

Eschatology, Science, and Hermeneutics

with Klaus Nürnberger, “*Eschatology and Entropy: An Alternative to Robert John Russell’s Proposal*”; and Robert John Russell, “*Eschatology and Scientific Cosmology: From Deadlock to Interaction*”

ESCHATOLOGY AND ENTROPY: AN ALTERNATIVE TO ROBERT JOHN RUSSELL’S PROPOSAL

by Klaus Nürnberger

Abstract. Traditional eschatology clashes with the theory of entropy. Trying to bridge the gap, Robert John Russell assumes that theology and science are based on contradictory, yet equally valid, metaphysical assumptions, each one capable of questioning and impacting the other. The author doubts that Russell’s proposal will convince empirically oriented scientists and attempts to provide a viable alternative. Historical-critical analysis suggests that biblical future expectations were redemptive responses to changing human needs. Apocalyptic visions were occasioned by heavy suffering in postexilic times. Interpreted in realistic terms, they have since proved to be untenable. The expectation (rather than the vision) of a new creation without evil, suffering, and death is not constitutive for the substantive content of the biblical message as such. Biblical future expectations must be reconceptualized in terms of best contemporary insight and in line with a dynamic reading of the biblical witness as God’s vision of comprehensive optimal well-being that operates like a shifting horizon and opens up ever new vistas, challenges, and opportunities.

Keywords: apocalyptic; biblical future expectations; biblical interpretation; empiricism; entropy; eschatology; historical-critical method; resurrection for judgment; resurrection of Christ; Robert J. Russell

THE PROBLEM STATED

“[If] it were shown that the universe is indeed headed for an all-enveloping death, then this might . . . falsify Christian faith and abolish Christian hope” (John Macquarie, quoted by Russell 2008, 299). “Should the final future as forecasted by the combination of Big Bang cosmology and the

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second law of thermodynamics come to pass . . . we would have proof that our faith has been in vain. It would turn out to be that there is no God, at least not the God in whom followers of Jesus have put their faith” (Ted Peters quoted by Russell 2008, 299). Are we forced to come to such devastating conclusions? This paper is meant to draw attention to an alternative solution to the impasse that is readily available, feasible in scientific terms, and in line with a historical-critical reading of the Bible.

As far as I know, Robert John Russell was the first to draw attention to the fact that, while Big Bang cosmology could perhaps be deemed consonant with the doctrine of *creatio ex nihilo* in theology, the same cannot be said for the relation between entropy and eschatology.¹ “If the predictions of contemporary scientific cosmology come to pass, then the parousia (= the Second Coming of Christ, KN) will not just be ‘delayed’; it will never happen” (Russell 2008, 306).

He realizes that theodicy, arguably the underlying motive of eschatology, poses a massive problem (e.g., Russell 2008, 189f.). He suggests that the question of how we are to “think about the transformation of the universe into the new creation in the light of science” is the “most serious challenge to, and the most promising direction for, future research in Christian theology and science” (Russell 2008, 26). He wonders why theologians involved in the science-religion dialogue have not “engaged the challenge raised to them by scientific cosmology” (Russell 2002, 3–7).² He then endeavors to map an elaborate research program designed to find a way out of the impasse.

While I admire and envy Russell’s scientific competence, I am not convinced that his approach will satisfy the scientific community. Russell presupposes that science and theology are based, at least partially, on incompatible yet comparable metaphysical assumptions, which operate at the same level of validity. That is why Russell can speak of a *mutual* challenge: science can question faith, but with the same validity, faith can also question science (2008, 306). The relationship is symmetrical.³

In contrast, my sense is that the Christian tradition got stuck in a prescientific worldview, whether biblical, Hellenistic, or medieval, and that this worldview has become progressively more obsolete as scientific insight advanced. The relationship is asymmetrical in both directions: faith lost its credibility, while science lost its transcendent foundations. The consequences are catastrophic. In the words of the subtitle of my most recent book, faith needs “best science” to become credible; science needs “best faith” to become responsible (Nürnberger 2011).

Methodologically, the difference can be expressed as follows. For Russell, the (Lakatosian) structures of the scientific and theological discourses are similar. Though “respecting the radical differences in degrees of referentiality” (Russell 2008, 9), the metaphors of science and theology are *comparable* (thus allowing “genuine exchange of ideas”), but *contradictory*

(which is why science is able to question faith and faith is able to question science).

My proposal assumes that the metaphors of science refer to *immanent* reality, while the metaphors of faith refer to notions of the *transcendent* Source and Destiny of this same reality. This means that they are *incomparable* but *complementary*. Science is about observation, explanation, and prediction; faith is about meaning, acceptability, and vision.

Once faith and theology have shed their immanentist-ontological pretensions, and the sciences have abandoned their effort to answer “ultimate questions” (Dawkins 2006, 56; Hawking and Mlodinow 2010, 9f.), faith and science no longer have to question each other. Faith could integrate “best science” in its worldview, while scientists could consider the meaning, direction, and vision that “best faith” affords.

When I first wrote this paper, I had just published my book *Richard Dawkins’ God Delusion—A Repentant Refutation* (Nürnberger 2010a). I had once again become painfully aware of the way hard-core empiricists function. They are wary not only of theological assertions, but also of philosophical assumptions that cannot be accounted for in terms of “experiential realism.”⁴ I sensed that, if we want to get our message across, we have to “become scientists to the scientists” (1 Cor. 9:15–23) and do so boldly and consistently.

Adding gravity to the matter, I argued that, in view of the looming economic-ecological crisis, it is of critical importance that faith and science again find each other. Their common responsibility is gigantic. To put it strongly: becoming a scientist to scientists has become an urgent necessity, rather than an academic pastime (Nürnberger 2011, Part I). I am fairly certain that Russell and many others would agree with that, but few participants in the science-religion debate have actually spelled out why this should be the case.

In my view, the greatest stumbling block to fruitful science-faith discussions is the absolutization of selected biblical texts as incontestable divine revelation on the one hand, and the absolutization of inherited doctrinal propositions meant to conceptualize this biblical revelation on the other. In both cases the historical flux and situational relativity of biblical traditions are evaded, rather than taken into the equation.⁵ Given the historical character of the biblical witness, we can only overcome these obstacles by developing a historical-critical approach to the Bible, including the diverse future expectations it contains, and reformulate our doctrines accordingly.

My own research suggests that in biblical times the “Word of God” operated as God’s creative and redemptive response to changing human needs and predicaments and their changing interpretations. (Nürnberger 2002) These situations, their respective interpretations, and the divine response were all in flux.⁶ To bring home the message, we must do for

our times what the biblical authors did for theirs—that is, proclaim God’s creative and redemptive intentionality, as manifest in the history of Israel and culminating in the Christ-event, in terms of current predicaments and patterns of thought.

In what follows I will not engage Russell’s extensive and profound work, but rather put my own alternative to his proposal on the table. To give substance to my contentions, however, I will first enumerate some assumptions and procedures that I think should be avoided in the interaction between theology and the empirical sciences. Because the vicissitudes of personal relationships may detract from the substantive issues to be discussed, I will refrain from mentioning specific authors and quoting examples from the literature.

ASSUMPTIONS AND PROCEDURES TO BE AVOIDED

1. Let me begin by stressing the importance of Occam’s Razor for any interdisciplinary debate. Occam’s Razor requires us to opt for the *simplest* explanation capable of doing justice to the phenomenon to be investigated. Experts are laypersons in fields other than their own. Physics, especially, has become too complex and inaccessible for the untrained layperson to understand. Fortunately excellent popularizations have been written that unlock these mysteries, at least to some extent, for the nonexpert.

Similarly, much of academic theology presents, to the nontheologian, a conceptual and logical jungle that is extremely hard to penetrate. Because of its lack of critical thought, the vast devotional literature does not make things any easier. As the example of the new atheists demonstrates, puzzlement easily turns into dismissal and contempt.⁷ We owe our contemporaries a lucid and consistent account of “the hope that is in us” (1 Pet. 3:15).

2. The concept of transcendence poses a difficult problem for scientists. All scientists observe the methodological restriction to immanent reality. Whether believers or not, they tend to bracket any notion of transcendence and its consequences, even for their daily lives, society, and nature. Naturalists among them assume that there is no transcendence. The reality that we actually experience and that the sciences explore is all there is. The universe is self-generated, self-sustaining, self-destructive, and (in the case of humans) self-responsible. This is not a scientific finding, but a metaphysical decision. Yet it is close enough to the methodology of the scientific enterprise to be persuasive in practice.

The concept of transcendence needs careful clarification. “Immanent transcendence” (for instance, the past, the future, what happened “before” the Big Bang, what happens “outside” the universe, or where time, space, energy, and natural law “came from”) can easily be contemplated. But the biblical faith presupposes a much more radical form of transcendence

that one could call “transcendent immanence.” Reality is derived from, dependent on, and (in the case of humans) accountable to an “Other.” One could think of a “great embrace” of immanent reality (Nürnberger in du Toit 2010, 103–27).

In other words, God cannot be thought of as a “supernatural agent” within immanent reality. God is the transcendent Source and Destiny of reality as such and as a whole. God is not a factor that exists and operates within immanent reality, competing, or cooperating with other such factors. Rather, as the “Creator,” God is present and active in everything that exists and happens. Once that is understood, “special divine action” does not depend on the suspension of natural law, but can be understood as God acting through the regularities, indeterminacies, and sensitivities to initial conditions found in the world we know. “Miracles” may be unexpected and awe-inspiring redemptive events, but they do not need to be “supernaturally caused.” On the other hand, not all miracles we expect are possible in the world God created and continues to create.

This also implies that God is the Source and Destiny of all levels of emergence—from the subatomic to the physical, chemical, biological, neurological, personal, and social levels. All these levels operate according to their own regularities, which are not necessarily personal, but they are all of God. A tsunami, for instance, is not based on an intentional divine act but on tectonic shifts in the earth’s crust that follow the laws of physics—which are also of God!

According to the Bible, God indeed became a person for humans because humans are persons, but God must be thought of as much more than a person, just as humans are much more than persons. This assumption is critical for a solution of the intractable problems of theodicy—that is, the question how a powerful and loving God can cause or allow so much evil and depravity in the world.

3. Next on my list is the pervasive practice of reifying idealized abstractions from the flux and variability of reality. Theology has inherited this approach from Hellenistic philosophy. While we cannot do without concepts, we must be wary of attributing an independent ontological existence to them.⁸ In its attempt to find a kind of validity that was not subject to the incessant flow, variability, and ambiguity of reality, Platonic abstraction moved from time to eternity, from space to universality, from power differentials to harmony, from existence to essence, from the corruptible entity to the underlying and incorruptible idea. As the perfect idea of the good, the true and beautiful, God occupied the highest place in the hierarchy of preexistent, postexistent, and immutable ideas.

The concept of perfection plays a critical role in the interface between faith and science. The seemingly incontestable assumption of God’s omnipotence is an inference drawn from the (Hellenistic) concept of God as the “Most Perfect Being.”⁹ Taking omnipotence for granted, theologians

argue that God's will is absolute.¹⁰ Expressed in scientific terms, God's intentionality and agency are not subject to the constraints of time, space, energy, and the regularities built into the universe as we know it. God can suspend or override natural laws, impose new laws, or create a universe with different laws, or no laws at all. The implication is that, for God, bodily resurrection and the recreation or transformation of the existing universe cannot possibly pose a problem. When apocalyptic future expectations are believed to be part of the inscrutable Word of God, it can safely be assumed that these otherwise counterintuitive events are bound to happen.¹¹

Scientists may want to insist that the basic parameters and regularities underlying the current universe cannot be changed, suspended, or replaced without assuming, not just a "transformable," but a completely new and different universe that is discontinuous with the one we know.¹² Science acknowledges the possibility that there could have been, or that there could be at present, such other universes with their own sets of regularities, but then we would probably not be part of them. Such possibilities are, at present, speculative. But in science and theology we have to deal with the real world of which we are a part, rather than with possible worlds.

Note that the entire argument is deductive. It begins with an untested premise, taken for granted, from which inferences are drawn. It is not based on empirical observation, mathematical construction, typical faith experiences, or a historical-critical reading of the biblical witness. Scientists will want to know on which authority they should trust such propositions. The fact is that there are constraints in the world—the very world Christians believe God has created. Dead bodies disintegrate. The sun is burning up. The evolution of the universe depends on the entropic process for its energy. Because these regularities and constraints are indispensable for the operation of the reality we know, it is not likely that God will suspend or override them.

Even if the assumption were true that God was free "to do what God chooses to do," it would have no traction because God does not seem to avail God-self of this capacity. Why not abolish depravity, evil, suffering, and death with a single almighty decree? If God were able and willing to do so, why has it not happened a very long time ago? The answer is, as Apocalyptic sensed and science knows, that this would spell the end of the world as we know it. Assuming that the cosmic process reflects the creative action of God, should we not rather stick to what God *in fact* does, rather than hope for something that is highly unlikely ever to materialize?

Atheists ask where we get the idea of a Perfect Being from. There is nothing perfect in the world we know and that we assume God created. Ludwig Feuerbach, one of the most formidable and influential critics of the Christian faith in the nineteenth century, argued that humans create God in their image—projecting unrealistic desires and idealized abstractions into a nonexistent heaven. In terms of science, a world in flux cannot reach

perfection and the entropic process leads in the opposite direction. The biblical concept of perfection usually has moral rather than ontological connotations. God may indeed be perfect, but the emphasis in the Bible lies on the reliability of God's creative and redemptive intentions. It has a pastoral rather than an ontological meaning.

I am wary of drawing inferences from an unsubstantiated and ill-defined assumption. There is a difference between (a) the biblical proclamation of divine omnipotence as the *pastoral reassurance* that a loving God is in charge of a desperate situation, (b) a *scientifically informed* assumption that all energy found in the universe, operating according to regularities, is the power of God, and (c) the concept of omnipotence as an *idealized abstraction* from actual experiences of power—which has been variously critiqued by Feuerbach, Marx, Nietzsche, and many others.

It is true that the biblical authors had a voluntaristic understanding of reality: things happen because God wants them to happen. This is quite obviously a prescientific assumption that is no longer tenable. I will come back to that below. The point is, at this juncture, that in contrast with the Hellenistic concept of God, the biblical God is depicted as the ever active, ever responding, yet transcendent Source and Destiny of a reality in incessant flux, who seeks to open up the future for a more wholesome life and does so by utilizing God's existing creation, including natural phenomena, animals, plants, and humans. This God is experienced in terms of transformation rather than perfection.

4. Even more indigestible for scientists is the reification and idealization of biblical metaphors. According to the biblical witness, God, the transcendent Source and Destiny of reality as such, is inaccessible by definition. In theology we are dealing with *concepts* of the transcendent. We can make meaningful statements on God only in the form of metaphors taken from ordinary experiences of life. That is unavoidable because we have no other language. All our concepts for "divine reality" are anthropomorphic metaphors: father, son, spirit, creator, redeemer, covenant, justice, law, wrath, love, forgiveness, reconciliation—you name them.

In a way all language is metaphorical, but the metaphors used in daily life and in science refer to immanent reality, while the metaphors of faith and theology refer to transcendent reality. This makes them exceptionally vulnerable to misunderstanding. The practice in much of theology to reify biblical metaphors, draw out inferences from them, and build metaphysical constructs on them, leaves most scientists puzzled.

Trinitarian speculations, for instance, are fairly indigestible for experiential realists. That there are three divine persons in one divine essence, having perfect communion among each other, in fact, "moving around within" one another, yet their actions toward the world being indistinguishable from each other, leaves a natural scientist puzzled. It may also leave the

great majority of believers puzzled. It is not clear, for instance, why the model of an idealized inner-divine community is necessary to contemplate a healthy human community on earth. Can a human community not be based on divine love as manifest in the Christ-event and without such quasi-metaphysical constructs?

We do not have to deny the validity of the intentions underlying classical Trinitarian doctrines, but our contemporaries (including most believers who are geared to the Bible) can no longer make sense of their packaging in Hellenistic ontological patterns of thought. We must go back to the biblical sources and try to establish the history and the intentions of metaphors such as father, son, and spirit. A simple and nonspeculative way of formulating the biblical concept of the “Trinity” is that God, the transcendent Source and Destiny of reality as a whole, disclosed God’s creative and redemptive intentionality in the history of Israel, culminating in the Christ-event, and that the “Spirit of Christ”—the Spirit of God’s redeeming love—permeates, liberates, transforms, and empowers the “Body of Christ,” the community of believers for its task in the world. There is nothing mysterious in such a statement.

5. We have to realize that the empiricist tradition makes it hard for scientifically informed people to discern the thrust and character of preempiricist biblical statements that are notoriously couched in myth, legend, parable, metaphor, poetry, vision, even fiction, and still take them seriously. But we have no choice! If the criterion of truth were defined as empirical-historical factuality (or the “realistic” assumption of a quasi-physical future reality), the bulk of the biblical witness would contain no truth. This is just not how the biblical tradition operates.

An eschatological vision is something totally different from a scientific prediction. At best eschatology is a protest against the ambiguities of the real world, a tenacious insistence against all appearances to the contrary, that the transcendent Source and Destiny of reality is benevolent and that this benevolence will ultimately triumph. This would be in line with powerful biblical traditions, as well as with the *theologia crucis* of Martin Luther and similar approaches.¹³ But these are the product of a reassured faith rather than a quasi-futurological prediction.

Ignoring the difference between a metaphorical and an empiricist discourse has serious consequences for the science-faith dialogue. An example is the argument that Russell quotes in the context of his treatment of eschatology: “If it is impossible it cannot be true. But if it is true, it cannot be impossible” (Russell 2002, 16; 2008, 304; cf. 306). This argument quite obviously presupposes a criterion of truth geared to empirical evidence, actual historical event, or a future reality that will exist “ontologically.” Assuming this criterion of truth, there are two possibilities. Either conventional eschatology is “true,” in which case the validity of the

scientific theory of entropy is falsified. When the Kingdom of God arrives, the “freeze or fry” scenario will turn out to have been spurious. Or the scientific theory of entropy is “true,” in which case doctrinal eschatology is falsified. If God is located in the eschatological future (as Pannenberg and his followers propose), the falsification of doctrinal eschatology also implies that there is no God (Russell 2008, 299). I will not deal here with Russell’s solution to the problem; I simply want to highlight the consequences of an empiricist approach to biblical and doctrinal statements where it does not belong.

In the end, the question is why we should try to rescue the apocalyptic worldview in the first place. Science regularly abandons theories that have proved to be untenable. Why should theology not do the same? In my view the question to be answered is not how apocalyptic eschatology can be rescued as a feasible theological option when confronted with scientific challenges. The real questions are (a) why did believers in biblical times come up with experientially counterintuitive and scientifically counterfactual propositions in the first place? (b) What are the motives of contemporary believers when they stick to a demonstrably metaphorical frame of reference that, taken literally, has long proved to be unworkable? (c) How can the gospel respond redemptively to these underlying needs? This brings us to the next section.

BIBLICAL INTERPRETATION

There are a number of eschatological traditions in the New Testament: the resurrection of the dead to face judgment; the restoration of the Davidic kingdom; the coming kingdom of God; the apocalyptic transformation of this evil world; the resurrection of Jesus as the messianic representative of God; death and resurrection as the reconstitution of authentic human existence; and participation in the new life of Christ in fellowship with God through the Spirit. These motifs have become totally entangled with each other. How do we deal with this cluster of traditions?

The most fundamental consideration is that the biblical authors were not geared to the Enlightenment criteria of empirical evidence and historical precision. They utilized all the linguistic means at their disposal to bring across their message—myth, legend, poetry, fiction, parable, metaphor, miracle story, symbol—you name them! The parable of the prodigal son has never happened, yet it expresses the most fundamental “truth” of the Christian faith. They also changed the traditions they inherited freely, or filled them with new meaning if they thought that this would communicate their message better under changed circumstances.

The second consideration is that notions of the transcendent can only be expressed in metaphors. Metaphors that refer to the transcendent are qualitatively different from metaphors that refer to immanent reality, as

used in ordinary and scientific language. To reify and absolutize these metaphors is the typical flaw of fundamentalism. For faith to be credible, we must utilize the insights of historical-critical exegesis of biblical texts and their embeddedness in dynamic traditions.¹⁴

Third, according to my own research, the “Word of God” functioned, in biblical times, as a series of creative and redemptive responses to changing situations of need and changing worldviews. It was not meant to explain and predict, but to warn and reassure. The biblical tradition is a highly flexible, evolving, and highly differentiated message on the way through time and space (Nürnberger 2002). This is also true for biblical statements about the future.

The Evolution of Future Expectations in the Bible. There is a long series of needs that found their articulation in the biblical narratives: progeny, land, political freedom, sustenance under desert conditions, social cohesion based on contractual law, peace, military power, centralized leadership, national prestige, divine presence in a centralized sanctuary, political manifestations of Israelite uniqueness and privilege, national prosperity, justice for the suffering, marginalized and oppressed, healing, acceptance of the outcasts, and personal authenticity for those enslaved by spiritual powers and personal desires.

The creative and redemptive response of the “Word of God” to each one of these needs led to a large variety of future expectations. They display a dynamic and differentiated vision of what *ought* to be, occasioned by changing, yet always painful experiences of what *ought not* to be. Prophetic utterances warned against unrighteousness and reassured the Israelites of God’s commitment. Few of these prophetic announcements have ever materialized the way they were proclaimed and expected. But that does not render their basic thrust invalid. Visions, warnings, and reassurances in times of need are different from scientific predictions or futurological extrapolations. Their rationale is not information about the world, but the quest for healthy relationships with God and with each other.

In the Old Testament, the basis of future expectations is the Israelite faith in the benevolence, justice, and reliability of Yahweh, the God of Israel. It was anchored in a number of soteriological narratives: the promises to the Fathers, the exodus from Egypt, the Sinaitic covenant, the gift of the Torah, the conquest of Canaan, the institution of the Davidic monarchy, the apparent fulfillment of prophecies of doom, and the return of the exiles. These sacred stories were made present to each new generation through liturgy and ritual.

Yahweh’s commitment to Israel was expected to manifest itself in the survival, health, harmony, equity, peace, prosperity, and prestige of God’s people. This expectation was disappointed again and again. Given the assumed connection between sin and fate, the resolution of the incongruity

between divine commitment and the human condition translated into hope for the gift of human authenticity (righteousness) and the eradication of social and natural evil.

For the greater part of biblical history, Israelite future expectations were earth-bound and specific. The self-interest of Israel was the main focus. But faith in divine benevolence and justice was severely taxed in situations of oppression, injustice, humiliation, danger, meaningless fate, unbearable suffering, and premature death. The unfolding of “eschatology” in Judaism was a series of direct responses to the problem of theodicy [= the justification of God]. As human predicaments intensified under imperial domination, and as the religious environment changed from Canaanite to Egyptian, Assyrian, Babylonian, Persian, Hellenistic, and Roman worldviews, future expectations gradually became more comprehensive in terms of time and space, more radical, more improbable, more “otherworldly,” and more symbolic. The culmination of this trend is found in the “apocalyptic” literature in late postexilic Judaism and early Christianity.¹⁵

Resurrection from the dead and the reconstruction of an evil world were the latest and most radical future expectations in a whole series. Death seemed to be the inevitable outcome of human depravation. The existing evil world seemed to be beyond repair. God had to start from scratch. The postexilic notion of resurrection to face judgment has had Egyptian antecedents. Its rationale was God’s justice confronting human unrighteousness, later morphing into the divine *gift* of righteousness, rather than the yearning for human longevity. The notion of apocalyptic reconstruction has had its antecedent in the “Parsist” (= ancient Persian) distinction between this age and the age to come. Again this theology had a transparent ethical agenda in the guise of a quasi-historical process.

The Dynamic Obsolescence of Biblical Future Expectations. It is a typical feature of the biblical tradition that it abandoned, transformed, or replaced outdated images and metaphors on a regular basis. By the time of the New Testament, most Old Testament future expectations (the fertility of fields, flocks, and wives; a land of their own; a cultic center; dynastic perpetuity; return of the Jewish Diaspora; Jerusalem as world capital; and the Jews as ruling elite) had lost the kind of urgency they had in ancient Israel. So they were either adapted to new circumstances or left behind—along with substantial chunks of other traditions, notably the entire priesthood-, sacrifice-, and ritual purity complex.

Traditions that were maintained underwent drastic reconceptualizations. The most fundamental of them were (a) the *crucified* Jesus was proclaimed the messianic representative of God on earth (turning the model of Psalm 2 on its head), (b) the concept of *sacrifice* changed from being given

by humans to God to being given by God to humans, and (c) human *righteousness* changed from being a precondition to being a consequence of divine acceptance, which also opened up the confines of the “people of God” to Gentile participation (Nürnberger 2002, Chapters 9, 10, and 11, respectively).

It is no longer feasible to take prophetic utterances as predictions because they have proved not to be! (Michel 1968, 278f.) Science predicts; oracle predicts; astrology predicts. Faith does not. Faith envisions, warns, and reassures. Prophecies can also not be interpreted as “promises” because promises that are not kept undermine their own credibility.¹⁶ If the truth of the biblical faith in God were dependent on the realistic fulfillment of biblical prophecies, it would long have proved to be spurious. Equally untenable is the assumption that the prophets and apocalyptic authors were infallible, or that the apocalyptic worldview is valid just because it is found in the Bible. These are fundamentalist assumptions that just do not hold water.

What does it help to proclaim the imminence of a glorious “kingdom of God” or the apocalyptic transformation of this world into a world without entropy, suffering, and death, when in fact this has not happened for two millennia and if it is exceptionally unlikely to materialize in the future? We must learn to accept to what God really does, not what we wish God would do. Science regularly abandons explanations and predictions that have proved to be fallacious and theology should have the courage to do the same.

There is no compelling reason, therefore, why faith and theology should feel obliged to claim timeless validity for any one of the biblical future expectations, including those taken up into Christian doctrinal formulations. Our task as theologians is to “become scientists” to our scientifically informed contemporaries so that the gospel can again make sense to them (1 Cor. 9:19–23). Our task is not to defend outdated worldview assumptions. We must do for our times what the biblical authors did for theirs—proclaim the creative and redemptive intentionality of God in response to contemporary predicaments and in terms of “best science.” Let me make a few suggestions to this effect.

The General Resurrection from the Dead. Israel’s core proclamation was geared to what it believed had actually happened in the past: Abraham’s son, exodus, desert sustenance, Sinai covenant, conquest of the land, King David, return from exile. Being committed to Israel, God was expected to act again in concrete historical ways: an authentic Davidic king, the restoration of the Davidic empire, the return of the entire Diaspora to the promised land, the elevation of Jerusalem to the status of world capital, the Kingdom of God, and the gift of a “new heart” or the divine Spirit to aberrant Israel.

It is only when these expectation did not materialize that a defiant faith turned to the possibility of a resurrection to face judgment and “a new heaven and earth.” The tragic fact is that this “solution” did not deliver what it promised. It did not reveal God’s unwavering commitment to justice in general and to God’s people in particular, but only obscured and mystified it further. The second coming of Christ and the advent of the new creation had to be endlessly postponed. Today many Christians find it hard to contemplate their realization, others are puzzled by the fact that it does not seem to materialize.

Moreover, the notion of resurrection to face judgment was only one strand of the Jewish tradition. As a postexilic innovation, it arrived fairly late on the scene. Within the biblical Canon, it appears for the first time in Daniel 12:2, which is usually dated between 168 and 164 BCE. Up to that point the Israelite tradition was exceptionally realistic about the finality of death (Isa. 26:14; Ps. 6:5, 88:10ff.; Job 7:9ff.; 14:1–22).

It comes as no surprise, therefore, that the notion of bodily resurrection remained controversial in Judaism, even during the time of Jesus (Mark 12:18). Ecclesiastes (or Jesus Sirach), probably written in about 180 BCE, is still in line with the ancient Israelite tradition (17:1–32 and 41:1–42:8). Death is a decree of God, and we had better live with it. Wisdom of Solomon (1:12–3:19), on the other hand, argues that “righteousness is immortal.” Those who deny resurrection do this only to get a free ticket for iniquity. In view of the high ethical standard espoused by Sirach, this verdict is hardly justified.

The notion of resurrection also underwent modifications. An important variant was rooted in the ancient assumption of a *causal link between sin and death*. “Death is the wages of sin.” That again seemed to imply that, once sin was overcome, death would disappear as well. Resurrection would bring about the reconstitution of human life without sin. This new and authentic human life would then endure, not in “eternity,” for which Hebrew has no word, but “throughout the age” (*ad ’olam*). This is the background to Paul’s notion of death and resurrection (Rom. 5:12–20; 6:3–11, 6:23; 8:3–11).

A quasi-physical interpretation of the link between sin and death has become untenable. Biological death is not a consequence of alienation from God. It is also not a mythological power that thwarts God’s intentions. Entropy and death are built into the very fabric of a reality created by God. It comes as no surprise, therefore, that already in New Testament times there was a clear shift toward a spiritual interpretation of these concepts. We shall come to that below!

The Resurrection of Christ. Three fundamental motives drive the New Testament proclamation of the resurrection of the crucified Jesus from the dead: (a) the divine affirmation of the validity of Jesus’s proclamation and

enactment of the God of Israel as a God of redeeming love, rather than a God of retributive justice and ritual purity, (b) the divine affirmation of the authority of Jesus as messianic representative of God to proclaim and enact such a message and (c) the opening up of the “new life of Christ” to universal participation.

The first refuted the validity of the condemnation of Jesus as a heretic by the Sanhedrin. The second refuted the legality of the execution of Jesus as a political insurgent by the Roman authorities. The third refuted the charge that Christians were a heretical sect that promulgated a spurious claim to messianic authority and unlawful participation in God’s kingdom. In all three cases the integrity of Jesus and his followers was avowed. The proclamation was, therefore, a response to the need for validity. None of these motives clash with modern scientific insight.

Paul’s statement that, if there was no resurrection, Christ had not risen, the Christian message was fraudulent and the Christian faith was without substance (1 Cor. 15:12–9) has had an intimidating effect on the integrity of the theological discourse. Of course, the Christian message centers on the death and resurrection of Christ. There is also no question that, as a conservative Jew, Paul took the Jewish traditions of resurrection and apocalyptic reconstruction for granted. But the underlying message does not depend on the validity of an ancient “worldview” that became less and less feasible already in New Testament times.

That Jesus as an individual should have risen ahead of all the rest of us had no antecedent in apocalyptic literature, or indeed anywhere else in Judaism. It only made sense if one assumed that the leader was moving ahead of his followers like a shepherd before his sheep, or expressed in the imagery of Psalm 2, that the messianic king had to subdue and eradicate all hostile powers (including death) to make way for his followers to join him. This was indeed Paul’s position in 1 Cor. 15:20–4. Both versions presuppose a fervent expectation that the eschatological vision will come to pass in the immediate future (called *Naherwartung*). This enthusiasm lost its traction and relevance when the second coming and the transformation did not materialize as expected.

To insist on the resurrection of Jesus, therefore, must have had a *theologically* compelling reason—and indeed it had. It was the divine gift of the true way of being human, as manifest in the life, ministry, and death of Jesus of Nazareth. This is what could not be dumped without losing the very core of the Christian message. But it does not require a quasi-physical interpretation of the resurrection.

The alternative was already implicit in Paul’s and John’s stances. While Paul’s apocalyptic frame of reference seems to imply a quasi-physical new creation, Paul himself stated that “flesh and blood cannot inherit the Kingdom of God, nor does the perishable inherit the imperishable” (1 Cor. 15:50). As the ancient Israelite tradition realized, no biological

reality is “imperishable.” The “eschatological” (imperishable) reality can only be either something “otherworldly”—in the sense of an alternative world—or a “spiritual” reality—and that in the sense that Paul and John gave to the word “spiritual.”

For Paul “being in the spirit,” or living “according to the spirit,” or being “in Christ” meant *being authentically human in fellowship with God* in contrast to living “according to the flesh.” The risen Christ is the Spirit (2 Cor. 3:17), or the “image” of God into whose image we are to be transformed (2 Cor. 3:17–8; 4:4). Christ is (now) no longer known according to the flesh and neither are those who believe in him. They have (now) died so as to live for him. They are (now) a new creation and everything old has passed away (2 Cor. 5:14–7; Rom. 6:1–14). They have (now) been liberated from the law of sin and death by the law of life (Rom. 8:2). It is (now) true that a “fleshy” mentality is enmity against God and death, while the mentality of the “Spirit” is life and peace. Believers (now) have the Spirit of Christ (otherwise they do not belong to him), which means that their fleshy body is dead in sin, while their spirit is alive in righteousness (Rom. 8:6–11).

For John the words and actions of Jesus represent an unbroken channel of communication from God to Jesus and from Jesus to his followers, a communication that provides an authentic life of self-giving, redeeming love. It is this dynamic communication of an authentic life that is the “Spirit,” while the “flesh” is the inauthentic life of a human being that is out of contact with God. The following quotations bear that out. “It is the spirit that gives life. The flesh is useless.” The words of Christ are “spirit and life” (John 6:63). Believers are born not of the flesh but of the Spirit (John 3:3–8, cf. 1:12–3). Concretely this means that they remain in the love of Christ as Christ remains in the love of God (John 15:9–11). Christ is the vine, whose branches bear fruit (John 15:1–13). For those who remain in this love, the immediacy of the earthly Jesus is “replaced” with the immediacy of the Spirit of truth (John 14:15–7).

According to John, this authenticity producing process happens after the resurrection of Christ. He does not leave his disciples orphaned, but comes to them (John 14:18–21). Because Christ is in the Father and the Father in Christ (John 8:19; 12:44; 14:9–11), this means that both the Father and the Son “come to them and make their home with them” (John 14:23). Nobody has seen God; if we remain in God’s love, manifest in Christ, we are “born of God”; God lives in us, God has given us of God’s Spirit; those who abide in love, abide in the God who is love, and God in them (1 John 4:7–16). The Last Judgment happens now as we encounter Christ in the divine Spirit of self-giving love (John 3:7ff., 5:24; 1 John 4:7–16).

Further Developments. When the expected *parousia* [second coming] of Christ did not materialize, New Testament authors made the necessary

adjustments based on the underlying motives enumerated above. The manifestation here and now of an authentic new life mediated through the Christ-event, rather than the expectation of an imminent reconstruction of reality (*Naherwartung*), became the central focus.

The Deutero-Paulines (Ephesians and Colossians) shifted the emphasis resolutely from the end of times to the present. Paul's temporal sequence (1 Cor. 15:23–5) now became a “spatial” hierarchy (Eph. 1:20–3). Christ is *already* enthroned “in the heavenly places” and the believing community *already* shares his position there (Eph. 2:1–7, Col. 2:11ff., 3:1ff.). Anticipation of the future glory of God became participation in the *present* glory of Christ. The emphasis on divine validity here and now again implied that the lordship of Christ covered the entire span of history from creation to consummation (Col. 1:15ff.), all of cosmic space (Eph. 4:9ff.) and all cosmic powers (Eph. 1:20ff.). We will presently come to that.

In the Synoptic Gospels, the followers of Christ were sent out in his authority to make disciples because all power had (already) been given to him (Matt. 28:16–20, Acts 1:6ff.). As in the Jewish tradition, the Last Judgment was about what people did during their life on earth, not what they would be able to achieve in a new life beyond death. But Christ was now seen as the Judge of the Last Judgment. And the criterion of the Last Judgment had now become the practical enactment of the redeeming love of God manifest in Christ during this life on earth, rather than the stipulations of the Torah as such (Matt. 25:16ff.).

The Cosmic Christ. The “revelation” of God's benevolent intentionality in the history of Israel, culminating in the Christ-event, had cosmic implications. In time, the God who entered into a covenantal relationship with Israel had to be recognized as the ultimate Source and Destiny of reality as such and as a whole—the Creator of heaven and earth. In the same way the God who manifested God's suffering, transforming acceptance of the unacceptable in the Christ-event had to be recognized as the ultimate Source and Destiny of reality. This is what led to the notion of the “cosmic Christ.”

This concept cannot possibly mean that Jesus of Nazareth, a human being living under the constraints of time, space, and differential energy allocations within a social, political, and cultural context, was, as such, the Means of creation of the universe. Here again ancient linguistic tools confound a modern discourse. The *identification* of God with Jesus, God's messianic representative, must not be confused with the *identity* of the divine and the human agent in the Christ-event.

As always in the biblical tradition, God made himself known *in and through* God's creatures.¹⁷ As far as we are concerned, God is identical with God's love as revealed in Christ because that is all we know and can

ever know (John 14:8–14; 1 John 4:16). Colossians 1:15–7 says the same thing, using the traditional metaphors of the “image of God” and the “firstborn” (cf. 2 Cor. 4:4). Hebrews 1:1–2 again says the same thing using the metaphor of prophetic communication.

It is God of whom it is said that “from him and through him and to him are all things” (Rom. 11:36), that this God is the “Alpha and the Omega,” “who is and who was and who is to come, the Almighty” (Rev. 1:8). Christ and his followers, being transformed into the image of God, *reflect* God’s glory in human weakness (2 Cor. 3:17–8; 4:3–6). God identified himself, first with Israel as a witness to God’s righteousness and justice, then with the king as God’s representative and plenipotentiary on earth (Psalm 2), then with Jesus as the crucified messiah and finally with the Spirit of Christ that permeated, liberated, transformed, and empowered the Body of Christ for its mission.¹⁸

Legendary Outgrowths. The subsequent history of the proclamation and celebration of the presence of the crucified Christ in the fellowship, liturgy, and ritual of the community of believers was—as always happens in such cases—a fertile field for the growth of legendary and mythological motifs. Examples are the splitting of the curtain, the earthquake, the resurrection of the “bodies of the saints” that “appeared to many,” the angel(s) at the grave, the encounter of Mary Magdalene with the risen Christ, the startling appearance of Jesus to his disciples in a closed room, and the departure of Jesus in a cloud.

Arguably the story of the empty grave was one of these legends. At least, following Occam’s Razor, it is by far the easiest explanation. It differentiated into various versions that can no longer be harmonized. Its rationale was clearly to concretize and dramatize the proclamation of the resurrection of Jesus from the dead. Some exegetes believe that it might have been located in a ritual. The point is, however, that legend and history were not as clearly demarcated in ancient times as they are for us today.

That is how the main bodies of the New Testament tradition spelled out the experiential reality of the risen Christ. Expressed in terms of the scientific theory of emergence, all this happens at the spiritual level of emergence, that is, the level of structured individual and collective consciousness, rather than at the physical and biological levels.¹⁹ As an emergent reality, the spiritual level presupposes all lower levels of emergence, from quanta to brains, but it cannot be explained in terms of the latter.²⁰

“Eschatological Proviso” and “Prolepsis.” In terms of the Christian faith experience, Paul’s “eschatological proviso” (“already” but “not yet”) is not only legitimate but also essential. According to Paul we are still

living *in* the flesh, but we are not meant to be living *according* to the flesh. Therefore our participation in the new life of Christ remains provisional, tentative, vulnerable, and incomplete. We are never there, we always have to “strain toward it” (Phil. 3:12–4). We have to “*consider* ourselves” to be dead and alive to God in Christ (Rom. 6:11). We never have it in our pockets; it always remains an expectation, an aspiration, and a gift.

But this does not imply a quasi-physical ontology. It is an expression of the discrepancy between what has become and what *ought* to become. Some very prominent modern theologians and their followers reified the anticipatory character of faith in the risen Christ as the “prolepsis” of a quasi-physical future reality, or even as the “first instantiation” of a new law of nature (Russell 2008, 309f.). In my view, this idea is unthinkable in scientific terms, otherwise Russell’s problem of the incompatibility of eschatology and entropy would not exist.

I would also argue that it will not do the trick in theological terms either, because (a) it provides no answer to the ever present and urgent Jewish-Christian problem of theodicy, (b) it precludes the application of what happened in the death and resurrection of Christ to the Christian community here and now, and (c) it demands faith in the world-view assumptions of a prescientific age. For a serious dialogue between faith and science, I believe, it is a nonstarter.

It is in the experiential and spiritual sense, not in the sense of a speculative quasi-physical ontology, that Jesus of Nazareth represented (and *historically* so) the “first instantiation” of the new life in fellowship with God, defined as participation in God’s creative and redemptive intentionality. The “resurrection of Christ” (= being at the “right hand of God,” who is present in all of reality, thus present wherever and whenever humans appropriate, enact, and celebrate his presence) has made that new life valid, accessible, and effective for us all. It is in this participatory sense that Christ was indeed the first-born among many brothers and sisters (Rom. 8:29; cf. Heb. 2:10ff.), and the pioneer and perfecter of our faith (Heb. 12:2).

If understood in terms of a quasi-physical ontology, in contrast, it is very difficult to make sense of the idea of the “first instantiation” of the new creation in the resurrection of Christ. For close on two millennia there was no evident manifestation, no subsequent case, no participation in the new (quasi-physical) reality, no transformation of (physical) reality anywhere at any time. The continuity of the “new creation” with the “old creation” cannot be conceptualized, except as a mystery or a miracle. Nor is it likely that all this will ever come to pass. So in which sense can it be considered real, albeit as a future prospect, rather than speculation, wishful thinking, or self-delusion, as critics of the biblical faith from Feuerbach to Dawkins maintained?

MY OWN PROPOSAL IN A NUTSHELL

The Real God. According to the Bible, God works *through* God's creation. God's creative and redemptive activity does not obviate the functioning of the cosmic process, but manifests itself in it. God's initiative does not obviate human initiative, but triggers and empowers it. God's wisdom does not contradict genuine human insight, but manifests itself in it.²¹

In scientific terms this means that God utilizes the energy that makes up the substance of the universe, the regularities according to which it functions and the underdetermined potentials that make it flexible enough to allow intentionality and agency to manifest themselves.²² There is no justification for the assumption that God would suspend or bypass the prerequisites of cosmic reality to satisfy human needs and desires.

Again I would argue, therefore, that we must learn to accept what God *in fact* does (rather than impose what we *think* God *should* do, or *will* do in the future).²³ God's creative and redemptive activity is reflected in the *actual* dynamics of the world process as explored by the sciences.²⁴ All power actually operative in the universe, that is, the energy of the first law of thermodynamics, is God's power, under God's control and therefore subject to the regularities and indeterminacies that God has installed to make reality work.

The Character of Biblical Future Expectations. The long sequence of future expectations in the Bible expressed continuing redemptive responses of the "Word of God" to changing situational needs and worldviews. As they lost their relevance and traction, such expectations were dropped or reinterpreted to respond to new needs and interpretations. Biblical eschatology, in particular, was a radical response to the problem of theodicy. It evolved in three directions:

- (a) The notion of a general resurrection to face the "last judgment" was not based on the desire for longevity, but on the tenacity of the Jewish faith in God's justice in view of the fact that the righteous suffered and the godless prospered, thus an affirmation of the divine demand for human righteousness. That affirmation is valid.
- (b) The assumed causal link between sin and biological death seemed to imply that, with the eradication of sin, biological death would be overcome. If death was the wages of sin, resurrection was the gift of authentic life. This assumption cannot be upheld. It was already interpreted by later New Testament authors in spiritual rather than biological terms.
- (c) The apocalyptic notion of a transformation of the current world or its replacement with a world without evil was a radical response to

conditions of extreme suffering where it seemed that current reality was beyond repair and God would have to begin from scratch. This assumption cannot be upheld, but understood as God's vision of comprehensive well-being it is valid.

The Resurrection of Christ. The rationale of the proclamation of the resurrection of Christ differs from the notion of a general resurrection to face judgment and an apocalyptic transformation of the world.

- (a) In terms of ultimate validity, it was the affirmation of the proclamation and enactment of Jesus of Nazareth of the God of Israel as a God of redeeming love rather than a God of incorruptible justice or ritual purity. That is the constitutive and indispensable assumption of the Christian faith.
- (b) In existential and communal terms it opened up the "new life of Christ" in fellowship with God to universal participation. Human life that shared God's creative power, redeeming love, and comprehensive vision had moved from the constraints of an individual human being to the inclusive realm of a new humanity. Without this assumption the "resurrection of Jesus" would have no relevance for us.
- (c) In cosmic terms it proclaimed the world process as the creative and redemptive activity of a God who suffers and transforms reality toward the vision of comprehensive well-being.

Already visible in the history of suffering in Israel (Gerstenberger 2001, 197f.), the "powerlessness of God" as manifest in Jesus of Nazareth thus became the defining characteristic of the ultimate Source and Destiny of reality. The assumption of God's sacrificially creative and redemptive acceptance of the unacceptable does not contradict the entropic and evolutionary processes as described by science, yet it provides meaning, vision, and motivation to the community of believers precisely in times of hardship and frustration.

The pivot of this proclamation was the cross of Christ. It was the prototypical manifestation of the self-giving action of God manifesting itself in the fate of God's messianic representative. We are invited to participate in the sacrificial love of God, thus becoming part of God's creative and redemptive project in the world. On the basis of this proclamation and invitation, faith discerns that it is the sacrificial commitment of God that enables and empowers the cosmic process as such and as a whole.²⁵

Using anthropomorphic metaphors (as the Bible does), we can say that the destructive force of entropy is the price God pays (and we have to pay)

for having the energy needed for the world to exist in the first place. The implacable validity of the laws of nature is the price God pays (and we have to pay) for having a functioning cosmic process. The occurrence of tsunamis is the price God pays (and we have to pay) for having an earth's crust on which life can evolve. The death of all living creatures is the price God pays (and we have to pay) for having living organisms. The possibility of human depravity is the price God pays (and we have to pay) for having a creature endowed with intentionality and agency.

Emergence theory suggests that, while God has become a person for humans because humans are persons (as the Bible presupposes), God is the transcendent Source and Destiny of all levels of emergence, including the physical and biological infrastructure of personhood. God is, therefore, much more than a person, just as the human being is much more than a person. A tsunami is not due to an intentional act of God, but to tectonic shifts in the Earth's crust that follow natural laws—which are also of God. This scientific insight can help theology unravel the otherwise intractable problem of theodicy (Nürnberger 2010a, 80–92, 2011, 241–4).

Eternal Life. Biological life will end in death. According to the biblical faith, humans are not immortal, only God is (1 Tim. 6:16). “Eternal life” can only be conceptualized as the life of God. In experiential terms, “God’s life” can only mean God’s creative power as experienced in reality and God’s redemptive intentionality as manifest in the Christ-event.²⁶

Eternal life for us can only mean authentic human life.²⁷ Authentic human life is a life in unadulterated fellowship with God, a life that participates in God’s creative and redemptive project. That is why in the Bible the “last judgment” is about what we do in this life, rather than what we could achieve in a life beyond death. In the Jewish tradition its criterion is the righteousness of God as defined by the Torah; in the New Testament it is our participation in the redeeming love of Christ (Matt. 25, 31ff.).

Concern about the infinite prolongation of my conscious life seems out of character with the self-giving love of God that manifested itself in the cross of Christ and that is affirmed by the elevation of the “crucified Christ” to the status of a new humanity accessible to all humans. The “new life of Christ” is a life that acts sacrificially and redemptively in the authority of God. We must not expect more than we are entitled to as creatures among billions of others.

My individual existence as a conscious agent flared up, flickers for a brief moment and will die down again as a minuscule instance in cosmic history—just as our earth is a minute speck of dust in the universe. However, this existence emerged at my conception from an *immense causal network* that goes back at least as far as the Big Bang and that continuously sets in motion an *immense network of consequences* that will have an impact

on world events at least until the disintegration of the earth as a life-sustaining planet.

Expressed in theological terms, my individual life, like all life on earth, emerged from God's creative and redemptive project and will remerge into God's creative and redemptive project. It derives its uniqueness, dignity, and infinite preciousness from its participation in the "life of God," rather than from any excellence, competence, or disposition of its spiritual or biological nature. It is authentic to the extent that it reflects God's sacrificial intentionality, rather than the pursuit of its own interests and desires—whether material or spiritual.

If you have peace with God now, you can die in peace when death arrives. You can hand over your life to the very God who had once entrusted it to you and who had blessed it with God's grace. Having been part of the ongoing "life of God" its cosmic significance—sometimes conceptualized as "the memory of God"—can never be lost.

The Transformation of the World. Against the background of the dynamic sequence of future expectations and their vibrant situational immediacy, the biblical expectation of a transformed world can best be expressed with the metaphor of God's vision of comprehensive optimal well-being of the whole human being, and every human being, in the context of the comprehensive optimal well-being of their entire social and natural environments.

This (utopian) vision translates into God's (practical) concern, thus into our (practical) concern, for every deficiency in well-being in any dimension of life. It functions like a horizon that moves on as we approach it, opening up ever new vistas, challenges, and opportunities. It constitutes meaning, defines acceptable behavior, provides direction, and allocates specific authority to act as representatives of God in the world. But it never "arrives," otherwise it would lose its capacity to transcend the given. It would lose the power of what ought to become over what happens to have become.²⁸ I am persuaded that this is how biblical announcements of the future action of God actually functioned—often in contrast with the "realistic" expectations of their respective audiences.

CONCLUSION

In sum, the assumption that the collapse of conventional eschatology would spell the collapse of the Christian faith is unwarranted. It is based on a problematic reading of the Bible, an empirical-historical criterion of truth that does not fit a pre-Enlightenment discourse, and a set of doctrinal propositions deemed axiomatic that are based on reified biblical metaphors and Platonic abstractions.

As I see it, my proposal does not lead to the impasses in the relation between science and faith that the science-religion debate grapples with. In terms of *biblical* interpretation, it is in line with the dynamic thrust of the biblical witness, if read from a historical-critical, rather than a fundamentalist, doctrinal or speculative perspective.

It does not contradict current *scientific insight* about the origin, nature, and ultimate demise of the universe as a whole, life in general, and human life in particular. Scientific sobriety can bring us believers and theologians down to earth and, at the same time, reveal to us the awe-inspiring immensity and complexity of God's creation in ways that the biblical and theological traditions have never dreamed of.

In *doctrinal* terms, this interpretation integrates the central concerns of the Reformation—that is, Christ alone, grace alone, faith alone, and Scriptures alone in terms of a tenable modern worldview. It obviates the temptation of misrepresenting God as a causative factor among others within reality, rather than the transcendent Source and Destiny of reality as such and as a whole. It derives its ethical directions from the fundamental propositions of faith. It shows that, just as everything else in the world, the biblical faith is an emergent and evolving phenomenon used by God to link us up with God.

NOTES

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1. I am using the term “eschatology” in the sense of the classical doctrines about “the last things,” focusing in particular, as Russell does, on “resurrection” and the “new heaven and earth.”

2. A telling indication of this fact: in over a 1000 pages of *The Oxford Handbook of Religion and Science* there is a single three-page treatment of eschatology by John Polkinghorne (Clayton and Simpson 2006, 68–70).

3. Russell sees the Golden Gate Bridge as a model of his work—“starting from both sides and meeting in the middle” (2008, 1) and following a “methodology of creative mutual interaction” (2008, 2).

4. My concept of “experiential realism” is similar to that of “critical realism” (Peacocke) or “model-dependent realism” (Hawking and Mlodinov), but more inclusive of various kinds of human experience. For detail see Nürnberger 2011, 72ff.).

5. The approach I think we should abandon is expressed most succinctly by Alister McGrath: “The specific form of a scientific theology which this project advocates is based on the affirmation of the intellectual resilience of the traditional credal Christian orthodoxy, whose fundamental ideas are stated in the classical creeds of Christianity. . . . There are two particular considerations which lie behind this decision.

1. Theologically Christian orthodoxy must be considered to be the most authentic form of Christian theology, representing the consensus of the Christian communities of faith over an extended period of time. Christianity is a corporate faith, whose thought is governed both by Scripture and a long tradition of theological reflection, embodied and expressed in the creeds.

2. Historically, alternatives to Christian orthodoxy tend to be transient developments, often linked with specific historical situations whose passing leads to an erosion of plausibility of the variant of Christian theology being proposed" (McGrath 2001, 35f).

6. "Because the historical circumstances changed, and with them the people, the Word proclaimed to them changed as well" (Michel 1968, 277, my translation).
7. Dawkins' *The God Delusion* has been sold in millions of copies all over the world and has proved to be extremely persuasive for an academic generation informed by science.
8. During the Middle Ages, Western thought moved from Platonism to Aristotelianism, then to Nominalism and on to empiricism. Phenomenology and existentialism are late and sophisticated versions of this trend. Much of contemporary theology got stuck somewhere on the way or adopted postmodern assumptions.
9. Though paying lip service to the scriptural revelation, "Protestant Orthodoxy" of the seventeenth century, for example, defined God as "infinite, spiritual, most perfect essence" (Schmid 1961, 112). Note what is excluded: finite, material, imperfect, and actual existence. From this axiom these theologians deduced God's "attributes" or characteristics by retaining all perfections and subtracting all imperfections found in ordinary experience (Schmid 1961, 117ff.). The source of the argument is not the Bible but Greek metaphysics. Verses that seemed to fit the argument are added from all over the Bible, irrespective of their contexts. It is not often understood that this theology is the common ancestor of Pietist, revivalist, evangelical and fundamentalist interpretations of the Christian faith. But it also constructed the basic framework (the "symbolic universe") within which most of contemporary Systematic Theology operates.
10. This contention was developed most radically by Nominalism, from where it found its way, among others, into the Reformed tradition.
11. A whole series of further inferences can be drawn out. It can be argued, for instance, that in the expected new world there can be no evil. Humans will be "unable to sin." Natural evil (tornados, tsunamis, droughts, floods, physical suffering, and death) can no longer occur. Thermodynamics, including the second law, will either not operate, or it will only produce good, but no evil consequences. Understood as God's vision of comprehensive optimal well-being, such a set of expectations can provide powerful motivations to tackle any discrepancy in well-being in any sphere of life, and move in the direction of the most beneficial outcomes, but as a realistic expectation or a prediction it is utopian and has no support in the reality we know.
12. Patterns of relationships, interaction, and information systems that are sometimes assumed to survive biological death are abstractions from the actual functioning of the living body that is in constant flux.
13. For detailed discussion of the untapped potential of Luther's approach for science-faith relationships, theodicy, and the ecological crisis, see Nürnberger (2011, chapter 11) or "Martin Luther's Experiential Theology as a Model for Faith-Science Relationships" (Nürnberger 2010).
14. Although postmodern approaches are in vogue at present, the classical historical-critical method is still highly appropriate in the context of the science-religion debate. Postmodern approaches are unlikely to satisfy the average natural scientist. (Ben-Ari 2005, 115–30) Classical historical-critical research informs the work of Grass 1964, Wilckens 1970, and Jünger 1973 in the bibliography.
15. "Apocalyptic" means an "uncovering" of the future. The concept refers to a spiritual movement that emerged in late postexilic Judaism. It proclaimed the imminent and catastrophic end of the irredeemably corrupt "present age" and its replacement with an "age to come" void of injustice, evil, suffering, and death. It radicalized classical Israelite prophecies and utilized Parsist assumption of a future showdown between the good god (*Aburamazda*) and his angels and the bad god (*Angra Mainyu*) and his demons. The core message was that evil had no right to exist and would be overcome once and for all. It integrated the slightly earlier assumption of a resurrection from the dead to face judgment. The dualism between "this age" and the "age to come" constituted the worldview of the earliest Christian community. Providing the framework for other biblical future expectations—the second coming of Christ, resurrection, the last judgment, the kingdom of God—it found its way into Christian doctrinal eschatology.
16. I am avoiding the concepts of "promise and fulfillment" for two reasons. (a) The sequence of promise and fulfillment cannot be demonstrated in terms of actual historical events. As was the general practice in those times, New Testament authors who claim such a fulfillment imposed a totally different meaning on the texts they gleaned from the Old Testament.

(Michel 1968, 277–80). The pronouncements of the prophets hardly ever materialized the way they were formulated. (b) The actually experienced nonfulfillment of assumed promises casts doubt on the truthfulness and reliability of their authors—be it the prophets themselves, or the God in whose name they speak. This fact has caused untold agony among Jewish and Christian believers throughout the ages. In actual fact, however, prophetic pronouncements communicated (a) visions of what ought to be and (b) pastoral warnings and reassurances.

17. This is clear even in terms of the classical (ontological rather than historical) discourse manifest in the decisions of the Council of Chalcedon (451): Christ unites, in one person a divine nature and a human nature which should *not be confused* with each other *nor separated* from each other. I would interpret “one person” as the personal encounter in which God manifested God’s intentionality and agency in Jesus, a human being.

18. Note that the word *logos* in John 1:1ff. does not *as such* refer to Jesus, but to the creative “Word” of God (harking back to Genesis 1) or the creative “Wisdom” of God (harking back to Jesus Sirach 1:9ff. and Wisdom of Solomon 7:22ff.). It is this *logos*, God’s benevolent rationality, that “became flesh,” that is, human reality, in Jesus. It is the benevolent rationality of God that was “before all things” (cf. John 1:1) and penetrates all things (cf. John 1:3), that found its human manifestation in the life, fate and “upliftment” of Jesus, the messianic representative of God. God’s benevolent rationality, as manifest in Christ, “was God” in the sense that it was “with God” (John 1:2). Its incarnation meant that it was communicated through the living human reality of Jesus of Nazareth (John 5:19–24).

19. For the theory of emergence see Clayton (2006), Peacocke (2007), Ellis (2008), and Kauffman (1995).

20. There is a parallel in African religion: the concept of the ancestor signifies the spiritual presence of a bodily deceased person that had social and spiritual significance when alive. While the vitality of the deceased disintegrates, their authority is ritually and socially enhanced (Nürnberg 2007, 25–7).

21. See also the critique of the distinction between “general” and “special” divine action in Gregersen 2008.

22. See the perceptive analyses of Thomas Tracy, (in Russell et al. 2008:250–3) according to which the world process is “an intrinsically flexible interweaving of law and chance.” I would rather speak of “a process constantly opening up a constrained range of potential futures,” where God can actualize (perhaps through our enlightened and empowered agency) one of the underdetermined possibilities within the parameters set by the past, without suspending or overriding the regularities that constitute the constraints embedded in every such situation (Nürnberg 2011, 130–5).

23. Russell rightly maintains that “the ‘creation’ which will be transformed into the New Creation must unequivocally refer to that same universe”—that is, “the ‘Big Bang universe’” (Russell 2008, 298). Indeed, but the Big Bang universe, cosmology tells us, is precisely the universe that will end up in the “freeze or fry” scenario, rather than an eternal kingdom of bliss. *That* is the reality God created, no other!

24. The distinction between ontological and historical dependence offers no solution because ontology is an abstraction from the flux of time and has, as such, no reality status. There can be no “ontological” dependence that does not manifest itself in “historical” dependence (see Russell 2008, 80ff. for the discussion).

25. God’s suffering indeed “includes the history of life on earth” (Russell 2008, 11), but goes beyond that to encompass the whole of reality. According to Martin Luther, faith in the love of God, manifesting itself *sub contrario* in the cross, opens our eyes for the operation of the same love of God in the seemingly contradictory experiences of life, thus by implication, in all cosmic processes. (Nürnberg 2011, 216–21) Entropy is, therefore, not just an *analogy* to natural evil “including such biological realities as suffering, disease, death, and extinction” (Russell 2008, 10), but its primary cause. Viewed in its total context, however, it is part of what Russell calls “natural goodness,” because it makes the world we know possible.

26. In line with my experiential approach I have avoided the concept of “eternity.” This concept is exceptionally undefined, polysemous, and misleading. What precisely does it mean? Infinity (Russell 2008, 69ff.) is a mathematical term, eternity is a Platonic abstraction from time. Both lack experiential substantiation. To signify God’s creative presence throughout time and beyond, “eternity” is often linked with the “*creatio ex nihilo*” concept as well as the “*creatio continua*” concept. But these concepts do not abstract from time. Russell’s

suggestion of a relational “ontology” between events (Russell 2008, 186) does not remove the fact that the past is no more and the future is not yet. The modern theological definition of eternity as “timefulness” (God is “simultaneously present in the past, present, and future”) is a highly speculative construct, whether it is underpinned with arguments gleaned from relativity theory or not. It is also not biblical. Nowhere in the biblical scriptures is it said that God went back in time to rectify what went wrong there, or ahead in time to set the parameters for future developments. God encounters us here and now, suffers the past and opens up the preconditions for a more authentic reality. In this sense “eternity” is linked with the concept of authenticity—where it rightfully belongs, I believe, in biblical-experiential terms.

27. Human authentic life implies authentic divine action. In my view, the criterion of authenticity can be conceptualized in terms of God’s vision of comprehensive optimal well-being that translates into God’s concern for any deficiency in well-being in any dimension of life. As a *vision* it also applies to God’s “continuous creation” of the universe. At this point Russell’s envisaged research may intersect with mine: “Here divine temporal is taken in the sense of authentic temporality, that is, divine eternity” (Russell 2008, 102). However, I find the use of the word “eternity” for “authentic temporality” confusing because it suggests timelessness, thus otherworldliness. “Perpetuity” would perhaps be more in line with an experiential approach.

28. “(E)schatology adamantly refuses to become involved with the ‘existing.’ If God, according to this ‘logic,’ is the radical future, then hope can be convincing as continuous movement, as constant transcending, and as unchecked contradiction. It would be unimaginable that anything really definitely arrives or is fulfilled, even symbolically and temporarily, for that would rob such hope of its élan” (Sauter 1996, 184).

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