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Preface



RUSSELL STANNARD

Modern science has revolutionized our understanding of the world. This much is obvious. But how have these developments impacted on our knowledge of God? And how do we now see human beings fitting into the overall scheme?

To find out, I approached fifty leading figures noted for their contributions to the ongoing discussion of the interrelationships between science and religion. I asked each to write a short essay on some aspect of the way our thinking should be revised in the light of what is known at the dawn of the twenty-first century. The contributions were not to be scholarly treatises aimed at fellow academics, but informal writings accessible to a wide readership. Many of the essays produced have subsequently appeared in newspapers and magazines worldwide—elegant testimony to how well the authors succeeded in this regard.

The writers are drawn from eight countries and represent the Christian, Jewish, Islamic, and Hindu traditions. Most are scientists by profession, but also included are philosophers, theologians, and psychologists. The topics range from cosmology, evolution, and genetic engineering to extraterrestrial life, the soul, and the current status of the science/religion debate. Taken together, the authors present a challenging and enriched understanding of God and of God's interaction with the world and with ourselves.

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Part One



Origins

We begin at the beginning: how the universe came into being. Initially, everything was squashed together at a point. There was a Big Bang; the universe expanded and has continued doing so ever since.

Much has been written on the topic in recent times, including books aimed at the mass market. Given the nature of the subject, it is perhaps not surprising that the authors of these books sometimes find themselves straying beyond the confines of their science to venture a few thoughts on how the new findings affect traditional ideas about a Creator God. Such digressions often lead to conclusions that appear damaging to belief in God. Are they justified?

For a start, there is the claim that the modern scientific view renders worthless the biblical account of creation. That would be so if the Genesis account were intended as a literal description of our origins—which seems most unlikely. **Ted Burge's** modernized creation story gets across the same divine truth that the world and we are ultimately dependent for our existence on God, but does so in a way that accords with our modern understanding of cosmology.

Rod Davies, formerly in charge of the famous Jodrell Bank radio telescope, sees his probings into the mysteries of the early universe as not only a scientific exploration but also an awesome religious quest.

Paul Davies points out that the Big Bang was no ordinary explosion; it did not occur at a point in time. Rather, it marked the *beginning* of time. As St. Augustine deduced some 1,500 years ago, time is a feature, or property, of the world, and as such needed to be created along with everything else. Many people are disturbed to learn that there could have been no God before the Big Bang—because there was no “before.” Davies clarifies what it means to think of God as “Creator.”

A Creation Story for Our Times



T E D B U R G E

The Big Bang and subsequent physical and biological evolution are firmly established beliefs in the minds of nearly all scientists. When set side by side with the story of creation in Genesis, they appear to give a more convincing account of the material creation. But the two accounts have different purposes. The scientific one, of course, makes no mention of God. Genesis, on the other hand, is primarily concerned with the divine truths of God and creation and God's relation to humankind.

Those parts of Genesis that reveal primitive ideas about the material aspects of creation can be revised without disturbing most of those divine truths. We have much evidence in the Bible of the evolution of the concept of God, particularly in the Old Testament, but belief in him as Creator and our dependence on him remain firm and unchanged.

In the light of our present scientific knowledge and of subsequent events in history, perhaps the writers of Genesis, inspired by God's continuing revelation of himself, would have written something like this: In the beginning, God said "Let there be . . .," and he created the unified forces of physics, with perfect symmetry and prescient precision. And out of nothing, and into nothing, God, by a free decision, set up the spontaneous production of particles, in newborn space and time, producing a silent, seething sphere, infinitesimally small and unimaginably hot. There was onset and evolution, the first stage of creation.

During a tiny fraction of a second, an expansion took place, and the perfect symmetry of the forces was broken, step by step, as the temperature dropped, to produce the forces of nature we know today.

God's well-tuned laws made innumerable particles, of every requisite kind, in a steadily expanding chaotic cooling sphere. And the universe cooled for nearly a million years, until electrons could stay joined

to nuclei to form familiar atoms. There was onset and evolution, the second stage of creation.

With atoms and molecules as building blocks, the attracting force of gravity took over, and after about a thousand million years, God saw the first stars and galaxies forming in an expanding cosmic universe. There was onset and evolution, the third stage of creation.

Individual stars contracted under gravity and became hot enough for nuclear fusion to produce chemical elements not seen before, until, after about ten thousand million years, stars were exhausted by their radiance, and God saw them begin to die, some dramatically, by exploding as supernovas, releasing all the known chemical elements. There was onset and evolution, the fourth stage of creation.

And God saw that it was very good, for now all the ingredients were available, and gravity formed a second generation of stars, some accompanied by planets and satellites, including the Sun, Earth, and, later, the Moon, in our galaxy of the Milky Way. There was onset and evolution, the fifth stage of creation.

Bathed in alternate daylight and darkness, during the next thousand million years or so, conditions on Earth became favorable for the eventual generation of life. There was onset and evolution, the sixth stage of creation.

During these last three thousand million years, life has evolved as God intended, and through numerous cycles of birth, survival, procreation, and death, species have multiplied and progressed, plants and animals of every kind, and some have become extinct, until, a mere three hundred thousand years ago, there arrived, in the likeness of God, *Homo sapiens*, intelligent humans, with freedom to choose, living together in community, knowing good and evil, pleasure and pain, aware of honor

due to their dominion, and acquainted with death. There was onset and evolution, the seventh stage of creation.

And the universe entered the Age of Humanity. Human beings have hardly changed in physical form during the past forty thousand years, but their beliefs have evolved, their knowledge has grown, and their understanding has deepened.

And God saw that it was good, but it was not good enough, for free will led to sin and suffering, and guilt and disbelief could lead to despair and the death of the human spirit.

So God sent his only Son, the Word made flesh, who dwelt among us as Jesus of Nazareth, suffered, died, and rose from the dead, and showed his glory, full of grace and truth.

And that was the beginning of the new creation.

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