Introduction

In the years since Ian Barbour's first set of Gifford Lectures titled *Religion in an Age of Science*,[1] the contemporary literature on the topic of religion and science has expanded exponentially. While this extended conversation between theologians and scientists has opened up many new avenues for fruitful exchange of views on controversial issues, other "doors," so to speak, remain closed. For example, scientific materialists consciously or unconsciously seem to be proposing the equivalent of a secular religion, that is, a belief-system opposed to the belief-systems of the various theistic religions; but their own secular belief-system can no more be proven to be true than the belief-systems of their theistic opponents. At the same time, many proponents of theistic religions confidently assert that the doctrines or truth-claims of their religion testifying to the presence of the supernatural in the form of miracles or other alleged types of divine intervention into the normal workings of nature are justified simply because their scriptures make clear that this is what actually happened. Wentzel van Huyssteen offers an interesting middle-ground position between these rival belief systems in the form of a new kind of interdisciplinary rational reflection, namely,

1. Ian G. Barbour, *Religion in an Age of Science: The Gifford Lectures 1989-1991,* vol. 1 (San Francisco: HarperSanFrancisco, 1990).

what he calls "transversal rationality."[2] This new type of rationality is not purely cognitive but likewise a performative praxis: "the practice of responsible judgment, that is at the heart of a postfoundationalist notion of rationality, and that enables us to reach fragile and provisional forms of coherence in our interpersonal and interdisciplinary conversations."[3]

While I am very sympathetic to this notion of transversal rationality as an effective strategy for continued dialogue among proponents of different academic disciplines on matters of religion and science, I believe that, taken by itself, it is not enough to adjudicate between rival truth-claims on sensitive issues in this context. What is needed in my judgment is a new socially oriented worldview that emphasizes the ontological priority of relationships to the entities, both individual and corporate, that are thus dynamically interrelated. That is, all appearances to the contrary notwithstanding, reality is not constituted by individual things existing in their own right but also involved in contingent relationships to one another. Rather, reality consists in an ever-expanding network of processes or systems in which the patterns of existence and activity that exist between and among their component parts are more important than the parts themselves. The individual component parts are replaceable or in some other way time-bound, but the system or process as a whole remains intact because it sustains a persistent pattern of existence and activity between and among those same parts. The institutional process constituting civil society, for example, is constantly adding or losing members; but the process itself as a corporate reality undergoes significant structural change much more slowly. One can call this new worldview a metaphysics of becoming

2. J. Wentzel van Huyssteen, *Alone in the World? Human Uniqueness in Science and Theology* (Grand Rapids: Eerdmans, 2006), 23.
3. Ibid.

(rather than of being) or an event ontology, since the enduring entities of commonsense experience are in fact the byproduct of a sustained pattern of interrelated transient events.

Systems Rather than Things

More will be said in the early chapters of this book about our human tendency to confuse ongoing processes with enduring things. Commonsense experience long ago led human beings to recognize and deal with things rather than with complicated processes in the day-to-day struggle for survival in a highly competitive world. But for now I simply propose that ongoing processes or systems are productive of the things of ordinary experience, not vice versa. That is, we human beings and all other creatures of this world do not first exist and then act according to our predetermined nature or essence, as in classical metaphysics (*agere sequitur esse*). Instead, from moment to moment we find ourselves already involved in various kinds of activities and only over time reflexively understand what that means in terms of our ongoing self-identity, what makes us different from others (*esse sequitur agere*).

Yet, if this is in fact the case, then the professional language of science, on the one hand, and equally professional language of the humanities (above all, philosophy and theology) should reflect the reality of living in a world of intricately interrelated processes or systems rather than in a world populated by individual entities that first exist in their own right and then take on relationships that add to or somehow diminish what they are in terms of their nature or essence. For only then will we consciously take into account similarities and differences among us that can cause unneeded friction and even overt conflict among us as we struggle to assert who we are and what role we play in the world around us.

Perhaps the best example of what I have in mind here is the longstanding debate among academics about the existence of God and the reality of a supernatural order of events over and above the natural order to be found in this world. People of a more empirical or even materialistic mindset are very skeptical about the truth-claims of the major world religions about God/Ultimate Reality as both transcending this world and yet immanent within it in ways that cannot be empirically verified. Theists, on the contrary, find it all but impossible to deny the reality of God and the workings of the supernatural order in their lives simply as a matter of personal experience. As they see it, one does not logically argue to belief in the existence of God; one experiences the workings of God and Divine Providence in one's life in ways that allow for but go beyond purely rational argument. But, if one changed the language of discourse between materialistic empiricists and religiously oriented idealists, could the often heated exchange of views between them be significantly altered for the better?

In other words, if both sides could agree to think in terms of integrated processes rather than individual things as constitutive of reality, would it be possible for hardcore empiricists and religiously oriented trans-empiricists to assert that their respective truth-claims are valid within certain limits but in need of further qualification from proponents of the other point of view? If, namely, the natural order and the alleged supernatural order are in fact dynamically interconnected processes or systems that together constitute a richer reality than what either the natural order or the supernatural order, taken alone, can provide, then the naturalist can with complete justification claim that there has to be a natural explanation for everything that happens in this world and the supernaturally oriented person can with equal justification claim that the full intelligibility of any event happening in the natural order is only satisfied by an

appeal to the invisible workings of Divine Providence or some other supernatural nonempirical agency.

In principle, of course, this subtle coordination of natural and supernatural agencies so as to produce a single empirical effect in the natural order could possibly be achieved by reference to natural and supernatural entities (e.g., God) in their causal relations to one another. But thinking in this way immediately raises thorny questions about how this can take place without conflict of interest, that is, the dominance of the supernatural order of things over the natural order of things or vice versa. If, however, one thinks of agency in terms of interdependent processes that require one another to achieve some common goal or value in the natural order, then the tension between proponents of a naturalistic and a supernatural approach to physical reality might well dissipate. For, both sides should in principle admit that coordination of separate processes so as to produce something by way of a higher-order common effect is in fact everywhere at work in the natural order.

An atom, for example, if seen as a micro-process (i.e., a temporally ordered sequence of atomic "events" with empirically identifiable characteristics), still retains its ontological integrity as an atom when it becomes part of a molecule as a still larger process of nature. Likewise a molecule retains its ontological identity as a molecule even after it becomes part of the still more comprehensive processive reality of a cell. Finally, a cell retains its own identity as a cell when it becomes part of the process constituting a multicellular organism. As a result of this dynamic interrelationship between the parts and the whole at work in nature on a universal scale, the present world has come into being in all its wonderful order and complexity. We human beings, accordingly, might have something important to learn from observation of the workings of the nonhuman natural order so as better to deal with one another in the solution of

controversial issues peculiar to ourselves as human beings. Nature seems to tell us that what counts in the end is the success or failure of the overall process, not how much this or that individual entity contributed to the success or failure of that process.

Overview of the Chapters

After this brief introduction to my governing hypothesis, I will in the chapters that follow try to establish its rational plausibility in the following manner. In chapter 1, I reflect on how the language that we customarily use to describe our experience unconsciously shapes the way in which we perceive reality. Our Western emphasis on nouns rather than verbs in our use of language preconditions us to see reality in terms of things in themselves rather than as the here-and-now byproduct or result of ongoing processes. In chapter 2, I use the metaphysics of process-oriented thinkers like Alfred North Whitehead and Pierre Teilhard de Chardin to argue that there is invariably a spirit-dimension, an "inside," to every physical reality as counterpart to its "outside" or material embodiment here and now. In Whitehead's metaphysical scheme, this spirit-dimension is envisioned as the workings of an actual entity, an immaterial self-constituting subject of experience in dynamic interrelation with its environment. Yet every actual entity has a material counterpart in its "superject," the empirical result of its self-constituting "decision."[4] Then in the next two chapters I analyze various theories both pro and con on the value and significance of the relatively new notion of panentheism in philosophical and theological circles. For, if panentheism is taken seriously, it is, so to speak, a test-case for my hypothesis that

4. Alfred North Whitehead, *Process and Reality: An Essay in Cosmology*, corrected edition, ed. David Ray Griffin and Donald W. Sherburne (New York: Free Press, 1978).

interrelated processes, not individual entities in various forms of contingent relationship, make up the world in which we live.

That is, if God is "pure Spirit," a strictly immaterial individual entity, there is no way that the things of this world as material entities can be literally said "to live, move and have their being" (Acts 17:28) in God. Even human beings as simultaneously both material and spiritual entities in their ongoing pattern of existence and activity cannot literally share in the divine life apart from a special divine dispensation. But within a process- or systems-oriented approach to reality, it is quite easy to picture the communitarian life of the three divine persons of the Christian doctrine of the Trinity as being the Alpha and Omega of the current cosmic process. That is, the ongoing process of the divine life is the transcendent reality from which the time-bound cosmic process originated and to which it will return at the end of its existence. For only in this way, as I explain in the third chapter of this book, does the term panentheism upon closer inspection not reduce to a new name for either classical dualism (God and the world in opposition to one another) or for classical pantheism (God absorbed into the empirical reality of the world or the world absorbed from moment to moment into the transcendent reality of God).

Then in the second part of the book, chapters 5 to 9, I apply this process- or systems-oriented model of the God-world relationship to a rethinking of some of the basic truth-claims of the Christian tradition. In chapter 5, for example, I inquire whether in substituting the word "process" or "system" for the word "nature" in explaining the Christian doctrine of the Incarnation, one could more readily understand how the divine and the human natures of Jesus as the Incarnate Word of God are "unconfused, unchangeable, undivided and inseparable."[5] For, "natures," when understood as unchanging principles of existence and activity or essences for different things,

makes understanding how divinity and humanity are simultaneously constitutive of the personhood of Jesus much more difficult. But, if instead there are two dynamically interrelated processes at work in Jesus so as to produce all the events in his life-history, then the doctrine of the Incarnation could be more rationally plausible to all those who on scientific grounds believe that the natural world is constituted by hierarchically ordered processes that work together to produce a common effect from moment to moment. Similarly, in applying this process- or systems-oriented paradigm to the interpretation of the Christian doctrine of the Trinity (one God in three persons) in chapter 6, there seems to be no logical contradiction in claiming that the divine persons are each a personally ordered subprocess or subsystem within the all-encompassing corporate process of their life in community. The process proper to the divine community, in other words, cannot exist apart from the ongoing interplay of the three subprocesses proper to the divine persons, and the divine persons cannot be regarded as one God, rather than three gods, except insofar as they together constitute the corporate reality of God as a never-ending communitarian process or system. If, on the other hand, stress is instead laid on the divine persons as separate individual entities, then one is invariably tempted to think of the divine community as a tightly knit aggregate of individual entities rather than as a corporate reality in its own right. Aquinas well understood this conceptual problem and solved it with his notion of the divine persons as "subsistent relations," three entities that are themselves only in terms of their ongoing relations to one another.[6] But the expression "ongoing relations" seems to imply a

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5. *The Teaching of the Catholic Church*, ed. Josef Neuner, Heinrich Roos, and KarlRahner, trans. Geoffrey Stevens (Staten Island, NY: Society of Saint Paul, 1967).
6. Thomas Aquinas, *Summa Theologiae* (Madrid: Biblioteca de Autores Cristianos, 1951).

process-oriented understanding of the Trinity without conscious use of process terminology.

Chapter 7 provides a process- or systems-oriented approach to the understanding of the Church as a historical process as well as a divinely intended trans-historical or atemporal reality with goals and values that transcend the boundaries and inevitable limitations of different cultures and civilizations. My contention in this chapter is that the Church (in this book, primarily the Roman Catholic Church) is both an institutional entity and an institutional process at the same time. Yet, given the proposed ontological priority of action over being (*esse sequitur agere*) and with close attention to historical changes in Church life and government over the centuries, I contend that the Church was originally more a charismatic movement or new way of life for the disciples of Jesus after his death, resurrection, and ascension and only over time developed the institutional structures needed to sustain the enduring meaning and value of the movement. Divine Providence, to be sure, was likewise invisibly active in the pragmatic decisions of church leaders over the centuries to pursue one course of action rather than another in dealing with an often hostile environment. So in this chapter as in all the others, I emphasize the interplay between the natural order and the supernatural order of things so as to produce a unified and empirically verifiable reality. The Church is what it is today as a result of its historical evolution and the work of Divine Providence. It will inevitably keep changing, albeit in incremental ways more than in a "great leap forward," because this is the way that evolution for the most part works elsewhere in the natural order.

Chapters 8 and 9 are closely linked in terms of their approach to the same theme. That is, in chapter 8 I explore the role of miracles within the natural order of things, above all, with reference to the recurrent problem of natural and moral evil within a panentheistic

understanding of the God-world relationship. On the one hand, miracles, supernatural intervention into the normal processes of nature for a higher purpose, should not be necessary if the system proper to the world is a subsystem within the process or system of the divine communitarian life. But, given that natural and moral evils occur on a regular basis in this world so that a miraculous intervention by God into the workings of nature is often needed to set things right again, why do divine miracles show little or no predictability? Does God favor some human beings and neglect the needs of others? Then in chapter 9, I offer a rationally plausible explanation of the greatest miracle of all, the resurrection of Jesus after his passion and death and the promise of resurrection of the body for all human beings and of a New Creation for the cosmic process as a whole. The key philosophical issue at stake here is the nature of the human body and indeed of all material entities if they are to be assimilated into the divine communitarian life after existence in this world. How is one to understand what St. Paul calls a "spiritual body" (1 Cor. 15:44)? Likewise, a new understanding of "the four last things" (death, judgment, heaven, and hell) will be set forth to show the basic consistency of this more rationalistic approach to traditional Christian belief in the resurrection of Jesus and continuing life after death for all finite entities, above all, human beings.

Finally, in a brief Conclusion, I compare my systems-oriented understanding of the God-world relationship with the efforts of the late Gordon Kaufman to work out an acceptable worldview that can be employed by both Christian theologians and natural scientists to achieve common ground in dealing with controversial issues that up to the present have set them at odds with one another. Christian theologians will thereby be challenged to take a "leap of faith" to use the systems- and process-oriented language of contemporary science to rethink and interpret anew the key articles of Christian belief that

have been passed down over the centuries to new generations of Christians. Yet natural scientists will likewise be challenged to give up a largely instrumentalist approach to knowledge of the natural order ("saving the phenomena") and begin asking themselves about the underlying laws of nature that produce the phenomena, the appearances of things to human observers. The result, of course, will be a theory that cannot be empirically verified in every respect but still makes overall good sense both for deeper understanding of the laws of nature and for the work of Christian philosophers and theologians in dealing with the proper interpretation of Sacred Scripture and the doctrinal teaching of the Church.