

NOTES ON THE ALLEGED CONFLICT BETWEEN RELIGION AND SCIENCE

by Wolfhart Pannenberg

Abstract. I interpret several key events in the history of the relationship between Christianity and science and conclude that there is no reason for assuming a fundamental conflict between science and religion. Christian theologians should feel confident in using the science of our day to retell the story of God's creation of the world.

Keywords: Christianity; conflict between science and religion; contingency; emergent evolution; mechanistic description; science; technology.

It is a thesis of considerable plausibility that in the present situation of Western societies the impact of secularism is strengthened, as John Caiazza affirms, by the technological advance based on science and especially by the widespread belief in its magical quality, in its "power to change our lives, to make them more comfortable by making our personal environments more responsive to our wishes" (Caiazza 2005, 18). But Caiazza provides this diagnosis with a historical perspective that needs qualification. In this respect I find myself in broad agreement with Hava Tirosh-Samuelson (2005, 33–36).

In the relationship of early Christian theology with secular knowledge, Tertullian was a rather marginal figure. The mainstream of Christian Patristics was characterized by a successful effort to integrate the philosophical heritage of Hellenism into Christian theology. In this process, the Christian theologians did not simply take over philosophical doctrines but adapted and changed them at many points. These changes, however, were argued for on a level of philosophical reflection, not demanded or

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imposed by supernatural decree. Such integration of philosophical thought contributed importantly to the final success of Christianity with educated people. It is not correct to speak in general terms of a history of conflict between theology and secular thought.

This situation did not change in principle with the rise of early modern science in the sixteenth and seventeenth centuries. Such leading scientists as Copernicus, Kepler, Galileo, and Newton were believing Christians, although Galileo had “trouble with the authorities” and Newton problems with Trinitarian orthodoxy, as John Polkinghorne correctly states (2005, 45). Their criticism was directed against Aristotelian physics, not against Christianity. There were some problems in detail with certain biblical assertions, the most famous being concerned with the question of whether the sun circles Earth (Jos 10, 12f.) or Earth the sun. Later on, the age of the world since the event of creation caused some controversy. But the developing historical study of the biblical writings soon helped to settle such dispute, as it became widely accepted that changes and also some progress occurred in human knowledge about nature since the biblical writings were put down and that these changes do not derogate the religious authority of the Bible.

The situation of theology with regard to science became more difficult in the eighteenth century, when the mechanistic description of natural processes no longer left room for divine intervention in the course of events, and the universe of nature was increasingly considered to be infinite in time, without beginning and end. These were issues of conflict. But still, modern science did not become the main reason for the development of secularism. Rather, after the religious wars of the seventeenth century the unity of society, of the political order, and of human culture had to be reconstructed on a basis other than religion, the religious foundation having become a matter of destructive controversy and civil war. The new basis of the political order, of law and moral norms, was found in the concept of human nature, which is the same in all human persons. Subsequently anthropology became the foundation of the cultural system, too. In a secondary way, then, this secular conception of culture found support in the development of natural science. Cultural secularism was certainly strengthened by that alliance but was not primarily a result of the impact of science.

Later in the nineteenth century, to be sure, Darwinism deprived the religious apologetics of the argument from design as a proof for the existence of a creator, because the origin of organic species came to be explained by a quasi-mechanical process of natural selection without recourse to a divine purpose in the designing mind of the creator. Before Darwin, the variety and complexity of the animal species had been regarded as impossible without the assumption of an intelligent creator who designed them with every detail according to intended purposes. This assumption was

removed by Darwin's theory of natural selection. The emphasis on purpose and design on the side of the theologians, however, was more a concern of natural theology than a requirement of the Christian faith in God's act of creation, and the reinterpretation of evolution in terms of "emergent evolution" since 1920 and of "organic evolution" dissolved the mechanistic picture of the evolutionary process and made room for contingency and novelty in the emergence of new forms of life. Later, this view culminated in Ilya Prigogine's concept of unpredictability in thermodynamically nonlinear processes (1980, 77–154). Although suspicion continues in some evangelical circles with regard to the doctrine of evolution, there should be more appreciation of the fact that the biblical report on creation itself speaks of a mediating role of inorganic nature ("the earth") in God's creation of organic life (Genesis 1:11) and even in the creation of the higher animals (Genesis 1:24). The act of creation of the animals does not exclude the contribution of secondary causes and even of inorganic matter (like "the earth"). Nor should the role of self-organization in the evolution of life cause undue concern with theologians. The employment of secondary causes notwithstanding, the Bible says of the animals "God created them."

In the present situation, I see no reason for assuming a fundamental conflict between science and religion. Since the introduction and acceptance of the cosmological standard theory of a beginning of our universe at a finite time in the past ("Big Bang") the Christian doctrine of a creation of the world by God is much more in "consonance" (McMullin 1981, 34ff.) with scientific cosmology than before. In the two centuries before, the scientifically informed culture believed in the existence of the universe without beginning or end. Now the theory of a finite date of its beginning could be considered at first by some (like Pope Pius XII) as amounting to a proof of the existence of a creator. To put it more soberly, however, it has been said that it produced not a proof but merely a new "consonance," a new harmony between theology and scientific cosmology. This also applies to the corrections of an excessively deterministic picture of the course of nature since the development of quantum theory in modern physics.

The element of contingency and novelty in the course of natural processes is open to the belief in continuing creation. The temptations of technology are another matter. But with regard to science, Christian theologians should feel confident in using the science of our day to retell the story of God's creation of the world like the Old Testament accounts of the creation used the Babylonian knowledge about the natural world. In the present situation, this means that God used the cooling effect of the expansion of the universe to bring about creatures that would enjoy a degree of permanent and independent existence. Not everything must have been fixed in the beginning. The evolution of the universe in the course of its expansion that gave rise to the emergence of stars and galaxies and the

evolution of life should be regarded as the concrete form of God's creative activity all the way to the emergence of human beings.

REFERENCES

- Caiazza, John C. 2005. "Athens, Jerusalem, and the Arrival of Techno-Secularism." *Zygon: Journal of Religion and Science* 40 (March): 9–21.
- McMullin, Ernan. 1981. "How Should Cosmology Relate to Theology?" In *The Sciences and Theology in the Twentieth Century*, ed. A. R. Peacocke (Notre Dame, Ind.: Univ. of Notre Dame Press), 17–57.
- Polkinghorne, John. 2005. "The Continuing Interaction of Science and Religion." *Zygon: Journal of Religion and Science* 40 (March): 43–50.
- Prigogine, Ilya. 1980. *From Being to Becoming: Time and Complexity in the Physical Sciences*. San Francisco: W. H. Freeman.
- Tirosh-Samuels, Hava. 2005. "Rethinking the Past and Anticipating the Future of Religion and Science." *Zygon: Journal of Religion and Science* 40 (March): 33–41.