

Incarnation, Panentheism, and Bodily Resurrection: A Systems-Oriented Approach

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Abstract

Christian theologians assume that systematic theology should make use of the language and methodology of natural science wherever possible to set forth contemporary understanding of Christian doctrine. To this end Joseph Bracken employs the notion of open-ended systems of entities in dynamic interrelation as the basis for an evolutionary understanding of the cosmic process within the natural sciences to give a new more socially oriented understanding of three key beliefs: the incarnation of the Second Person of the Trinity in the God-Man, Jesus of Nazareth; the overall God–world relationship; and Christian eschatology.

Keywords

actual entity/society, Aristotelian-Thomistic metaphysics, Christian eschatology, community, causality, emergence, matter, panentheism, person, salvation history, spirit, Alfred North Whitehead

Some years ago Granville Henry, professor of mathematics and philosophy at Claremont McKenna College, published a book challenging the alleged tension, if not outright conflict, between the truth claims of natural science and Christian theology. He proposed instead that (1) Christians normally accept good science and find a way to integrate science into their understanding of the God–world relationship as revealed in the Bible; (2) conflict between science and religion arises when religion, after accepting one scientific approach to reality into its theology, encounters a new

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and different scientific approach to reality; and (3) the new scientific approach to reality inevitably involves a new philosophical understanding of physical reality that could be of considerable help to Christian theology in the elaboration of its traditional beliefs.¹ He pointed, for example, to the way ancient and medieval Christian theology accepted a geocentric understanding of the world on the basis of accepted science at the time and as seemingly confirmed by passages in sacred Scripture. The mathematics of Copernicus and the empirical research of Galileo, however, challenged this understanding of physical reality. The Roman Catholic Church rejected the counter-hypothesis of a heliocentric universe as bad science and bad theology.

But when improved mathematics and further empirical evidence established the validity of a heliocentric universe, Christian theology adapted to the widespread scientific use of mathematics and hypothetical/deductive thinking to determine the universal laws of nature. Indeed, this basically impersonal mechanistic approach to physical reality still required the existence of God as creator and sustainer of the world, if the world is understood as a vast cosmic machine and God is its architect and engineer. When Darwin, with his hypothesis of the origin of species on the basis of random variations and survival through natural selection, challenged this argument from the design of the cosmic process for the existence of God, Christian theologians set forth theories for how God can use chance as an integral part of the divine plan for the world of creation. In this way, God is still primary cause, and creatures are only secondary causes of whatever happens in this world.

In the intervening 150 years since Darwin's publication of *On the Origin of Species* (1859), scientists in general, but especially those working in the life sciences, considerably broadened their understanding of how cosmic evolution works. The natural world seems to be systematically organized into groups of entities that mutually sustain one another by their dynamic interaction. Unlike mechanical systems employed in the creation and maintenance of human artifacts (automobiles, washing machines, etc.), systems at work in nature tend to be open-ended, that is, subject to gradual evolution in their basic mode of operation due to changes in the ongoing relations between their constituents or because of an unexpected change in environmental conditions. Especially at the level of the life sciences, the universally binding laws of nature are thus being replaced by broad generalizations in terms of statistical probabilities.

But if in the natural and social sciences systems-oriented thinking seems to be increasingly the norm for analyzing pertinent empirical data, should systems-oriented thinking likewise play a role in theological reflection on traditional Christian beliefs? This question relies on Henry's claim that a new scientific approach to physical reality invariably involves a new philosophical understanding of physical reality that, if thought through carefully, could likewise be of considerable value to theologians in representing and further interpreting the gospel for a contemporary lay audience that is relatively familiar with the current mode of operation of and latest research results within the natural and

1. Granville C. Henry, *Christianity and the Images of Science* (Macon, GA: Smyth and Helwys, 1998) 21, 28, 33.

social sciences. This is not to claim that Christian theology depends on contemporary science so as rationally to justify traditional beliefs and practices, but only to claim with Henry that good theology tends over time to incorporate contemporary science into its own mode of thinking simply as a matter of common sense.

Likewise, my question is not intended to disparage the obvious merits of Aristotelian-Thomistic metaphysics as the traditional philosophical underpinning for the interpretation of Christian doctrine, but only to suggest that, like any other conceptual scheme, it has its inherent strengths and weaknesses that may require rethinking from time to time so that the gospel will not be compromised but will continue to be rationally plausible to believer and nonbeliever alike. Quite a number of Christian philosophers and theologians within the last century, including Pierre Teilhard de Chardin, Edward Schillebeeckx, Karl Rahner, and Bernard Lonergan, have in fact undertaken that task with varying degrees of success. I myself have experimented with the thought of Alfred North Whitehead and other more process-oriented thinkers to come up with an alternative to Thomistic-Aristotelian metaphysics for the contemporary understanding and integration of Christian doctrine. In what follows, I focus on this more consciously process- or systems-oriented line of thought with respect to the relation between the natural and the supernatural within three key Christian beliefs: the incarnation of God in Jesus Christ as the God-man, pantheism as a model for the God-world relationship, and what Saint Paul called the “new creation” in Christ (2 Cor 5:17, NAB, used throughout). Yet like every new conceptual undertaking, my project should be seen as a *Gedanken-Experiment* (thought-experiment), that is, a challenge to the imagination rather than a fully articulated argument for the validity of this line of thought.

Accordingly, in this article, I first sketch my understanding of the doctrine of the Incarnation insofar as it implicitly sets a pattern for the ongoing relation between the natural and the supernatural within human life and indeed within creation as a whole, as well as within Christ in his earthly life. I then argue that the incarnation of the Second Person of the Trinity in Jesus as the God-man should not to be understood as a unique one-time historical event but rather as the pivotal moment in an ongoing process of divine self-communication to the world of creation that began with the Big Bang. Indeed, in that primordial event, the immaterial reality of the triune God is already incarnated, made manifest, albeit in a form that was destined over time to develop both in size and complexity in virtue of its own intrinsic powers of self-organization under the guidance of divine providence. Finally, I propose that the new creation described by Paul in 2 Corinthians is in fact the progressive incarnation of the divine into the whole of creation that lasts until the end of the world when it reaches its consummation. Hence, within God’s plan creatures are destined to come into being, to achieve a distinctive finite identity, and then at the moment of death to be integrated with that same finite identity into the communitarian life of the three divine Persons.

Natural and Supernatural at Work in Jesus

I begin by citing the definition of the doctrine of the Incarnation at the Council of Chalcedon in 451 CE:

We confess one and the same Christ, the Son, the Lord, the Only-Begotten, in two natures unconfused, unchangeable, undivided and inseparable. The differences of natures will never be abolished by their being united, but rather the properties of each remain unimpaired, both coming together in one person and substance, not parted or divided among two persons, but in one and the same only-begotten Son, the divine Word, the Lord Jesus Christ.²

The key philosophical term in this definition is “nature.” In Aristotelian-Thomistic metaphysics, “nature” is the name for the governing principle of activity within an individual entity or substance.³ This principle of activity or substantial form is rationally determined and thus not readily subject to change. It defines an entity as this rather than that kind of thing. When two entities are combined so as to constitute a third higher-order reality (e.g., the combination of hydrogen and oxygen to form water), the natures proper to the two components of the higher-order reality are incorporated into the nature or principle of operation of the new higher-order reality.⁴ Yet, according to the doctrine of the Incarnation, the human and divine natures remain unchanged but are still distinct from one another, within Jesus as a divine/human person. How this is logically possible has always been difficult to explain in terms of Aristotelian metaphysics and conventional human experience.

If, however, one substitutes the terms “process” or “system” for “nature,” then these processes or systems presumably could be combined to form a third, more complex, process with themselves as its necessary components or subsystems. For example, at every moment multiple systems or processes are at work in a human being as a highly complex life system (with a nervous system, a digestive system, a pulmonary system, etc.). But these bodily processes do not lose their identity or distinctive mode of operation as a result of being united in a higher-order process. Each process or system within a human being as a complex body–mind reality continues to do its own work to sustain that person from moment to moment.

If we then claim that Jesus as God incarnate is a higher-order process or system with divinity (the divine life system) and humanity (the human life system) as its subprocesses or subsystems, then one has in principle a rationally plausible explanation for belief in the doctrine of the Incarnation. Jesus is, as the bishops at Chalcedon claimed, a divine person functioning equally well in two life systems: the one proper to his role within the divine community with the Father and the Spirit, and the other proper to his role within the human community and the ongoing process of creation. In this sense, everything that Jesus feels, thinks, says, and does is simultaneously the effect of his humanity and divinity working together. Presumably this joint activity of

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2. Josef Neuner, Heinrich Roos, and Karl Rahner, eds., *The Teaching of the Catholic Church*, trans. Geoffrey Stevens (Staten Island, NY: Society of Saint Paul, 1967) 154 n. 302.
 3. Aristotle, *Metaphysics*, trans. Hippocrates G. Apostle (Grinnel, IA: Peripatetic, 1979) 1015a15; Thomas Aquinas, *De principiis naturae* caput 1, n. 5, dhspritory.org/thomas/DePrincnaturae.htm. (This and all subsequent URLs were accessed November 15, 2015.)
 4. John Goyette, “St. Thomas on the Unity of Substantial Form,” *Nova et Vetera* 7 (2009) 781–90.

divinity and humanity within the consciousness of Jesus would result in certain existential restraints on both his divine and human mode of operation. Given his existence within a human body in space and time, Jesus in his divinity must have concretely experienced the limitations of fatigue, hunger, heat and chill, and so forth. Likewise, in his humanity he must have felt constrained in his day-to-day behavior in virtue of the intimate relationship with the Father and the Holy Spirit, which he possessed in virtue of his divinity. That is, there were presumably times when he had to deny natural human instincts (e.g., the desire for sexual intimacy with a life-partner) in order to remain faithful to his mission in life as the long-awaited Messiah and Savior of humankind.

Likewise, given the limitations of his self-awareness as a human being, Jesus may well have only gradually become aware of the full implications of his unique interpersonal relationship with the Father and the Spirit during his earthly life. For example, the Gospel narratives tell us that only after his baptism at the Jordan River and a 40-day retreat in the desert to pray and to reflect on his mission in life did he preach to his fellow townspeople in the synagogue in Nazareth and effectively declare himself to be the long-awaited Messiah. Afterward he spent time traveling around Galilee, preaching the coming of the kingdom of God and curing the illnesses of his listeners before he realized the need to go to Jerusalem to confront the religious and secular authorities there, even at risk to his own life (Luke 9:51). Finally, Jesus's agony in the Garden and cry of desolation on the cross (Matt 26–27) tellingly reveal how he felt deeply conflicted in his human consciousness even as he was simultaneously aware of the intimate bond between himself and the other two divine Persons.

These comments about Jesus's self-awareness during his earthly life are, of course, simply conjecture on my part, but it reopens the question not only of the relation between the divine and the human within the person of Jesus but also of the relation between divine primary causality and creaturely secondary causation within the rest of creation. Is divine causality always operative in the same way when, together with the secondary causality of the creature, it brings about the existence of a given finite event within the world of nature, or is it sometimes more active in co-producing with the creature one event rather than another event? In his *Summa theologiae* Aquinas claims that God as subsistent being (*esse*) is present in the creature as the cause of its existence (*esse*).⁵ But contemporary neo-Thomists such as Denis Edwards claim that God not only gives existence to the creature but also empowers its process of becoming, awakening in the creature hitherto untapped potentialities of the creature for self-transcendence.⁶ Does Edwards's proposal here implicitly also demand that the mode of divine primary causality differs from one creature to another and from one event to another in a single creature's life? Are miracles, for example, instances in which the divine primary causality is more prominent than at other times? And yet, since every

5. Thomae Aquinatis, *Summa theologiae* (hereafter *ST*) 1, q. 8, a. 1.

6. Denis Edwards, "A Relational and Evolving Universe Unfolding within the Dynamism of the Divine Communion," in *In Whom We Live and Move and Have Our Being*, ed. Philip Clayton and Arthur Peacocke (Grand Rapids, MI: Eerdmans, 2004) 199–210, at 208.

miracle is in itself an event taking place within the parameters of the space-time continuum of the cosmic process, the secondary causality of the creature must also be operative to make this miraculous event happen. At still other times, of course, the divine primary causality is conceivably operative only to bring into existence and sustain the existence and activity of the creature in one of the creature's own, customary modes of operation. In the second part of this article, I pursue this same line of thought in connection with a process- or systems-oriented approach to the notion of panentheism, that is, that everything finite exists within God but still operates in terms of its own mode of operation.

Panentheism as Progressive Incarnation

In an essay on panentheism Danish theologian Niels Henrik Gregersen commented, "There may be as many panentheisms as there are ways of qualifying the world's being 'in God.'"⁷ I would concur with this judgment. In Thomistic metaphysics, for example, God is clearly in the world in virtue of God's power to bring things into existence and then sustain them.⁸ But the world cannot exist in God except metaphorically, since God is unchanging Being, and the world is ever-changing contingent being.⁹ So, while God as infinite can be said somehow to envelop the world as a finite reality, the presence of the world in God in no way affects the being or unchanging perfection of God. God affects the world through unilateral efficient causality insofar as God brings it into existence and then continues to sustain it in being. But there is no reciprocal causation with the world producing any kind of change in God. To remedy this lack of reciprocity between God and the world within classical metaphysics, Charles Hartshorne and more recently Sallie McFague have proposed that the world is God's "body," and that God is the world's "soul."¹⁰ But this formulation ends up being just as problematic as the God-world relationship in Aquinas's scheme. Indeed, in using the soul-body metaphor for the God-world relationship, Hartshorne and McFague are implicitly affirming that God and the world are here and now joined together but are ultimately separable into two different kinds of reality. That is, God and the world affect each other as long as this world survives. But when the world as God's body comes to an end, God survives and presumably becomes the soul of still another world.¹¹

A Thomist, it seems to me, could possibly raise two objections to my line of thought here. The first would be that according to the doctrine ofhylomorphism put forward

7. Neils Henrik Gregersen, "Three Varieties of Panentheism," in *In Whom We Live and Move and Have Our Being* 19–35, at 19.

8. *ST* 1, q. 8, a. 1.

9. *Ibid.* ad 2.

10. Charles Hartshorne, "The Compound Individual," in *Philosophical Essays for Alfred North Whitehead* (New York: Russell & Russell, 1936) 193–220, at 218; Sallie McFague, *Models of God: Theology for an Ecological, Nuclear Age* (Philadelphia: Fortress, 1987) 78.

11. See McFague, *Models of God* 72, and Charles Hartshorne and William L. Reese, *Philosophers Speak of God* (Chicago: University of Chicago, 1953) 499–514, at 503–4.

by both Aristotle and Aquinas, matter and form are two principles of being, not separate entities in their own right.¹² This is certainly true with respect to organisms (e.g., the soul–body relation within a human being) but it is not true of inanimate realities. Marble exists as a material entity in its own right before it is given the form of a statue by a sculptor. In itself, the form of the eventual statue is an immaterial reality, an idea in the mind of the sculptor. Only with respect to human beings and other forms of organic life, therefore, are matter and form dynamically interrelated principles that in combination produce the objective reality of a living being. But even here it is not clear how the form as a strictly immaterial reality can be operative within a physical organism and not thereby become itself a material reality. Is it equivalently “the ghost in the machine,” as some philosophers and scientists believe?

The second objection is that classical dualism has to do with the coexistence of good and evil in this world; some entities are intrinsically good and others intrinsically evil. But this objection confuses moral dualism with ontological dualism. Ontological dualism has nothing to do with notions of good and evil as such but only with two different kinds of reality: one immaterial, one material, and their alleged conjoint mode of operation. As noted above, the immaterial reality is said to be the principle of existence and activity for the material reality. Yet there are philosophical materialists, including many natural scientists, who claim that only material reality exists and that matter is capable of self-organization in virtue of its own intrinsic dynamism at higher-order levels of existence and activity within nature. Admittedly, these philosophers and natural scientists have no strictly logical explanation for the spontaneous origin of an immaterial principle of self-organization at these higher levels of existence and activity within nature. Microbiologist Terrence Deacon, for example, claims that atoms and molecules with sufficient growth in order and complexity can account for “ententional” phenomena (that merely look like goal-oriented activity), but that actual “intentional” goal-oriented behavior is empirically detectable only in the workings of cells and other higher-order life systems.¹³ Yet how can Deacon exclude the possibility that the ententional activities exhibited by atoms and molecules in fact testify to the workings of an immaterial principle of self-organization even at the atomic and molecular levels of existence and activity within nature?

As I see it, this complicated issue of the ontological relation between spirit and matter in the world of nature can best be resolved with a proper understanding of panentheism from a systems-oriented perspective. That is, if one claims with Alfred North Whitehead that the ultimate constituents of a “society” (or, in my terminology, a system) are momentary self-constituting subjects of experience (actual entities),¹⁴ and if the society or system itself slowly evolves in its governing structure or “common

12. On hylomorphism, see www.britannica.com/topic/hylomorphism.

13. Terrence W. Deacon, *Incomplete Nature: How Mind Emerged from Matter* (New York: W. W. Norton, 2012) 56–59.

14. Alfred North Whitehead, *Process and Reality: An Essay in Cosmology*, corrected ed., ed. David Ray Griffin and Donald W. Sherburne (New York: Macmillan, 1978) 18.

element of form” as a consequence of the interrelated activity of its constituent actual entities from moment to moment,¹⁵ then one has in hand an understanding of the reciprocal relation between matter and spirit within the world of nature. The actual entities in their processes of spontaneous self-organization represent the reality of spirit in the world of nature; the society as a concrete physical reality with a governing structure represents the reality of matter. Yet the actual entities and the society to which they belong co-constitute one another from moment to moment; neither has sufficient reason to exist apart from the other. As Whitehead comments in *Process and Reality*, “In a society, the members can only exist by reason of the laws which dominate the society, and the laws only come into being by reason of the analogous characters of the members of the society”—their pattern of dynamic interrelation from moment to moment.¹⁶ Thus, as I see it, the best way to understand the notion of panentheism is to see it as a hierarchically ordered set of Whiteheadian societies that are all constituted by this same reciprocal relation between actual entities and the societies to which they belong. That is, higher-order societies with their governing structure condition the existence and activity of actual entities in lower-order societies, and yet without the existence and activity of lower-order societies and their constituent actual entities, the higher-order societies would never come into existence.

To illustrate my point, let me apply this systems-oriented approach to the notion of panentheism from my own neo-Whiteheadian perspective, namely, one that presupposes the existence of God as Trinity rather than simply a transcendent individual entity, as with Whitehead himself. First of all, God understood as Trinity (three divine Persons and yet one God) is a corporate reality, a divine life system. That is, while each of the divine Persons is, in Thomistic terms, a “subsistent relation”¹⁷ vis-à-vis the other two Persons, in my neo-Whiteheadian scheme each of the divine Persons is a subsystem within the higher-order system of their communal existence as one God. Each of the divine Persons has “his” own agency or mode of operation, and together they constitute the corporate agency of their conjoint existence as a divine community. Second, within the parameters of the all-encompassing energy field generated by the divine Persons in their ongoing dynamic relation to one another, the cosmic process had its beginning in the event of the Big Bang. Thereby some of the energy proper to the divine life system was communicated to the cosmic process in this initial stage of its development. That is, there was an initial flying apart of subatomic particles (Whiteheadian actual entities) from one another and then a gradual coalescence of these subatomic particles (actual entities) so as to constitute first atoms, then molecules, individual cells, multicellular organisms, and so forth. Since subatomic particles as actual entities or self-constituting subjects of experience possess some of the energy and spontaneity of the divine life system, each of the systems into which they aggregate over time likewise possesses a measure of spontaneity and thus can be described

15. Ibid. 90–91.

16. Ibid. 91.

17. *ST* 1, q. 29, a. 4.

as an open-ended life system capable of further growth in order and complexity in virtue of its own principles of self-organization. Everything in this world is thus a combination of spirit and matter, albeit in different proportions, as we move our attention from the apparently inanimate things of this world to physical organisms that clearly express the spontaneity of spirit in their normal mode of operation and to socially organized realities like physical environments or communities.

Yet, as already noted, this growth in order and complexity within the cosmic process is situated within the energy field constituted by the three divine Persons in their ongoing relations both to one another and to the finite creatures of this world. Thus the cosmic process as a whole and each of the subprocesses that constitute the persons and things of this world receive their innate energy resources from a higher-order source, that is, the divine life system. As I will indicate below, all the persons and things of this world are guided by divine providence in their use of this divine energy source (akin to Whitehead's principle of creativity)¹⁸ so as to achieve ever-greater order and complexity within the continually expanding spatiotemporal parameters of the cosmic process. Furthermore, insofar as the cosmic process from its beginning has been physically located within the divine life system, the cosmic process as a whole is a subordinate but still significant component within the divine life system and has contributed to the ongoing structure or mode of operation within the divine life system. That is, everything that happens within the cosmic process impacts the divine Persons in terms of their relation to one another and all the finite entities of this world. In turn, the divine Persons continually impact what happens in this world through what Whitehead calls divine "initial aims,"¹⁹ feeling-level impulses that are communicated directly to each actual entity (subatomic particle) in its brief moment of self-constitution. Thereby the governing structure or mode of operation from moment to moment of the societies (systems) to which the actual entities belong is subtly modified or changed by divine initial aims to their constituent actual entities. The divine Persons, in other words, use bottom-up causation rather than top-down causation in influencing what happens in this world. Their initial aims are directed at the constituents of societies (systems) rather than at societies (systems) themselves as byproducts or results of this ongoing interaction of their constituents from moment to moment.

As I shall make clear in the third part of this article, this reciprocal relation between the divine Persons and the cosmic process with all its multiple subsocieties and their constituent actual entities is key to the explanation of how the finite entities of this world can attain objective immortality, life without end, through eventual full incorporation into the divine life system as itself an ontological reality with neither beginning nor end. For the moment, however, it is important to see how this Neo-Whiteheadian systems- or process-oriented approach to the notion of pantheism makes sense in terms of other options. First of all, a systems-oriented pantheism guarantees that the persons and things of this world can exist within God and by the power of God and yet

18. Whitehead, *Process and Reality* 7, 21.

19. *Ibid.* 244.

at every moment possess their own finite identity and distinctive mode of operation. Whereas pantheism tends either to collapse God into the world or the world into God, and whereas ontological dualism presupposes an unbridgeable difference between matter and spirit, the physical world and God, a systems-oriented panentheism keeps matter and spirit, the physical world and God, together as coparticipants in an all-encompassing system corresponding to the fullness of the God–world relationship.

Second, as noted above, a systems-oriented approach to panentheism, in my judgment, offers a better ontological explanation of the evolution of higher-order levels of reality out of lower-order levels of reality than contemporary Thomism seems able to explain in terms of its understanding of primary and secondary causality within the cosmic process. That is, insofar as Thomists like Denis Edwards continue to think in terms of the priority of divine primary causality over creaturely secondary causality for philosophical explanation of the ongoing evolution of the cosmic process,²⁰ then in fact what takes place in the emergence of a new higher-order level of existence and activity within nature is something like a new creation on the part of God as Creator of the cosmic process. On the contrary, evolution would seem to imply an active self-transcendence of the finite entity in virtue of its own resources, that is, by tapping into hitherto unknown and unused potentialities proper to its nature or intrinsic mode of operation. The causal activity of God is then needed to empower and, with divine initial aims, to inspire the finite entity to transcend itself. But in the end it is the finite entity that uses its own inbuilt potentiality to evolve from a lower-order to a higher mode of existence and activity within the cosmic process. Microbiologist Deacon seems to confirm this understanding of evolution: “Being alive does not merely consist in being composed in a particular way. It consists in *changing* in a particular way.”²¹ Or, as he notes a bit later, evolution is a consequence of internal process and organization rather than a fixed relation between parts and wholes as predetermined by a creator God.²²

A Systems-Oriented Approach to Bodily Resurrection

In this third part of my essay, its character as a *Gedanken-Experiment* rather than as a fully developed rational argument is especially clear. I very tentatively apply a systems-oriented approach to reality set forth in my previous two sections to the understanding of bodily resurrection, a traditional Christian doctrine that will always remain more a matter of pure religious belief than of rational argument. That is, apart from Jesus’s words to Martha (“I am the resurrection and the life; whoever believes in me,

20. See above, n. 6.

21. Deacon, *Incomplete Nature* 175.

22. *Ibid.* 177. One can here object that Deacon is a purely naturalistic thinker with little or no interest in the implications of evolution for the God–world relationship. But what he says about the mechanics of the process of evolution seems to be corroborated by Whitehead’s analysis of the reciprocal relation between actual entities and the societies to which they belong, as I indicated earlier. Whitehead himself was a convinced theist.

even if he dies, will live, and everyone who lives and believes in me will never die” [John 11:25–26], New American Bible) and Paul’s challenge to the Corinthians (“If there is no resurrection of the dead, then neither has Christ been raised. And if Christ has not been raised, then empty is our preaching; empty, too, your faith” [1 Cor 15:13–14]), there are no rational grounds for belief in life after death and bodily resurrection, given what we currently know about human life on the basis of contemporary natural science. Indeed, accounts of the postresurrection appearances of Jesus to his disciples in the Gospel narratives are not fully consistent with one another (as I explain below); and subsequent apparitions of Jesus, his mother Mary, and some saints to the faithful over the centuries of the Christian era can always be disputed as to their historical veracity. So all that is left by way of rational argument for this cherished Christian belief is to experiment whether one can apply the categories and mode of operation in the natural sciences in explanation of one’s religious belief. In my view, this is precisely what Aquinas did in employing Aristotle’s metaphysics to set forth the rational grounds for his *Summa theologiae*.

Accordingly, I first inquire briefly into the current scientific understanding of a physical body. Is it an enduring material reality perceptible to the senses, or is it instead something less immediately apparent, namely, a life system or enduring set of patterns for the ongoing interaction among its constituent parts or subsystems? To make clear which understanding of the physical body is more useful for making sense of life after death, one might ask oneself which physical body one will have in one’s future resurrection: that of one’s youth, that of one’s middle years of life, or that of one’s final years? Over time the body changes in both appearance and internal mode of operation, and yet one still experiences a basic sense of ongoing personal identity through all the different stages of life. But then is not this personal identity itself grounded in the intangible reality of persistent patterns of thinking and behavior acquired over the years that now seem automatic, like “second nature” to oneself in terms of both memory and imagination?

In my second section, I proposed a systems-oriented approach to the notion of pantheism and suggested that Whiteheadian metaphysics makes the most sense for this purpose. Indeed, Whitehead’s scheme allows for genuinely open-ended as opposed to deterministic systems, given that the ultimate constituents of Whiteheadian societies or systems are actual entities or momentary self-constituting subjects of experience that are never precisely the same from one moment to the next (e.g., moments of human consciousness succeeding one another but with new sensory experience in each moment). Likewise, the Whiteheadian concept of hierarchically ordered or “structured” societies fits nicely with the basic presupposition of pantheism that everything finite exists within God but still maintains its own finite mode of operation. That is, lower-order systems provide the necessary infrastructure for the mode of operation of higher-order systems, and higher-order systems provide the superstructure for the separate mode of operation of the lower-order systems. The physical entity as a whole is thus a combination of higher-order and lower-order subsystems working in harmony with one another.

But if this understanding of pantheism is rationally plausible, then one can claim that the structure and mode of operation of the divine life system has incorporated the

drama of salvation history in all its details into its own “history” or ongoing mode of operation. If that be the case, then a human being at the moment of death and entry into eternal life should see for the first time the pattern of his or her entire life first as recorded in human salvation history and then as an integral part of the “history” or mode of operation of the divine life system. At that point, given that one is now for the first time fully identified with one’s entire past bodily existence, one is presumably experiencing bodily resurrection, a continuation of one’s earthly life and personal identity within a higher-order state of life in communion with the divine Persons. Finally, if this line of thought is rationally plausible, then Christian belief in bodily resurrection is consistent with a systems-oriented understanding of the doctrine of the Incarnation and a systems-ordered understanding of panentheism. One has a philosophical frame of reference for understanding all three doctrinal beliefs in the same way. This was also, I think, Aquinas’s methodology in using Aristotle’s metaphysics so widely in composing his *Summa theologiae*.

Further details by way of explanation for this scheme are needed, of course, and various objections coming from proponents of other philosophical schemes for the interpretation of Christian eschatology need to be answered before one can claim that one has in hand a fully plausible explanation of a Christian belief that would otherwise seem to be physically impossible, given current scientific knowledge of the laws of nature. I cannot here deal with all these further details or conscientious objections to the proposed scheme, but I will in the following, concluding pages try to fill out some further details of this scheme and address at least a few possible objections from other sources.

For example, if the components of physical bodies are in the end Whiteheadian actual entities, momentary self-constituting subjects of experience, then what survives within a given body from moment to moment are two things: the creativity or energy-potential of the body for further existence and activity and the current pattern of self-organization or mode of operation of the body as a life system. This pattern of self-organization proper to a human being is, of course, reflected in every part of the body but located principally in the mind or soul as its governing life principle.

Thus the decisions we make, big and small, initially shape our thinking and behavior, but ultimately they affect our overall health and well-being. Moreover, these patterns of self-organization within our minds and bodies also impact the structures and patterns of self-organization of the various social realities to which we belong. By our words and actions, we in some modest way influence the structure and pattern of self-organization of our families, of the lives of our friends and neighbors within local communities, and of the pattern of self-organization in the political and economic organizations to which we belong. Finally, given that within a systems-oriented approach to reality everyone and everything is interconnected, all these systems at work within the creatures of this world are themselves integrated into the governing structure of the cosmic process as a whole from moment to moment and ultimately into the structure and mode of operation of the divine life system out of which the cosmic process initially emerged. In brief, then, everything that happens in this world impacts and is subsequently recorded within the everlasting but also ever-changing structure proper to the divine life system—what in biblical terms we could call the

kingdom of God, albeit within a cosmic context, namely, the God–world relationship as the ultimate higher-order system.

Likewise, the energy potential whereby the creatures of this world exist is in the first place resident within each individual entity as an open-ended system. But each creature's energy potential is also necessarily linked with the energy potential at work within multiple other systems: those proper to other individual entities within a given physical environment, all the systems proper to the earth as a complex set of dynamically inter-related life systems, the systems of galaxies spread throughout the universe, and ultimately the perpetually existing life system of the divine Persons, which is the source of all the energy found within the universe. Like Jesus, then, the energy potential of every creature in this world derives from participation in the divine life. But, whereas Jesus as the Word incarnate possessed eternal life to the full even during his earthly life, all the other creatures of this world during their earthly existence share in the energy potential of the divine life system in a more limited way, given their finite mode of operation.

How then do the creatures of this world enter more fully into the divine life system? They have to die or otherwise cease to exist in this world as a time-bound finite process. Indeed, as long as entities exist in this world, they remain heavily dependent upon the limited energy resources of the cosmic process. They cannot take full advantage of the infinite energy resources of the divine life system. For us human beings, of course, as indicated in the New Testament (Matt 25:31–46; Rev 20:11–15) there is also at the moment of death the event of divine judgement and our own judgement on the overall pattern of our lives. Indeed, as long as we lived within an earthly life system constrained by the limits of space and time, we were never in a position to have an overview of the enduring pattern of our lives so as to make a definitive decision about our personal identity. During our earthly life we could always have decided to live and act differently and thereby begin to alter our self-identity. Once we die and are free from the constraints of time and space in this world, however, we are faced with a final decision about the meaning and value of our lives. This decision will necessarily be for us either to accept the *de facto* pattern of our lives with all its strengths and weaknesses in the light of the forgiving love of the three divine Persons for us or to spurn that offer of divine forgiveness and instead insist that what allegedly happened was not true or at least not our fault. If we accept ourselves as flawed human beings in the light of the forgiving love of God, we find ourselves in heaven and enjoying eternal life. If we refuse to accept ourselves for what we have become, we find ourselves living a lie and thereby condemning ourselves to hell, a life of permanent alienation from God and all our fellow creatures. Like everyone else, we will continue to live within the divine life system. But we will live there as total strangers, unable to share in the happiness of the elect because of our total self-preoccupation with defending a blatant lie.²³

23. One might object here that this approach to salvation is too easy. One should have to do more to earn salvation than simply accept the forgiveness of God for one's sins. Yet no one really "earns" salvation; it is always a gift from a loving God, regardless of the way one has lived while on earth. All that ultimately matters is subordinating one's own will to the will of God for oneself. See C. S. Lewis, *The Great Divorce* (New York: HarperCollins, 1946).

Likewise, given that we human beings are a dynamically integrated set of subsystems at work in both mind and body at the same time, our bodies will surely feel the impact of that final conscious decision about our self-identity and thus experience in their own way either the joys of life in union with the divine Persons and all other creatures of this world or the pain and disappointment of life apart from God and the other members of the kingdom of God.

But what is to be said about the participation of all the nonhuman creatures of this world: animals, plants, even the mini- and microorganisms (i.e., atoms and molecules) constituting the inanimate things of the world? How do they also participate in the new creation centered on the cosmic Christ? Here it is reasonable to suppose that their ultimate constituents as actual entities (dynamically interrelated subjects of experience) will experience in different degrees a heightened sense of well-being or fulfillment upon admission into the divine life system. As natural science reminds us, all the physical bodies to be found in this world are composed of the same basic constituents, the same raw materials that were produced by the Big Bang. But, if human beings are constituted of these same raw materials, and if humans experience bodily transformation upon entrance into eternal life, then logically everything else in this world will somehow share in the divine life through union with the cosmic Christ in whom “all the fullness was pleased to dwell” (Col 1:19).

One further detail needs to be added to this imaginative scheme for the consummation of the cosmic process. How is one to explain the peculiar circumstances surrounding Jesus’s death and resurrection, in particular the burial of his physical remains on Good Friday and yet the empty tomb and the subsequent appearances of Jesus to his disciples on Easter Sunday? In terms of the known laws of nature, there is no credible answer to these questions up to the present moment. But at the same time one must remember that our knowledge of the laws of nature is still evolving. For example, chaos theory is making clear that there are operative within the creatures of this world still unknown internal principles of self-organization.²⁴ So the purely analytic approach to natural science based on universal and unvarying laws of nature between individual entities seems to be giving way to a more organismic understanding of the workings of the world of nature in which everything is subtly different from everything else and yet is linked with these other entities by quite unexpected recurrent patterns of activity.²⁵

Moreover, we know so little about the divine life system and its potentialities vis-à-vis the finite life systems that over 14 billion years have emerged out of the unbounded energy potential of the divine life system. The narrative of *The Universe Story* as described by Brian Swimme and Thomas Berry is breathtaking not only in terms of what has already come forth but also in envisioning what might still become

24. James Gleick, *Chaos: Making a New Science* (New York: Penguin, 1988).

25. *Ibid.* 215–40, where Gleick explores the affinity between chaos theory and the mathematics of a Mandelbrot set.

a reality as part of the universe's ongoing story.²⁶ Finally, if we read with an open mind the different Gospel accounts of the appearances of Jesus to his followers after his resurrection, it is clear that each of the Gospel writers wanted to make clear that Jesus still possessed a physical body so that his disciples could recognize him as in some measure the same as he was before his passion and death. But the Evangelists also implicitly concede that Jesus in his risen body was not the same as before his passion and death on the cross. For example, their accounts of what happened on Easter Sunday when Jesus seemed to appear and disappear at will before the eyes of his astonished followers are implicit testimony that he was no longer constrained by the customary parameters of space and time in his physical behavior. Jesus was both the same and not the same as before his passion and death. So while further questions about the relationship between the physical remains of Jesus that were presumably subject to the same process of decomposition as any other physical body and the resurrected body of Jesus with its freedom of movement in violation of the customary laws of nature simply cannot be answered in the context of contemporary natural science, one can still believe in line with church teaching through the ages that Jesus, as the incarnate Second Person of the Trinity, rose from the dead in a transformed human body.²⁷

Furthermore, a systems-oriented approach to physical reality such as I have sketched in this article should give both natural scientists and theologians reason to be more modest in their respective truth claims about what is real and unreal in this world. That is, within a systems-oriented approach to reality, a higher-order system possesses properties that are not derivative from the interrelated activity of its sub-systems. Yet those properties at the same time affect the mode of operation of the lower-order systems even as the lower-order systems in turn constrain the workings of the higher-order system. Accordingly, scientists should not discount the possibility of higher-order or supernatural influence on the empirical workings of the natural order. Nor should theologians deny that the established mode of operation of the natural order places significant restraint on the way that the supernatural can be operative within the cosmic process. Miracles should be the exception rather than the rule in explaining how nature works. Given proper awareness of the logical boundaries inevitably at work in their different disciplines, theologians and scientists should be able to collaborate in fashioning a comprehensive world view that

26. Brian Swimme and Thomas Berry, *The Universe Story: From the Primordial Flaring Up to the Ecozoic Era—A Celebration of the Unfolding of the Cosmos* (San Francisco: HarperSanFrancisco, 1992).

27. One can, of course, further argue that the best "proof" for the bodily resurrection of Jesus on Easter Sunday is the continuing impact of this belief on the thinking and behavior of Christians from that day onwards even though it often involved the risk of persecution and martyrdom. But this is a different kind of empirical verification than that customarily employed in the natural sciences since the time of Galileo.

will give new meaning and value to human life in our current overly critical post-modern world.²⁸

Author biography

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28. See here Stephen Toulmin, *The Return to Cosmology: Postmodern Science and the Theology of Nature* (Berkeley: University of California, 1982) 272–74.