

# Article

## SHOULD RELIGIOUS NATURALISTS PROMOTE A NATURALISTIC RELIGION?

by Willem B. Drees

*Abstract.* *Religious naturalism* refers here to a view of reality, and it will be contrasted with versions of supernaturalism and of atheistic naturalism. *Naturalistic religion* refers to certain varieties of religion, especially some inspired by the universality of science and the need for a global ethics. In this essay I explicate why a religious naturalist need not advocate a naturalistic religion. Rather, a religious naturalist can build upon the heritage of religious traditions and be open to, but at the same time be agnostic about, the idea of a nonnatural *ground of reality*. The religious naturalism I defend has been criticized from various directions: one reviewer in this journal considered it too much indebted to the traditions, and hence “reactionary” and supernaturalistic; another considered it too minimalist in its religion (“virtually nonexistent”) as a consequence of the preference for a too sober version of naturalism. My distinction between religious naturalism and naturalistic religion may answer some of these objections.

*Keywords:* Earth Charter; evolutionary epic; David R. Griffin; Philip Hefner; Gordon Kaufman; naturalistic religion; ontology; pluralism; reductionism; religious naturalism; Wesley Robbins; ultimate questions; Bas Van Fraassen.

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Should religious naturalists advocate a naturalistic religion? Should the evolutionary epic as uncovered by science replace the variety of creation narratives found in religious traditions? The move from *religious naturalism*

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to a *naturalistic religion* may seem obvious. However, I will argue that a religious naturalist can also build upon the variety of religious traditions, and that such a pluralist move is actually preferable.

This paper builds upon an earlier paper on varieties of naturalism (Drees 1997). My book articulating the same ideas, *Religion, Science, and Naturalism* (Drees 1996), was criticized in the same issue of this journal in two quite different ways. Wesley Robbins considered my position too much indebted to the traditions: "In my view, Drees's broken-backed naturalism is reactionary. His realistically motivated theological conservatism constitutes an obstacle to the sort of religious inquiry and innovation that Deweyan humanism exemplifies with respect to traditional Christianity" (Robbins 1997, 587). It was a new experience to be accused of "theological conservatism"; reviewers in other journals have read my book quite differently (Russell 1997; Alexander 1997; with more sympathy, Brooke 1997). In my opinion, Robbins overemphasizes the role I give realism.<sup>1</sup> David Griffin (1997, 595), on the other hand, argues that my version of naturalism has departed too far from genuine religion: "Drees's religious beliefs are so minimal as to be virtually non-existent." In his opinion, this is the consequence of accepting a maximal, atheistic materialist and reductionist version of naturalism rather than a more restricted naturalism (nonsupernaturalism, without further reductionist claims) as advocated by Whiteheadians. Considering them phenomena which are ill understood upon a materialist naturalism, Griffin (1997, 603–13) then deals with parapsychology, proper function,<sup>2</sup> the ability to do higher mathematics, religion, morality,<sup>3</sup> subjectivity, and freedom. I agree that some of these are among the most problematic phenomena to account for in a science-inspired naturalism. Perhaps human freedom can be understood as self-determination, following Mary Midgley (1994, 164; see also Dennett 1984). I believe that freedom and determinism are not to be contrasted as straightforward opposites. Rather, freedom has to do with the data we need to take into account in understanding someone's behavior.

This essay will focus on perspectives for religion within a naturalistic approach of the kind I consider to be in line with contemporary scientific knowledge. For those who disagree with my version of naturalism, such as Griffin, the exercise may be a useful thought experiment, clarifying the horrible consequences that would follow if we were to take such a materialistic form of naturalism. Those who would like to get rid of religious traditions or any suggestion of a God beyond natural reality, such as Robbins, are invited to see whether the options pursued here are genuine, as I believe they are, although limited, or whether it is merely the inertia of tradition that supports such a way of discussing religion. Before I turn to religion, let me briefly summarize the way I understand naturalism.

## NATURALISM

The way to understand naturalism in the context of reflections on religion is, in my opinion, to use it as a label for a worldview that follows the natural sciences as its major guide for understanding the world we live in and are a part of. Such a naturalism is not formally implied by the sciences, since other logically coherent constructions may be possible, but it is a view of the world that stays as close as possible to mainstream consolidated science when it articulates its ideas about the ontology and history of reality and about the place of human knowledge of the world in the world.

With respect to *ontology*, naturalism is the view that assumes that all objects around us, including ourselves, consist of the stuff described by chemists in the periodic table of the elements. This stuff is further understood by physicists to consist of elementary particles and forces and beyond that is assumed to consist of quantum fields, superstrings, or whatever. As the “whatever” indicates, such a naturalist would have to grant that our knowledge has not reached rock bottom yet. Hence, naturalism cannot be articulated from a fundamental ontology upward. Nor does it imply that all phenomena can be described in terms of physics and chemistry. A conceptual and explanatory nonreductionism is tenable (Drees 1996, 15f.; 1997, 531). Even more, a naturalist can also maintain that there are genuinely new objects with new properties, even though they have arisen out of other objects. Higher-level properties are not just a combinatorial consequence of lower-level properties. Hence, we can ascribe causal efficacy to higher level entities.<sup>4</sup> A hydrogen molecule ( $H_2$ ) is a new entity, with properties of its own that are not a combination of the properties of the hydrogen atoms taken separately. When such a molecule is formed, the lower-level entities no longer exist—and hence cannot be the locus of the causal action of the molecule. Such complex entities do not consist of lower-level entities (“consist of” in a combinatorial sense) but rather replace them. Along such lines, philosophers of science may clarify how we can understand emergent entities and properties as real and causally efficacious even if they are produced by (and consist of, in a material sense) more simple ones—just as future entities will be real and causally efficacious even if they are produced by present ones.<sup>5</sup>

With respect to *history*, naturalism understands living beings—again including ourselves—as the current stage in a bundle of Darwinian evolutionary histories on our planet, which itself is understood as a transient phenomenon in a universe that has been expanding for some 15 billion years. These insights do not commit us to a particular view of processes within the first fraction of the first second; it may be that “first second” is not an adequate reference at all. It is with history as with ontology: the

most fundamental issues about the beginning of our universe and the nature of time, space, and substance are not settled for the naturalist.

Naturalism sees social and mental life as fruits of the long evolutionary process. Understanding (science, philosophy) is one facet of this, even when it reflects upon its own emergence. Naturalism holds that this is not a vicious circularity. Rather, science and other intellectual enterprises can be seen as building on human capacities for dealing with their environment, improved piecemeal over many generations; science is a social phenomenon that is cognitively reliable, and increasingly so.<sup>6</sup>

Among the social phenomena are religious habits and traditions. They can be studied by cultural anthropologists, historians, and the like. The processes of emergence, development, change, continuation, and extinction of various religions are to be understood within a natural framework, comparable to some extent to the emergence, change, and disappearance of languages and legal systems.

However, the issue is not merely whether we can understand the history of religions naturalistically—a scientific issue—but also what our own position is vis-à-vis religion. This is especially relevant when religious traditions are understood not merely as prescientific propositional beliefs but also as powerful motivators, embodying the moral and existential wisdom of the past. Roughly speaking, there seem to be two approaches among those who desire to continue religious life in some way, although they are also naturalists, namely, seeking to overcome the diversity of religions by offering a naturalistic alternative, and accepting the variety within a naturalistic framework.

*Religious Naturalism as a Global Religion?* Political and economic refugees, extensive travel for leisure, political and cultural relations across boundaries, worldwide trade, and communication technologies have changed our horizon; we have come to live in a global village. And we have to face global challenges together; ecological damage is a chief example, but unequal economic prospects, destructive weaponry, and the unfair distribution and use of natural resources such as water and fossil fuels add to the global problems.

This global cultural context and moral agenda seems to call for a global answer. Besides, natural science aspires to be universally valid, and thus—one might assume—naturalists should replace the diversity of religions by a globally shared system of ethical norms and factual beliefs. A “naturalistic religion,” a more satisfactory label than “religious naturalism,” which is not so much a variety of religion as a variety of naturalism, would in this view become everybody’s story,<sup>7</sup> a replacement of the variety of religious traditions by a new understanding of reality that is at the same time naturalistic and a powerful motivator. This approach is not necessarily dismissive of the wisdom embodied in religious traditions. Rather,

whatever is needed is drawn eclectically from the wisdom of the spiritual traditions taken together as a huge reservoir.

*A Plurality of Religions.* Religions are particular, and so are cultures, languages, and individuals. Nobody speaks language; one always speaks a language. This analogy makes me wonder whether the ideal of naturalistic religion is possible and desirable. Replacing all historical languages by a single global language, whether Esperanto or English, would make much of the richness of human cultural history inaccessible. Since languages do not correspond one-to-one in the distinctions and meanings expressed, each language allows for a slightly different angle on reality. Translations are possible, even if they never express the content of the original completely, and languages influence each other and borrow words and phrases. We cannot coexist without interacting, preferably with sensitivity to, and respect for, the variety of languages.

Similarly, different religious traditions offer different symbols, different examples and ideals of the good life. People are always enculturated within a tradition, or at best a few traditions; human life is too short for a person to become at home in all traditions. Thus, even if we believe that other traditions may promote equally rich experiences and respectable moral behavior, we can still make a good case for raising our children primarily with one particular set of stories, parables, and commandments. To abandon the richness that is in the details of particular historical traditions in favor of a science-based general evolutionary epic seems unwise. Here too something would be lost if the variety were replaced by a single tradition, whether through dominance or by a naturalistic religion made for the purpose.

The two approaches distinguished here—a distinction which is not to be overemphasized as if there were no gradations between and deep affinities among the various religious naturalists—deal differently with the relation between religious, symbolic language and current scientific insights.

Advocates of a naturalistic religion may attempt to give a religious interpretation to scientific, or naturalistic, insights. An example might be Ralph Burhoe's understanding of natural selection as a power to which we have to bow our heads and adapt—and thus as an example of the modern-day equivalent of the sovereignty and power which in many traditions were attributed to God. The German New Testament scholar Gerd Theissen objected to the emphasis on power; for him grace was the most significant characteristic of God, at least as understood in the Christian tradition, and this could be identified with the increasing tolerance for variation that has arisen through the evolutionary process. In this example we may discern the impact of particular traditions; whereas for the Lutheran Theissen grace is a core conviction, Burhoe may be more influenced by the Calvinist insistence on divine majesty.

One might also work intentionally the other way around and attempt to give a naturalistic interpretation to religious symbols of a particular tradition, taking that as the life world one embarks from. An example is Philip Hefner's articulation of the human as created co-creator. Such proposals, by staying closer to the heritage of myths and symbols of a particular tradition, are less likely to be acceptable to all well-meaning citizens of our globe, even those who share respect for science, an evolutionary view of reality (including religious traditions), and concern about ecological and other global challenges. To express this attitude, let me quote Hefner:

It is within the realm of possibility that a consensus of thinking persons could be obtained to support the interpretations of the book up to this point. I have no illusions that there can be consensus on the mythic proposals that will be sketched in the subsequent pages. For one thing, I am proceeding from a Western Christian matrix. Thinkers who are in agreement with me on the general contours of the challenge to human being today are more apt to take the position espoused by E. O. Wilson (1978) and Loyal Rue (1989), that some rendition of *evolution* itself must be the raw material for new mythic proposals. My major difference from Wilson and Rue is that I believe we will meet the challenge to our culture-formation from the bottom up, rather than from the top down. By that I mean we are more likely to move through and with our existing myth-ritual traditions into new and more adequate myth-ritual formations than to proceed from science-based concepts into new channels. I term the latter a top-down approach, since it tends to abandon the traditions of the last 40,000 years. (Hefner 1993, 213–14)

Let us explore some differences between living with a naturalistic religion and living with the variety of religious traditions.

*Comparison in the Global Moral-Political Sphere.* Human rights are part of a common core of global morality that is now widely shared, even though there are differences of interpretation. However, the way such human rights are argued for could be different in the naturalistic religion view and the plurality of religions view. In a naturalistic religious view, we might argue that human rights are part of the insights that we share, either through science or as a common core of all relevant traditions. A pluralist might emphasize that we may not always have accepted such human rights, but that such rights are necessary in order for us to live together peacefully in a global village, just as we need respect and basic rules of communication and translation given the variety of languages.

Another example may be drawn from work toward the Earth Charter, a document that would do in the ecological arena what the Declaration of Human Rights has done in its own sphere. There were efforts preceding the conference in Rio de Janeiro (1992). Since then, further initiatives have been taken. There is now a "benchmark draft." Two quite different strategies can be envisaged in arguing for a global ecological ethics. Some

argue that we all need to tap the same root, for instance, a clear science-based insight into the consequences of our human actions, or with more emotional potential, awareness of the fact that we are all participants in the web of nature and the evolutionary process, that we are all children of Gaia. However, the work on an Earth Charter is actually developing in a different ecumenical way. Efforts toward an ideological underpinning of responsibility for an ecologically sustainable global future are not developing along the line of replacing the variety of religious traditions by a shared one, naturalist or non-naturalist. Rather, authors and activists look for the resources present in various particular traditions. They speak from the perspective of a particular tradition, tapping its sources and resources, extending and reforming its ethics and spirituality, while at the same time listening to and learning from others.<sup>8</sup>

This identification with particular traditions may be seen as merely a matter of strategy, as if we were convinced that all traditions will have to be replaced by the religious naturalistic one but still consider it effective politically to speak to all in their own languages, that is, to use their own traditions. Thus, we play down the metaphysical conflicts between different views, while appealing to the politically effective metaphors of the various traditions.<sup>9</sup> To a large extent this resembles the strategy of developing political majorities in pluralistic democratic societies: we work on a practical consensus while suspending judgment on matters of truth and principle; at the same time we expect each party to sell the policy decisions to its own voters in its own terms. The advocate of a naturalistic religion may accuse the pluralist of following an intellectually dishonest strategy by hiding the shared assumption of the supremacy of a liberal naturalistic view and the falsity of the religious beliefs involved. Thus, we have not only to reflect on the usefulness in the moral and social arena—even though that is in itself of great value—but also to take into account the conflicting cognitive claims of the variety of traditions.

*Cognitive Claims.* The naturalistic framework is limited and at the same time encompassing, in that all traditions are understood as potentially rich resources of implicit wisdom. They have emerged and been passed on for generations and hence must have some qualities that have stood the test of time. This does not guarantee that they are adequate in new circumstances such as ours, but they still all have some *prima facie* claim to being wisdom for us.

In this context, biology is a better analogy than physics and chemistry. A diversity has arisen through a long historical process, with its contingencies. This rich biodiversity is a treasure, to be valued. The explanatory tools are, at the level of general theory, limited. We could not predict the variety of life-forms which were to emerge if we knew evolutionary theory and the state on Earth 1 billion years ago. In the context of biology,

understanding is limited, even though it is also encompassing, because there is no reason to assume that any of the life-forms that have emerged have not emerged through those evolutionary processes. Not only would we not be able to predict the actual variety, but we would often also have trouble understanding all features of any living organism as adaptive (or as adaptive in relevant past environments, or as the by-product of some adaptive trait, etc.); certain major characteristics are easy to make intelligible, but there is more detail than we can explain. There is implicit wisdom in organisms, which *prima facie* deserves to be taken as wisdom appropriate for the circumstances.

The variety of religious traditions, with their narratives and symbols, their rituals and exhortations, is also impressive. Here too there is much that can be understood as having served biological or social functions in the past. But there may be more in the tradition than can be explained. The same argument applies to human nature and enculturation: there is more going on within us than we can make explicit or manage intentionally. If we tried to replace all the communication and teaching of stories, poetry, gestures, and songs by explicit univocal statements, much would be lost. Given the nontransparent nature of human nature, religious narratives may be considered valuable communicators of wisdom.

Arguments based on the implicit wisdom that might be present in traditions that have been passed on for many generations are still functional. To what extent can a naturalist (in the general sense) ascribe cognitive significance to particular religious traditions? To answer this question, I want to make a distinction between three segments of scientific knowledge: what we know is not the case, consolidated knowledge, and speculative knowledge.

It is important to emphasize that science has made us aware of many things that are not the case. The earth is not flat, nor does it sit on the back of a turtle. Since Yuri Gagarin's trip, the realm of God or of the blessed cannot be held to be above the atmosphere. The categories of earth, water, air, and fire are not adequate to describe reality. There has not been a worldwide flood. The age of the earth and of the observable universe is not of the order of a few thousand years. Such conclusions are sure, even though there may be uncertainties about the various theories and models involved. This aspect of science makes a naturalist disbelieve many traditional religious claims. Thus, insofar as we have to use versions of religious traditions that are wedded to beliefs of this kind, we cannot take them seriously except in the instrumental sense that we may use a religious conception in communicating with and appealing to the adherents of such traditions. So far, the proponent of a naturalistic religion and the naturalist proponent of religious pluralism are in agreement.



There may be a difference with respect to the assessment of that which science has made known so far. An optimist might assume that it is sufficient to live by, if articulated properly. Science would be a satisfactory guide for our social and individual human lives. With respect to such an assessment of our situation, the ways divide. The pluralist believes that religious traditions contain wisdom that is not all explicitly available in a transparent scientific form and hence will disagree with this optimistic assessment of the scope of scientific knowledge. If, for instance, sociobiological studies have made us aware of how we tend to treat women and men differently, this does not imply that we ought to treat them differently. Rather, scientific knowledge can also be used to reflect on our behavior and to modify it so as to make it more in line with other moral intuitions (e.g., Singer 1981).

The conviction that science does not suffice to fill in our whole worldview (even though science puts major constraints on our beliefs) is strengthened when we consider speculative, not yet consolidated parts of science. Not all disagreements among relevant experts are relevant in our context; in many cases, in disciplines such as chemistry, solid state physics, astronomy, and physiology, their work is filling in part of the puzzle without modifying its layout. However, there are a few areas where disagreements touch upon more fundamental themes. Views of causality, substance, and time, to mention a few metaphysical themes, correlate with preferences for scientific theories. Though many proposals fail when explored mathematically, and some fail because they are unable to explain our observed universe, there seems to be a genuine variety of options available; science underdetermines metaphysics. Some would argue that there is also room for differences of opinion with respect to the relation between mental and material phenomena, especially because there is an issue of circularity here (mind attempting to understand the emergence and functioning of mind). However, this may be more within the realm of regular scientific research.

We can argue that there is room for a variety of views by looking at current scientific theories and also by considering the status of scientific theories and the scientific attitude. The philosopher Bas Van Fraassen concluded an essay on "the world of empiricism" with a plea for the scientific attitude, which goes against overly strong attachments to particular scientific theories. "What is the alternative to reifying the content of science? The alternative is to accept the challenge of intellectual maturity: to let your faith be not a dogma but a search, not an answer but a question and a quest, and to immerse yourself in a new world-picture without allowing yourself to be swallowed up" (Van Fraassen 1994, 133). In a similar way, we might be immersed in a particular religious tradition without being swallowed up, without closing our minds to other views

and new insights and challenges—and hence, with provisionality. A tradition is more like an initial base for exploring reality and responsibility than a fortress to be defended or the “passwords” defining a self-sufficient autonomous tribe. For the empiricist and the realist share a commitment to truth (and hence a commitment to the confrontation between ideas and “what we know is not the case”), even though the empiricist is afraid of claiming too much whereas the realist objects to claiming too little. Van Fraassen (1984, 171) argued, in a Festschrift for the scientific realist Ernan McMullin, that the empiricist and the realist have at least this in common: “How could the world *possibly* be the way physical theory says it is?” So too can we defend the pluralist view within a naturalistic context, the different religions as different articulations of how the world could possibly be, including in these different possible ways of being also different notions of ontological and axiological ultimacy.

The pluralist style and the work of those developing one particular tradition (as Hefner does) are more akin to the empiricist attitude than the realist attitude, in that a plurality of proposals is allowed. Each is in principle taken seriously, but their character as sets of symbols competing with, or at least side by side with, other such sets is kept in mind very explicitly. Thus, there is a greater epistemic modesty in this approach than in the ambition for a naturalistic replacement of, and functional equivalence for, the variety of religious traditions.

The pluralist naturalistic approach often results in an interpretation of religious symbols that emphasizes their symbolic character and the existential role of symbols, the way they may help humans cope with and transform life. There is a tendency for such a reinterpretation of religious symbols to emphasize their existential meaning while shying away from claims that suggest ontological dualism—such as those often associated with notions such as that of God as transcendent creator. Is there a chance for a naturalist to include dualistic claims, whether reinterpreting an existing tradition or designing a naturalistic alternative? In my opinion, the answer is yes, because naturalism does not decide on this kind of ontological dualism, as I argue in the next section.

#### SCIENTIFIC EXPLANATIONS DON'T EXPLAIN EVERYTHING

Reductionistic explanations within a naturalistic framework do not explain the framework itself. Scientists always answer certain questions while relegating other questions to, and borrowing assumptions from, other disciplines. In that sense, fundamental physics and cosmology form a boundary of the natural sciences, where speculative questions with respect to a naturalistic view of our world come most explicitly to the forefront. The questions that arise at the speculative boundary one might

call *limit questions*. The questions left at the metaphorical last desk are questions about the world as a whole, its existence and structure, and not just about its beginning.<sup>10</sup>

Some scientists and naturalists suggest that science might in the end explain everything without leaving any limit questions. For instance, Peter Atkins argues that science traces complex structures back to more simple predecessors—elephants arise given time and molecules, molecules arise given time and the right elements, and so forth. The last stage of this tracing back is the explanation of space and time themselves; they arise by chance out of nothing, an ultimate simplicity that needs no further explanation. However, upon a closer look, this nothing is perhaps no thing, but not nothing—it has properties (a measure on which chance operates), and it is an existent, not merely an idea. A question remains, whatever fundamental theory one argues for, as to what “breathes fire into the equations” (Hawking 1988, last chapter), that is, gives reality to some mathematical structure. The Hawking-Hartle model, which is one of the first major quantum cosmological models, does not give the probability for the universe to appear from nothing, as the authors claimed. Major assumptions are hidden in normalization, and we also need to assume quantum fields and the validity of mathematics for the scheme to work (Drees 1990, 71–73; 1991, 389f.). More recently, Lee Smolin (1997) has suggested that the persistence of limit questions (and hence the association between fundamental physics and a theistic metaphysics) is a consequence of the emphasis on principles, and hence of the reductionist and atomistic thinking that pervades physics. He has suggested that this should be replaced by a more historical thinking, modeled after evolutionary thought in biology, in which the fundamental properties of our reality are the contingent products of history, or rather of the statistics of black-hole-producing universes. Though this is an interesting turn in reflection on the nature of physics, it does not deliver us fully from limit questions. There are still the questions of why there is a reality and why it behaves in this way, with variations from one universe to another.

Limit questions are persistent, even though the development of science may change the shape of the actual ultimate questions considered at any one time. The coherence of explanations of phenomena *within* reality is not itself an explanation *of* reality; explanations within the framework are not explanations of the framework. The integrity of reality does not imply its self-sufficiency, as the a-theistic interpretation by Peter Atkins seems to assume. In that sense, a science-inspired naturalism is an incomplete position. Naturalism does not imply the dismissal of such limit questions as meaningless, nor does it imply one particular answer to such limit questions, as we consider now.

## RELIGIOUS VIEWS ON THE EXPLANATION FOR EVERYTHING

Scientific explanations only deal with explanations *within* the framework of reality. Thus, in relation to ultimate questions as they arise in the light of cosmology we can propose that there is a ground *of* reality, which is the explanation of natural reality. In this way, we can combine a naturalistic view of reality with a *theistic dualism*, understanding the *natural world as a whole* as creation, dependent on a transcendent Creator. Such a view might be articulated with the help of a distinction between primary and secondary causality, or between temporal processes in the world and a timeless dependence of the world (including its temporal extension) on God. Such a view takes from monotheistic traditions the distinction between God and everything that is not God; this view is not dependent on a dualist anthropology (body-soul). It is theistic in that it emphasizes God's otherness.

This approach ascribes to God a unique mode of action, by which God creates and sustains all things as their primary cause; all natural causes are real, as are all entities and events, but they are real because they have been created by God. This distinction between primary and secondary causality was developed in the European Middle Ages, by Thomas Aquinas, for instance, but its roots can be traced back at least to Augustine (fourth or fifth century). God creates everything, past, present, and future events, and God creates them not as an amorphous bag of events but with their temporal, spatial, and causal relations and with their creaturely freedom. The distinction between God and God's activity on the one hand and creatures and creaturely activity on the other is articulated also as a difference with respect to time: all creatures are temporal, whereas God is, in this view, conceived as not temporal. God's eternity is not everlastingness (infinite temporal extension) but timelessness.

Conceiving of divine and creaturely action in terms of primary and secondary causality results in various puzzles, if not problems. A major puzzle is that both natural and divine action are considered to be sufficient (at their own level of description). If God's creative activity is not considered sufficient, we run the risk of conceiving of God as a demiurge who is dependent on the cooperation of matter. However, once we allow for two different sufficient causes causing a single event, one of them seems superfluous. Thus, it is important that the kind of sufficiency and the difference between these two kinds of activity be clarified in order to avoid problems associated with double agency.

Accepting the whole natural world as the creation of a timeless transcendent God avoids various potential problems in the relationship between theology and the natural sciences, because it accepts the world as understood by the natural sciences as God's creation. There is no need for particular gaps within the world or for some particular form of top-down

causation. However, even with such an understanding of God, theology and the natural sciences relate to each other with respect to the concept of time and the explanation of the natural world as a whole (rather than the explanation of phenomena in the natural world). With respect to limit questions of a naturalistic view of the world, I argue that science does not offer answers or evidence, not even in the discussion of the basic properties of our universe.<sup>11</sup>

Strong emphasis on the transcendence of God offers a good perspective for a theological view that is consistent with science. However, it is hard to give reasons, at least in the context of a dialogue with the sciences, why we would hold such a theological position; “since there are no real ‘gaps’ to fill, we may be left without any argument for God’s existence of the kind that would convince a science-minded generation,” as Ernan McMullin observed in this context (McMullin 1988, 74). If this is resolved through an appeal to particular events or experiences in human history, we run into problems with respect to a naturalistic understanding of human experience and history. There is one more option, and that is to abstain from giving any grounds. This way of making a virtue out of necessity seems to be the strategy of theologians who emphasize that they want to do without natural theology. Coherence, or at least consistency, may be considered enough. However, limiting oneself to coherence while abstaining from further understanding is at variance with ordinary scientific practice, where we not only seek to eliminate inconsistencies but also try to analyze how certain phenomena rest on underlying processes. For instance, evolutionary epistemology is not an attempt to articulate an epistemology consistent with evolution, but rather an attempt to explain why (and to what extent) we as evolved creatures can know the world.

The ontological dualism characteristic of the theistic position is unattractive to many naturalists—as exemplified by Robbins’s criticisms—who see it as too close to a nature/supernature distinction, with the supernatural somehow interfering within the natural in a way that upsets the integrity of the natural. Such naturalists might be attracted to a *pantheistic* view, in which an ontological duality of the natural and the divine is denied; the natural is in some sense the divine. Various aspects of our knowledge of the natural order may be taken as clues for such a view. Traditional attributes of the divine, such as atemporality and omnipresence, can be associated with the laws of nature, which are in this view not so much rooted in a transcendent source as immanent in natural reality. Reality may be seen as *causa sui*, in that quantum theories may allow a temporal universe to emerge, and at a smaller scale, self-organization is characteristic of many processes.

However, as in the preceding case, such associations do not result in arguments. Each time, other interpretations are possible, and pantheistic answers invoke further questions and objections, just as a theistic answer always allows for the further question of why such a God would exist. A particular question for a pantheistic view is why we would ascribe divinity to the whole or to all things. Are they all to be valued as good or beautiful in a way befitting the divine? Or is the understanding of the divine more ambiguous, matching the moral and aesthetic ambivalence of the world as secularly experienced?

A third position is possible as well, and that is a more *agnostic* stance. Milton Munitz claims in his *Cosmic Understanding* that any actual theory of the universe is conceptually bounded; there might be “a dimension of reality ‘beyond’ any such account, but that could not be expressed adequately in language. We shall be driven, consequently, and at the end, to silence, although the ‘talk’ on the way, if at all helpful, will have had its value in making the silence a pregnant one, and indeed an occasion for having an overridingly important type of human experience” (Munitz 1986, 231f.). The theologian Gordon Kaufman points out various problems with the dualistic language of theism, as if we on this side of the great divide could know or speak well of that which is on the other side; such a way of speaking “is fundamentally incoherent, leading us to suppose we know something(s) which we cannot possibly know.”

In particular we should, in our attempt to construct conceptions and pictures of humanity, the world, and God, try to speak only in terms of *this world*, of the realities of *this life*. . . . In all of this, of course, it is important that we keep in view the fact that our “knowledge” of this world in which we live, and all the realities within it, always shades off into ultimate mystery, into an ultimate unknowing. In developing the concept of mystery in the way I do, I am seeking to retain what is valid in dualistic ways of thinking, without falling into their fallacies.<sup>12</sup>

Emphasizing “mystery,” not knowing, is a fairly safe strategy, which has some affinity with the epistemic modesty of Van Fraassen discussed above. However, the price is that it does not offer much guidance as to particular choices to be made in life; the notion of mystery is more epistemic than axiological or ontological.

These three different views, the theistic, the pantheistic, and the myste-rianistic, only briefly and inadequately described here, are in my opinion all compatible with contemporary science and a naturalistic understanding of it. The way they are articulated and defended may be influenced by current scientific theories (as these affect notions of time, space, cause, etc.), but variants of these positions can be formulated again and again. In this way they illustrate the conclusion drawn above about the

underdetermination of metaphysical views by current science. Different particular traditions are acceptable for the naturalist as long as these are taken in a liberal spirit—that is, as long as a tradition avoids assuming claims which with respect to science belong to the category of that which we know not to be the case, and as long as the tradition acknowledges its epistemic limitations. As a consequence, religious ambiguity with respect to ultimate questions counts in favor of a pluralistic view of religious traditions within a naturalistic framework rather than in favor of a naturalistic replacement for religious traditions.

## NOTES

1. The particular passages Robbins refers to most come from my critique of an argument by Alvin Plantinga, where Plantinga argues that evolution may explain functional beliefs, but these beliefs may well be wrong—which is true, but my point is that it is hard to imagine a world in which wrong beliefs about, for instance, tigers and their interaction with humans, would be replaced again and again with beliefs that are equally mistaken. With respect to science I opt for a moderately realistic attitude, which avoids the overstatements of metaphysical realism (science described the way the world is) and the understatement that would deny unobservable entities or the usefulness of theoretical entities (such as, once upon a time, the atom) (Drees 1996, 136–38). I am not emphasizing “representations” as the heart of realism—the “wrong beliefs” I am concerned with in that context come from Plantinga and are such pragmatic beliefs as understanding the display of a tiger as the starting signal for a race, or desiring to pet the tiger, and assuming that the best way to achieve that aim is to run away. The issue of representation is not as central for me as Robbins seems to believe, although I am interested in the question of whether the language we use refers to the world beyond our language. Robbins (1997, 589) argues that “the theory of scientific realism” does not provide any ideas about causal mechanisms, and hence does no good. I agree that scientific realism does not add anything to any particular scientific explanation; I did not speak of “the theory of scientific realism.” However, I do hold that McMullin and others are on a promising track when they argue that some modest form of a realistic attitude is warranted in science by the instrumental success of scientific methods that assume complementary virtues (Drees 1996, 137). I have been critical of attempts to transfer arguments on realism from science to religion and on realism in religion, on both epistemic and religious grounds (Drees 1996, 139–49, 237–44, 249–52). Given such epistemic differences, different functions, and different records, I disagree with Robbins (1997, 590) when he claims that science and religion are on a level, pragmatist, playing field. “Realism” is also not that central in the reflection on Limit Questions, where I allow for a ground of being that could be beyond the natural order—a position that Robbins calls supernaturalism and which apparently persuaded him even more to dismiss my view as “theologically conservative”; I personally have much sympathy for a more agnostic treatment of such Limit Questions (1996, 114, 279f.; see also below).

2. Griffin (1997, 605) suggests that I make my position “unfalsifiable in principle” when I argue that there need not be a general naturalistic definition of proper functioning. However, here he seems to have missed the difference between the absence of a general definition and the absence of explanations of particular instances of proper functioning; we would make our position unfalsifiable if we were to claim that there is no need to find explanations for actual instances (which I don’t claim), but not when we claim, as I do, that there is no general definition of “proper functioning” which covers all instances we might call “proper functioning.” This is explicit in Drees 1996 (154); the problem with definitions is that some vagueness is typical of most notions we use.

3. Griffin (1997, 608f.) argues that I am inconsistent with respect to morality when I first deny the existence of abstract values but then presuppose them when I speak of criteria such as disinterestedness and speak of higher intuitions in terms of which we evaluate our primary responses. However, I argue that such criteria and intuitions themselves are products of our evolutionary past too. Nonetheless, in a piecemeal approach, we may improve norms, criteria, and higher principles (1996, 219–21), just as we may renovate a ship at sea, not by having some dock where we can take the ship apart but rather by improving the ship piecemeal (an image from Otto Neurath; see Drees

1996, 229). The development of precision instruments and measuring devices and of legal systems are also useful analogies (1996, 238–41).

4. Paul Humphreys, “Natural emergence,” paper presented at a conference at Elizabethtown College, July 1997. Whereas that paper (and my own paraphrase) concentrates on entities, Humphreys (1997) also offers an analysis of the emergence of properties.

5. Advocates of a Whiteheadian ontology, such as Griffin, seem to believe that certain important characteristics cannot emerge and hence have to be present in basic entities or events, whereas my version of naturalism assumes that genuine life, experience, consciousness, and morality can emerge.

6. Kitcher 1993 offers an attractive “philosophy of science” that articulates the notion of piecemeal improvement and thus accommodates “social studies of science” without succumbing to the suggestion that this undermines scientific credibility.

7. “Everybody’s Story” is the title of a manuscript by Loyal Rue, philosopher of religion at Luther College.

8. Two examples are the work of the Boston Research Center for the Twenty-first Century and of the Center for the Study of World Religions at Harvard University, which have organized conferences on various religious traditions and ecology. The pluralist approach is also exemplified by books such as S. C. Rockefeller and J. C. Elder, eds., *Spirit and Nature* (Boston: Beacon Press, 1992); D. Kinsley, *Ecology and Religion* (Englewood Cliffs, N.J.: Prentice Hall, 1995); M. E. Tucker and J. A. Grim, eds., *Worldviews and Ecology* (Maryknoll, N.Y.: Orbis, 1994); or the texts collected in *This Sacred Earth*, ed. R. S. Gottlieb (New York: Routledge, 1996).

9. Perhaps M. Oelschlagel, *Caring for Creation: An Ecumenical Approach to the Environmental Crisis* (New Haven: Yale Univ. Press, 1994), comes close to an instrumental use of the ecological potential of the variety of traditions. “Caring for creation, whatever its metaphysical implications, can be a politically effective metaphor, because it cuts across the continuum of religious belief—a spectrum that encompasses 90 percent of the populace” (219).

10. Robbins asks, “Are we bound to ask questions about primary causality to which a timeless, transcendent God is an answer?” He states that limit questions “are themselves historical contingencies. They do not reflect a perennial concern that is of the essence of the human mind” (1997, 590, 591). It is remarkable to have a pragmatist dismiss certain questions because they are not perennial. Anyhow, in my opinion the question is not whether we are bound to ask such questions (I would say we aren’t) but whether such questions can be asked in a meaningful way (yes), and if so, whether they are within the province of science to answer (I say they aren’t).

11. For my view of the discussion of the anthropic principles in this context, see Drees 1996, 269–72.

12. Kaufman (1993, 325f.). Kaufman also has elements that may be understood more in the pantheist sense; God is a human symbol that refers to the serendipitous creativity of the evolutionary process; and we should ask ourselves “how can we fit our actions into God’s overarching activity which is their context?” (267, 358).

## REFERENCES

- Alexander, Denis. 1997. Review of *Religion, Science and Naturalism* by Willem B. Drees. *Science and Christian Belief* 9(2): 174–76.
- Atkins, Peter W. 1981. *The Creation*. Oxford: Freeman.
- Brooke, John Hedley. 1997. “His Bright Designs?” *Times Literary Supplement*, 7 February, 27.
- Dennett, Daniel C. 1984. *Elbow Room: Varieties of Free Will Worth Wanting*. Cambridge, Mass.: MIT Press.
- Drees, W. B. 1990. *Beyond the Big Bang*. La Salle, Ill.: Open Court.
- . 1991. “Quantum Cosmologies and the ‘Beginning.’” *Zygon: Journal of Religion and Science* 26 (September): 373–96.
- . 1996. *Religion, Science, and Naturalism*. Cambridge: Cambridge Univ. Press.
- . 1997. “Naturalisms and Religion.” *Zygon: Journal of Religion and Science* 32 (December 1997): 525–41.
- Griffin, David Ray. 1997. “A Richer or a Poorer Naturalism? A Critique of Willem Drees’s *Religion, Science and Naturalism*.” *Zygon: Journal of Religion and Science* 32 (December):



- 593–614. This paper is adapted from a forthcoming book, *Religion and Scientific Naturalism: Overcoming the Conflicts* (Oxford: Oxford Univ. Press, 1998).
- Hawking, Stephen W. 1988. *A Brief History of Time*. New York: Bantam Press.
- Hefner, Philip. 1993. *The Human Factor: Evolution, Culture, and Religion*. Minneapolis: Fortress Press.
- Humphreys, Paul. 1997. "How Properties Emerge." *Philosophy of Science* 64 (March): 1–17.
- Kaufman, Gordon. 1993. *In Face of Mystery: A Constructive Theology*. Cambridge: Harvard Univ. Press.
- Kitcher, Philip. 1993. *The Advancement of Science*. New York: Oxford Univ. Press.
- McMullin, Ernan. 1988. "Natural Science and Belief in a Creator: Historical Notes." In *Physics, Philosophy, and Theology: A Common Quest for Understanding*, ed. R. J. Russell, W. R. Stoeger, and G. V. Coyne. Vatican City State: Vatican Observatory; distr. Univ. of Notre Dame Press.
- Midgley, Mary. 1994. *The Ethical Primate: Humans, Freedom, and Morality*. London: Routledge.
- Munitz, Milton K. 1986. *Cosmic Understanding*. Princeton: Princeton Univ. Press.
- Robbins, J. Wesley. 1997. "Broken-backed Naturalism." *Zygon: Journal of Religion and Science* 32 (December): 585–92.
- Rue, Loyal. 1989. *Amythia: Crisis in the Natural History of Western Culture*. Tuscaloosa: Univ. Of Alabama Press.
- Russell, Colin A. 1997. Review of *Religion, Science and Naturalism* by Willem B. Drees. *ISIS* 88: 377–79.
- Singer, Peter. 1981. *The Expanding Circle: Ethics and Sociobiology*. Oxford: Clarendon Press.
- Smolin, Lee. 1997. *The Life of the Cosmos*. New York: Oxford Univ. Press.
- Van Fraassen, B. C. 1984. "The Problem of Indistinguishable Particles." In *Science and Reality*, ed. J. T. Cushing, C. F. Delaney, and G. M. Gutting. Notre Dame: Univ. of Notre Dame Press.
- \_\_\_\_\_. 1994. "The World of Empiricism." In *Physics and Our View of the World*, ed. J. Hilgevoord. Cambridge: Cambridge Univ. Press.
- Wilson, E. O. 1978. *On Human Nature*. Cambridge: Harvard Univ. Press.