

HOW SCIENCE IS A RESOURCE AND A CHALLENGE FOR RELIGION: PERSPECTIVE OF A THEOLOGIAN

by *Philip Hefner*

Abstract. Religion is characterized by the attempt to create a worldview, which is in effect the effort of worldbuilding. By this I mean that religion aims to focus on all of the elements that make up a person's world or a community's world and put those elements together in a manner that actually constructs a total picture that gives meaning and coherence to life. In this activity of worldbuilding, science and religion meet each other at the deepest level. Science makes a fundamental contribution to this worldbuilding effort and also poses a challenge. There are good grounds for this twofold role of science: (1) scientific knowledge is basic to any worldview in our time, and (2) science and its related technology engender new and often confusing experiences that require inclusion in any worldbuilding.

The challenge of science is that its contribution does not easily accommodate worldbuilding because of the factors of chance, indeterminacy, blind evolution, and heat death that are ascertained through scientific knowledge. Science is a resource for us in that the features of its knowledge can lend actuality and credibility to worldbuilding.

Religion needs science for its worldbuilding if its interpretations are to be credible and possess vivid actuality. Science needs religion because, unless its knowledge is incorporated into meaningful worldbuilding, science forfeits its standing as a humanistic enterprise and instead may count as an antihuman methodology and body of knowledge.

Keywords: religion; science; unity of science and religion; worldbuilding; worldview.

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[*Zygon*, vol. 37, no. 1 (March 2002).]

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RELIGION AS WORLDBUILDING

Anthropologists have written a great deal about religion as a fundamental element of human life in which people “put their world together.” I like this term, even though it is an awkward one. Putting our world together is what I also call worldview construction or worldbuilding. Individuals put their worlds together, but communities and entire societies are also engaged in worldbuilding.

As we go about our lives, we live in what has been called a buzzing whirl. The philosopher Holmes Rolston (1974) refers to the same thing as an endless “milieu of events.” In this buzzing whirl or endless milieu of events, we are aware of a kaleidoscope of things: other people, friends and foes, noises, sights, nature around us, moral challenges, language, music, weather, food, health, disease, death, war, peace, our own feelings, the need to work, and on and on. Instinctively, we try to make sense of this buzzing whirl. We attempt to weave the whole—our desires, our obligations, our relationships with other people, our social placement, the ideologies that we have absorbed—into some kind of viable, workable whole. We do this unconsciously, instinctively, and we also do it in moments of self-conscious rational reflection.

I focus on this quintessential human concern and struggle in my portrayal of religion because I think that this is religion’s central concern. There are things in human life other than the search for meaning, and there is more to religion—but surely this search is at the heart of both. *Meaning* and *meaningfulness* are terms that call attention to the sense in which we stand in a relationship to the buzz and whirl of our lives. There is some kind of fit or coherence between us and whatever it is that we encounter in life. The question of what things matter, what their significance is, arises in this context. When we speak about the meaning and meaningfulness of a thing, we also, at least implicitly, describe its significance for us.

Furthermore, meaning and meaningfulness have both objective and subjective dimensions. No matter how appealing we may find the so-called postmodern perspectives, we believe that what we perceive as meaning and meaningfulness characterize the very nature of the things we know, even apart from us; this is the objective pole of our perceptions. At the same time, we call our perceptions and descriptions either adequate or inadequate, sometimes either true or false, and thus we acknowledge a subjective pole of what constitutes meaning.

We are, in other words, seeking coherence when we attempt to find the meaning of our lives; we are asking how we belong or do not belong to the whirl, the milieu of events, that is our daily life.

Religion is about this activity of meaning formation, which is synonymous with worldbuilding. Rituals, dogmas, moral codes, personal devotional habits, and all religious behaviors are part of this worldbuilding, and

they are bearers of the personal and communal meanings that constitute worldbuilding. Not every religion engages in worldbuilding in the same way, but they all do engage this task, I believe. For example, the so-called orthodoxic religions, such as Christianity in general and Reformation Christianity in particular, may put a premium on self-conscious doctrines in the worldbuilding process, whereas so-called orthopraxic religions, such as Buddhism and Judaism, may put the priority on ritual or moral behaviors—but worldbuilding is at stake in either type of religion.

SCIENCE AND RELIGION AND WORLDBUILDING

The Unity of Science and Religion. It is important to keep in mind that science is both a method of exploring the world and a body of knowledge. It is a way of thinking and an activity, but it is also the assemblage of all the facts and theories that science has brought together as knowledge of our world. Both of these aspects of science—method and knowledge—are significant for the activity of worldbuilding.

It is sometimes very difficult to distinguish between science and religion in the enterprise of worldbuilding. The Christian theologian Paul Tillich has insisted that science and religion both grow out of the primordial human propensity to seek knowledge and truth. This propensity is ancient, older than our perception of the difference between science and religion. Because it is natural for religion to want to know how the world operates, it is natural for religion to be concerned with both exploring the world and getting knowledge about it. Since the natural and the social worlds are at the center of scientific concern, scientists have a deep interest in discovering meaning in the processes that they explore; this deep interest includes a sensitivity to behavior that is harmonious with what they learn in their explorations of the world, especially moral behavior. They also very often are struck by the awesomeness and mystery of what they study. Although scientists are often depicted as persons who treat the world they explore in ruthlessly manipulative, dominating ways, it is just as true to say that scientists approach the world as lovers who seek to woo nature into revealing herself.

When we view religion and science from these perspectives, it is not surprising that they are sometimes difficult to separate into watertight compartments. The scientist whose deep regard for nature includes a dimension of moral responsibility and awe is not far from religion. Similarly, the religious believer who seeks to understand the world because it has a deep significance, even rooted in God for theistic religions, and who wishes to live harmoniously with this nature—that religious believer is not far from science.

We can hardly overestimate the significance of the fact that the scientific and the religious propensities were one before they became two different activities; their fundamental unity precedes their current separateness.

No matter how much science has changed in the last five hundred years, and no matter how tempestuously science and religion fight against each other at times, the unity that Tillich speaks of is ineradicable. More specifically, it is clearly visible in the concern of many scientists today that evolution be understood as an epic of creation and also in the concern of many theologians that scientific knowledge be integrated into religious belief and behavior.

Scientific Knowledge as an Element of Worldbuilding. Perhaps the most obvious impact of science on our worldbuilding is the body of knowledge it produces. The theory of the universe's origins in what we call the Big Bang; the biological interrelatedness of all living things on Earth, together with theories about the origins of life; genetic science, which depicts the ways in which our lives are conditioned by our genetic makeup—these kinds of knowledge are utterly unavoidable as elements of the way we look at the world. Consequently, these elements of scientific knowledge cannot be ignored as we engage in worldbuilding. If we believe that the world is the creation of God, about whom we learn in our sacred scriptures, then our worldbuilding must somehow bring our beliefs about God and our scientific knowledge into the same frame of meaning. Furthermore, if meaning has, as I have suggested, something to do with our relationship to the world and our belonging within it, then our worldbuilding must place us within the world of Big-Bang cosmology, cell biology, and genetics—it must clarify our fit within this world. Our worldbuilding must help us to understand how cosmology, cell biology, and genetics are related to our sense of self, who we are, and how our community life is to be structured in terms of both our religious and our secular communities.

Religion is criticized by some scientists and other intellectuals for its failure to replace ancient legends and myths with forms that are scientifically respectable. This is, in effect, a charge that scientific knowledge is too challenging for religion to deal with. I will address this issue later.

Science and Technology Induce New Experiences that Worldbuilding Must Take into Account. Worldbuilding is tied very closely to the actual experiences of life. It is essential to understand that science (together with science-based technology) intersects human life not only in the intellectual realm, with its knowledge about the world, but also in the existential, affective realm, where it engenders experiences that are in themselves new to human life.

From their origins, human beings have been conditioned to be alert to the large and sudden challenges that come their way, producing immediate consequences: the pounce of a tiger in the jungle, the stampede of elephants, lightning and thunder, avalanches, warfare. Our sensory systems are not suited to notice the very small, microscopic challenges that may have no immediate consequences for us but threaten us over the long

haul: smoking tobacco and ingesting other slow-acting toxic substances, polluting streams upstream from their irrigation functions, polluting the air, handling radioactive substances, and the like. It is science that enables us to be aware of these microscopic, long-term effects. Awareness of these microscopic events engenders a range of new experiences that must be integrated into our interpretation of life and our assessment of behaviors, even moral behaviors.

Science, when linked to certain technologies, allows us to intervene in natural processes in ways that were unimaginable even a generation ago. This is apparent in the practice of medicine, particularly as it pertains to the beginning and the end of life. It is a new experience for us to be obliged to decide when a loved one must die after having been kept alive by medical interventions for weeks or months or even years. It is a new experience for us to become aware that the baby in a mother's womb has lethal genetic defects and therefore might be aborted. It is also new to us that science-based in vitro fertilization technology can give babies to women and men who are otherwise not able to conceive.

Because birth and death are themes of great significance to nearly all religions, these new experiences must be understood, interpreted, and morally engaged by religious believers as they attempt to put their worlds together in the worldbuilding activity.

THE CHALLENGE OF SCIENCE TO RELIGIOUS WORLDBUILDING

I have said that religion and science encounter each other most significantly in the human effort to put the world together in a viable, meaningful way. It is as partners, or even as siblings, in this worldbuilding process that religion and science find their kinship, and it is also where they challenge each other—sometimes to the point of open hostility. Here I focus only on science's challenge to religion.

The challenge of science to religion in the process of worldbuilding comes at precisely the three points I just set forth as the points of contact between science and religion in the worldbuilding process.

1. I spoke of the *primordial unity of science and religion* in the basic human desire for knowledge and truth. The closeness engendered by this original unity is also the closeness that breeds conflict. The reasons for this conflict are too complex to analyze here, but I can sketch them briefly. First, science has come to a point where its methods of seeking knowledge and truth differ substantially from those of religion. Second, the uses of language and concepts in the two quests for truth also differ in important ways, and each has a tendency to misunderstand the ways in which the other uses language. Third, both science and religion have been co-opted by societal and cultural forces whose differing, even conflicting, interests tend to accentuate the conflict between science and religion. These sources

of conflict have made such a great impact in the past five hundred years that the primordial unity I speak of is often scarcely recognizable.

2. *Scientific knowledge of the world.* The religions of the world accept as normative expressions of wisdom about the world that are millennia old. Even though much of this wisdom is profoundly relevant to life today, its form is for the most part archaic. This puts it, *prima facie* at least, at odds with scientific knowledge, which is continually reformulated and updated. The challenge to communication between archaic forms and current ones is difficult at best, even for those persons who understand that archaic forms are not necessarily to be taken literally. Unfortunately, most religious believers today as well as most scientists do consider ancient religious formulations to be literal transcriptions of reality. Fundamentalists, of course, in both science and religion hold this literalism to be the norm, and so do other conservative religious adherents. Until both scientists and religious believers gain more awareness of the uses of language, the differences between scientific and religious language, and the character of archaic expressions of meaning, we will experience great difficulty integrating scientific knowledge into the process of religious worldbuilding.

In another sense, scientific knowledge poses a challenge for all—not simply for religious—attempts at finding meaning in natural processes. Scientific theories of chance, indeterminacy, blind evolution, and heat death, to name only a few, oppose any coherence that finds meaning in specifically human life. These themes are at the center of efforts by religious thinkers to put the world together.

Finally—and this is a critical issue—the possibilities of traditional religious wisdom must be considered so important and necessary that contemporary people deem it worthwhile to undertake the often-difficult task of interpreting ancient texts.

3. *The new experience engendered by science and technology* accentuates the manner in which religion is rooted in ancient formulations that, in turn, mirror ancient experience. If we focus for a moment on theistic religions, those that believe in God, we observe how difficult it is to relate new forms of experience and scientific-technological reality to the work of God's creation. Most theistic thinkers, for example, do not relate genetic engineering in any positive way to the work of God. Furthermore, moral codes that grow out of ancient times are very difficult to correlate to contemporary experience as it is shaped by science and technology. Most of the dilemmas surrounding reproductive science and technology are rooted in experiences that ancient men and women simply had no possibility of knowing. The same can be said of medical practices that pertain to the end of life.

Religion is faced, therefore, with formidable challenges when it seeks to engage science and include science in its efforts at worldbuilding. It is

little wonder that many of us think that traditional religious thought and language will have to undergo deep transformation if we are to engage science in our worldbuilding. It is also little wonder that many in the secular world, and many scientists, too, are seeking ways of worldbuilding that offer an alternative to traditional religion.

RESOURCES OF SCIENCE FOR RELIGIOUS WORLDBUILDING

Although the challenges of science to religious worldbuilding are daunting, the resources that science offers religion in the worldbuilding process are equally impressive.

1. Science offers resources of vitality and credibility that cannot be overlooked in any attempt at worldbuilding. The reasons why science poses difficulties to worldbuilding are the very grounds of its being a resource for constructing meaningful worldviews. When worldviews face up to the issues of chance and heat death, for example, or the role of genes in human formation, they also gain in vigor, vitality, and the ability to engage their own adherents more urgently.

2. For theistic religions, attention to the new experiences that science and technology engender is a way to encounter the new ways in which God is working in the world and to open up avenues for reflection upon the work of God and obedience to the God who is revealed in this experience through acts of caring and the exercise of moral responsibility.

SCIENCE AND RELIGION NEED EACH OTHER

The foregoing discussion leads to a deep understanding of how and why science and religion need each other. Religion needs science for its worldbuilding, as I have already said, in order for its interpretations of the world to be credible and compelling. Science needs religion because, unless its knowledge is seen as integral to worldbuilding, science forfeits its humanistic character and functions in ways that have antihuman consequences—both as a method and as a body of knowledge.

CONCLUSION

Loyal Rue, in his book *Everybody's Story* (2000), states the issues I have raised in a direct fashion. He lays bare the challenge to classical religious narratives: they are increasingly shown to be, on the one hand, so tied to the archaic circumstances of their origin that they are unavailable to twenty-first century people and, on the other hand, inadequate to interpret and ground human life in the face of what Rue and Gerald Barney call “the global problematique” (the current crisis of human solidarity and the lack of a planetary ethic) (Rue 2000).

Rue understands that this situation poses a near-lethal challenge to traditional religion. He proposes that the “evolutionary epic” (which is the grand narrative of evolutionary theory—cosmic, biological, and cultural) becomes in fact a new myth that functions religiously to interpret human life and ground the behaviors of human solidarity and planetary responsibility.

I agree with Rue’s posing of the challenge. I differ from him in my conviction that the situation he describes so incisively is not only a challenge but also an occasion for the renewal of traditional religion and a resource for that renewal. I reason as follows: (1) Humanity is indeed challenged to reinterpret and refigure its traditional myths; unless it does so, it cannot be a vital resource for human life in the twenty-first century. (2) At the same time, traditional religion possesses resources that simply cannot be accessed elsewhere at the depth that can sustain the broad reach of human societies and civilizations—the reach that includes all economic and social classes, all levels of education and occupations, elite culture and popular culture, through all the phases of the life cycle of individuals and groups. The kind of science-based mythic construction that Rue recommends will serve many people at certain levels of their existence, including intellectuals and others who are attuned to science-based thinking—admittedly a group that numbers in the millions. However, I believe that the mythic refiguring of human existence works at a psychic depth and aesthetic and moral breadth that require the experience and resources of traditional religion, even for the intellectual elites that may respond to Rue’s proposals.

To conclude succinctly: The challenge of science to religion is also its resource. The current inadequacy of religion can be transformed into its possibility. Religion’s search for knowledge and truth requires the vitality of science and its creations.

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