

EARTHQUAKES AND THE PROBLEM OF EVIL

SJOERD L. BONTING

The Revd Prof Sjoerd Bonting studied biochemistry in Amsterdam (PhD 1952). He worked in the US for the next 13 years at various universities and at the National Institutes of Health, returned home to the Chair of Biochemistry at Radboud University, Nijmegen (1965-85), and continued as consultant to NASA's preparations of the International Space Station till 1993. While in the US he also studied theology and was ordained into the Episcopal Church. Back in the Netherlands he founded and served four Anglican chaplaincies. He still writes extensively on the theological challenges of modern science. His books include "Chaos Theology" (Novalis, 2002) and "Creation and Double Chaos" (Fortress, 2005). This article is an adaptation of a previously published book chapter.¹

1. Introduction

The recent earthquakes in Christchurch, New Zealand and in the Sendai region of Japan have raised in many people's minds the problem of evil, in theological terms the theodicy. I argue here that the problem is the result of the commonly held Christian doctrine of *creatio ex nihilo*, creation out of nothing. This doctrine was formulated by Theophilus of Antioch around 180 AD in his battle against Gnosticism, with its evil demiurge creating the world from evil pre-existing matter.² If God created from nothing, then he is also responsible for the evil in his creation.

After its rapid (but rather uncritical) acceptance in the early Christian church, *creatio ex nihilo* was affirmed by the 4th Lateran Council (1215) in connection with the condemnation of the Kathars, and again by the first Vatican Council (1870). It was adopted with little discussion by the Reformers. To Luther, *creatio ex nihilo* expressed the dependence of all that is created on God's loving decision. Calvin accepted the doctrine without discussion in his *Institutions*. Thus the problem of the evil in creation has remained unsolved in the Christian churches for the past 1800 years.

The three Abrahamic faiths, Judaism, Christianity and Islam, have in common the two creation stories in Gen.1 and 2, which both present creation as occurring from primordial chaos. Interestingly, all non-biblical creation stories also involve some form of initial chaos.³ The very diverse descriptions of the initial chaos in all these stories indicate that the authors, although asserting the concept, were unable to provide a common definition for it.

In Judaism, an understanding of the Genesis creation stories as creation from chaos is endorsed by the authoritative Encyclopaedia Judaica,

(4) Some medieval rabbis adopted *creatio ex nihilo*, apparently impressed by the Christian acceptance of it. Other rabbis rejected it, particularly Maimonides. (5)

In the Qur'an *creatio ex nihilo* is not proposed in any of the 28 suras

dealing with creation, while most of them reflect knowledge and imply acceptance of Genesis 1 and 2. 6

2. Problems of *Creatio ex Nihilo*

Not only does the position of *creatio ex nihilo* in the three Abrahamic faiths seem to be rather shaky, but the doctrine has five major problems:

i) Conceptual: Since we cannot picture absolute nothingness, many theologians assume an “existing” nothing (*nihil ontologicum*) instead of a true nothing (*nihil negativum*). Augustine equates *nihil* with “formless matter, entirely without feature”, and Karl Barth and Emil Brunner also hold to an existing nothing, but this is not really different from an initial chaos.⁷ I define *nihil* as the complete absence of matter, energy, physical laws, information, structure, and order.

ii) Biblical: The creation accounts in Gen.1 and Gen.2 do not have creation from nothing, and Old Testament scholar Claus Westermann states that the abstract concept of creation from *nihil* is foreign to the authors of the creation stories.⁸ Gerhard May states: “Nowhere in the New Testament is the doctrine of *creatio ex nihilo* explicitly developed as a cosmological theory.”⁹ Thus there is no biblical support for *creatio ex nihilo*.

iii) Scientific: “No physical science, whether classical, quantum mechanical or relativistic, is able to explain the origin of the universe from a *nihil*,” concludes Lutheran theologian Mark Worthing from an extensive study, although he remains a believer in *creatio ex nihilo*.¹⁰ He ends his discussion with the statement: “Nothing comes out of nothing.”

iv) Theological: A satisfactory theological explanation of creation from nothing has not been supplied. Paul Tillich makes the rather unilluminating statement: “The *nihil* out of which God creates is... the undialectical negation of being.”¹¹ Jürgen Moltmann has made a serious attempt.¹² Combining the ideas of *zimsum* and *shekinah* from the Jewish kabbala (mysticism) with Paul's idea of *kenosis* (Phil. 2:5-8) and the idea of God's self-humiliation in Christ's death on the cross, he states: (1) God withdraws into himself in order to go out of himself in creation; (2) if God is creatively active in the “nothing” which he has ceded and conceded, then the resulting creation still remains in God who has yielded up the initial “nothing” in himself; (3) the initial self-limitation of God, which permits creation, then assumes the glorious, unrestricted boundlessness in which the whole creation is transfigured; (4) in relating initial creation to eschatological creation, Christ's death overcomes the “annihilating nothingness, which persists in sin and death”. David Fergusson calls this argumentation “ultimately unconvincing.”¹³ And I add that a “nothingness that annihilates” can hardly be considered as a true *nihil*.

v) The problem of evil: As said before, creation from *nihil* would imply that God also created evil. This problem has never been resolved in 1800 years of *creatio ex nihilo*, and this is admitted by many contemporary theologians.¹⁴

3. Defence of *Creatio ex Nihilo*

A thorough defence of the doctrine of *creatio ex nihilo* is rare, except for a recent book by Paul Copan and William L. Craig.¹⁵ Like others, they mention four texts that would support the doctrine: Job 26:7; Rom.4:17; Heb.11:3; 2Macc.7:28. However, a close reading of these texts shows that they fit equally well with

creation from chaos. On the scientific problem, Copan and Craig claim that in the big-bang theory the singularity at $t = 0$ represents "an absolute origin *ex nihilo*", a statement that no cosmologist would agree to. On the theological problem, they do not refer to Moltmann's attempt.¹² The problem of evil that arises from *creatio ex nihilo*, is not at all discussed. Attributing *creatio ex nihilo* as evidence for God's omnipotence, as many defenders of the doctrine do, raises the question whether creation from utter chaos is any less evidence for this. The claim that the doctrine is a philosophical statement, as suggested for instance by Hans Küng,¹⁶ is a fall-back position of little merit: what value has a philosophical statement that conflicts with both biblical and scientific evidence? A scientific theory with so many problems and so little supporting evidence would surely be abandoned.

4. A Revised Creation Theology: Chaos Theology

The shortcomings, set out in sections 2 and 3, of the traditional Christian doctrine of *creatio ex nihilo*, its uncertain status in Judaism and its absence from the Qur'an, seem to me to be a good reason for formulating a revised creation theology. In my "chaos theology" I have formulated a creation theology that does not present any of the five problems associated with the *creatio ex nihilo* doctrine.¹⁷ It offers, moreover, a basis for the other major Christian doctrines of God's action in the world, christology, pneumatology, soteriology and eschatology, and it harmonizes with our modern scientific insights.

Chaos theology can be summarized in four points:

- i) **Initial creation from primordial chaos:** This matches the descriptions in Gen. 1 and 2 and non-biblical creation stories. In cosmology the initial "explosion" would occur in the chaos of the fluctuating vacuum.
- ii) **Continuing creation:** The fact that Gen.1-11 is considered to be the full creation story, and Jesus' words ...*God created until now* (Mk.13:19) indicate a continuing creation. This is paralleled in science by cosmic and biological evolution.
- iii) **Remaining chaos in continuing creation:** In 22 places in the Old Testament the "sea" symbolizes a remaining chaos, against which God battles (e.g., Job 26:12; Ps.89:9; Isa.50:2; Jer.51: 36; Nahum 1:4) and which he abolishes on the last day (Rev. 21:1: ... *and the sea was no more*).
- iv) **Evil emerges from remaining chaos:** Physical evil is due to chaotic tectonic forces causing earthquakes and volcanic eruptions; to chaotic behaviour of the Earth's atmosphere causing devastating hurricanes; and to chaotic gene mutations and deregulations causing cancer and other diseases. Moral evil is due to chaotic thinking, as expressed in Paul's words: *I do not understand my own actions. For I do not do what I want, but I do the very thing I hate* (Rom.7:15).

Points i, ii and iii can be considered as biblically founded; point iv is my invention. Here evil is not created by God; rather God battles its source until abolishing this on the last day when the present world is transformed into the new kingdom. In my view remaining chaos is morally neutral; it is not only the source of evil, but also permits creative freedom in continuing creation.

Does acceptance of primordial chaos mean reintroduction of Gnostic dualism? I

do not think so, because it is not a pre-existent evil matter, but rather a *condition* in the form of the chaos of a vacuum with quantum fluctuations. The first particles, quarks, were not formed until $t = 10^{-35}$ sec after the initial explosion ($t = 0$), protons and neutrons at $t = 10^{-4}$ sec. But where did the primordial chaos in Gen.1 and 2 and the fluctuating vacuum come from? Neither theology, nor science can answer this question; here we get into initial mystery. Cosmology cannot get closer than $t = 10^{-43}$ sec (Planck time) after the initial explosion. The fluctuating vacuum is thought to underly the cosmos throughout time, but nothing definite can be said about $t = 0$, since this is a “singular point” in cosmology. String theory in decades of hard work has not been able to resolve this singularity. Theologically we are handicapped by the very diverse descriptions of primordial chaos in the biblical and non-biblical creation stories, none of which explains its origin. *Creatio ex nihilo* with its *nihil* originally in God, then for creation moved out of God, has its own problem, as Moltmann experienced (section 2, point iv).

5. Applications of chaos theology

In contrast to *creatio ex nihilo*, chaos theology, aided by our scientific insights, can be applied in the development of the major Christian doctrines, as indicated briefly here.

i) God's action in initial creation: Gen.1 and John 1:1-5 have the Logos, God's powerful Word, as the creative agent. In cosmological terms we may say that the Logos provided the energy needed for the kinetic energy of the big bang and later for conversion into the first particles (Philo and Maximilian the Confessor used the term *energeia* for the Logos). There was, however, also information needed in the form of the physical laws and fundamental constants to determine the evolution of cosmos and life. I suggest that this was the role of the Spirit, God's information transmitter (see below, under iv).¹⁸ The interesting point is that this action of the Spirit cannot have occurred until $t = 10^{-35}$ sec, just before the inflation of the early universe and the formation of the quarks. The reason is that quantum theory requires a minimal surface area of one square Planck distance (10^{-35} m) for the insertion of 1 bit of information. At $t = 10^{-35}$ sec the diameter of the early universe was 10^{-30} m, so it could then accept 10 gigabits of information (the equivalent of 10,000 average size books), which would appear to be sufficient for all physical laws and fundamental constants. The joint action of Logos and Spirit fits well with Irenaeus' saying: "The Son and the Spirit are the two hands of God by which he created all things," where Son stands for the pre-existent Christ which is the Logos.

ii) God's action in continuing creation: Divine interference with physical laws or fundamental constants can be excluded, as this would have catastrophic effects. Quantum events or self-organization, as suggested by some, are also unlikely ways. However, the influencing of chaos events appears to be a much more likely way.¹⁹ Living organisms, Earth's atmosphere, solar systems and others are “non-linear systems”. This means that in the course of time such a system reaches a fork in the road, where it begins to oscillate between the two legs of the fork. Since there is no energy difference between the two legs, we cannot predict how the system will travel. The system becomes “chaotic”, unpredictable. However, a very

minute influence, such as the introduction of a single bit of information, can steer the system without violating any physical law. The event will, however, be so rapid and require so little energy (for the introduction of one bit of information) that it will be undetectable for us, except for its effects.

iii) The cosmic Christ and reconciliation: Over the centuries popular Christian belief has regrettably narrowed down salvation to us humans, with blithe disregard for the fate of all other creatures.¹⁹ Yet, Paul and John already recognized in Jesus the *cosmic Christ*, in whom God was reconciling the world (Gk *kosmos*) to himself (2 Cor.5:19; Jn.3:17). The idea of Jesus as the cosmic Christ is supported by our knowledge of cosmic evolution. The hydrogen, resulting from the big bang, condensed into stars, which through nuclear fusion produced the heavier chemical elements. After exhausting their nuclear fuel, these stars turned into supernovae, which exploded and ejected these elements into the interstellar space as “cosmic dust”. Eventually, Sun and Earth were formed through accretion of these elements from the cosmic dust. All living beings, including humans, are formed from these elements through the uptake of food. As it is said: “We are made of stardust”. This means that we humans are part of, are united with the entire cosmos. The human Jesus also shares in this cosmic union, and thus through the incarnation he becomes the cosmic Christ. This has decisive consequences for our understanding of his reconciling work. In chaos theology I hold that in continuing creation God battles remaining chaos, for 13.7 billion years already, in which humans existed only during the last 200,000 years. So this is not only a human predicament, but a cosmic drama (Rom. 8:22). In this ongoing battle God is not merely redeeming humans, but the entire cosmos through the cosmic Christ. However, humans have to say “Yes” or “No” to this. This theology of salvation integrates crucifixion, incarnation and resurrection, places reconciliation in the continuing creation on the way to its fulfillment on the last day, and does not picture God as a captive of his own justice. Crucial for us humans is our acceptance of the freely offered reconciliation in and through faith.

iv) Action of the Spirit: From a survey of the numerous biblical references to the Spirit (195 in the Old Testament, 302 in the New Testament) I have concluded that the diverse activities of the Spirit can be brought together under the heading of “communication” or “information transfer”.²⁰ This fits the crucial role I assigned to the Spirit in the initial creation, that of inserting the physical laws and fundamental constants in the early universe (see i above). It also fits a role for the Spirit in transferring the information for influencing chaos events during continuing creation (see ii above). And under v below I suggest a role for the Spirit in the eschatological event. The Spirit's more familiar functions as Life-giver, Unifier, Revealer, Sanctifier and Advocate can also be seen in terms of information transfer, communication. These considerations lead to a broader and deeper pneumatology than is provided in traditional theology.

v) Eschatology: Here we encounter a radical clash between the somber cosmological predictions and the hopeful biblical message.²¹ A possible cosmological scenario predicts that in some 24 billion years the universe will go to complete degradation, the so-called “big rip”. Galactic clusters are drifting apart ever faster, in the final billion years galaxies and solar systems will break up, in the final 30

min stars and planets will disintegrate, in the final split-second molecules and atoms will tear apart and their constituent particles will “evaporate”, leaving only a cold, dark, lifeless and matterless cloud of photons, the vacuum with quantum fluctuations. The alternative (less likely) cosmological scenario of the “big crunch” presents no more hospitable prospect. Much earlier than either of these events, some 5 billion years from now, our Sun will have exhausted its nuclear fuel and expand into a “red giant”. It will swell until touching the Earth, thereby raising the surface temperature of the Earth to about 1300° C, extinguishing all life on Earth.

In the biblical view, however, remaining chaos will be abolished on the last day (... *and the sea was no more*, Rev.21:1) and there will be a new heaven and a new earth. Creation will be perfected.

Why this clash between the two views? The cosmological prediction is based on a “closed universe”, which has no energy and information entering it. In the biblical view we have an open universe, where God's energy and information will enter in to bring about the conversion of the present world into a new world. Energy will be brought in by the Logos, now incarnate in Christ. Information in the form of the “physical laws” and “fundamental constants” of the new universe will be inserted by the Spirit. In this case the entry of information does not need to be delayed as in the initial creation, since the then existing universe will have a large dimension.

When will this come about? Jesus said in answer to this question: “Only the Father knows” (Mk.13:32). However, I think that we can safely assume that this will happen before our universe disintegrates and before all life will be destroyed by the Sun turning into a red giant or, much sooner, by ecological catastrophes of our own making. Is this “pie-in-the-sky” thinking? No, for the simple reason that it is unthinkable that God would allow this universe, which he created out of love in a marvelous and extensive process of cosmic and biological evolution, to disintegrate fully before bringing about the new creation. That would amount to declaring the first creation a failure, necessitating a second attempt.

6. Concluding remarks

The traditional Christian creation doctrine of *creatio ex nihilo* disregards the fact that the biblical creation stories tell us that creation occurred from primordial chaos. It has, moreover, five serious problems and scant supporting evidence. Judaism, on the whole, and Islam have not embraced *creatio ex nihilo*. The most serious problem of *creatio ex nihilo* is that it makes God responsible for the evil in creation. After physical disasters like the recent earthquakes this invariably leads to the question ‘how can a loving God allow this to happen?’

In my “chaos theology” of creation (section 5) this problem is resolved: evil emerges from the remaining chaos in continuing creation. The evolutionary mode that God chose for the creation process implies mortality of all creatures in biological evolution and in the evolution of the earth tectonic forces leading to earthquakes and tsunamis. These evolutionary processes entail the mortality of all humans as well as the untimely death and suffering of many people. Nevertheless, these processes are leading to the transformation of the present world into the new kingdom, where all the dead will rise and on faith in Christ receive eternity life in

an evil-free environment without earthquakes and tsunamis.

May this eschatological hope soften the anguish of the survivors of these disasters and give them the strength to rebuild their devastated environments.

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