Evolution and the AAAS

A leading scientific organization considers religious interpretations and the cultural importance of modern scientific cosmology.

By Connie Barlow

"Darwin’s idea comes as a great gift to theology."

This statement by John Haught, Georgetown University professor of theology, sums up well the mood of speakers and participants at the Epic of Evolution Conference in Chicago, November 1997. Attended by 450, it was co-sponsored by the American Association for the Advancement of Science (AAAS) Program of Dialogue Between Science and Religion and the Field Museum of Natural History.

The conference brought into constructive engagement experts from both sides of the science and religion divide, including biologists and philosophers, cosmologists and historians, anthropologists, theologians, theists and nontheists, working together in presenting and interpreting the narrative story of the coming into existence of the universe, earthly life, and human culture.

Said Audrey Chapman, director of the AAAS Program of Dialogue Between Science and Religion: “Unless religious thinkers are able to engage in scientifically informed theological and ethical analysis, they risk becoming irrelevant to modern society. On the other side of the dialogue, it is important for scientists to deal seriously with interpretive issues, particularly related to evolutionary science, and to do so in a way respectful to a broad spectrum of the religious community. Otherwise, there will be continuing opposition to the teaching of evolution in public schools, and a crisis of scientific illiteracy will eventually threaten the future of the scientific enterprise in this country.”

Scientists had been recruited to provide the factual and theoretical foundations of the scientific story—Joel Primack for the evolution of the galaxies and stars, Niles Eldredge and Ursula Goodenough for the evolution of life, Ian Tattersall for the evolution of our hominin ancestors, Terrence Deacon for the evolution of the human mind, Solomon Katz and Francisco Ayala for the evolution of culture, Mary Barber for the human impact on the environment. These scientific talks were paired with interpretations provided by theologians—John Haught, Nancy Murphy, Philip Hefner, and Stephen Pope—and by those with expertise in philosophy, religious history, and the literary arts—Loyal Rue, Mary Evelyn Tucker, N. Scott Momaday, Brian Swimme, and Thomas Berry. The conference program was thus a multidisciplinary quest to both understand and meaningfully interpret the scientific story of creation.

“We have seen here a way that science and religious visions can dance with one another.”

“Epic of evolution” is a term that, within the past three years, has become the theme and title of a number of gatherings. It seems to have been first used by Harvard biologist Edward O. Wilson in 1978. “The evolutionary epic,” Wilson wrote in his book On Human Nature, “is probably the best myth we will ever have.” Myth as falsehood was not the usage intended by Wilson in this statement. Rather, myth as a grand narrative that provides a people with a placement in time—a meaningful placement that celebrates extraordinary moments of a shared heritage. The epic of evolution is science translated into meaningful story.

How that translation into story is achieved is proving remarkably diverse. In the science sections of bookstores can be found many translations, each necessarily selective in the choice of facts and historical events highlighted, but nonetheless remaining well within the bounds of scientific discourse. Added to these within-science translations is a growing complement of extra-science translations, which, while remaining true to the science, move beyond science into the realm of meaning-filled interpretation.

In his talk, cultural historian Thomas Berry spoke of the need for epic translation of science in this way: “In religion and theology the great need is to join in the great liturgy of the universe; not now simply an abiding, ever-renewing universe but a universe distinguished as both abiding and transforming. We might think of the threefold evolutionary process: the galactic evolutionary processes of the universe, the geo-biological evolutionary processes of Earth, and the cultural evolutionary processes of the human that need to be understood in their sacred dimension. These are the three components of the single evolutionary narrative that needs to be seen and understood and recounted in epic style.”

The conference organizers tried to maintain a distinction between science and religion while promoting a constructive dialogue. Toward this end, they asked scientists to limit their formal presentations to the background science. Theologians, religious historians, and others in the humanities then took the podium to expound on interpretive meanings. This choice of structure, while effective, did however perpetuate the “two cultures” divide between science and the humanities.

Some scientists did, however, briefly depart from their appointed duties by taking side-trips across the fact-value divide, revealing the personal meaning they derive from the science and a passionate engagement with worldly problems. Niles Eldredge, for example, provided a sweeping survey of the succession of life forms on Earth, but in doing so he evinced a deep concern for biodiversity and horror about the extinction crisis under way.

While exploring the evolution of culture, anthropologist Sol Katz expressed his concern about unmitigated population growth. Terrence Deacon departed from his lecture on neurobiology to reveal how the epic of evolution has infused his worldview. “Brains are not just products
of evolution," Deacon declared, "but also
of evolution in action. We are not clockwork
mechanisms. Mechanism is the wrong
model. We are living, active, evolutionary
processes. This is what it feels like to be
evolution."

Paralleling Deacon's and other scientis-
tists' passion in interpreting the epic was an
equal and eloquent passion of some
religionists for what science has given
them. John Haught spoke of evolution as
"Darwin's great gift to theology." Theolo-
gian and Lutheran minister Philip Hefner
urged religionists to regard themselves as
participants in the epic of evolution: "In
order to play its role, religion must gen-
erate the stories, rituals, and moral codes of
meaning on the basis of its heritage, but in
the currency of the present moment.
Negotiating meaning in the present
time—that is at the heart of religion's task.
Or, we might say that organizing con-
sciousness in viable
ways for passage into
the next generation is
religion's contribution
to the epic of evolu-
tion."

Perhaps the most surprising and vibrant
outcome of this event was a widespread rec-
ognition that science and religion can and
must do more than simply tolerate or ac-
commodate one
another. Using the t
terminology offered by
John Haught, the goal
is neither opposition
nor separation but
engagement. The scien-
tific story of evolution
cannot by itself fulfill the human spirit
without translation into a meaningful
worldview. Similarly, religions that do not
embrace and give flesh to the story told by
science are missing a tremendous oppor-
tunity for renewal and relevance. For the
many teachers in the audience, a third
conclusion might also be drawn: provid-
ing opportunities for students to consider
what they learn in their science classes in
the context of the great perennial ques-
tions that have engaged philosophers and
religionists may well make science itself
more interesting.

In remarks that closed the conference,
Jim Miller of the AAAS offered, "We have
seen here a way that science and religious
visions can dance with one another."

Those attending the conference were en-
thusiastic about this event, too. "One of
the positive things people wrote about the
conference was the different sorts of folks
they had a chance to meet," said Miller
later, "People were satisfied with the
content but wished there had been more
opportunity for interaction." The all-
plenary structure of the three-day con-
ference meant that attendees had to seek
interaction in the interstices—during the
short breaks and the longer lunches and
open evenings.

One participant who was very suc-
cessful in this way was John Brewer, a
technical writer who lives in Kansas who
has used Brian Swimme's "Canticle to the
Cosmos" in his church fellowship. Brewer
wrote, "I breakfasted with a paleontologist
from evangelical Baylor University and
lunched with a Montessori teacher from
northern Michigan. I strolled along
consecrated in a way that provided them
with a sense that perhaps they too might
be able to consider themselves 'religious',
without turning their back on knowledge
gained scientifically."

Because the invited speakers had all
been selected for their abilities to engage
constructively across the science and reli-
gion divide, disputes among the speakers
were rare, muted, and consistently re-
spectful. The only evidences of dishar-
mony occurred during the question ses-
sions at the conclusion of each panel,
when audience members would some-
times preface their questions with criti-
cism. Midway through the conference, two
questioners complained that the inter-
pertive talks too narrowly focused on Western
religions, and Christianity in the main.
Jim Miller responded that in the final two
panels, Eastern and Native American
religions would indeed enter the conver-
sation. But he added that the focus on Christianity in this
conference was legitimate
because, in the U.S. cultural
context, the public battles
between some Christians and
some Darwinists have
fostered the popular belief
that science and religion are
necessarily in conflict."

An email listserver has
been created in order to con-
tinue the dialogue, and about
a hundred people signed up
for this service. (To sub-
scribe, send an email mes-
 sage to <listserv@listserv.
temple.edu>. The body of
the message should read:
<SUB COSMOGEN
Firstname Lastname>).

Several other tangible
products will result from the conference,
including videos, a television program and
books. For more information contact the
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Religion, AAAS, 1200 New York Ave., NW,
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