



Religion and Science: Focusing the Light of Imagination

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Narrative theology has become popular today. Articles on storytelling as a means for religious expression are common. Paul Ricoeur's famous phrase "second naivete" appears wherever a writer wants to recommend returning to older religious imagery. The value of myth as a carrier of religious meanings is newly appreciated. Where the more abstract propositional theology once reigned unchallenged as the more mature expression of religious thought, now imagination is laying claim to the throne.

It is an incomplete revolution. The formal concepts of theology have great appeal because of the clarity and logical coherence and consistency through time that they can achieve. Imagination is energetic and fascinating, but may be too undisciplined for a constructive and peaceful reign. When the old dream dreams and the young see visions, they may only be wildly daydreaming.

The battle is not as it seems, however. It looks like a struggle between unimaginative but clear abstractions and vivid but unpredictable images and stories. In actuality imagination is a more complex presence and effective aspect within even the more abstract realms of theology and science.

I. IMAGINATIVE RELIGION AND UNIMAGINATIVE SCIENCE?

In speaking about imagination there are at least three different things involved. First are the specific forms and words, the individual images which our imagination produces and uses. The second is the human power to imagine, the inner capacity to lay hold of reality and give it form in the specific images. The third is least noticed but highly important. That is the general imaginative framework, out of which our imaginative capacity is always drawing its specific images and to which those specific images refer. This framework is the narrative, the story line of our lives. Its greatest power over our lives lies in the fact that we notice it so little, we take it so much for granted, that we think of it just as reality. We think of it as the simple truth instead of as the story we tell ourselves to represent the truth to ourselves.

We are most familiar with the ways that artistic works exhibit these three aspects of imagination. Each work is a specific image or set of images. Each work is also the product of a person's imagination. Even paintings or sculptures which are highly realistic or naturalistic, portraying in almost photographic detail some person or scene, are still the product of the artistic imagination which surveys and evaluates and chooses among many forms and colors and lighting and materials to create a certain mood or balance or response. Each work also tends to reflect a

larger, often unarticulated story in which the artist lives as the imaginative framework which structures and guides the artist's life. The artist of the Renaissance lived in a universe of hierarchical order and represented that order in the classical style of art. The artist of the early nineteenth century was often one who more consciously had given allegiance to the romantic worldview, one which imagined the whole universe to be far more alive and mysterious than the universe as imagined by mechanistic philosophers and utilitarian ethicists of the same period. Romantic art reflected this worldview.

These same three aspects of imagination are present not only in religious thought, as we are likely to recognize already, but also in science. In fact, the recognition of how imagination functions in science has provided strong clues to theologians of the importance of imagination in religion in ways not previously noticed.

There have been seemingly valid reasons in the past for trying to purge science of its more imaginative elements. In Galileo's time the new science had a better chance of survival and growth if it distinguished its own methods and objects of study from that of theology. Galileo's famous dictum that science studies how the heavens go and not how to go to heaven helped to promote the distinction between a mathematically mechanistic science and a more vividly imaginative religiousness. In the eighteenth century the scientists had to fight against a popular philosophical belief in natural magic—i.e., in a universe dominated by invisible magical forces that were an intrinsic part of nature and which the imaginative or sensitive person could manipulate psychically. The new scientists, trying to develop a chemistry and astronomy to replace the somewhat more mystical alchemy and astrology, felt that they had to squelch the overly vivid imaginings that flowed through the philosophy of natural magic. For a time even Newton's notion of gravity was highly suspect because, as an invisible force acting on bodies through empty space, gravity sounded all too magical.¹ In the nineteenth century romanticism rebelled against the mechanistic mindset of science, but by its own somewhat dreamy and mystical claims about nature provoked science to continue an insistence on hard-headed empiricism.

There has never been a shortage of those whose imagination leads them into all sorts of odd claims about nature. We are still all too eager to believe in biorhythms, pyramid power, telepathy, UFO's, the E-meters of scientology, dream analysis, Transcendental Meditation, or afterlife visions during heart

¹Brian Easlea, *Witch Hunting, Magic, and The New Philosophy* (Atlantic Highlands, New Jersey: Humanities Press, 1980), provides a good history.

stoppage, as long as it is appealing to us in some way. We all too easily claim scientific evidence for such ideas, thereby leading the scientific community to insist all the more on being cautious and critical about imaginings.

As is clear from some of these instances, ideas that are highly imaginative and at the same time scientifically dubious are often ones with religious overtones. As science learned to be cautious about imagination it also came to be suspicious of religion as overly imaginative.

Schleiermacher faced this suspicion over one hundred and eighty years ago and in defense of religious belief declared that Christianity was not a miracle religion. He led the way for the many theologians since his time who leave the external world of empirical evidence to science

and focus instead on the inner world of one's sense of absolute dependency, or creatureliness (Otto), or ultimate concern (Tillich). During the same time, though, Ludwig Feuerbach and other masters of suspicion have argued that even these inner experiences are too heavily laden with uncontrolled imagination. Feeling lost, alone, weak, and frustrated, people must dream up some wondrous source of help and consolation say Marx, Nietzsche, Freud, and others. Hard-headed science is therefore close to truth; fuzzy imaginative religion is far from truth.

The rather simplistic distinction between empirical unimaginative science and intuitional more imaginative religion has broken down in the twentieth century, however, mainly because the importance of imagination in science has become more explicitly noticeable. Science, first of all, has always relied heavily on specific images. The image of planets circling a star provided a model for the atom. The image of a telephone switchboard or of a computer has provided neurologists with ways of picturing how the brain might work. If a person searches deeply enough some imaginative metaphor might be found at the root of every scientific concept.

The work of Thomas Kuhn has shown that science has also always worked out of one or more larger imaginative frameworks. (Kuhn calls them paradigms.)² The Christian large-scale mental picture of a geocentric world suffused with spiritual forces helped to sustain the more specific imaginative theories of Aristotle or Ptolemy or Galen during the Renaissance. The deistic clockwork image of the universe proposed by Nicholas of Oresmé and eventually promoted by Robert Boyle was the embracing vision that supported many specific parts of mechanistic philosophy. The later picture of a randomly evolving universe suggested by LaPlace and Darwin provided a different general framework or paradigm for much modern thought.

As historians of science have looked back, they have seen how each generation of scientists tended to view its own general model of reality as the basic truth. But those basic truths in retrospect have each turned out to be an imaginative model, one of the potentially endless ways that human imaginative creativity can find to make a coherent and useful picture of reality.

That in turn has led to a shift in attention to the imaginer, to the person as the one who dreams dreams and sees visions of how the universe might be. When the scientific community finds too many uncertainties or inconsistencies

²Thomas Kuhn, *The Structure of Scientific Revolution* (Chicago: University of Chicago, 1970).

or gaps in the mental portrait it uses to make sense out of data and experiences, it becomes ready to try out a somewhat new image of reality. It is the wonderful imagination of an Einstein that counts then, a person who could entertain himself with odd pictures of elevators ascending through empty space or a clock riding on a photon. Not just the outer facts but the inner vision counts. And among all the visions possible it is the imaginer who must choose and take responsibility for the vision chosen.

II. HARNESSSES FOR THE IMAGINATION

If imagination is so very important in science, that supposedly hard-headed set of disciplines, it would seem much easier to legitimize the role of imagination in other aspects of life such as religion. Religious people are those who have chosen to live by a vision of life, ideally with a full willingness to take responsibility for the vision they have chosen. But it is not so simple as that. Science depends on imagination but it also imposes standards on it.

Imagination is necessary, but it must finally be tamed and harnessed. The scientist has to fantasize and wool-gather and playfully toss images about; but he or she must eventually choose among the images on the basis of critical criteria.

In Newton's day, for example, the more mechanistic scientists striving to be hard-headed and unimaginative, actually produced what now seems to us to be a fantasy. Following Descartes and others, they decided that it is magical thought, overly imaginative thought, to believe that one physical body can influence another over a distance without any kind of contact. So they scorned Newton's notion of a strange invisible force called gravity holding the moon in orbit around the earth and the earth around the sun.

The Cartesian mechanists proposed instead that every cranny of seemingly empty space was really full up with fine particles of matter, all rubbing together so that this sea of particles conveyed the push and pull of bodies on each other, just as the water of the ocean conveys force in its waves and vortices.

Science today might actually like to be able to accept such a mental image of the universe. It is unfortunately not clear yet how we should picture the passage of light and the force of gravity. If light is a wave or if there are gravity waves (and there are some good reasons for picturing things this way), what is it that is waving? The waves of the ocean are waves of water in up and down motion. The water itself does not move forward but the wave shape of the water can move extremely quickly. If light and gravity are waves, what is it that they are waves of? No one really knows.

Nonetheless, the Cartesian idea of a fine matter filling all of space did not stand up. That is because this useful image failed to meet the standards. To say it briefly, it failed to be the most workable image to directly make sense out of all the available relevant data, and to indirectly fit other data by fitting with the theories which are used to make sense of that other data.

The data—raw facts, as we like to think of them—are hard to know. There really are no raw facts because the facts we possess are always our human mind's way of picturing or formulating the sense experiences we have. Imagination is at work here also. But as best as possible science submits its marvelously

ingenious imaginings to the only test for truth that we know in the long run—how well they fit our best estimate so far of what the available relevant data is.

This procedure of science poses a challenge to religious imagination: does religion have some standard to guide or control its imagination? Imagination is indeed necessary and highly valuable in all areas of life, including even science, but left uncontrolled it can be useless, distracting or harmful. In science undisciplined imagination leads not only to pleasant diversions such as biorhythms or ESP; it also can lead to a reliance on laetrile instead of good medical care. In religion uncontrolled imagination does not only produce pleasant visions of the Blessed Virgin; it also helps create a Jonestown tragedy.

There are some obvious guides for religious imagination. To some extent testing by hard data is definitely relevant. It is this scientific criterion which legitimately pressured Christian tradition into accepting Copernican or even Darwinian ideas. In addition, moral concern as well as concern for the ultimate destiny of our lives, both of them topics that exceed the range of science, are important guides. But it is not easy to employ these controls in a consistent way.

Different religious people use their images and their imaginative powers in different ways. Some ways are open to conscious guidance by standards such as empirical data and moral concern. Others are not. To illustrate some of the major differences in use of imagination, it is handy to use some labels. Four useful ones might be these: literalist, loyalist, logician and linguist.³

The literalist is a person who lives by a limited set of images which together constitute what the literalist takes to be the only correct way of picturing the world. In religion this would be a rather unimaginative form of fundamentalism. The images by which a literalist lives are actually numerous specific imaginative interpretations of life, usually handed down to the literalist by others as the simple truth. The literalist would not recognize these images as images, however, nor as partly products of human imagination. So the literalist has no choice but to live by them as the literal truth unquestioned and unquestionable.

A second approach to imagination is that of the loyalist. This is a person who is more able to recognize that ideas are images, part of an imaginative framework, produced at least in part by human imagination. This is also a person who is able to be more imaginative than the literalist, able to entertain alternative images to express ideas and able to expand on the range of images. Where the literalist lives in the only imaginative framework possible, the loyalist recognizes other possibilities. But the loyalist is one who unhesitatingly supports the imaginative framework and set of images that are part of the loyalist's customary world of family, friends, tribe, clan or nation or church. In religion the loyalist will bring the power of imagination into play to support the vision that the loyalist already shares with the group that is important. Where the literalist is trapped without realizing it in a single set of symbols, the loyalist sees alternatives but unhesitatingly chooses the comfortable familial traditional ones that define his or her group and his or her identity in the group. It is the group

³These are based on ideas from James Fowler's *Stages of Faith* (New York: Harper & Row, 1981).

loyalty which dictates how to use imagination. This need not be a full fundamentalism, but it will tend to be somewhat conservative and parochial.

A third approach to imagination is that of the logician. The free flow of images sometimes produces inconsistencies and conflicts. To picture God both as merciful and as the judge who condemns some souls can present a problem for the logician. The literalist will just accept both as true. The loyalist will see the potential conflict but will know ahead of time that these images are true and will imaginatively defend them. The logician, however, is one who can explicitly challenge traditional images by use of the standards of logical consistency. To satisfy the demands of a logician's mind an Aquinas or Calvin will write great treatises to show how all the beliefs of tradition fit into a systematic unity. The logician is the systematic theologian, ready to dissect images to discover the abstract propositions within them, propositions that can then be assembled to form a coherent systematic theology. This concern for logical coherence will often lead the logician to make sure that the theology fits logically with the more secular truths that seem to be rather certain. As the theologian matches theological ideas with the best philosophy and science available, the theologian will often change the theology in some ways. In all of this the logician is not likely to acknowledge that his or her concepts are images, produced by imagination, part of a larger framework that is also imaginative. The more abstract concepts of

systematic thought do not appear as imaginative as they really are.

The linguist, finally, is the person who has regained the use of images, not by abandoning abstract proposition or systematic thought, but by recognizing that even seemingly abstract concepts are themselves images, constructed at least partly out of human imagination and expressing a larger imaginative framework. The linguist is one who recognizes that framework and images are language in a sense—human articulations—and that reality can be expressed in more than one language, more than one set of images.

In science the linguist is one who recognizes that each of the sciences is always approximating reality, developing and refining and sometimes replacing the images or languages that have so far proved useful. In religion the linguist is one who recognizes that literalist and loyalist images and logician's abstractions alike are all ways which we humans use to express more and more of the religious mystery or religious experience. Each language we speak is away of relating to the world. Each set of images, belief systems, traditional texts, ritual practices and so forth is a language expressing some of the religious truth, in varying degrees of accuracy and relevancy and power.

The linguist's approach is a dangerous one. If every set of religious symbols, beliefs, rituals and so forth, is one among many possible approximations to the truth, then each set is relativized, each religious tradition is less to be trusted as the final and sufficient truth which guides people to God or salvation. The logician can employ a rational set of arguments to provide a fundamental or apologetical theology that demonstrates the basic truth of the logician's theology. The linguist claims, however, that the logician's concepts and framework are all images of reality, somewhat fallible approximate interpretations.

Many a contemporary loyalist has become convinced that the linguists are at least partly right. There is no abstract rationally clear way to establish the fac-

tual truth of any religious tradition or its basic theological claims, it seems, because those claims and the supporting arguments are all to some degree images of reality produced by human minds working out of a larger imaginative framework. These loyalists have come to argue that all we can do is to be faithful to the religious tradition that has nourished us, finding what strength and direction and coherence as we can from the framework story it tells. Fidelity to one's community is the only possible starting point, they say, for a vital and effective religious understanding.

In the same situation, though, science has found away to transcend group loyalty in the pursuit of truth. Even the conclusions that are well-accepted and cherished by the scientific community are always to be kept open to challenge. This is not a total relativization of all knowledge. It represents a conviction that the process of balancing imaginings of how the world might actually be, with careful honesty about how well those imaginings fit with relevant data and other imaginings also tested by data, is a process that does grasp truth in however limited a way.

III. A CRITICAL STANDARD FOR RELIGION

The difficult question for our time is whether religion can follow some sort of critical standard to guide it in its selection of story elements and in its interpretation of the traditional story framework. If religion is not just to be guided by hard empirical data, as science is, how is it

to distinguish its claims and visions from the wild imaginings of even demented minds or from blind allegiance to one's own group?

To anyone living within the imaginative framework of a religious tradition it will appear to be quite sane, comforting, and inspiring. But as Shiite youth in Iran go eagerly to martyrdom in the minefields and as religious battles scar Ireland, India and Lebanon, it is legitimate to ask what the standards are for choosing or maintaining one's religious beliefs. Loyalty to one's own community is part of the problem in these cases.

Religion does have intrinsic to it, an aspect that can function as a standard to guide imagination. It is fidelity to its own nature as human religiousness. The dimensions of life experienced as most religious are the dimensions of our own limitedness in relation to the unlimited, the "other," God—the mystery in which religious traditions find solace rather than emptiness. Science remains science when it affirms the fundamental power of us humans to be imaginers, always to be open to new images and to test those images. Science is a commitment we make to ourselves to be who we are, imaginative knowers. Likewise religion remains religion when it is a commitment to ourselves to be who we also are, imaginative knowers and choosers and lovers, endlessly open in our finitude to the infinite and saving mystery we call God.⁴

That is the kind of standard a linguist can use to guide religious imagination. It is actually the kind of standard used by the "correlational" theologies of

⁴See David Tracy, "The Religious Dimension of Science" in *The Persistence of Religion* ed. Andrew Greeley and Gregory Baum (New York: Herder & Herder, 1973) 128-135.

Tillich and others. These theologians describe their approach as one of correlating the meaning of the biblical tradition with the concrete nature and context of human existence. What reflection on imagination helps to make clear is that our nature is to be story-tellers, discovering the sense of life through the images we produce or receive. What is further made clear is that it is not just God's presence or activity but also our own imaginative response to that presence and activity that creates the story we live. Our way of telling the stories keeps reinterpreting to us who we are and who we should now become. It is a little frightening to be so responsible for our own vision of life. But a good standard to guide us in this work may be that of fidelity to what God apparently has made us capable of being, the story-tellers whose stories affect one another's lives. The stories that teach us to care for one another as persons, as imaginative and free and responsible and loving persons, would be good stories for a Christian to tell. The stories that remind us that we are limited beings finding our relation to the unlimited God partly through our power as imaginative story-tellers would be stories both deeply human and deeply religious.