or the beatific vision. They will also bring those lives to more immediate goals—proximate goals, in addition to ultimate goals—such as loving your neighbor as yourself, sacrificing a lamb twice daily, turning your face to Mecca when you pray, or giving food to a bhikku in the street.

So then those complexities of action, behavior, and belief referred to as religions are systemic contexts in which resources are made available for the construction of an appropriate life and in which both proximate and ultimate goals are described, together with the procedures which may help to lead to them. Thus religious systems tend to create and designate the boundary conditions within which life ought to be constructed, which immediately explains, incidentally, why religious systems or subsystems are so profoundly conservative and why they throw up so many control figures (rabbis, inquisitors, ayatollahs, cardinals, commissars, and all the rest) to monitor behavior and to ensure the maintenance of the boundary conditions. The reason is obvious: If religious systems are concerned, as they are, with the ultimate states of value or of being which humans may attain, then the system which ensures the transmission of this information from one life to another, or from one generation to another, has to be protected and sustained.[25]

On the other hand, of course, the main point of the exercise is that individuals should actually internalize these resources (make them their own)—and internalize them in such a way that those resources do become fundamental in helping control those individual lives into the proximate and ultimate goals which have been designated in the system as worthwhile or attainable or true. Here at once we see why there must be a constant tension in religious history between the individual and the system—between Jesus and Jerusalem, Luther and Rome, Gautama and Benares, the letter which killeth and the spirit which giveth life—for a most important locus for the transaction of religious information is the individual (true though it is that the systemic means of transmission and continuity do have a life of their own). Furthermore, virtually all religious systems equally insist that the resources which they make available to their adherents are not generated, or confined, within the systems themselves. Particularly in the theistic case, the religious systems claim to be mediating—not originating—inputs and constraints into the construction of human life which are derived from a resource which is independent of the system and which is traditionally claimed to be independent even of the universe. Or to put it the other way round, it is very widely reported, both in space and time, that there is a resource of signal exchange, external to the human subject, which has traditionally been characterized theistically (as Zeus, or deus, or God, etc.) and which

can create differentiated consequence in life construction for those who attend to its possibility in the modes appropriate to it, in worship, faith, prayer, and contemplation.

The characterization of that theistic resource is always inadequate, for obvious reasons, and it is frequently immature and absurd as a picture—so far as we know. The ontological reality of God may require a picturing activity if it is to be provisionally and inadequately handled in human imagination (with white beards and burnished thrones and a location somewhat in the range of an orbiting satellite, to be replaced in due course by other provisional pictures). But the provisionality of the picturing activity (and its recurrent collapse) is irrelevant to the underlying experience of God-relatedness, which is so extensively reported as a constraint that it may require an ontological ground to account for its own persistence. This at once suggests an important connection between religious studies and theology. In this new perspective on the universe and on ourselves as transactions of energy it is certainly possible that God language and God reference have been evoked by the apparent and repeated realization of constraint derived from a resource external to the human subject, mediated through the natural order, yet sufficiently distinct from the natural order not to be identified with it, although that identification has been made on occasion, both in whole and in part. It is here that we move onto the second level of phenomenology. This is concerned with the ontological grounding of the instantiating data which present themselves evidentially and for which there is sufficient intersubjectivity in incoming reports about them.

In brief, the human organism is one of the many localized forms of energy transaction in this particular universe. One of the modes of energy flow in and through the human system can be described in summary form as the process of information. The eventual coding of some part of the information flow in linguistic and symbolic terms—the word made flesh—has had such vast and evolutionary consequences by way of survival and the control of the environment that the process of vital information has not been left to chance. It has itself been protected and enhanced by the emergence and the devising of systems of information process. Of these, religions are particularly important examples (from the human point of view) because they make available fundamental resources of information which, if they are internalized, are claimed or believed to lead individual lives to goals both of proximate and of ultimate value.

On this basis we can come back to our original question: What does it mean to be religiously human? It means allowing particular resources of information to be transacted through the human system (which implies a school of faith and a grammar of assent)—and to be

transacted in such a way that they control that system into outcomes of both a proximate and ultimate kind. At the same time to be religiously human means living with the possibility that you or your neighbor may be deeply, and seriously, and even eternally, wrong: There are deviant resources and disastrous eventual outcomes. What these resources are, whether good or evil, and what those goals may be are clearly designated within the different religious systems, and they may indeed be differentiated even within a particular system. Uniformity, or even conformity, is often aimed at in religious systems but it is not always attained; and a main reason for that lies in the fact that a major locus for the transaction of religious information *is* the individual.

Therefore to be religiously human is potentially to be making the furthest possible exploration of what this strange architecture of atoms and molecules is capable of being and of becoming. Some of its capabilities we know very well: We know that we are capable of walking, and talking, sleeping and waking, and we know that we are incapable of photosynthesizing and digesting stones. We know that we are capable of experiencing chemical and electrical activity which we label (culturally) as hate, fear, love, anguish, grief. We know also that we are capable of entering into states of consciousness (or beyond consciousness) which are not like the conscious states of everyday life and which are therefore often summarized as "altered states of consciousness"—states such as satori, samadhi, fana, ecstasy, wu, kavanah, illumination, and the like, states which are not particularly controversial in the sense that the religious systems in question describe the way to attain these states, and we can therefore understand them as particular modes of brain activity or inactivity, as the case may be. Even more widely reported and experienced is the human capability to enter into a condition of what it has described as God-relatedness; and it is, in my view, premature to conclude that that report alone is the one to be mistrusted.

So then to be religiously human is to be engaged in the furthest possible exploration of what this energy system is capable of being and becoming—an exploration of the range of energy transformations open to it and also the range of information nets or inputs to which the human energy transaction is or can be sensitive. Clearly they are more than those of a bottle or a brick, but how extensive *is* the range of religious sensitivity? In almost all cases the religious exploration occurs within limits. For most people it arises within, and is derived from, particular religious systems; and for many people the exploration (or perhaps better, the appropriation of religious possibility) may not be particularly adventurous or consciously considered since religion is at least as much lived as it is thought. But the indi-

vidual is always capable of transcending the system—of kicking away the ladder by which he or she has climbed, of experiencing that to which the system points, or even more—and most religious systems expect that that will be the case.

On the other side, though, the religious exploration is all too often an exploration fraught with self-delusion and hypocrisy, with destructive intolerance and neurosis; and when we look at the disastrous consequences of religion in the world, we can accept that we are in urgent need of the corrective judgment which the academic study of religion can provide.

And yet for all that, religion will never disappear and dissolve into the sea of its own errors, as Marx supposed, once those errors are exposed; religion will always pick itself up and dust itself down because the religious exploration is one which leads us literally beyond ourselves. It is one which may lead us to a landfall on the other side of space and time, where all will be well and all manner of things will be well. But whether that is what it means in the end to be religiously human, we cannot learn from a book; we can only find out for sure by engaging in that exploration ourselves.

NOTES

1. *Daily Telegraph* (May 9, 1979), p. 1.
2. Ibid., p. 11.
3. See my article, "Art, Theology and Religious Systems: A Case for the Inquisition?" *Zygon* 13 (1978): 329.
4. 1. 1. 23-25: "Chremes, have you so much spare time from your own affairs that you can devote time to other things, and indeed to things which have no real bearing on you?"
5. Karl Marx and Friedrich Engels, *On Religion* (Moscow: Foreign Languages Publishing House, n.d.), pp. 25-26.
6. Allen Tate, *Essays of Four Decades* (Oxford: Oxford University Press, 1970).
7. Mircea Eliade, *The Quest* (Chicago: University of Chicago Press, 1969), p. 6.
8. Ibid., p. 61.
9. I.e., "closed" in a systems sense (self-contained for the purposes of account and explanation), in contrast to "open," which designates a system which interacts across its boundaries with its environment. "Closed" and "open" are also used in a different sense, not applicable here, in cosmological discussions of the issue of whether, if galactic clusters are separating at more than the escape velocity, they will continue to separate (open universe) or whether, if they are not, there will be a contraction leading eventually to a further "big bang" (oscillating or closed universe).
10. See the discussion of this point and this quotation in my *The Sense of God* (Oxford: Oxford University Press, 1973), p. 18.
11. Pattee, "Physical Theories of Biological Coordination," *Quarterly Review of Biophysics* 9 (1971): 260-61.
12. Ibid., p. 256.
13. Ibid., p. 256.
14. Ibid., p. 260.
15. For a discussion see my *Sense of God* (n. 10 above), p. 88.
16. The spontaneous rise of constraints is discussed, with reference to the origin of life and the work of Manfred Eigen and Ilya Prigogine, in my article, "Did God Create

This Universe?" in *Science and Theology in the 20th Century*, ed. A. R. Peacocke (London: Oriel Press, 1981).

17. Pattee, p. 261.

18. Ibid., p. 262.

19. Jay W. Forrester, *World Dynamics* (Cambridge, Mass.: Wright-Allen Press, 1971), p. 1.

20. Ibid., p. 17.

21. Ibid., p. 127.

22. It is true that what is known as the principle of total evidence advises us to include all the available information about an object under consideration when calculating a probability, but for macroscopic events that is not possible, and in any case it would convert probability into determination. On this point see S. Watanabe ("Time and the Probabilistic View of the World," in *The Voices of Time*, ed. J. T. Fraser [London: Allen Lane, 1968], p. 548) who comments: "The usefulness of probability stems from the fact that the description of nature becomes simpler by ignoring intentionally some of the less important factors"—the view adopted here in the discussion of constraint.

23. D. J. Lewis, *Scientific Principles of Psychology* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963), p. 12.

24. See n. 9 above.

25. Obviously there are very different ways in which transmission can be secured. Religions do not have to have strong boundary conditions to ensure successful transmission. There is thus a clear taxonomy of religious systems, in which Vatican Catholicism may resemble Iranian Islam, and Anglicanism may resemble Mahayana Buddhism. But it is beyond the scope of this paper to draw up that taxonomy.