Whitehead's Radically Different Postmodern Philosophy

An Argument for Its Contemporary Relevance

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Whitehead's Philosophy and the Enlightenment

Charles Hartshorne, reflecting upon the fact that Whitehead said that we need a New Reformation, added: "We need a New Enlightenment."[1] In this chapter, I argue that Whitehead's philosophy—as Hartshorne would have agreed—provides the basis for a new enlightenment, one that actually illumines our experience more than it obscures it. This argument requires reflection upon the relation of Whitehead's philosophy to the seventeenth-and-eighteenth-century intellectual movement to which the label "the enlightenment" usually refers. Because this movement is generally regarded as definitive of distinctively modern thought, the idea of being "postmodern" is generally thought to involve being "postenlightenment." I will, accordingly, discuss the extent to which Whiteheadian philosophy—here often called simply "process philosophy"—reflects enlightenment assumptions and the extent to which it rejects them. More pointedly: Is process philosophy basically proenlightenment or antienlightenment? Is it better understood as a present-day instance of enlightenment philosophy or as part of the present-day revolt against enlightenment philosophies?

No quick and easy answer to this question is possible. This is so partly because the movement generally referred to as "the enlightenment" was an extremely complex movement with many dimensions, some of which were in tension with others. Because of this complexity, every characterization of the "essence of the enlightenment" is necessarily subjective, involving selection bias as well as value judgments. If this is true of well-informed, richly nuanced portrayals, such as those of Ernst Cassirer and Peter Gay,[2] it is all the more true of those brief characterizations involved in blanket endorsements of the enlightenment, which were still common only a few decades ago,[3] or blanket rejections, which are common today. To say whether process philosophy is more pro- or

antienlightenment, accordingly, requires specifying which dimensions of the movement, and under what characterization, are in view. I will lay out my perspective in terms of seven features that have been widely thought to characterize the enlightenment: ontological naturalism, epistemic naturalism, empiricism, rationalism (including foundationalism), individualism, belief in universal truths and values, and belief in progress. First, however, it is necessary to pave the way for understanding the enlightenment by seeing it in historical context.

THE ENLIGHTENMENT IN HISTORICAL CONTEXT

The enlightenment, although recognized to be a historical movement in the sense of having occurred in Europe in the seventeenth and eighteenth centuries, is often otherwise portrayed in ahistorical terms. In particular, insofar as it is regarded as a movement involving naturalism, rationalism, and empiricism, it is often portrayed as if it involved an emphasis upon reason, nature, and empiricism *in general*, rather than reason based upon *nature and experience understood in highly specific ways*. Widely recognized, to be sure, is the fact that the enlightenment was based upon the rise of "the new mechanical philosophy" in the seventeenth century. But the rise of this philosophy is often understood naively, as if it had been derived inductively from the unbiased perception of empirical facts. And, insofar as the emergence of this new worldview is recognized to have involved a battle, the only opponent has generally been understood to have been a decrepit Aristotelianism. In recent decades, however, historians of the period have provided a new understanding of the rise of the "modern scientific worldview," thereby affording us a better grasp of some of the distinctive assumptions of the enlightenment.

The Three-Cornered Battle of the Worldviews

At the root of this new understanding is the recognition that the proponents of the mechanistic view of nature had been battling even more vigorously against a third movement, which arose out of Neoplatonic, Hermetic, and Cabalistic (also spelled Kabbalistic) traditions. For example, Brian Easlea, referring to these Neoplatonic-magical-spiritualist movements as simply the "magical cosmologies," argues against the old idea that the mechanical cosmology simply took the place of a crumbling Aristotelian cosmology:

> [P]rotagonists of very different and rival cosmologies engag[ed] in a bitter and protracted struggle for supremacy, both with each other and

> against the entrenched proponents of Aristotelian-Thomistic cosmology. "Modern science" emerged, at least in part, out of a three-cornered contest between proponents of the established view and adherents of newly prospering magical cosmologies, both to be opposed in the seventeenth century by advocates of revived mechanical world views. Scholastic Aristotelianism versus magic versus mechanical philosophies.[4]

In giving a summary of this "three-cornered contest,"[5] I will focus on the victory of the mechanistic tradition over the Neoplatonic-magical-spiritualist tradition. Although these two traditions had some features in common against Aristotelianism, especially the twofold emphasis on experimentation and the importance of mathematics, I will focus on their differences, which can be grouped under three main headings: the relation of God to the world, the possibility of influence at a distance, and the relation between God's "two books" (Nature and Scripture).

The Relation of God to the World: Those in the Neoplatonic-magical-spiritualist traditions generally held an animistic view of nature, according to which it is replete with aims, powers, sympathies, and antipathies. Part and parcel of this conception was their account of the human being as a microcosm. They generally portrayed deity as present in the world and the world as present in deity, with this idea sometimes understood more pantheistically, sometimes more panentheistically. And they generally regarded the behavior of things as rooted in their divine or divinely implanted powers. All of these ideas were rejected by the representatives of the view of nature that was to become victorious, which Eugene Klaaren has called the "legal-mechanical" view, because it combined the mechanism of the Greek atomists, especially Democritus, with legal ideas of nature based upon the voluntarist theologians, such as Scotus, Occam, and Calvin. "Legal" points to the idea that the order of nature was said to be due entirely to divinely imposed laws.[6]

From this perspective, Robert Boyle, used by Klaaren as the main bridge from the voluntarist theological tradition to the legal-mechanical philosophy of nature, believed that the views of the spiritualists involved the worst of all intellectual errors, confusing God and the world. Against the view that God is present in all things, Boyle said that God cannot be unified with matter.[7] Against the view, common to spiritualists and Aristotelians, that creatures have "internal principles of motion," Boyle said that these "vulgar" views make nature "almost divine." Rather than motion being inherent in matter, Boyle insisted, the laws of motion exist only as imposed by God.[8] All of this imposed motion, furthermore, is *loco*motion, as opposed to internally motivated becoming. Although God causes some things to act *as if* they had appetition, they in reality do not.[9] The

world's order, in short, manifests no inherent rationality but is completely imposed by the arbitrary fiat of God.[10] Only this view, Boyle held, respects the absolute difference between the creator and the created, the absolute transcendence of God over the world.

This absolute transcendence meant that, some spiritualists to the contrary, God is not the soul of the world but is completely transcendent over it, having created it ex nihilo. For example, Isaac Newton, Boyle's follower in many respects, said that God "governs all things, not as the soul of the world, but as Lord over all; . . . *Deity* is the dominion of God not over his own body, as those imagine who fancy God to be the soul of the world, but over servants."[11]

The Possibility of Influence at a Distance: A central feature of the Neoplatonic-magical-spiritualist traditions, from which the designation "magical" partly derives, was the idea that nature has the inherent capacity, perhaps on the basis of "sympathies" and "antipathies," to exert influence at a distance. Gravitational attraction seemed an obvious example, and Gilbert's discoveries with regard to magnetism occurred within this tradition. No aspect of this tradition was more strongly rejected by the mechanical philosophers. For example, Descartes wrote that "nothing is more absurd than the assumption . . . that a certain property is inherent in each of the parts of the world's matter and that, by the force of this property, the parts are carried towards one another and attract each other."[12] According to Descartes' mechanistic view, by contrast, "there exist no occult forces in stones or plants, no amazing and marvellous sympathies and antipathies, in fact there exists nothing in the whole of nature which cannot be explained in terms of purely corporeal causes, totally devoid of mind and thought."[13] This denial of influence at a distance, far from being an incidental feature of the mechanists' view, lay at its heart: "[T]he fundamental tenet of Descartes' mechanical philosophy of nature," says Richard Westfall, was "that one body can act on another only by direct contact."[14]

This rejection of influence at a distance usually involved the denial of nonsensory perception. Given a dualistic view of human beings, this denial did not follow logically: the idea that matter operated only by contact left open the possibility that the mind, being different in kind, might be able to perceive noncontiguous things, such as other minds, directly, rather than only through the mediation of the body. Nevertheless, the dominant view among dualists, including both rationalists such as Descartes and empiricists such as Locke, was to affirm that all perception of actualities beyond ourselves is by means of our sensory organs.

The Relation between God's Two Books: These substantive differences were partly rooted in a formal difference about method. Against the Aristotelian theologians, who distinguished absolutely between *natural* theology, based on (univer-

sal) experience and reason, and *revealed* theology, based solely on Scripture, those in the Neoplatonic-magical-spiritual traditions generally advocated interpreting God's "two books" (Nature and Scripture) in terms of each other, so as to produce a unified, "pansophist" view. They were very critical of the refusal of the medieval Aristotelian philosophers to develop a "Christian philosophy." Those in the mechanical tradition, by contrast, tended to side with the two-level approach of the Aristotelians. Boyle, holding with Francis Bacon that the two books are to be kept separate, said that theology is to be based on Scripture alone, not diluted with natural philosophy, and that theologians are not, on the basis of Scriptural revelation, to interfere with natural philosophy.[15]

Why the Legal-Mechanical Movement Won

Now that we have before us these differences between the two movements, we need to ask: why did the legal-mechanical view emerge victorious? Although the usual assumption has been that it did so because its views were obviously superior, a historical investigation shows that this is not so. The main reason for the victory of the legal-mechanical view, now commonplace among historians of the period, is summarized by Easlea: "[T]he victory of this extraordinary [mechanical] philosophy over its equally extraordinary rival cannot be understood in terms of the relative explanatory successes of each basic cosmology but rather in terms of the fortunes of the social forces identified with each cosmology."[16] This answer, in a nutshell, is that the legal-mechanical view won the battle of the worldviews because it seemed to support the social-political-economic status quo and thereby the interests of the wealthy and the powerful, whereas the worldview of the Neoplatonic-magical-spiritualist traditions seemed to threaten those interests.

This latter tradition became associated in the public mind with the intent to "turn the world upside down."[17] In some cases, the intent to do this was explicit. For example, Paracelsus, who advocated a general spiritual and social reformation, supported the peasants' uprising of 1525.[18] More generally, Morris Berman says, "ties between occult and revolutionary thought can be seen in a whole spectrum of leading radicals." The essential point, however, is that whatever the actual influence of "occult" and "enthusiastic" beliefs on the lower classes and radical groups, this association was widely made, especially by representatives of the establishment. "[T]he popular impression that communism, libertinism, heresy, and Hermeticism were part of some vast conspiracy," reports Berman, "is amply documented in the numerous statements made on the subject by clergymen."[19]

Much of the polemic against this tradition was carried on at the theological level. However, the idea that this worldview was a threat to the status quo, with

its social, political, economic, and ecclesiastical hierarchies, underlay most of the theological reasons for preferring the legal-mechanical view. I will illustrate this point with regard to three notions of the alternative view that were rejected by the legal-mechanical school: self-moving matter, influence at a distance, and nonsensory perception.

The Rejection of Self-Moving Matter: The animistic idea of matter as self-moving was threatening to belief in both a transcendent God and an immortal soul. With regard to the former, some thinkers argued that the world, being composed of self-moving parts, could be a self-organizing whole. In other words, rather than having been ordered by an external creator, the world could have ordered itself. Sometimes the resulting worldview was atheistic, thereby confirming the widespread association of animism with the atheism of Epicurus;[20] sometimes it was pantheistic; and sometimes it was closer to what today would be called "panentheism." Denied, in any case, was the wholly transcendent deity who had created the world ex nihilo and therefore exercised absolute dominion over it. In these alternative cosmologies, there was no place for a God who, having created a heaven with arbitrary admission standards, had then, with equal arbitrariness, given the "keys to the kingdom" to a particular institution, delegating to it the power to guarantee admission to its faithful, obedient members while consigning others to hell. The immanent deity of the pantheists and panentheists, furthermore, could be directly experienced by the masses, not known only through the ecclesiastical hierarchy. Given the almost universal assumption that the authority of the government depended upon the support of the church with its power over people's extramundane status, we can understand why this worldview was threatening to those who favored stability in terms of the social-political-economic status quo. What would prevent rebellion if the church were no longer regarded as having such power?

The belief that the church had such power depended, of course, not only on the belief in a transcendent, voluntaristic deity, but also on the belief that the soul *would have* an extramundane existence. The animistic view of matter was seen as threatening to this belief as well. The main argument for the belief in life after death had been the Platonic idea that the soul, unlike the matter of which the body is composed, is self-moving. Given this idea, the fact that the body decomposes at death provides no reason to think that the same fate awaits the soul, because its unique power of self-motion shows it to be different in kind from the matter making up the body. This argument was undermined by the idea that matter is self-moving: if matter is self-moving and yet decomposes, the fact that the soul is a self-moving thing provides no reason to think it will not also decompose. Not all advocates of this position actually denied life after death. Some simply pointed back to Pietro Pomponazzi (1462–1525), whose treatise *On the Immortality of the Soul* argued that the doctrine of the soul's immortality, while valuable for maintaining social order,

can be affirmed only on the basis of faith, not reason.[21] But some thinkers, such as Henry Stubbe, explicitly affirmed mortalism as part of a comprehensive attack on traditional Christianity.[22]

To many of those wanting to defend a transcendent creator and an immortal soul against these threats, the mechanistic idea of matter seemed a godsend. With regard to a transcendent creator, for example, Boyle wrote: "[S]ince motion does not essentially belong to matter . . . , the motions of all bodies, at least at the beginnings of things, . . . were impressed upon them, . . . by an external immaterial agent, God."[23] Newton, having pointed out that inertia is merely a passive principle, declared: "By this Principle alone there never could have been any Motion in the World. Some other Principle was necessary for putting Bodies into Motion." The necessity of thinking of matter as moved by "certain active Principles," Newton added, leads to the conclusion that there is "a powerful ever-living Agent" who "in the Beginning form'd Matter in solid, massy, hard, impenetrable, moveable Particles."[24]

The mechanical view of matter was seen as equally helpful with regard to defending the soul's immortality. By portraying matter as wholly insentient and inert, it showed clearly that one's mind or soul, being conscious and self-moving, must be different in kind from the matter comprising one's body. The fact that the body decayed after death, therefore, was no reason to think that the soul would too. This argument, formulated by Boyle,[25] among others, was evidently central to the conversion of Walter Charleton, a Royalist physician, who had written three books reflecting magical ideas. Later, saying that atheists plotted to "undermine the received belief in an omnipotent *eternal being,* to murder *the immortality of the Soul* (the basis of all religion) and to deride the *Compensation of good and evil actions after death*," Charleton renounced his magical views in favor of Cartesianism.[26]

Descartes himself had connected his radical dualism between matter and the human mind to belief in the "compensation of good and evil actions after death." Having stated the conservative conviction that "present institutions are practically always more tolerable than would be a change in them," he asked why people rebel against divinely appointed rulers. His answer was that "after the error of those who deny God . . . , there is none that leads weak minds further from the straight path of virtue than that of imagining that the souls of beasts are of the same nature as ours, and hence that after the present life we have nothing to fear or to hope for, any more than flies or ants."[27] Although many mechanists were uncomfortable with Descartes' particular way of formulating the dualism between mind and matter, his more general point—that the mechanistic view of nature supports the teaching of the church and thereby the social, political, economic status quo—was widely appreciated.

The Rejection of Influence at a Distance: The fact that the mechanistic philosophy also denied to nature the inherent capacity to exert or receive influence at

a distance is equally important for explaining its victory. This importance can be seen in relation to arguments about miracles, God, and witchcraft.

The miracles of the New Testament, and for Roman Catholics the miracles in the lives of the saints, had provided the main evidence that Christianity, alone among the religions of the world, had been ordained by God as *the* vehicle of ultimate truth and salvation. Without the evidence of divine favor provided by these supernatural interventions, the church's claim to possess the keys to the kingdom would have seemed groundless. This evidence would have been undermined, of course, if it had been concluded that the miracles did not happen. But it would also have been undermined if it was believed that the miracles could be given a naturalistic interpretation. The latter was argued by some of those who considered the power to exert and receive influence at a distance to be a natural capacity. For example, Thomas Fludd and later Henry Stubbe argued that the miracles of Jesus and the apostles were not different in kind from extraordinary occurrences that have been performed in non-Christian religious traditions.[28]

This issue was fundamental to the introduction of the mechanistic philosophy into France. Fr. Marin Mersenne, having come to see the magical tradition as "public enemy number one" by virtue of its denial of the supernatural character of the Christian miracles,[29] published in 1623 a critique of the Hermetic-Cabalistic-Paracelsian philosophy. His critique dealt especially with Giordano Bruno, whom he called "one of the wickedest men whom the earth has ever supported . . . who seems to have invented a new manner of philosophizing only in order to make underhand attacks on the Christian religion," and Thomas Fludd, whom he called "Bruno's vile successor and principal enemy of Christian religion."[30] When Fludd replied, Mersenne, realizing that he needed an alternative system to defeat Fludd's Cabalistic philosophy, appealed to Pierre Gassendi, who introduced him to the Democritean mechanistic philosophy, which had recently been revived in Italy by Galileo.[31] Seeing that this mechanistic philosophy denied influence at a distance even more clearly than did Aristotelianism, Mersenne enthusiastically adopted it, employing it to defend the supernatural character of the Christian miracles.[32]

This debate was replayed later in the century in England. Stubbe's attempt to give a naturalistic explanation for the biblical miracles depended, Boyle said, upon his false view of an "animated and intelligent universe."[33] Against all such attempts, Boyle recommended the mechanical philosophy, saying that people who accept it will "frankly acknowledge, and heartily believe, divers effects to be truly miraculous, that may be plausibly ascribed to other causes in the vulgar philosophy." Given the importance of this issue to Boyle, we can understand why he so often stressed, against the "vulgar philosophy," that matter interacts only by contact.[34]

The rejection of a natural capacity for action at a distance was also, in conjunction with the phenomenon of gravitation, used to provide another argument

for a transcendent deity, as illustrated by Richard Bentley, an admirer of Newton. Bentley was coached by Newton to reject the Epicurean idea that gravitation is "innate, inherent, and essential to matter," which would imply that "inanimate brute matter should . . . operate upon and affect other matter without mutual contact." Having learned his lessons well, Bentley argued that "mutual gravitation or spontaneous attraction can neither be inherent and essential to matter, nor ever supervene to it, unless impressed and infused into it by a divine power." The phenomenon of gravitation, Bentley concluded, provides "a new and invincible argument for the being of God, being a direct and positive proof that an immaterial living mind doth inform and actuate the dead matter."[35]

The witch craze, which was arguably the chief social problem of the sixteenth and seventeenth centuries, provided yet another reason for favoring the mechanical philosophy of nature, with its denial of the possibility of influence at a distance. Given the association of action at a distance with the Neoplatonic-magical-spiritualist philosophy, the desire of humane people to put an end to the witch hunts led to revulsion against that philosophy. This reaction was actually unfair. What made witchcraft an "exceptional crime," worthy of an inquisition, was the charge that the extraordinary powers attributed to witches to do harm resulted from a pact with the devil.[36] The magical tradition, affirming influence at a distance as a natural capacity, had no need for this satanic hypothesis. Also, many of the chief critics of the persecutions were adherents of the magical tradition. In the public mind, nevertheless, the idea of witchcraft was associated with this worldview, and this guilt by association undermined its image.[37] The spread of the mechanistic worldview of Mersenne and Descartes, by contrast, was associated with the ending of the witch persecutions, so its image was enhanced.[38]

The Rejection of Nonsensory Perception: The rejection of nonsensory perception, about which the mechanists agreed with the Aristotelians against the magical philosophies, was involved in several of the issues discussed above. The denial that one could contact Satan or other "demons" was often based on a sensationalist doctrine of perception, according to which all perception is by means of the physical sensory organs. Likewise, the defense of the supernatural character of some of the Christian miracles, such as Jesus' knowledge of the contents of other minds, presupposed that human beings have no natural capacity for nonsensory perception. Finally, the affirmation of a wholly transcendent deity, in place of a divine reality that is immanent in the world, was often part and parcel of the rejection of "enthusiastic" sects, which affirmed God's direct presence in the human mind. This rejection of "enthusiasm" and "mysticism" was supported by the limitation of perception to sensory perception.

It is in the light of the above considerations that I stress the fact that the enlightenment did not involve simply an emphasis upon experience, reason, and nature in some vague, general sense. Rather, being based upon a worldview that

had only recently vanquished its foes, it involved a very definite, even polemical, understanding of the nature of nature and the nature of experience. Enlightenment reason, accordingly, had to work within the constraints of those understandings of nature and experience. The implication for religion was that, if it was to be considered rational, it would have to conform to the limits of reason thus constrained. In *Religion within the Limits of Reason Alone*, for example, Kant said that religion had to be understood within the limits of reason based on a sensationist doctrine of perception, in terms of which any affirmation of "a feeling of the immediate presence of the Supreme Being" would be a "fanatical religious illusion."[39]

I turn now to the relationship of enlightenment thought, thus understood, to Whiteheadian process philosophy.

PROCESS PHILOSOPHY AND ENLIGHTENMENT THOUGHT

The complexity of the enlightenment, as I indicated earlier, is part of the reason that no simple answer can be given to the question of whether process philosophy accepts the enlightenment. One would have to specify which of the various dimensions of enlightenment thought was in view—its ontological naturalism, epistemic naturalism, empiricism, rationalism, individualism, belief in universal truths and values, or belief in progress. I now add another reason why no simple answer is possible. If one specifies any of these dimensions and asks whether process thought accepts it, the answer will be both yes and no. The answer in each case is yes with regard to the general notion but no with regard to the way in which enlightenment thinkers typically construed the notion, due to one or more of the assumptions discussed above.

Ontological Naturalism

Naturalism, understood as the rejection of supernaturalism, has both ontological and epistemic dimensions. *Ontological* naturalism is, minimally, the doctrine that there are no supernatural interventions into the world's most fundamental causal principles. The world's basic causal nexus is never interrupted. In scientific circles, this doctrine was originally called "uniformitarianism," which said that scientists are not to explain events in the past by affirming any form of causation then that is not operative today. Although there was a specifically geological version of this doctrine—which has now been repudiated—uniformitarianism in the ontological sense, under the name *naturalism*, is now virtually an official doctrine of the scientific community.

Naturalism in this sense was *not* affirmed, as we saw above, by most of the seventeenth-century founders of the modern worldview. They, to the contrary, were interested in undergirding supernaturalism.

Nevertheless, the trajectory they began soon became naturalistic, with the three options being deism, pantheism (as in Spinoza), or complete atheism. Deists still affirmed the ontological presupposition behind supernatural interventions, insofar as they retained the belief that the world had been created ex nihilo. But they said that the creator never exercised the option of intervening—at least almost never. The rejection of supernatural interventions, insofar as it was held to be completely without exceptions, meant the denial of any present divine influence in the world.

More precisely, this rejection of supernatural intervention meant the denial of any *variable* divine influence. This specification is necessary to take account of a position that can be called "semideism." This view says that the world cannot accurately be described as a self-sustaining machine, because it requires the ongoing sustaining power of God.[40] However, this semideism, like strict deism, pantheism, and atheism, says that the world has required no variable divine causation since it was created. If God exists, in other words, God has not done anything new since creating the world.

This denial of variable divine influence seemed to be implied by the rejection of supernatural interventions because of a generally accepted way of distinguishing special from ordinary divine activity. This way, inherited from medieval theologians, involved a distinction between "primary" and "secondary" causation. According to most medieval theologians (such as Thomas Aquinas), God is the primary cause of all events. But ordinarily, they added, God works through secondary causes, also called "natural causes." These secondary or natural causes were said to be sufficient to explain the event, as long as attention is focused only upon the content, or "whatness," of the event. If, by contrast, we wish to explain the event's "thatness"—the very fact that it exists, along with the whole chain of secondary causes leading up to it—we need to refer to God's primary causation. But insofar as we prescind from this ultimate question, there is no need to refer to divine causation to explain ordinary events. Reference to divine causation is necessary to explain the whatness only of *extraordinary* events—that is, miracles—which are produced immediately by God's primary causation, without using natural causes. Most events, however, can be fully accounted for in terms of natural (secondary) causes alone, with no reference to divine causation.

On the basis of that scheme of primary and secondary causation, the move to naturalism—according to which there are no supernatural miracles, so there are *no* events without natural causes—implied that reference to ongoing divine influence is unnecessary altogether, except perhaps in the semideistic sense. In other words, given the equation of special divine influence with supernatural

interventions, the denial of the latter meant that the category of "special divine acts" became empty.

Of course, given this background, according to which any affirmation of variable divine influence in the world entailed a supernatural intervention, the complete and consistent rejection of supernaturalism was not easy. This fact was illustrated by Charles Lyell. Although Lyell was known as—and, in supernaturalist circles, damned as—the "father of uniformitarianism," he believed that fresh divine influence was necessary to explain one thing: the origin of the human mind. Divine intervention, he said, added "the moral and intellectual faculties of the human race, to a system of nature which had gone on for millions of years without the intervention of any analogous cause." This assertion meant, Lyell added, that we must "assume a primeval creative power which does not act with uniformity."[41]

Lyell's qualified deism could not, however, be accepted by those who saw the need for science to be based on a fully consistent naturalism. The move to a consistently deistic position was made by Lyell's younger friend, Charles Darwin. In a letter to Lyell, Darwin rejected the idea of divine additions to explain the distinctive capacities of the human mind, saying: "I would give nothing for the theory of natural selection, if it requires miraculous additions at any one stage of descent."[42]

Since the time of Darwin, the scientific community has rejected even Darwin's deism in favor of a completely atheistic worldview. Such a worldview is generally seen as necessary for a full-fledged affirmation of naturalism. For example, biologist Richard Lewontin, while admitting the "patent absurdity" of many of the explanations required by that worldview, insists that scientists must maintain it. "[W]e cannot allow a Divine Foot in the door," says Lewontin, because "[t]o appeal to an omnipotent deity is to allow that at any moment the regularities of nature may be ruptured, that miracles may happen."[43] This atheistic worldview, on behalf of which Lewontin speaks, is now generally considered, by both admirers and detractors, to be necessary for a naturalistic worldview.

I turn now to (Whiteheadian) process philosophy's yes-and-no response to ontological naturalism. On the one hand, process philosophy fully endorses ontological naturalism. There neither are, nor conceivably could be, any supernatural interruptions of the world's normal pattern of causal relations.

On the other hand, process philosophy does not agree with the assumption that naturalism necessarily means atheism, pantheism, or at least deism (including semideism). It instead endorses a naturalistic theism that affirms ongoing divine influence, even variable divine influence. Process philosophy's acceptance of a form of theism, however, in no way mitigates the denial that supernatural interventions are possible.

The possibility of such interventions in traditional theism presupposed the idea that the world had been created ex nihilo, with *nihil* understood to mean absolute nothingness, a complete absence of finite entities. Having been thus created, the world was regarded as *wholly* contingent, so that it embodied no principles that are truly metaphysical, in the sense of being eternal, necessary principles inherent in the very nature of things. In particular, our world's basic causal principles were said to be merely contingent, so they could be interrupted. Having been freely created, they could be freely interrupted.

Whitehead explicitly rejected this "theory of a wholly transcendent God creating out of nothing an accidental universe" (PR 95).[44] He therefore rejected the idea of "one supreme reality, omnipotently disposing a wholly derivative world" (AI 166). Rather than portraying a God who is wholly transcendent, in the sense of being able to exist apart from the world, Whitehead's philosophy portrays not only "the World as requiring its union with God" but also "God as requiring his union with the World." In contrast with extreme voluntarism, according to which the entire nature of the world—even the bare fact that there *is* a world of finite existents—is contingent upon the divine will, Whitehead's theism holds that "the relationships of God to the World . . . lie beyond the accidents of will," being instead "founded upon the necessities of the nature of God and the nature of the World" (AI 168).

As this reference to the "necessities of . . . the nature of the World" indicates, the world's existence is not "wholly derivative," not entirely contingent. This denial does not mean that *our* world, with its electrons, protons, and inverse square law of gravitational attraction, exists necessarily. This world came into existence at some point in the past—evidently, it now seems, about 14 billion years ago.[45] Its coming into existence, however, was "not the beginning of [finite] matter of fact, but the incoming of a certain type of order" (PR 96). That is, the creation of our particular world, which Whitehead called our "cosmic epoch," involved bringing order out of chaos, or at least inducing the rise of a new type of order out of a previous type. Accordingly, when Whitehead spoke of "the World" (capitalized) as necessary, he meant only that *some* world of finite actualities must exist and that whatever particular world, or cosmic epoch, does exist will exemplify certain metaphysical principles. Because these principles obtain necessarily, not through a contingent act of will, they cannot be violated.

Whiteheadian naturalistic theism can also, with Hartshorne, be called "panentheism." This term, which literally means that "all things are in God," indicates that the world—in the sense of *some* realm of finite actualities—is an essential part of the divine existence. God could not exist without a world. This point can be made by referring to God, again with Hartshorne, as "the soul of the world." If God is by definition soul of the world, then the world's existence is not contingent but is an essential part of the divine existence.[46] *Our* world is, to be sure, contingent. But the fact that *some* world exists is not.

Implicit in this distinction between the two meanings of "world" is a distinction between (necessary) metaphysical principles and (contingent) laws of nature. In supernaturalistic theism, no such distinction is made: all the principles by which the world normally runs were freely created by God, so they are all equally contingent. This is why the God of traditional theism can interrupt not only the law of gravity but also the very principle of causation, according to which finite events are usually conditioned by prior finite events. In Whitehead's naturalistic theism, by contrast, there are, beneath the contingent laws of our particular cosmic epoch, some metaphysical principles, which obtain necessarily.

Stated otherwise, the ultimate reality, which Whitehead called "creativity," is always embodied in both God and a multiplicity of finite events. Creativity is the twofold power of a unified event—which Whitehead calls an "actual occasion"—to exercise self-determination (final causation) and then to exert causal influence (efficient causation) on subsequent events. The metaphysical principles are *causal* principles in terms of which these events actualize themselves and causally influence each other. These causal principles are inherent in the very nature of things. Indeed, because God is necessarily related to a world embodying them, they belong to the very nature of God. Given the self-evident truth, endorsed by traditional theists, that God cannot act contrary to the divine nature, the doctrine that these principles belong to the very nature of God means that any suggestion that God could interrupt them would be self-contradictory.

This denial of supernatural interventions is combined, however, with process philosophy's affirmation of ongoing divine influence, even *variable* divine influence, in the world. Divine influence occurs not as an interruption of the normal causal processes but as a regular, necessary dimension of those processes. According to Whitehead's description of this divine influence, every actual occasion begins with a divinely derived "initial aim." This doctrine means a rejection of the view that the whatness of all, or at least most, finite events is in principle explainable apart from reference to divine causation. Reference to initial aims from God is essential to understanding the content as well as the existence of all events. And, because the contents of events vary enormously, the contents of their initial aims, which are toward the best possibilities open to them,[47] vary enormously.

To put this discussion in terms of uniformitarianism: process theism affirms this principle formally, in that God always acts by means of providing initial aims. Negatively, this doctrine means the denial of occasional interruptions of the world's basic causal processes. Those process theists who say that "God acts in the same way always and everywhere" emphasize this aspect of the doctrine. With regard to the content of the initial aims, however, uniformitarianism is denied: God provides vastly different initial aims for electrons and human beings, even different aims for human beings in different situations. Unlike

most postenlightenment liberal theologians, accordingly, process theologians can speak of God's doing new things in particular moments of both evolutionary and human history. Reference to divine causation is necessary, I have argued elsewhere, to explain the directionality, novelty, and jumps in the evolutionary process.[48]

Many Christian theologians have, of course, believed that an even stronger form of exceptional divine activity needs to be affirmed in relation to creation, christology, miracles, and eschatology. They believe, in other words, that uniformitarianism needs to be denied even in the formal sense, so as to allow occasional supernatural interventions. The attempt to modify process philosophy to allow for such interventions, however, would be not to modify it but to reject it, insofar as its naturalistic form of theism belongs to its core doctrines. Allowing for even a single divine interruption of the normal pattern of causality would imply a rejection of the fundamental principles summarized above—the denial of creation ex nihilo, the necessary embodiment of (nonoverridable) creativity in a realm of finite existents, and the distinction between metaphysical and merely cosmological principles. Such a modification would undermine the basis provided by Whitehead for a form of theism that is not shipwrecked on the problem of evil and that is not inconsistent with the ontological naturalism that is now irreversibly presupposed by science.

Besides rejecting the atheism of late modern thought, process philosophy also says no to the other dimensions of the form of naturalism with which it is generally associated. I call that doctrine "naturalism$_{sam}$," with "sam" indicating a sensationist-atheist-materialist version of naturalism. The sensationist doctrine of perception is one of the elements of the early modern view that was retained in later modern thought. The other element was the mechanistic doctrine of nature. In early modern thought, as we saw, this mechanistic doctrine of nature was part of a dualistic view of human beings, which were understood to be spiritual souls inhabiting machinelike bodies. But in later modern thought, the soul, like God, was rejected, so that the human being as a whole was to be understood in mechanistic terms. It is this later doctrine, with its mechanistic-materialistic account of everything, including human beings, to which the "materialism" of naturalism$_{sam}$ refers.

The naturalism of process philosophy, by contrast, can be called "naturalism$_{ppp}$," meaning a prehensive-panentheist-panexperientialist version of naturalism. The atheism of naturalism$_{sam}$ is replaced, as we have seen, by panentheism. Naturalismsam's sensationist doctrine of perception is replaced by a *prehensive* doctrine of perception, and its materialism is replaced by a *panexperientialist* ontology. These later two doctrines will be explained below. For now the important point is that process philosophy's naturalistic theism, or panentheism, is not a doctrine that can intelligibly be affirmed in isolation. It is instead an integral part of a new, overall worldview. Nothing but incoherence would result

from the attempt to affirm naturalistic theism while retaining sensationism and the mechanistic-materialistic view of nature, because those doctrines, as we saw, were designed precisely to rule out any but a supernaturalistic version of theism.

In any case, given the theistic dimension of Whiteheadian naturalism, it is very different from the kind of worldview that is now commonly called "naturalistic." The term *naturalism* is often not defined simply in the way that I have defined it here, as the rejection of a worldview that allows for the supernatural interruptions of the world's normal causal patterns. Instead, 'naturalism' is often defined much more sweepingly as the doctrine that "nature is all there is," with "nature" here understood to be the totality of finite things and events. Using "*nati*" to stand for "nature is all there is," we can call naturalism in this sense "naturalismnati." Since "nature" in this phrase is explicitly equated with the totality of *finite* things, 'naturalism' thus defined entails atheism. This more sweeping definition is commonly employed by both advocates and critics of atheism alike. For example, Gilbert Harman, an advocate, defines 'naturalism' as "the sensible thesis that *all* facts are facts of nature," adding that this worldview "has no place for gods." And theist Philip Johnson says that, according to naturalists, nature is understood "to be 'all there is.'"[49]

One problem with this sweeping definition of 'naturalism' is that, if it is used, then the label *supernaturalism* must be applied to every form of theism that distinguishes God from the totality of finite events and processes, even forms of theism that rule out the possibility that God could interrupt the world's normal causal processes. The resulting confusion can be illustrated by the case of William James. Having defined 'naturalism' as the view that there is nothing beyond the world known through sensory perception (which is another way of saying that nature is all there is), James rejected naturalism, because he believed in an "unseen region" from which ideal impulses come. James said, accordingly: "If one should make a division of all thinkers into naturalists and supernaturalists, I should undoubtedly have to go . . . into the supernaturalist branch."[50]

Given James' equation of naturalism with atheism, he had to call himself a "supernaturalist" simply because he believed in a divine reality that is distinct from the world known through sensory perception. James also affirmed real divine influence in the world, even variable divine influence in the world. This affirmation led him to call his view "piecemeal supernaturalism" to distinguish it from the "universal supernaturalism" of the Hegelians, according to which God (or the Absolute) acts on the world only in a "wholesale" manner. James, holding that the divine reality, by means of the ideal impulses, "interpolate[s] itself piecemeal between distinct portions of nature," affirmed that it entered into "transactions of detail."[51] This doctrine was, accordingly, an anticipation of Whitehead's doctrine of variable divine influence by means of initial aims. James's doctrine was, therefore, a version of naturalistic theism in the same

sense in which Whitehead's doctrine is. James did *not* mean that the world's most fundamental causal principles could be occasionally subverted.

Nevertheless, the very fact that James used the term *supernaturalism* for his position has led many interpreters to assume that he affirmed supernatural interruptions of the world's basic causal processes. For example, John Mackie, having defined miracles as "divine interventions which have disrupted the natural course of events," explicated James's piecemeal supernaturalism to mean that "the supernatural must enter into 'transactions of detail' with the natural—in other words, the sorts of interventions that we have defined miracles to be."[52]

It is confusing, therefore, to define naturalism as the doctrine that "nature is all there is."[53] There is no need to use 'naturalism' for that doctrine, moreover, because there is already a perfectly good word for it: *atheism*. 'Naturalism' can thereby be saved for the doctrine that the term more readily suggests, the rejection of supernaturalism. And with this definition, we can see that Whitehead's worldview is, in spite of its theism, a version of ontological naturalism.

Epistemic Naturalism

I turn now to epistemic naturalism, according to which all claims to truth are to be judged in terms of experience and reason. What is thereby rejected is *epistemic supernaturalism*, according to which some doctrines are considered true because they are thought to have been revealed so that they need not be defended in terms of their adequacy to the facts of experience and self-consistency with other beliefs. Epistemic supernaturalism presupposed infallibility and inerrancy in the human beings through which the revelation came. It thereby presupposed supernatural intervention through which the normally fallible processes of human beings was overridden. Given process philosophy's ontological naturalism, accordingly, it says yes to the enlightenment's epistemic naturalism.

This acceptance is illustrated by process theist Franklin Gamwell, who fully endorses, as mentioned in chapter 1, what he calls the "modern commitment," defined as the "increasing affirmation that our understandings of reality . . . cannot be validated or redeemed by appeals to some authoritative expression or tradition or institution" but "only by appeal in some sense to human experience and reason."[54] This modern commitment is also reflected in the writings of Whitehead, who, as Gamwell points out, said: "The appeal to reason is the appeal to that ultimate judge . . . to which all authority must bow."[55] Gamwell is right to highlight this doctrine's centrality to modernity. It was at the very heart of the enlightenment, being embodied in Kant's famous statement—made in his essay "What Is Enlightenment?"—that enlightenment is thinking for oneself, rather than relying on the authority of others. In other words, enlightenment is embodying autonomy, rather than heteronomy, in one's intellectual life. This

doctrine is also one that has, as Gamwell indicates, received "increasing affirmation" (with the exception, we should add, of one strand of thought that is sometimes called "postmodern" but is more accurately called "postliberal").

The full-fledged acceptance of this modern commitment can, Gamwell rightly suggests, be part of a postmodern position. We can distinguish "the modern commitment in its formal sense," he points out, from any "material or substantive meaning of modernity" that has been historically associated with it. Most uses of "postmodern," he adds, "involve a contrast with some material or substantive meaning of modernity, rather than with the [modern] commitment in its formal sense."[56] This is precisely the distinction presupposed in the treatment of Whiteheadian philosophy as postmodern. As I suggested in the previous chapter, we could call it "postmodern modernism," since the formal commitment of modernity to defending all ideas in terms of experience and reason is combined with a critique of certain substantive ideas that are also distinctively modern.

The denial of epistemic supernaturalism does not necessarily entail the denial of divine revelation. The idea that God influences all events, therefore every occasion of human experience, means that revelation from God can occur through human beings. What is denied is only the notion that the affirmation of revelation can be used epistemically—that the idea that a book embodies divine revelation can be used to argue that its teachings are true, regardless of whether these teachings can be verified by experience and reason. Given this caveat, a theologian working from within, say, the Jewish, Christian, or Islamic tradition could employ Whiteheadian philosophy to develop a doctrine of revelation.[57] In any case, having said that epistemic naturalism judges all propositions in terms of experience and reason, I turn now to these two concepts under the rubrics of 'empiricism' and 'rationalism,' beginning with the former.

Empiricism

Empiricism has many meanings, some of which Whitehead endorsed. "The elucidation of immediate experience," he declared, "is the sole justification for any thought" (PR 4). He affirmed adequacy to the various facts of experience as a central criterion for philosophy, saying that the goal is to develop a system of ideas "in terms of which every element of our experience can be interpreted" (PR 3). And he even affirmed Hume's *conceptual* empiricism, according to which "nothing is to be received into the philosophical scheme which is not discoverable as an element in subjective experience"—which means that "Hume's demand that causation be describable as an element in experience is . . . entirely justifiable" (PR 166–67). In his most explicit endorsement of empiricism, Whitehead said: "[A]ll knowledge is derived from, and verified by, direct intu-

itive observation. I accept this axiom of empiricism as stated in this general form" (AI 177). In saying that he accepted this doctrine "as stated in this general form," Whitehead illustrated my earlier point, that he affirmed the central doctrines of the enlightenment in a general form, which is susceptible to various specifications, but he rejected the specific forms that these doctrines have taken in the dominant trajectory coming out of the enlightenment.

With regard to the doctrine at hand, Whitehead emphatically rejected "enlightenment empiricism" insofar as it involves the sensationist doctrine of perception, according to which "direct intuitive observation" of things beyond our own minds is equated with sensory perception (AI 177). Whereas ancient thinkers asked "What have we experienced?"—which Whitehead regarded as the right question—"moderns asked what can we experience," with the assumption that this question is identical with the question of "what data are directly provided by the activity of the sense-organs?" (AI 224–25). It is this assumption that has been behind most of the shallowness and inadequacy of postenlightenment philosophy and theology. If perceptual experience is equated with sensory perception, then we have no perceptual experience of causation, the actual world, or the past. There can be no religious experience, in the sense of a direct awareness of a divine reality. There can be no perceptual experience of normative ideals, whether moral, aesthetic, or logical. And there can be no telepathy, which, besides providing an empirically verifiable analogue for theistic religious experience, is also involved in the various kinds of empirical evidence for life after death.[58] Whitehead himself explicitly affirmed the reality of telepathy (SME 150; PR 253, 308–09; AI 248) and our direct perception of God (RM 155–56; PR 244). It is by means of this nonsensory perception of God, furthermore, that our awareness of normative ideals is explained (AI 11; MT 103).

This idea of nonsensory perception is central to Whitehead's prehensive doctrine of perception, mentioned earlier. Whitehead used the term *prehension* to refer to a mode of taking account of other things that could be either sensory or nonsensory. Sensory perception, rather than being our basic mode of perception, is a mixed mode, which involves two pure modes.

One of these pure modes, which can be called "pure" sense perception, is called "prehension in the mode of presentational immediacy." It is sense perception as defined by Hume, according to which the content of perception is limited to sense data, such as colored shapes. This mode is called "presentational immediacy," because the data are immediately present to you, telling nothing about the past or the future. Whitehead, in fact, derived the name from Hume's statement that "the mind [cannot] go beyond what is immediately present to the senses, either to discover the real existence or the relation of objects" (S 32).[59] For example, when you look at the clear night sky, you see various points of light. Although you know that they are stars that exist millions of light years away, this is information you have learned from other sources. From the data

immediately present to you, you know only that you see colored shapes. Similar visual experiences might be produced, in fact, by using electrodes to stimulate your visual cortex. This fact makes it clear that the sense data as such do not tell you anything about actual existence beyond your own consciousness. They do not tell you what is causing you to experience them.

The knowledge of the causal efficacy of actual things beyond our own experience comes from the other pure mode of perception, which Whitehead called, logically enough, "perception in the mode of causal efficacy." It is always involved in any instance of *full-fledged* sensory perception. Hume's description of sensory perception as giving us no information except sense data is very incomplete. When I look at the night sky, I am aware not only of the points of light that I call "stars" but also of the fact that I am seeing them *with my eyes*. It is true that pure sensory perception, or perception in the mode of presentational immediacy, tells me nothing more than that these points of light are immediately present to my conscious experience. But full-fledged sensory perception tells me much more. It tells me that my experience is not the only actual thing that exists, so I need not suffer the solipsistic worry that everything else might simply be figments of my imagination, like creatures of my dreams. Full-fledged sensory perception tells me, for starters, that I have a body, made of things as actual as my experience is, and that at least parts of my body, such as my eyes, exert causal efficacy on my experience. And, knowing that my bodily parts are actual and capable of exerting causal efficacy, I then have an analogical basis for thinking of other things, beyond my body, as also actual and causally efficacious. I thereby have a basis for attributing actual existence to the stars and, closer to home, the other items of my visual field, such as, well, my home.

Whitehead's name for this full-fledged sensory perception is "perception in the mode of symbolic reference." The point of this name is that the data from one mode are used as symbols to refer to, and hence interpret, the other mode. For example, I may take a green shape to mean that there is a tree in the region at which my eyes are directed. The green shape is hence understood not only as qualifying a region external to my body but also as somehow involved in my eyes as imposing themselves on my experience. That is, we see the green tree out there *by means of* our eyes. "Thus perception in the mode of causal efficacy discloses that the data in the mode of sense-perception are provided by it" (S 50).

Given this analysis of full-fledged sensory perception as a mixed mode, involving two pure modes, what needs to be emphasized now is that the mode of causal efficacy is a *nonsensory* mode of perception. In being aware that I see the tree by means of my eyes, I do not see my eyes. Rather, I—the experiences constituting my "mind" at that moment—grasp my eyes in a more fundamental way. My experience, of course, receives the data from my eyes through my brain. My brain is the part of my body that my experience grasps most directly. But I do not see my brain. And yet if I were unable to apprehend the brain,

with its billions of neurons, I would not be able to see the tree. Sensory perception, therefore, presupposes this more fundamental, nonsensory mode of perceiving or grasping things.

Whitehead used the term *prehension* for this more fundamental way of grasping things. He then distinguished between different types of prehensions, depending on their data. When the data are other actual things—such as one's eyes—the prehensions are called "physical" prehensions. There are also "conceptual" prehensions, "propositional" prehensions, and so on. So Whitehead's doctrine of perception as a whole can be called a "prehensive doctrine of perception." I primarily use this name, however, to point to the fact that this doctrine says that our most fundamental mode of perception is a nonsensory mode. Whitehead's doctrine of perception is, therefore, a nonsensationist doctrine, since it rejects the idea that perception by means of our senses is our only, or even our most fundamental, mode of perception.

This nonsensationist theory of perception lies behind Whitehead's main criticism of modern philosophy, which is directed against its penchant for "boldly denying the facts," for destroying its usefulness by indulging in "brilliant feats of explaining away" (PR 6, 17). This criticism is contained in Whitehead's brief characterization of the eighteenth-century thinkers most often identified with the enlightenment:

> *Les philosophes* were not philosophers. They were men of genius, clear-headed and acute, who applied the seventeenth century group of abstractions to the analysis of the unbounded universe.... Whatever did not fit into their scheme was ignored, derided, disbelieved. Their hatred of Gothic architecture symbolises their lack of sympathy with dim perspectives. It was the age of reason,... but, of one-eyed reason, deficient in its vision of depth. (SMW 59)

The final sentence of this quotation shows the connection, in Whitehead's mind, between the enlightenment's superficial view of experience and its limited rationalism. I turn now to this latter issue.

Rationalism

Deconstructive postmodern thinkers commonly lift up rationalism—in the sense of the attempt to develop an adequate, self-consistent set of ideas for interpreting the world—as one of the dominant features of enlightenment modernity. Genuinely postmodern thinkers, they suggest, would give up that quest. Whitehead, by contrast, saw modern science and thereby the enlightenment as having originated in a "historical revolt" against the unbridled rationalism of the

middle ages (SMW 8–9, 16). This historical revolt, involving a focus on origins and efficient causes, was an "anti-rationalistic movement," being devoid of any interest in justifying its assumptions, such as the principle of induction (SMW 42–44). In contrast with the medieval period, which was "the age of faith based upon reason," the eighteenth century was "the age of reason, based upon faith" (SMW 57). Whitehead's criticism here was that enlightenment *philosophes* failed to apply reason to the examination of their ultimate assumptions, simply taking them on faith.

By characterizing modern thought as antirationalistic, Whitehead's main point was that the historical revolt led to "the exclusion of philosophy from its proper role of harmonising the various abstractions of methodological thought." That is, the supreme task of reason, in Whitehead's view, is to compare "the various schemes of abstraction which are well founded in our various types of experience," showing how they can be fitted together in a harmonious way (SMW 18). Whitehead's commitment to rationalism in this sense is shown by the indication, on the first page of his first metaphysical book, that he was going to suggest a cosmology based on aesthetic, ethical, and religious intuitions as well as scientific intuitions (SMW vii). He later said, more simply, that philosophy's most important task is to fuse religion and science into one rational scheme of thought (PR 15). He differed from enlightenment-based modes of philosophy on this score primarily because of his nonsensationist doctrine of perceptual experience, which allowed him to regard religious experience—in the inclusive sense, understood to include moral and aesthetic experience—as a source of knowledge that has something of importance to contribute to metaphysics (RM 57, 84).

Modernity's antirationalism is manifested within scientific thought by its tendency to be "ardently rationalistic within its own borders, and dogmatically irrational beyond those borders" (PR 5). In modern thought more generally, this antirationalism is illustrated by the tendency to obtain a self-consistent philosophy by denying the reality of everything that does not fit: "It is easy enough to find a theory, logically harmonious and with important applications in the region of fact," chided Whitehead, "provided that you are content to disregard half your evidence" (SMW 187). The chief example of this tendency is the divorce, articulated most clearly by Hume, between theory and the necessary presuppositions of practice, with the result that the former is considered satisfactory even though it admittedly does not include the latter (PR 133, 156). Explicitly rejecting this Humean antirationalism, Whitehead stated: "Whatever is found in 'practice' must lie with the scope of the metaphysical description. When the description fails to include the 'practice,' the metaphysics is inadequate and requires revision. There can be no appeal to practice to supplement metaphysics" (PR 13).

Diametrically opposing this anti-rational appeal, Whitehead enunciated the "metaphysical rule of evidence," namely, "that we must bow to those pre-

sumptions, which, in despite of criticism, we still employ for the regulation of our lives. . . . Rationalism is the search for the coherence of such presumptions" (PR 151).

In taking the inevitable presuppositions of practice as the chief criterion to which a philosophy must be adequate, Whitehead was echoing the "commonsense philosophy" of Hume's chief antagonist in the Scottish Enlightenment, Thomas Reid. There is, however, a crucial difference. Both agreed that our philosophies must include beliefs in such principles as causal efficacy, the external world, the past, and the distinction between better and worse possibilities. Reid, however, spoke of these as principles "which we are under a necessity to take for granted in the common concerns of life, without being able to give a reason for them."[60] Reid thought that we could give no reason for them—beyond supposing them to have been supernaturally implanted in our minds by God—because he shared with Hume the sensationist doctrine of perception.

By contrast, Whitehead, on the basis of his doctrine of a more fundamental, nonsensory mode of perception, could say that we inevitably presuppose such notions because of direct perceptions in which they are rooted. That we derive the notion of causation as real influence from this mode of perception is emphasized by calling it "perception in the mode of causal efficacy." Through the fact that we thereby perceive other actualities—not simply forms, such as sensory data—we know of the existence of an actual world beyond our present experience. Through the fact that the actualities thus perceived are always antecedent to the percipient occasion, and especially through our prehension of our own prior occasions of experience, we know of the reality of the past and therefore of time. Through the nonsensory prehension of God, who envisages normative ideals, we experience such ideals, thereby obtaining our notion of better and worse possibilities (MT 103). Even our presupposition about the existence of other minds, Whitehead suggested, is rooted partly in a direct (albeit usually unconscious) perception of these minds, rather than being based entirely on inference from sensory data (SMW 150).

Given this difference between Whitehead and Reid, process philosophy's use of the inevitable presuppositions of practice is very different from that of the "reformed epistemology" associated primarily with Alvin Plantinga and Nicholas Wolterstorff. These reformed epistemologists regard these presuppositions as "basic beliefs," meaning beliefs that are rightly presupposed even though they are, as Reid said, not based on evidence. They use this doctrine to conclude that other beliefs of a particular community, such as Christian beliefs in an omnipotent deity and inerrantly inspired scriptures, can be considered properly basic.[61] From the perspective of Whiteheadian epistemology, by contrast, the inevitable presuppositions of practice are grounded in experience. Our acceptance of them can provide no license, accordingly, for presupposing the truth of notions that cannot justify themselves in terms of the normal criteria of rationality.

It might be thought, however, that the acceptance of such presuppositions as the ultimate criteria for philosophy and theology involves "foundationalism." But that is not the case, unless the term *foundationalism* is stretched far beyond its original meaning to designate any philosophy that rejects complete relativism. Our inevitable presuppositions, as understood by process philosophy, do share one feature with foundational beliefs in the original sense of the term: They are taken to be truly universal, in the sense of being inevitably presupposed in practice by *all* human beings, including those who deny them verbally. As such, these beliefs provide process philosophy with a basis for avoiding complete relativism, a goal of enlightenment thought that it affirms. But foundationalism, in the original sense of the term, involves the acceptance of certain beliefs as "basic," meaning beliefs from which thought is to begin and from which all nonbasic beliefs are to be deduced. In process philosophy, by contrast, the universal presuppositions of practice function not as a foundation for a building but simply as a compass for a voyage, warning us when we have gotten off course.

I should perhaps add that, although Whitehead supported rationalism in the sense described above, he did not support every attitude sometimes suggested by the term. Whitehead rejected, for example, the rationalistic tendency to achieve consistency at the expense of experiential inclusiveness. And he rejected that form of rationalism that is yoked with static dogmatism. "Rationalism," he declared, "is an adventure in the clarification of thought, progressive and never final" (PR 9). In any case, having discussed several formal issues—epistemic naturalism, empiricism, and rationalism—I return now to substantive, ontological matters.

Individualism

Another commonly listed feature of the enlightenment is individualism. Process philosophy, again, says both yes and no. It affirms individualism insofar as this means that there are real individuals, prior to our perception and conception of such. In fact, Whitehead's ontological principle, which says that only actual entities can act, means that all causation—be it efficient or final—is rooted in individuals. Whitehead's eighteenth category of explanation is that

> every condition to which the process of becoming conforms in any particular instance has its reason *either* in the character of some actual entity in the actual world of that concrescence, or in the character of the subject which is in process of concrescence. This category of explanation is termed the "ontological principle." It could also be termed the "principle of efficient, and final, causation." This ontological principle

> means that actual entities are the only *reasons*; so that to search for a *reason* is to search for one or more actual entities. (PR 24)

Individuals, in other words, are the only agents. One implication of this principle is that, if there is any causal influence on the world beyond that of the totality of finite individuals, there must be a nonfinite individual. It was Whitehead's realization of this implication that led him to see that, if mathematical, logical, aesthetic, and moral norms are to have any influence on the world, they must be lodged in a divine individual.

Process philosophy also affirms individualism insofar as it means that all intrinsic value is resident in individuals. Although process philosophy can be considered communitarian in some respects, it insists that communities finally exist for the sake of their members, not vice-versa. A community has value for its individual members. But a community, such as a nation, has no value for itself, because it is not an experiencing individual. A political philosophy, therefore, should not say that the individual exists for the sake of the state. Rather, the state exists finally for the sake of its individual members. This doctrine stands behind, for example, the U.S. Bill of Rights, which gives American citizens protection from the power of the national state. Insofar as Hegelianism rejects this principle, Whiteheadian process philosophy rejects Hegelianism, and political philosophies derivative from it, in the name of individuals.

Whitehead rejects individualism, however, in the sense of the ontological doctrine of individual substances that "require nothing but themselves in order to exist." That was Descartes' definition of a substance. This definition was also filled by Leibniz's "windowless monads," which had no openings through which influences from other monads could enter. An individual monad was, therefore, related only externally to other individuals, meaning that its "relations" to other things did not enter into it. In other words, although Leibniz defined each monad as having experiences, including *perceptions*, he did not mean that a monad actually perceived other monads. To use Whitehead's language, there was no perception in the mode of causal efficacy, in which one monad directly perceived the actuality and causal efficacy of other monads. Rather, the perception was limited to perception in the mode of presentational immediacy, in which various sense data are projected outward, so that one *seems* to perceive other things. These projected percepts could correspond to what was really going on thanks to the "pre-established harmony" between percepts and reality that had been programmed into all the monads by God at creation.[62]

Whitehead developed his ontology by installing windows in the Leibnizian monads. That is, he agreed with Leibniz that the world is composed exclusively of individuals with experience. Whitehead thus endorsed panexperientialism, according to which all true individuals have experience. But, pointing out that Leibniz "did not discriminate the event, as the unit of experience, from the

enduring organism as its stablisation into importance" (SMW 155), Whitehead built his own system around this distinction by "toning down [Leibniz's] monads into the unified events in space and time" (SMW 70). Whitehead's doctrine that the ultimate individuals of the world are momentary events is announced terminologically, as indicated earlier, by saying that the *actual* entities—the entities that are individuals in the fullest sense of the term, being "monads" or "atoms" and hence indivisible—are actual *occasions* (AI 177).[63] Given the fact that all actual occasions have experience, they can also be called "occasions of experience." Each individual that endures through time, such as an electron or a human mind, is a temporal *society* of these momentary experiences. "The real actual things that endure are all societies. They are not actual occasions. It is the mistake that has thwarted European metaphysics from the time of the Greeks, namely, to confuse societies with the completely real things, which are the actual occasions" (AI 204).[64]

By means of this doctrine, Whitehead could portray each monad—each actual occasion—as beginning with an open window, into which the influences from the past world rush. These influences from prior actual occasions are, from the point of view of the present occasion, its prehensions of them, through which it takes aspects of them into itself. It is thereby internally related to, and thereby partially constituted out of, prior individuals.

Unlike some doctrines of internal relatedness, however, this one does not vitiate the notion of distinct individuals. In some doctrines, any two individuals, which we can call "A" and "B," influence *each other*. This means that not only does A influence B, but B-as-influenced-by-A influences A, which means that it was A-as-influenced-by-B-as-influenced-by-A that influenced B, and so on infinitely. With this infinite mutual influence, it is hard to see how A and B could remain distinct. It seems that everything would become an undifferentiated mush. Allowing internal relations into a pluralistic system thereby seemed to threaten to turn the pluralism into monism. Many philosophers insistent on keeping pluralism, therefore, have affirmed that all relations are external, meaning that they are not *real* relations at all, because they make no difference to the individual. Cartesian substances and Leibnizian monads were externally related to everything else (except for God).

Whitehead's view that the ultimate units are momentary events allowed him to affirm both internal and external relations. Each occasion of experience is internally related to all prior events. But it is externally related to contemporary and future occasions. *Contemporary* occasions are those that have their moment of becoming at the same time. Whitehead's technical term for becoming is *concrescence*, which means "becoming concrete." Because neither actual occasion is yet concrete, it is not yet anything determinate, so it cannot be prehended. So neither of two contemporary occasions can influence the other. With regard to future occasions, it belongs to each occasion that there *will be*

future occasions, because "anticipation" is a part of each occasion, in the sense that it anticipates that it will exert causal influence on the future. But the actual nature of that influence—which means the exact way in which the present occasion is prehended by future occasions—is external to the present occasion. For example, when I decide to speak to someone, I may anticipate that my speaking will have a particular effect. But the effect it actually has is external to the occasion of experience in which I made the decision. The way in which my speaking is received does not go back and affect that decision. It is forever what it was. Therefore, because present occasions are externally related to both contemporary and future occasions, no actual occasion is influenced by any actual occasion that it had influenced. All influence between actual occasions goes only in one direction.[65] A genuine pluralism of distinct individuals is thereby maintained.

The doctrine that all enduring individuals, such as electrons and human souls, are really temporally ordered *societies* of events provides the basis for process philosophy's rejection of individualism in the ethical sense. This sense is the doctrine called "ethical egoism," according to which everything we do is ultimately based on self-love, because it is not really possible for us to care about the welfare of others (except as it will help us). The ontological presupposition behind this egoistic doctrine is that we as enduring individuals are enduring substances, being strictly the one self-same individual from moment to moment. Given this assumption, one's relation to one's own past and future states would be a relation of absolutely identity, whereas one's relationship to other individuals would be a relation of absolute difference. The call to love our neighbors "as we love ourselves," accordingly, would be urging us to do the metaphysically impossible.

The Whiteheadian view that enduring individuals are really temporally ordered societies of distinct occasions of experience undermines this argument. According to this view, your present experience, being a distinct event, is not strictly (numerically) identical with any of your past or future experiences. Likewise, because influences from other individuals enter into your experiences, helping to constitute them, and because your present experiences will enter into the experiences of other individuals, helping to constitute them, we are not absolutely different from other individuals. By seeing that our relations to our own past and future experiences are different only in degree from our relations to the past and future experiences of other people, we see that altruism—genuinely caring for others—is not metaphysically impossible. "On this ground alone," said Hartshorne, "I would not give up the event doctrine without the most rigorous proofs of its erroneousness."[66]

Closely related to ethical egoism is the view of life as a primarily competitive, rather than a cooperative, affair, which is the implication of "individualism" upon which Whitehead focused (SMW 111–12, 194–96; AI 28, 30–31, 35).

Modern nationalism, militarism, capitalism, and Social Darwinism, he argued, all reflect the one-sided enlightenment view of individuals with merely external relations to their environment, including other people. Whitehead intended his own doctrine, by emphasizing internal as well as external relations, to lead to a healthier and more realistic balance between strife and harmony, competition and coordination. The universe has "its aspects of struggle and of friendly help," so that "romantic ruthlessness is no nearer to real politics, than is romantic self-abnegation" (SMW 112). Expressing the ideal he meant his philosophy to support, Whitehead said: "The antithesis between the general good and the individual interest can be abolished only when the individual is such that its interest is the general good" (PR 15).[67]

This event doctrine of the enduring self, according to which it is a temporal society of occasions of experiences, is also important for reconciling the belief that all events are part of a closed causal nexus with the assumption that human behavior is significantly free, which is one of the inevitable presuppositions of human practice (SMW 75–79). Commenting upon the overstressing of efficient causes in the modern period, which followed upon the overstressing of final causes in the Middle Ages, Whitehead declared: "One task of a sound metaphysics is to exhibit final and efficient causes in their proper relation to each other" (PR 84).

At the root of Whitehead's effort to fulfill this task was the doctrine that the ultimate individuals of which the world is composed are momentary occasions of experience. As we saw earlier, each occasion begins as an open window to the past, into which rush causal influences from the past world. This reception of efficient causation constitutes what Whitehead called the "physical pole" of the occasion of experience. With this pole constituted, the occasion's window is closed, as it were, while the occasion has its "mental pole," during which it exercises final causation, in the sense of self-determination. The occasion of experience decides, in other words, precisely how to form itself out of the influences it received. Finally, the occasion, having become fully determinate, fully concrete, becomes one of the many efficient causes upon subsequent occasions of experience, and the process continues.

Given this conceptualization, we do not have to wonder how something can exert efficient causation on other things while it is still indeterminate because it is exercising self-determination. It does not. Nor must we wonder how it exercises self-determination while it is being influenced by other things. It does not. The doctrine of temporal atomicity means that final and efficient causation occur sequentially, never simultaneously. An occasion of experience first exercises self-determination, and then it exercises efficient causation on others. Being composed of very brief occasions of experience, an enduring individual, such as an electron or a human mind, oscillates between efficient and final causation many times a second. In this way, Whitehead shows how enduring individuals can, while participating in the universal causal nexus, be truly

self-determining. This reconciliation of efficient and final causation provides one of the ways in which Whitehead's philosophy is postmodern in the sense of reconciling modern and premodern emphases.

Belief in Universal Truths and Values

Another feature of enlightenment thought that is often mentioned today is its belief in universal truths and values. The belief in universal truths is widely rejected by deconstructive postmodern thinkers who urge, however paradoxically, that the (universal) truth is that all truths are local, because the criteria for truth, being culturally conditioned or even created, are relative to a particular culture. A similar position is taken with regard to values, such as the traditional axiological trinity of Truth, Beauty, and Goodness.

Behind this relativism lies a concern to undermine the bases for Euro-American cultural imperialism, in which Euro-American ideas of what is true, beautiful, and good—with regard to, for example, economic development—are imposed on other peoples, whether by force or by seduction. Whiteheadian process thinkers support the intent behind this relativism—the intent to subvert this imperialistic elevation of parochial truths and values into universal ones. Whiteheadian postmodernists do not, however, reject the idea of universal truths and norms as such.

With regard to truth, Whitehead avoids relativism without falling into dogmatism by emphasizing the complexity of the universe in general and of every event in particular. Because each event embodies, to some extent, the whole universe within itself, any statement about the event will involve an enormous abstraction. An indefinite number of abstractions about an event, formulated from diverse perspectives, can all express something true about the event. Whitehead used this point to support the enlightenment virtue of tolerance. Attributing this idea to Plato, Whitehead said:

> His Dialogues are permeated with a sense of the variousness of the Universe, not to be fathomed by our intellects. . . . The moral of his writings is that all points of view, reasonably coherent and in some sense with an application, have something to contribute to our understanding of the universe, and also involve omissions whereby they fail to include the totality of evident fact. The duty of tolerance is our finite homage to the . . . complexity of accomplished fact which exceeds our stretch of insight. (AI 51–52)

With regard to values, Whitehead affirmed pluralism by rejecting "the notion of the one type of perfection at which the Universe aims" (AI 291). The

notion of "one ideal 'order' which all actual entities should attain," he said, "arises from the disastrous overmoralization of thought under the influence of fanaticism, or pedantry" (PR 84). Likewise, saying that the divine reality of the universe aims at "importance," he rejected the tendency to equate importance as such with any of its species, such as morality, logic, religion, or art. By this false equation, he said, "the ultimate aim infused into the process of nature has been trivialized into the guardianship of mores, or of rules of thought, or of mystic sentiment, or of aesthetic enjoyment" (MT 12). On the basis of this pluralism with respect to ultimate ideals, Whitehead pointed to the greatness that can be present in very different styles of life, such as the "stern self-restraint" of the Puritans or the "aesthetic culture" of the Italian Renaissance and modern Paris (PR 337–38). There is not only one right way to be human.

At the same time, Whitehead's position has bases for resisting a complete relativism of truth and value. Whitehead's dipolar theism, with its distinction between God's primordial nature and consequent nature—which distinguishes between God as influencing and God as being influenced by the world, respectively—is relevant to this issue. The primordial nature of God, which is God's appetitive envisagement of eternal possibilities or forms, lies behind Whitehead's support of universal values. Although no culture's particular ideas of beauty are to be universalized, "The teleology of the Universe is directed to the production of Beauty," defined as experience characterized by harmonious intensity (AI 264). Expressing this point in the even more general language of "importance," Whitehead stated: "The generic aim of process is the attainment of importance, in that species and to that extent which in that instance is possible" (MT 12). With regard to morality in particular, Whitehead commented upon the parochial nature of all moral codes: "There is no one behaviour system belonging to the essential character of the universe, as the universal moral ideal" (MT 8–11). But he added that there *is* something that is universal: a "spirit," a "general ideal," that "should permeate any behaviour system," namely, the aim to maximize the importance that is possible in every particular situation (MT 14–15). This ultimately nonrelativistic stance was possible because of Whitehead's doctrine of the primordial nature of God, conjoined with his nonsensationist doctrine of perception, which allows us to experience God. For example, having said that we have experiences of ideals, "of ideals entertained, of ideals aimed at, of ideals achieved, of ideals defaced," he added: "This is the experience of the deity of the universe" (MT 103).

Whitehead's ultimately nonrelativistic stance on truth depends on both natures of God. On the one hand, our prehension of the primordial nature lies behind our sense of the importance of truth (MT 8–11, AI 11). On the other hand, the doctrine of the consequent nature supports our (inevitable) presupposition that there is such a thing as "the truth" about anything, because it exists somewhere: "The truth itself is nothing else than how the composite natures of

the organic actualities of the world obtain adequate representation in . . . the 'consequent nature' of God" (PR 12). Without this doctrine, Whitehead would have had a Nietzschean perspectivalism, in which, by the ontological principle, there could be no truth because there would be no actuality in which it could subsist.

Whitehead, therefore, gave due weight to the postmodern emphasis on cultural relativity with regard to both values and perceptions of truth, but without rejecting the idea of universal values and truths. As a postmodern modernism, his position does not undermine the enlightenment's aspiration, emphasized in Habermas's modernism, for universal human liberation.[68]

Belief in Progress

The statement—or accusation—that someone "believes in progress" is ambiguous. The belief in progress can mean the belief (1) that progress is possible, (2) that it has occurred, (3) that it is promoted by some power in the universe, or (4) that it is inevitable. Whitehead believed in progress in the first three senses but not the fourth.

One of his reasons for believing that progress is at least possible was stated in the previous point. That is, one of the main reasons for rejecting the idea of progress is the conviction that there are no objective criteria by which to call anything an improvement over what existed earlier. It is common in neo-Darwinian evolutionary circles, for example, to deny that the evolutionary process is progressive in any objective sense, because there is thought to be no general criterion—other than evolutionary success, defined as survival—by which to judge excellence. In recent years, this idea was pushed by the late Stephen Jay Gould.[69] This kind of complete relativism with regard to truth and value, however, would lead to the conclusion that not only is no social system objectively better than any other, but also that no worldview is better than any other—which would undermine the reason for accepting neo-Darwinism as an advance over prior views. This kind of complete relativism is hence self-refuting.

Whitehead, in any case, could affirm the possibility of progress because he rejected, as the "evolutionist fallacy," the "belief that fitness for survival is identical with the best exemplification of the Art of Life" (FR 4). For Whitehead, by contrast, the cosmic aim is "a three-fold urge: (i) to live, (ii) to live well, and (iii), to live better," with the latter meaning "to acquire an increase in satisfaction" (FR 8). The criterion for progress is, therefore, richness of experience. This criterion is closely related to the criterion of maximizing importance, previously discussed. On this basis, Whitehead affirmed the possibility of progress in social organization as well as in biological evolution (PR 14; AI 15; SMW 107; FR 4, 9, 89–90).

He also believed that, given this criterion, it was impossible to deny that progress has occurred. This denial can be made, to be sure, by stipulating extreme criteria. With regard to biological evolution, for example, some thinkers have assumed that we could affirm evolutionary progress only if it is *uniform*, going on without interruption, and *general*, occurring in all lines and from the beginning to the end of each line. As Francisco Ayala points out, however, to affirm that progress has occurred it is necessary only to say that *net* progress has occurred in *some* lines. And by any reasonable criterion of progress, such as Whitehead's criterion, or Ayala's criterion ("the ability of an organism to obtain and process information about the environment"),[70] net progress has certainly occurred in the line that has produced mammals.

As indicated earlier, Whitehead also believed that, thanks to the primordial nature of God, the universe as a whole promotes progress. In perhaps his most explicit statement on this subject, he says: "Apart from the intervention of God, there could be nothing new in the world. . . . The course of creation would be a dead level of ineffectiveness. . . . The novel hybrid feelings derived from God with the derivative sympathetic conceptual valuations, are the foundations of progress" (PR 247). Whitehead, in sum, believed that progress is possible, that it occurs, and even that the universe promotes it.

Most criticisms of the "enlightenment's belief in progress," however, are directed at the optimistic enlightenment belief, central to the systems of both Hegel and Marx, that progress is inevitable, being somehow built into the very nature of things. Whitehead emphatically did not accept belief in progress in this sense. He pointed out, for one thing, that progress is far from universal: "[I]f we survey the universe of nature, mere static survival seems to be the general rule, accompanied by a slow decay. The instances of the upward trend are represented by a sprinkling of exceptional cases" (FR 29).

Whitehead's primary basis for saying that progress is not inevitable, although it is favored by God and hence the universe, was his naturalistic theism, with its distinction between God and creativity. The creatures, in Whitehead's pluralistic universe, necessarily have their own creative power vis-à-vis God (whereas the finite things in Hegel's more monistic system had little, if any, power of their own vis-à-vis the Absolute Geist). Accordingly, the divine lures result in progress only if the creatures respond positively. Enlightenment deists, by contrast, still largely presupposed an omnipotent creator, who had built in an overriding drive toward progress. Even Darwin retained that presupposition, which lay behind his belief in inevitable biological and civilizational progress.[71] Whitehead rejected that view without, like most neo-Darwinists, rejecting the belief in divine directivity altogether.

A second basis for process philosophy's rejection of the idea of inevitable progress is the principle that every condition increasing the possibilities for good

also proportionately increases the possibilities for evil. Process philosophy does not construe this principle to mean that every increase in good is necessarily accompanied by an actual and correlative increase in evil—a doctrine that would imply the impossibility of social progress. But the mere fact that every advance increases the possibilities for evil is sufficient to render progress far from inevitable. Having made this principle central to my development of a process theodicy, I have more recently employed it to show how, at the human level, creaturely creativity can, besides being diametrically opposed to divine creativity, be sufficiently powerful to threaten divine aims.[72] The development of a civilization with the power to destroy itself and all other higher forms of life—forms of existence that it has taken our creator billions of years to bring about—is the ultimate revelation in our time of this potentiality and, thereby, of the fact that progress, while possible, is not inevitable.

CONCLUSION

Whiteheadian process philosophy cannot be said to be primarily proenlightenment or antienlightenment. In general, it favors the formal commitments with which we usually associate the enlightenment, insofar as those commitments reflect the acceptance of universal truths and values and the rejection of supernaturalism, both ontological and epistemic. The enlightenment, however, was based upon substantive ideas about the natural world and human experience that are strongly rejected by Whitehead. This fact is no coincidence, I have suggested, because Whitehead's philosophy can be considered a postmodern reemergence of the kind of philosophical theology that was rejected by the leading opinion makers of the late seventeenth century. In this kind of approach, the effort is made to combine scientific experience, religious experience, and philosophical reflection to produce an integral, "pansophist" worldview that is equally adequate for the scientific, religious, and philosophical communities. Substantively, this approach rejects the modern options of regarding God as either omnipotent or nonexistent. It attributes spontaneity, experience, and internal relations to all individuals. As a corollary of its panexperientialism, it attributes nonsensory perceptual experience to human beings, through which they are open to the whole universe, thereby being able to know all sorts of things that enlightenment-based thought had to attribute to a deistic implantation or deny that we can know at all. Building on these beliefs, this Whiteheadian type of philosophy regards God as present in all things and the whole world as present in God. For these reasons, this kind of philosophy opposes most of the substantive ideas that have been identified

with enlightenment modernity. It can best be summarized, therefore, as postmodern modernism.

I began this chapter with Hartshorne's suggestion that we need a new enlightenment. My friendly amendment to this suggestion is that the kind of new enlightenment needed should involve a postmodern incorporation of several ideas that were, for dubious reasons, rejected at the outset of the previous enlightenment. In the following five chapters, I show how this type of postmodern philosophy can solve several problems of modern thought, beginning with the mind-body problem.