

A RICHER OR A POORER NATURALISM? A CRITIQUE
OF WILLEM DREES'S *RELIGION, SCIENCE AND
NATURALISM*

by David Ray Griffin

Abstract. Willem Drees endorses not only minimal naturalism, understood as the rejection of supernatural interruptions of the world's normal causal processes, but also maximal naturalism, with its reductionistic materialism. Besides arguing that this reductionistic naturalism provides the best framework for interpreting science, he believes that it is compatible with religion (albeit of a minimalist sort). The "richer" naturalism advocated by Whiteheadians is, accordingly, unnecessary. Drees's position, however, cannot do justice to a number of "hard-core commonsense notions," which we inevitably presuppose in practice and thereby in science as well as religion. His naturalism is too poor, in particular, to account for subjectivity, freedom, and mathematical, religious, and moral experience.

Keywords: common sense; consciousness; Darwinism; freedom; materialism; metaphysics; naturalism; reductionism; science and religion; subjectivity; theism; Alfred North Whitehead.

In writing a book on science and religion oriented around the issue of naturalism, Willem Drees has focused on the crucial issue in the science-and-religion discussions, namely, whether scientific naturalism is compatible with religious belief, especially theistic belief. My own view is that an affirmative answer can be given but only if "scientific naturalism" is construed minimally, in distinction from the maximal way in which it has usually been construed. That is, I accept the view that the scientific community rightly presupposes naturalism in the sense of rejecting the idea of supernatural interruptions of the world's basic causal nexus. This doctrine can be called naturalism_{ns} (for nonsupernaturalism). Naturalism in this minimal sense, however, has usually

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been embedded in a much more restrictive version of naturalism, which is materialistic, reductionistic, deterministic, sensationistic, and atheistic. (Although some thinkers say that only *methodological* atheism is required, atheism in the metaphysical sense is usually affirmed by the ideological leaders of the scientific community.) This worldview can be called naturalism_{am} (for atheistic materialism). Naturalism in this maximal sense not only is not presupposed by science as such, I argue, it is even in tension with many of the necessary presuppositions of scientific activity. If the scientific community would realize that it needs a more open form of naturalism, the way would be clear for the adoption of a cosmology that could be adequate for both the scientific and the religious communities. I hold that a Whiteheadian naturalism could fill this dual need.

In conservative religious circles, the controversial part of this proposal for overcoming the perceived conflicts between science and religion is, of course, the suggestion that the religious as well as the scientific communities should adopt naturalism_{ms}. In scientific and liberal religious circles, however, the main challenge would be to my twofold thesis: (1) that the scientific community should limit its naturalism to the rejection of supernaturalism, thereby renouncing its allegiance to naturalism_{am}, and (2) that this limitation is necessary if scientific naturalism is to be compatible with a significantly religious outlook. Drees's *Religion, Science and Naturalism* (hereafter designated RSN) provides a lengthy argument against the first point, explicitly rejecting the suggestion that science be reconceived within a Whiteheadian naturalism, and Drees also denies, if less vigorously, the second point. In this essay, I explain my reasons for not finding his case convincing on either point.

MAXIMAL NATURALISM AND MINIMAL RELIGION

I hold that the materialistic version of naturalism is not compatible with any *significantly* religious interpretation of reality, certainly not with a Christian interpretation recognizable as such. Drees, however, sometimes seems to suggest otherwise. For example, in saying that "the atheist [Richard] Dawkins and the Christian philosopher [Alvin] Plantinga are allies" in opposing "those who try to have both secular science and genuine religion," Drees seems to imply that we *can* have both (RSN, 159). And, in reaction to Ian Barbour's assumption that "scientific materialism" would necessarily lead to "conflict" with religion, Drees suggests that a "materialist view of religion" could come close to exemplifying Barbour's category of "integration" (RSN, 43n).

In other passages, however, Drees recognizes that his alliance of science with materialistic naturalism means that science can be integrated or harmonized only with a very thin religion. Indeed, he begins his book with

an approving reference to Thomas Huxley's admonition not to destroy our sense of truth "in the effort to harmonise impossibilities" (RSN, xi). The extent of Drees's conviction that such harmonizing is impossible is suggested by his statement, made in reference to the efforts of process theologians, that he does not believe "that attempts to formulate theological views in continuity with scientific insights will succeed" (RSN, 148). He states, furthermore, that his naturalism "seems to imply a conflict . . . between the convictions of the believer and of the scientist." He quickly adds, to be sure, that whether there really is such a conflict depends upon "the understanding of religion" (RSN, 26). But his point is that there is no conflict in his own mind between himself as a scientist and himself as a believer—which he calls himself (RSN, 28)—because his approach is "minimalist with respect to religion" (RSN, 4).

This judgment of minimalism is certainly correct. In Drees's outlook, there is no divine action in the world. This denial, which is at the heart of his naturalism, takes care of a good number of historic Christian beliefs. "Views of divine action," Drees himself says, "are involved in views of divine providence, prayer, miracles, the understanding of the life, death, and resurrection of Jesus, and human freedom and responsibility, to mention just a few issues" (RSN, 93). Besides eliminating all those beliefs, Drees's materialism entails identism—"in some way, I am my brain" (RSN, 184)—which implies not only that there is no life after death but also that there is no freedom. His materialism also entails that there is no realm of objective moral values or norms to which moral judgments might correspond (RSN, 216, 218, 221). As this list indicates, Drees's religious beliefs are so minimal as to be virtually nonexistent. He, in fact, regards religion as a "particular human articulation of a way of life." He does seemingly bring in a belief by adding that this articulation is "qualified and relativised by a sense of transcendence" (RSN, 237). Believing that one question that cannot be answered naturalistically is why anything exists at all, he uses the word *God* to point to the ground of the world (RSN, 266–68). However, his ideas about God are not "affirmed as realist claims, but rather accepted as speculations and regulative ideals" (RSN, 237). The fact that his reference to God involves no real belief is brought out clearly by his rejection of the idea that the Christian tradition is "true to the way things 'really are' or to the way reality ultimately is" (RSN, 279). He says, instead, that we should want to keep Christianity alive because it is "useful and powerful" (RSN, 278).

Drees feels compelled to accept such a minimal religion because he has accepted a maximal naturalism. Building on Peter Strawson's distinction between soft (nonreductive) and hard (reductive) naturalism, Drees says: "I use the label 'naturalism' for 'hard naturalism'; 'materialism,' 'physicalism,' and 'physical monism' may be construed as near synonyms"

(RSN, 11). Indeed, he characteristically speaks of his position as “materialist naturalism” (RSN, 53, 258).

Articulating this naturalism in terms of a number of claims, he begins with “ontological naturalism,” according to which:

The natural world is the whole of reality that we know of and interact with; no supernatural or spiritual realm distinct from the natural world shows up *within* our natural world, not even in the mental life of humans. (RSN, 12; emphasis in original)

Anticipating that certain ambiguities in this statement will be clarified by later claims, we can focus on the main point, which is the denial “that God intervenes occasionally in the natural world” (RSN, 14). The naturalist view, Drees says, is “that natural processes are not occasionally interrupted or suspended” (RSN, 248). If this were all that ontological naturalism denies, it would be identical with what I have called naturalism minimally construed, which rules out only supernatural interventions in the world. For Drees, however, the sole religious views of transcendence that are consistent with ontological naturalism are those that “do not assume that a transcendent realm shows up *within* the natural world” at all (RSN, 18; emphasis in original). Ontological naturalism, in other words, rules out *any* kind of divine influence *in* the world (RSN, xi, 140, 222).

As the last clause in the extracted quotation above makes clear, Drees’s ontological naturalism excludes divine influence not only in nature, in the sense of the physical world, but also in human experience. One implication of this point is that religion can in no way be assumed to arise out of divine influence or, stated otherwise, out of a human experience of God. His ontological naturalism, Drees says (RSN, 26), implies “methodological naturalism,” defined by Samuel Preus in *Explaining Religion* to mean that “religion could be understood without . . . metaphysical commitments about its causes *different* from the assumptions one might use to understand and explain other realms of culture” (Preus 1987, x; emphasis in original). Taken by itself, that definition could be interpreted simply as an implication of naturalism_{ns}, which would allow one to hold that divine influence is involved in everything else in metaphysically the same way that it is involved in the rise and perpetuation of religion. However, Drees, like Preus, believing that everything else is to be explained without any reference to divine influence, takes this definition to entail “a non-religionist approach in the study of religions” (RSN, 27). If there were a “divine causal role” in the origin of religious belief, Drees says, “the naturalist account [would be] incomplete, and therefore wrong” (RSN, 222). This naturalist account of the origin of religion has implications, Drees points out, for our ideas about the divine: “Some causal contribution of God in the temporal processes that

brought someone to faith is essential to the likelihood that claims concerning God's existence may be true" (RSN, 222). If divine activity plays no role in the creation of such ideas, therefore, "it is extremely unlikely that our ideas about gods would conform to their reality" (RSN, 251).

Why is all divine activity in the world ruled out by ontological naturalism? Drees answers this question in terms of "scientific insights about the lawful behaviour of natural processes" (RSN, 94). Scientific discoveries have led, he says, to "our understanding of the world as a tightly knit web of processes described by laws" (RSN, 92). Given that view of the world, divine influence could occur only as an interruption of this "tightly knit web of processes." The only basis for speaking of divine influence, accordingly, would be an apparent gap in this causal web. Drees rejects all talk of divine influence, therefore, because he sees no "religiously relevant gaps in the natural world, where the divine could somehow interfere with natural reality" (RSN, xi).

Drees's position is fleshed out at this point by the claims he calls "constitutive reductionism" and the "physics postulate." According to constitutive reductionism, "our natural world is a unity in the sense that all entities are made up of the same constituents" (RSN, 14). Thus stated, this claim might mean only that all the actual entities of which the world is composed are of the same basic type (which Whiteheadian naturalism says). This view would allow for the possibility that, besides the simplest entities of this type, which physics studies, there are higher level, more complex ones, such as cells and human beings, which are compounded out of the simpler ones (which Whiteheadian naturalism also says). The word *reductionism*, however, indicates that this is not Drees's meaning. Rather, he means that "different entities are constituted from the same basic stuff, say atoms and forces," in such a way that behavior of the larger entities, whether rocks or human beings, is entirely a function of their most fundamental constituents, which are studied by physics (RSN, 14).

This point leads to the physics postulate, which says: "Physics offers us the best available description of these constituents, and thus of our natural world at its finest level of analysis" (RSN, 14). This claim, upon which the previous one depends, lies at the root of the difference between his naturalism and Whitehead's. For Whitehead, this claim exemplifies the "fallacy of misplaced concreteness," in which the abstractions from a concrete actuality employed by one of the particular sciences (in this case physics) are mistaken for the concrete actuality itself. It is assumed, for example, that there is nothing more to electrons than what physicists, in terms of their limited concerns, need to say about them. If this *is* a fallacy, Drees commits it wholeheartedly, saying that "physics is the science of the fundamental aspects of natural reality" (RSN, 188), even that

“physics is fundamental as inquiry about the fundamental ontology of the world” (RSN, 17). Whitehead (1978), by contrast, assigns this inquiry to philosophy, in the sense of metaphysics, which is to develop a coherent, adequate view of the fundamental aspects of all actual entities by drawing upon the insights of all the special sciences, including human psychology. In fact, Whitehead believes that philosophy, in carrying out this task, is to draw upon the moral, aesthetic, and religious experience of human beings. Drees, by contrast, endorses “the primacy of science in the realm of knowledge” (RSN, 3), with “physics as the most fundamental science” (RSN, 14). Coherence is achieved by means of regarding all other phenomena as consequences of the entities and forces studied by physics. Coherence, in other words, is achieved not by means of integrating physical science with any other way of knowing but by means of reductive naturalism (RSN, 3).

Drees’s version of naturalism also differs from a Whiteheadian naturalism with regard to the respect given to *common sense*. Whitehead’s position leads to a distinction between two very different meanings to be given this term, which I call “soft-core” and “hard-core.” Common sense of the soft-core variety involves beliefs that are widespread but that, given new knowledge, can be given up. Soft-core common sense in the West at an earlier time included the beliefs that the Earth is flat and that it is only a few thousand years old. Given new knowledge, these beliefs could be given up.

Hard-core commonsense beliefs, however, are different in kind, because such beliefs are *inevitably presupposed in practice*, even if we deny them in theory. For example, Hume argued, on the basis of his sensationist empiricism, that we have no basis for including efficient causation, in the sense of the real influence of one event or thing upon another, in our theories. The only meaning for “causation” provided by (sensory) experience, he argued, is the “constant conjunction” of two kinds of occurrences. Nevertheless, he pointed out, we cannot help presupposing the reality of causation as real influence. The same is true, he pointed out, for our belief in the existence of a real world beyond our conscious experience. Our (sensory) perception, he argued, does not tell us of such a world; it provides us only with sense data, such as colored shapes. All that we *know*, he said, is that such phenomena exist; in our philosophical theory, accordingly, we must be phenomenologists, limiting our affirmations to the phenomena. Nevertheless, he pointed out, in practice we are inevitably realists: we cannot help presupposing the existence of a real world.

Whitehead, while agreeing with what Hume said about sense-perception, disagreed with Hume’s decision not to include the inevitable presuppositions of practice among the theoretical data. He said, “Whatever is found in ‘practice’ must lie within the scope of the metaphysical

description. When the description fails to include the 'practice,' the metaphysics is inadequate and requires revision" (Whitehead 1978, 13). Whitehead even called this principle "the metaphysical rule of evidence," saying that "we must bow to those presumptions, which, in spite of criticism, we still employ for the regulation of our lives" (p. 151). "Rationalism," he added, "is the search for the coherence of such presumptions."

Coherence in this sense, however, is not accepted as an ideal by Drees. Coherence for him, as we saw, means interpreting everything else in harmony with the ontology suggested by physicists. And, given his construal of this ontology, Drees is led to suggest that, when they disagree, science-based ideas always trump common sense: "The assumption is that science as an epistemic enterprise deserves more credit than earlier ways of acquiring knowledge about reality, or than contemporary alternatives, including 'common sense' or folk wisdom" (RSN, 196). No distinction is suggested between a kind of common sense that science can trump and a kind that it cannot. "In general," Drees says, "the most satisfactory interpretation of widespread experiences need not be the one most obvious to common sense" (RSN, 166). For an example, Drees uses the idea that was corrected by the formulation of the principle of inertia, saying that the idea that "terrestrial objects spontaneously come to a halt . . . is still one of the many common-sense insights that a physics teacher needs to overcome" (RSN, 166–7). Having shown that (what I call) soft-core common sense is susceptible to correction by science, he then applies the point to an issue in which (what I call) hard-core common sense is involved: the relation between our conscious experiences and our bodies. Saying that "science *accounts for our experiences differently* than we would do otherwise," Drees adds that "[this] aspect of science is often labelled reductionism" (RSN, 165).

He elsewhere explains this reductionism by using Wilfred Sellars's distinction between our *manifest images* of things and the *scientific images* provided by scientific theories (RSN, 9–10). An example is afforded by the difference between our manifest image of a table as an inert, solid substance and the scientific image of it as comprising of billions of tiny, buzzing particles in vast amounts of empty space. The scientific image is superior because it can account for the manifest image and much more besides. The scientific image of anything, Sellars said, "is in principle the adequate image" (Sellars 1963, 36). Having invoked this distinction, Drees then applies it (as did Sellars) to the human being, saying that "our concept of a person (with an inner life, emotions, responsibilities, etc.), as it is central to most religious views, is rooted in our manifest images of the world" (RSN, 10). The implication is that our inner life, with its emotions and its apparent freedom (which is presupposed by our sense of responsibility for our actions), is

reducible, at least in principle, to the body's most elementary constituents. These conclusions about the mind-body relation in general and freedom in particular are the most important, and most debatable, implications of Drees's constitutive reductionism combined with his physics postulate. I will return to them later.

For now, we need to look at one more of his claims, the "evolutionary explanations postulate," which says:

Evolutionary biology offers the best available explanations for the emergence of various traits in organisms and ecosystems; such explanations focus on the contribution these traits have made to the inclusive fitness of organisms in which they were present. Thus, the major pattern of evolutionary explanation is functional. (RSN, 19–20)

As the reference to "inclusive fitness" indicates, Drees, in speaking of "evolutionary" explanations, means *Darwinian* explanations. Drees applies this type of explanation to, among other things, religions, saying: "The primary pattern of evolutionary explanation is functional: religions arose, and therefore probably contributed to the inclusive fitness of the individuals or communities in which they arose," or perhaps "they arose as a side-effect with the emergence of some other trait" that contributed to inclusive fitness (RSN, 250). This kind of explanation is assumed to be not merely necessary but also sufficient: It is not to be supplemented, as we have seen, with the idea that religions arose partly out of a response to divine activity in the world in general or human experience in particular. The assumption is that there is a "Darwinian history," which would exclude any reference to divine activity, for every feature of the world, including the world of human culture (RSN, 247).

WHY ACCEPT MATERIALISTIC NATURALISM?

Now that we have Drees's position before us, we can ask, Why does he accept it? Why does he accept this maximal construal of naturalism with its reductive materialism? Many authors equate naturalism with its materialistic version simply because they do not realize that there can be another kind. Drees, however, knows otherwise. He contrasts his version of naturalism with a "richer naturalism," by which he primarily means the "religious naturalism" of Whitehead and theologians influenced by him (RSN, 252–58). Indeed, he regards this richer naturalism as one of the most challenging alternatives to his own position (RSN, 236). The question, accordingly, is why Drees believes materialistic naturalism to be superior to this richer form of naturalism.

Several possible answers are excluded. One possible answer would be that it is not really naturalistic. Drees, however, sees that this position denies "transcendence beyond the natural" (RSN, 254). Another possible

answer would be that its reinterpretation of our conceptual framework for understanding the sciences is ruled out by what we know. Drees, however, says that this is not the case, that process theology's reinterpretations are "possible" and "cannot be excluded" (RSN, 95, 53). Yet another objection might be that process theologians simply assume Whitehead's scheme and impose it upon religion and the sciences. Drees recognizes, however, that some process thinkers, such as Ian Barbour, Charles Birch, and John Cobb, have "argued for [this scheme], developing their insights in extensive dialogue with the natural sciences and with religious traditions" (RSN, 147). What, then, are the reasons for rejecting this richer naturalism in favor of materialistic naturalism?

Drees seems to believe that one reason in favor of materialistic naturalism is that it is less metaphysical. Indeed, he sometimes speaks of Whiteheadian naturalism as a metaphysical interpretation of science (RSN, 2, 148, 254), thereby seeming to imply that his own view is *not* metaphysical. However, he is too sophisticated for that. In line with his recognition that theories are never strictly implied by the data (RSN, 9), he says: "My naturalism is a metaphysical position. It goes beyond the details of insights offered by the various sciences as an attempt to present a general view of the reality in which we live and of which we are a part" (RSN, 11). His contention, accordingly, seems to be that his naturalism is not *as* metaphysical as the other one, which is suggested by his next sentence: "However, it is a rather 'low-level' metaphysics in that it stays close to the insights offered and concepts developed in the sciences, rather than that it imposes certain metaphysical categories on the sciences or requires a modification of science so that it may fit a metaphysical position taken a priori" (RSN, 11).

This contention, however, cannot stand. Any view is metaphysical insofar as it attempts to state how things really are, as opposed to how they appear (phenomenology) or as opposed to remaining satisfied with a description insofar as it works for certain purposes (instrumentalism). Drees's naturalism is, in this sense, no less metaphysical than Whitehead's. To declare that the "concepts developed in the sciences" are fully adequate, at least in principle, for describing what electrons, atoms, molecules, and living cells are really like is no less metaphysical than Whitehead's claim that they are not. Indeed, one could well argue that, in claiming that all events in the world, including the teachings of Gotama and Jesus, the discoveries of Newton and Einstein, and the music of Mozart and Mahler, are simply products of the subatomic particles constituting their brains, reductive materialism is the most audaciously speculative metaphysical position of all time.

Speculative as it is, this metaphysics has been the consensus view in science-related circles for more than a century. In claiming that his

metaphysics “stays close to . . . the sciences,” not requiring “a modification of science,” what Drees’s claim really amounts to is merely a statement of agreement with the currently dominant consensus as to the best framework for interpreting scientific data. Drees, in fact, describes his project as that of developing his position “within the consensus view of the natural sciences” (RSN, 242). Because reductive materialism has been the consensus view for so long, so that most advocates of it have trouble distinguishing between it and science as such, Drees can assume that this interpretive scheme is closer to “science itself” than is Whitehead’s scheme, which involves a critique and revision of presently dominant views. It is, however, only closer to the currently dominant consensus as to what science is and implies. And consensus, Drees knows, is no guarantee of truth. He points out, for example, that today’s “creationists advance positions which were part of the scientific consensus in geology and paleontology some 200 years ago” (RSN, 243). Drees is even skeptical of the current consensus on certain issues (RSN, 116, 125). We still, accordingly, do not have a good reason for preferring the materialistic version of naturalism.

Drees does, however, clearly state the only terms in which his form of naturalism could be justified: it must prove itself to be “comprehensive, coherent, and fruitful” and “without an equally satisfactory alternative” (RSN, 23). Although Drees sometimes speaks as if the choice between his “sober naturalism” and the “romantic naturalistic framework” of process thought were to be made in terms of which framework provides “the best interpretation of modern science” (RSN, 3), with “science” understood to mean the natural sciences, the requirement that a naturalism must be “comprehensive” gives him an even more demanding challenge. He must argue that his framework, in spite of its reductionism, can do equal justice to distinctively human experiences. And he does so argue, saying that the “romantic” interpretation of science is unwarranted because it postulates “more fundamental entities or relations than one needs *to account for all our experiences*” (RSN, 2; emphasis added). As this statement reveals, Drees’s argument finally hinges upon “Occam’s razor,” understood as the principle that one should not postulate more entities or relations than are absolutely necessary to account for all the phenomena. This is a good principle. The question, of course, is whether Whiteheadian naturalism is guilty of violating it or whether Drees’s less rich naturalism turns out to be too poor to account for “all our experiences.” Drees’s conclusion is that, although Whitehead’s alternative cannot be excluded a priori, “currently there seems to be no compelling reason to abandon . . . materialistic naturalism” (RSN, 53). My conclusion will be that, by the criterion Drees himself accepts, there *are* compelling reasons to abandon it, even apart from its inability to provide a basis for reconciling science and religion.

THE ASSUMED ADEQUACY OF MATERIALISTIC NATURALISM

In general, Drees's attempt to demonstrate the adequacy of materialism to all our experiences could be described as casual. His assumption seems to be that, given the twofold fact that materialism is less metaphysical than the other forms of naturalism and is, in any case, the consensus view, it occupies a privileged position. The burden of proof is on its critics. Materialism can be assumed to be adequate, in fact, unless proven otherwise beyond a shadow of doubt. When there is debate within the scientific community about phenomena that if genuine would threaten materialism, we can assume, without examination, that those phenomena are not genuine. Even if materialists have not yet come up with an adequate theory to explain this or that indubitable fact, we can remain satisfied with materialism, trusting that an adequate theory will eventually be developed. Or, in some cases, we can simply dismiss the problem, saying that the demand for an adequate theory in those areas is unrealistic. My characterization of Drees's apparent assumption constitutes a serious charge; but a careful look at his book bears it out.

One problem is that the effort to understand the coherence of the sciences in terms of materialistic naturalism is, arguably, possible only by excluding various kinds of relevant data from the outset. Drees admits that "the coherence of our knowledge . . . might be seen as an artifact: we might have restricted ourselves to phenomena which could be dealt with in a coherent way" (RSN, 13). Drees, however, argues against this perception, saying instead that "there is a coherence across the variety of sciences which is not an artefact due to the way we organise science, but which tells us something about the natural world" (RSN, 13). Having already suggested that the understanding of the coherence of the sciences in terms of reductionistic materialism is in part an artifact of the fallacy of misplaced concreteness, I will later suggest that it is also an artifact of the omission of human subjectivity in general. But, for now, I will focus on the omission of one kind of human experience in particular, the kind studied by parapsychology.

Drees seems to be aware of the fact that the phenomena studied by parapsychology, if genuine—meaning that they cannot be given a "normal" explanation, one not involving nonlocal causation—would be threatening to the materialistic version of naturalism. And he is aware that the alleged phenomena cannot be rejected a priori. Speaking of "the claims in parapsychology regarding telepathy across spatial or temporal distances, apparently without a mediating physical process," he says that the rejection of such claims, which are "at odds with the scientific consensus," is "not beyond dispute" (RSN, 242). Also, although he, like many writers, suggests that parapsychology is "not worth the effort

needed" to study it by classifying it with creation science, astrology, homeopathy, "and the like" (RSN, 243), Drees concedes that "it is legitimate for some individuals to study claims about parapsychological phenomena" (RSN, 243). Nevertheless, he says, "I personally do not consider it sufficiently promising to spend much time exploring parapsychology, since I consider the likelihood of positive results very slim and the possibilities of developing my work within the consensus view of the natural sciences more important" (RSN, 242–43). The circularity involved in this reply is obvious: On the one hand, the main reason for sticking with the consensus view of materialistic naturalism, rather than adopting the "romantic" naturalism of Whitehead, is said to be that the former is adequate to account for all human experiences. On the other hand, this materialistic view is used as the criterion for deciding a priori which alleged human experiences actually occur. The very fact that evidence from parapsychology would, if positive, challenge the consensus view is used, in effect, as a sufficient reason not to examine this evidence. Drees has not, accordingly, dispelled the suspicion that the account of the coherence of the sciences offered by materialistic naturalism is an artifact of selection.

Although I will provide further examples of selectivity in the following paragraphs, the importance of the case of parapsychology is more important than it may appear at first sight. Drees's whole account of religion, as we have seen, is based on the assumption that it in no way arises from a direct, nonsensory perception of a Holy Reality transcendent to the totality of finite, physical things. His approach to morality, aesthetics, mathematics, and (presumably) logic is likewise based on the assumption that these human practices are in no way based upon a nonsensory perception (intuition) of a realm of abstract, ideal objects. Historically, one of the main reasons for holding that no such perceptions occur is the assumption that humans have no capacity for nonsensory perception—that all perception is sensory perception. Parapsychological evidence for extrasensory perception, if it is genuine—as I argue elsewhere (Griffin 1997a) that it is—shows that this assumption is false, thereby undermining one of the bases for trying to understand all cultural phenomena nontheistically.

This point provides a transition to a set of problems revolving around Drees's "evolutionary explanations postulate," according to which all natural and cultural phenomena can be explained in purely functional terms (inclusive fitness for survival), with no influence from God and/or a realm of abstract, eternal forms (such as truth, beauty, and goodness). One challenge to this postulate to which Drees responds is Alvin Plantinga's claim, made in support of theistic science, that an ontological naturalism, in Drees's sense, cannot give a satisfactory definition of "proper

functioning.” That is, the idea that bodily organs or limbs are functioning properly is not logically equivalent to any of the generally proffered criteria, such as those couched in terms of frequency or contribution to reproduction. We need not debate here the cogency of Plantinga’s argument but only look at Drees’s way of responding. He says, first, “I think that an evolutionary understanding of proper function as advocated by Ruth G. Millikan (1984, 1993) is able to deal with the alleged counterexamples and objections”; but Drees gives no hint as to what her approach is, not even indicating the pages in Millikan’s books in which the crucial material is to be found. Second, he says:

If I grant for the sake of the argument that there is currently no completely satisfactory definition of proper function . . . , Plantinga’s conclusion to the falsehood of naturalism does not follow. The absence of a satisfactory general naturalist definition of proper functioning is not evidence that there can be no such a definition. The definition may have eluded us so far. However, it is more likely that the request for a strict definition is too demanding. (RSN, 153–54)

The problem with these responses, of course, is that they make the position unfalsifiable in principle. Drees says, rightly, that his form of naturalism is to be judged in terms of whether it can do justice to all our experiences. But when a challenge to this adequacy is raised with regard to a particular issue, the response to this challenge is deferred to the indefinite future. Drees then adds that the challenger may be asking too much in this area. What this response seems to say, in effect, is that nontheistic naturalism is itself to be the standard for deciding where it is and is not appropriate to hold this form of naturalism to strict standards of intelligibility. If strict standards are inappropriate in all the areas where nontheistic naturalism is weak, then it is an unfalsifiable hypothesis.

Drees also responds to the claim that morality, religion, the appreciation of beauty, and the ability to do higher mathematics all cannot be explained solely in Darwinian terms. With regard to the latter, Drees says: “The ability to do advanced mathematics can be understood evolutionarily as the use of cognitive capacities which evolved for other purposes (plasticity)” (RSN, 155). The problem with this appeal to plasticity is that it makes Darwinism itself so plastic as to be unfalsifiable. The original claim, we recall, is that “[e]volutionary biology offers the best available explanation for the emergence of various traits in organisms and ecosystems” and that “such explanations focus on the contribution these traits have made to the inclusive fitness of organisms in which they were present” (RSN, 19–20). But then, when it is pointed out that the mathematical ability of a Pythagoras, a Newton, or an Einstein would hardly contribute to the survivability of early humans in a hunting-gathering society, the answer is that this mathematical ability must have come

about as a necessary concomitant of some other trait that did contribute to the chances of survival in that context. Given the ability to resort to such a dodge with regard to every trait that cannot be explained in terms of inclusive fitness for survival, Darwinism becomes as unfalsifiable as the systems it attacks as “metaphysical.”

The importance of this dodge should not be underestimated. The claim that “Darwinian histories” are adequate in principle to account for all evolutionary emergences, including distinctively human forms of experience, involves the claim that no forms of human experience are to be explained in terms of nonsensory intuitions of some timeless, Platonic realm transcending “nature,” understood as the totality of finite, physical entities. By contrast, many theists—both supernaturalistic theists, such as Plantinga, and naturalistic theists, such as Whitehead (who had been a mathematician)—believe that mathematical experience does imply contact with such a realm, so that a strictly Darwinian account, taken to deny such contact, is inadequate. Indeed, in Whitehead’s case, one factor that moved him toward theism was the inability to understand how ideal, nonactual entities, such as mathematical objects, could be efficacious in the world in general and in human experience in particular—in fact, how they could even exist—unless they existed in a primordial actuality. This is a serious challenge to Drees’s materialistic version of naturalism that comes not from religion and morality but from the attempt to render science itself intelligible. (Although mathematics can be classified as a natural science only by begging the question at issue, it is certainly necessary to the natural sciences, especially physics.) And yet, Drees offers no substantial answer to this challenge. Having rejected the existence of a timeless, Platonic realm (RSN, 216, 218), he asserts that mathematics, as a “second-order” activity, “may be construed without reference to a realm of abstract objects apart from the natural realm with all its particulars” (RSN, 221). But this is a mere assertion. He provides no way of understanding the objectivity of mathematics apart from the presumed intuition of such a realm.

Drees’s response to the problem raised by religion is no more satisfactory. As we saw earlier, he applies the functional, evolutionary explanation: “religions arose, and therefore probably contributed to the inclusive fitness of the individuals or communities in which they arose” (RSN, 250). But he does not feel the need to defend the adequacy of any actual view as to how they might have done this. After very briefly mentioning several views as to what the functional role of religion might be, and without dealing with any of the criticisms to exclusively functional explanations that have been offered, he simply says, “Here I will not defend one particular view of the function of religions, but rather reflect on some general implications of such naturalist views of religions as

functional cultural practices” (RSN, 250). In short, far from showing the adequacy of a nontheistic naturalism to account for religion, Drees simply assumes it.

The fact that Drees evidently feels no real need to defend the adequacy of his position with regard to these difficulties seems to be based upon his assumption, as I mentioned earlier, that it occupies a privileged position, so that it can be assumed to be innocent of inadequacy unless absolutely proved guilty. For example, having pointed out that theologians might argue the need for theism by considering “the incompleteness of any naturalist explanation,” Drees says:

In my view, limitations in our knowledge are not to be seized upon for religious apologetics; the absence of evidence does not count as evidence of absence. If we do not know which actual Darwinian history explains a certain feature, it does not follow that there is no actual Darwinian history. It would only be evidence of absence if we were quite sure that we had explored all the possibilities in such a way that decisive pieces of evidence could not have eluded us. (RSN, 247)

The assumption that Darwinian naturalism is privileged is shown by the fact that Drees does not counsel critics of theism, before they reject the idea of divine influence in the world altogether, to make sure that all the possibilities for conceiving divine influence in the world have been considered. Rather, all such possibilities can be ignored a priori as long as there is a chance that a Darwinian explanation may exist, even if it has eluded Darwinian thinkers for over a century.

Drees, while not responding to this charge of bias as such, does respond to the possible reply that theists could equally exploit the claim that “absence of evidence” need not entail “evidence of absence.” Drees’s response to this argument for symmetry is that “this symmetry is lost once one develops examples in more detail” (RSN, 248). The problem with theistic proposals about divine influence, says Drees, is that they are generally very vague, whereas Darwinian explanations can be developed in detail and then compared with the evidence:

We may lack evidence which informs us about the actual Darwinian history that led to contemporary hominids, but we can propose various possible Darwinian histories, develop these in detail, and check such specified possibilities against independently acquired knowledge about conditions as they obtained in the past. (RSN, 248)

However, the problem is that, as we have seen, this is precisely what Drees does *not* do. His proposals are at least as vague as those of the theists to whom he refers.

His defense of the adequacy of a materialistic, Darwinian approach to morality is, if anything, even more problematic. Having reviewed the attempts of sociobiologists, such as E. O. Wilson, to provide a Darwinian explanation of morality, Drees points out their inadequacy:

“The view that all moral judgements are forced upon us by our past . . . seems to me to be insufficient for morality; it still identifies the moral justification with an explanation of how we came to have preferences which we do turn out to have; there is no room for a contrast between ‘what is’ and ‘what ought to be’” (RSN, 218). Given this inadequacy, he states forthrightly the resulting problem for his version of naturalism: “However, upon a naturalist view as developed here, there seem to be no other sources for substantial moral judgements than the heritage of our biological and cultural past. There is no room for the justification of ethical decisions in relation to entities in some Platonic realm, as if we come to hold moral principles by intuiting an absolute moral order” (RSN, 218). Nevertheless, he suggests, the situation may not be hopeless. “A procedural view of moral justification such as offered by Rawls (1971),” he suggests, “may be compatible with an evolutionary view” (RSN, 219). However, other than citing *The Biology of Moral Systems* by R. D. Alexander, he gives no defense of this possibility except the following statement: “Ethical objectivity need not be linked to a realm of ethereal entities, such as abstract values. Rather [he argues, quoting Philip Kitcher], it ‘involves the existence of a standard beyond personal wishes, a standard in which the wishes of others are given their place’” (RSN, 219). He does not explain, however, where this “standard” exists and how it differs from the nonexistent “ethereal entities, such as abstract values.”

Then, suggesting that this procedural form of ethical justification could be complemented by sociological dimensions, he makes the following statement, which suggests that he does not understand the implications of his own worldview:

[W]e reflect upon our moral intuitions, and thus consider whether they have certain general features which we consider desirable. . . . In our reflection, we may test our moral judgements by criteria such as generality and disinterestedness. . . . We owe our intuitions to the evolutionary past, but they can be considered and corrected, since we have the ability to evaluate our primary responses. . . . [G]enuine ethical behaviour does not come to us ‘by nature’, but rather requires moral effort. . . . Formal analysis, the application of criteria such as disinterestedness and coherence, and the moral deliberation of many people together are important for the credibility of morality, precisely because they surpass and may correct the conclusions of our ordinary biological and psychological mechanisms. . . . [O]ne could say that our moral intuitions are explained by sociobiology, but that these intuitions need not be our best ethical conclusions, since we can reconsider them. . . . [T]here is no need to say that . . . morality is eliminated in a naturalist view. (RSN, 219–21)

In terms of consistency with Drees’s reductive materialism, there are at least three problems in this statement. First, having denied the existence of abstract values, pejoratively calling them “ethereal entities,” Drees

presupposes them, speaking of “criteria” such as “disinterestedness.” Second, after saying that all of our moral intuitions come from our evolutionary past, being explained in terms of biological and psychological mechanisms, he then assumes the existence of other, higher intuitions, in terms of which we can “evaluate our primary responses,” thereby arriving at “our best ethical conclusions.” This notion of higher intuitions, through which we make the transition from the “desired” to the “desirable,” arguably presupposes the nonsensory perception of a realm of moral norms, perhaps even the existence of a divine mind making these norms efficacious—all the ideas from which his account was supposed to prescind. A third problem is that the idea of “moral effort” presupposes a notion ruled out by his version of naturalism: freedom, in the sense of self-determination in terms of a goal.

THE PROBLEMS OF SUBJECTIVITY AND FREEDOM

The tension in Drees’s position with regard to freedom is, arguably, the major problem in his position, a problem that, even if there were no others, would provide a compelling reason to give up the materialistic version of naturalism for a less restrictive version. I will approach this problem of freedom and determinism, which Drees scarcely acknowledges, by beginning with the problem of subjectivity, which he does acknowledge.

As we saw earlier, Drees’s concept of scientific explanation as reductionistic explanation entails that our “manifest image” of ourselves as persons having an inner life, with its emotions and apparent freedom, must be ontologically reducible, meaning explainable in principle (even if not in fact) in terms of the entities and forces of physics. Drees is aware, however, that many thinkers have said that human subjectivity is the other topic, along with the very existence of the world, most likely to “escape the omniscience of the natural sciences.” Drees, as we have seen, agrees with regard to the existence of the world; but he considers the claim about subjectivity “more disputable” (RSN, 114). Here again, however, his argument does not come close to matching the seriousness of the challenge to his position. Parallel with his treatments of other issues, he is content to register his “impression” that a reductionistic approach might work so that consciousness “can perhaps be understood naturalistically” (RSN, 102, 183).

He does realize that the problem is serious. After saying that the claim that natural science cannot handle the problem is disputable, he adds, “There is, of course, a difference between the experience from within and a description from the outside. While I experience love, hate, or boredom, the scan shows electrical and chemical processes. Can scientific insights and philosophical analysis explicate how the experience from

within has come into existence?" (RSN, 114). And, saying that "subjectivity seems to be a major challenge to a naturalist view of reality," he "point[s] to philosophical literature which attempts to answer that challenge" (RSN, 183). However, as with other issues, he considers it unnecessary "to make a choice among various competing approaches," thinking it sufficient to "indicate some of the ways in which a naturalist view of the mind might be developed" (RSN, 184). His view seems to be that materialism can be assumed to be true, even if no satisfactory materialistic solution to the mind-body problem has yet been found.

This attitude is especially disturbing in light of the fact, which Drees reports, that Thomas Nagel, universally recognized as one of the most astute analytic philosophers to have dealt with the problem, has concluded that the kind of reductionism required by Drees's general position is impossible. That is, Nagel rejects the view of the eliminative materialists, according to which first-person language, such as consciousness, emotions, feelings, and decisions, can be eliminated in favor of physicalist, third-person language, such as language about the firing of neurons. Drees agrees with this noneliminative view (RSN, 183, 187, 189). But he cannot agree with Nagel's further view, according to which "[t]he subjectivity of consciousness is an irreducible feature of reality . . . and it must occupy as fundamental a place in any credible world view as matter, energy, space, time, and numbers" (Nagel 1986, 7–8). As Drees sees, Nagel's view is incompatible with Drees's constitutive reductionism combined with "the belief that physics is the science of the fundamental aspects of natural reality" (RSN, 188).

Faced with the challenge of Nagel's position, Drees simply says, "I consider the position unlikely" (RSN, 189). Nagel, he suggests, is guilty of concluding from the present absence of a reductionist solution that such a solution is impossible. Although he recognizes that Nagel might be right, Drees says: "it is too early to give up. I consider it likely that somewhere in the realm indicated by Churchland, Dennett, and Searle . . . there is a possibility for a future theory of mental life which is naturalist in my sense" (RSN, 188). Again, he has argued the adequacy of his version of materialism by appealing to the future. This appeal in the present case flies in the face of the fact that a growing number of materialist philosophers are saying, even more emphatically than Nagel, that the problem is insoluble *in principle*, so that further time is not relevant.¹

Even more serious for Drees's position than the failure to point to a satisfactory solution to the problem of human subjectivity, furthermore, is the tension in his position with regard to freedom. It is especially here that his assumption that scientific theorizing can safely reject all commonsense ideas, discussed earlier, reveals its problematic nature. He clearly presupposes the reality of freedom. As we saw earlier, he speaks of

“moral effort” (RSN, 219). He also refers to “the capacity to make moral deliberations” (RSN, 219, 220). He speaks of “mak[ing] a choice” (RSN, 184). He even says that freedom is “self-determination” involving “rational reflection on [one’s] past actions and potential consequences of various options” (RSN, 216). How is this all possible if one’s behavior, like that of chairs and tables, is explainable in principle in terms of the particles and forces studied by physics?

The qualifying phrase “in principle” is important. A major claim of Drees’s naturalism not yet mentioned is “conceptual and explanatory non-reductionism,” which says: “The description and explanation of phenomena may require concepts that do not belong to the vocabulary of fundamental physics, especially if such phenomena involve complex arrangements of constituent particles or extensive interactions with a specific environment” (RSN, 16). This principle is very important to Drees. It is the principle that, in his mind, separates him from the other alternative position, along with a richer naturalism, that he considers most challenging, namely, the dismissal of all forms of religion on the basis of “a more radical naturalism” (RSN, 236). It is only by insisting on conceptual and explanatory nonreductionism, he says, that he can have even a minimalist religion. Unless one can talk about consciousness, values, rationality, and choices, religion would be nonsensical. The question, however, is whether Drees’s ontological reductionism allows him to use that language legitimately.

The basic problem is that, although Drees speaks of explanatory (as well as conceptual) nonreductionism, he does believe that all complex phenomena, including human behavior, are *in principle* explainable in terms of their constituent particles. He is an explanatory nonreductionist only in the sense that, because of our limited cognitive capacities, we will never in fact be able to explain all things in terms of the principles of physics. We have to use concepts appropriate to the various levels, such as those of chemistry, biology, and psychology (RSN, 16–17). But the resulting relative independence of the various sciences, he points out, does *not* imply ontological nonreductionism (RSN, 16). Although we cannot conceptualize how this is possible, the truth, we are to assume, is that all human experiences and behaviors, including all human decisions, are ontologically reducible to the causal forces working at the subatomic level. What Drees calls *explanatory* nonreductionism, accordingly, is really only *conceptual* nonreductionism. Indeed, in an apparently approving summary of Daniel Dennett’s position, he says that “even though this view is eliminative at the level of understanding, it is not (as Churchland’s proposal is) eliminative at the level of language.” As a consequence, Drees says, “we will continue to say that we drank water ‘because we were thirsty’” (RSN, 186). Yes, we

will continue to *say* this, but what we are supposed to *understand*, according to Drees, is that we really drank the water because our subatomic particles made us do so. The same would be true, of course, for our ethical acts.

The difficulty in Drees's position here is shown by his discussion of whether the concepts applying to the levels above physics, such as the biological and mental levels, are superfluous. In introducing his principle of "conceptual and explanatory non-reductionism," Drees insists that they are not. "Naturalism need not exclude the meaningfulness and non-superfluous character of concepts that are involved in explanations in sciences other than physics" (RSN, 15). Later, however, he seems to say otherwise. Discussing the idea that higher theories, such as psychology, are in principle (even if not practically) dispensable, he says: "If a theory is superfluous, it is not thereby wrong. Rather, if one could derive the superfluous theory T_1 from the more fundamental theory T_2 , the first theory would not be autonomous, but it would still be a good theory for the domain with which it deals" (RSN, 192). It is hard to see in what sense it could be a "good theory," however, if the causal concepts it employs are misleading because all the causality really occurs at the subatomic level. Drees sees this point clearly when discussing the traditional scheme of primary and secondary causation, according to which the fact that God fully determines all events allegedly does not deprive the creatures of their own causal agency. Speaking of the problem of "double agency," Drees says, "Once one allows for two different sufficient causes causing a single event, one of them seems superfluous" (RSN, 261). By analogy, if our actions are fully caused by subatomic particles, language attributing agency to the mind is superfluous. Far from contributing to a "good theory," concepts referring to the mind's "deliberations," "decisions," and "moral efforts" would simply obfuscate the true causal relations.

That is the conviction behind Paul Churchland's eliminative view, according to which all such mentalistic language is to be eliminated in favor of the account provided by neuroscience. Against this view, Drees argues that the commonsense ontology and the ontology implicit in the scientific theory are compatible. Drawing on the analogy of the two tables, he says, "Just as quantum physics does not eliminate solid tables, but leads us to a different conception of them, so too would a different conception of mental states in some future psychological theory, for instance in terms of neurology, not thereby eliminate the states" (RSN, 194). The main issue, however, is not whether the conscious states would be eliminated, but whether any efficacy can be assigned to them. Drees's position entails a negative answer. Indeed, he himself contrasts his reductionist approach with "authors who appeal

to top-down causation in order to understand the mind-brain relationship" (RSN, 102). His reductionism implies that all vertical causation goes upward, from the subatomic particles to the person as a whole, so that the person as a whole has no autonomous power to exert influence back upon these particles. Drees insists, indeed, that unpredictability at the quantum level does not imply "indeterminacy or openness to non-natural influences, either from humans or from God" (RSN, 247). With that point, we return full circle to Drees's assumption that naturalism assumes that all events in the world are controlled by deterministic laws of nature, so that nothing, including human behavior, can be validly explained by reference to the partially autonomous choice of a human mind.

This position, Drees contends, is no threat to human dignity. "From the availability or possibility of a naturalist explanation of humans," he says, "it does not follow that humans are insignificant or equal in significance to, for instance, sponges, worms, or rocks" (RSN, 249). If we are not more responsible for our behavior than sponges and rocks are for their behavior, however, it is hard to see in what our higher significance consists. Drees's (very brief) argument that his view does not deny human freedom "in a morally relevant sense" is that, "in humans, with their highly developed central nervous systems, there is a sense of 'internal coercion' which is not necessarily unreflective and without deliberation" (RSN, 216). However, to say that we have a "sense" of internal coercion is not to say that any kind of self-determination really occurs. And to say that this inner activity is "reflective" and "deliberative" is, within Drees's theory, simply to say that it so seems to us and can only be described in such concepts, because the actual causal processes, which occur at the subatomic level, are far too complex to be understood by us.

The conclusion of all this is that Drees, besides not showing that a significantly religious outlook can be harmonized with the materialistic version of scientific materialism, has also not supported his claim that his version of naturalism can "account for all our experiences." He has not, accordingly, shown that the "richer naturalism" based on Whitehead's philosophy is unnecessary either for reconciling science and religion or simply for science itself. That is all I can argue in this essay. I have elsewhere shown how this Whiteheadian naturalism can do justice not only to our consciousness but also to our high degree of freedom, which we all inevitably presuppose in practice.²

NOTES

1. See McGinn 1991, Robinson 1988, Seager 1991, Kim 1993, and Strawson 1994. See also Seager 1995, which he wrote after becoming familiar with Whitehead's position and in which he suggests what he calls a panpsychist form of materialism.

2. See Griffin 1998, which works out the position in interaction with Thomas Nagel and the philosophers mentioned in note 1, among others. For a briefer statement, see Griffin 1997b.

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