# MINDS AND BODIES: HUMAN AND DIVINE

*by Gregory R. Peterson*

*Abstract.*    Does God have a mind? Western theism has tradition-
ally construed God as an intentional agent who acts on creation
and in relation to humankind. God loves, punishes, and redeems.
God's intentionality has traditionally been construed in analogy
to human intentionality, which in turn has often presumed a
supernatural dualism. Developments in cognitive science, how-
ever, render supernatural dualism suspect for explaining the hu-
man mind. How, then, can we speak of the mind of God?
Borrowing from Daniel Dennett's intentional stance, I suggest
that analogical reasoning regarding the mind of God be aban-
doned in favor of an ontologically agnostic approach that treats
God as an intentional system. In this approach, God's purposive
action is an explanatory feature of the believer's universe, a real
pattern that informs our values and beliefs about the world and
our place in it.

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intentional stance; mind; mind of God; Wolfhart Pannenberg; Arthur
Peacocke; philosophy of mind.

Stephen Hawking has remarked that if we one day discover a complete
theory of the physical universe, we would then know the mind of God
(Hawking 1988, 175). The same phrase, "the mind of God," has been
used by Paul Davies (1992) as the title of a book on physics and religion.
While the use of this phrase by these and other physicists has stirred a
considerable debate, there has been little enough discussion about what
we actually mean by it. Does it mean that the universe *is* the mind of
God (a pantheist or possibly panentheist view) or that by knowing the
fundamental laws of nature we can thereby make inferences about the
character, intentions, and "mind" of God?

While the idea of the mind of God may be unproblematic for the
physicist, it is not so for those engaged in the cognitive sciences and the
philosophy of mind. In these fields, increasingly persuasive arguments

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and research indicate that the mind arises out of the activities of the brain and that the mind is at some level the result of physical activities or a physical thing. The question, then, is whether mind can be produced only by the type of activities embodied in the brain and, if so, does it still make sense to speak of the mind of God? Do we suppose that God has a body (and a brain), or that mind can exist without a body, or that God has no mind? If the last is the case, why should we speak of God?

I shall propose here that God, as understood in Western theism and particularly in Christianity, cannot be said to have a mind in all the same senses that humans have minds, but that it nevertheless is still appropriate to ascribe intentional actions and behavior to God. To this end, I shall first consider some of the current reasons and interpretive strategies for understanding the mind in the cognitive sciences and the philosophy of mind, with a particular emphasis on exploring how Daniel Dennett's "intentional stance" can be a useful but limited tool within the context of this research. This research will then be employed to aid our understanding of God. Since the existence of a mind is dependent on having a brain or some analogous lower level physical reality, God cannot be said to have a mind in any conventional sense. But since God's action is most explicable in terms of intentional actions, Dennett's intentional stance is a useful tool for speaking of the relation of humanity and the world to God.

## PART I: HUMAN MINDS

WHAT DO WE MEAN BY MIND?    For many, the word *mind* can be notoriously imprecise, applying to a range of predicates that have been employed differently by different authors. Within the context of present-day cognitive science and philosophy of science, there is usually a recognized range of characteristics at stake. First of all, we may say that the concept of mind entails two types of activities—perceiving and reasoning/thinking about (usually) what has been perceived. While these two activities can easily be distinguished, they are not absolutely distinct. My thinking about a car accident is distinct from my witnessing the event, but my perceptions are in turn influenced by my expectations and past experience. Indeed, our conscious perceptions are themselves the result of the constructive and selective activities of the visual cortex of the brain.

Equally important, however, are certain qualities of mental life, three of which are of prime importance. The first is the simple observation that our activities are goal directed. Not only do we perceive objects, but we have beliefs, desires, and (often enough) plans regarding these objects. While our basic survival needs entail this, such purposive action

often goes beyond these immediate concerns, whether they be science, politics, or football.

Second, we are conscious beings. In the current climate it is consciousness that is perhaps of greatest concern and debate. Unfortunately, what we mean by consciousness tends to be quite difficult to define, even though intuitively we can grasp the observation that we are conscious but rocks are not. But the idea of consciousness is scientifically and philosophically useful for explaining certain features of human behavior and cognition. Our visual and auditory systems, for instance, process a considerable amount of information, not all of which reaches the level of consciousness, but it is primarily this consciously cognizable information that is acted on. I hear the piped music in a store, but because I am not paying attention to it, I do not recognize it as Bach's "Fugue in G." Likewise, I may speak of thoughts or ideas that have been brewing "in the back of my head" at an unconscious level. Consciousness, then, does not seem to be identical with either perception or thinking but constitutes a certain kind of perception and thinking.

Third, in addition to goal-directedness and consciousness, self-consciousness is usually considered a prime feature of the human mind. Self-consciousness is variously defined, but such definitions usually conceive it as a type of conscious awareness that is reflexive in character (thinking about one's own thoughts, awareness of one's own self). One may even speak of levels of self-consciousness. On some days and at certain times we are more self-aware than at others. Some may achieve higher levels of self-consciousness than others, and humans generally achieve higher levels of self-consciousness than any other animal.

It is these activities and qualities, then, that are generally considered to constitute what we mean by mind. Consciousness, in particular, is the core concept involved. A machine may reason and perceive but is not conscious and therefore cannot be said to have a mind. But, conversely, a perceptionless or thoughtless consciousness is likewise inconceivable. Thus, it is commonly stated that consciousness is always "consciousness of."

These points should be obvious, but they are important to elucidate when we come to speak of the idea of the "mind of God." When we say that God has a mind, we are, at some level, attributing these various characteristics: perception, rational thinking, consciousness, purposiveness, and self-consciousness. But how this can be becomes complex as we come to understand more about the human mind.

THE DEATH OF SUPERNATURAL DUALISM.    The primary victim of the modern investigation of the mind in both philosophical and scientific circles has been the position of supernatural dualism. Supernatural

dualism, in its classic form, derives mainly from Platonic thought, although its modern manifestation traces its source back to René Descartes. Originally, supernatural dualism spoke not of mind but of soul, where soul was conceived as (to use Descartes' phrase) a "thinking thing." In premodern times, however, the exact conception varied. In Neoplatonic thought, for instance, the soul was wholly immaterial, but matter and spirit represented a continuum, not a dichotomy. Aristotelians, by contrast, allowed for different kinds of souls—vegetative, sensible, and rational. It was only in the modern period, with its attendant atomistic and mechanistic accounts of matter, that a strict dichotomy seemed necessary. Thus, Descartes, driven to embrace physical mechanism, was concomitantly driven to embrace dualism and to place what we now mean by mind in the realm of the supernatural, beyond the grasp of the material.

But this kind of dualism increasingly has come to be seen as untenable and even unnecessary. Philosophically, there has always been the problem of how the immaterial exactly impinges on the material. Scientifically, our increasing knowledge of the brain also seems to preclude an easy dualism. After all, why does a blow to the head cause us to lose consciousness rather than just losing access to perceptual information? Our reasoning ability is quite explicitly tied to the forebrain. An injury there results in a loss of certain cognitive functions, while an injury in Wernicke's or Broca's areas in the left hemisphere causes different but specific language impairments. Even our ability to make decisions and to prioritize are linked to certain areas of the brain (for these last deficits, see Damasio 1994).

Even theologically, the viewpoint of supernatural dualism is considered suspect. Oscar Cullmann (1958) has been almost universally followed in his observation that the Hebrew and New Testament psychologies emphasized the inherent unity of body-soul-spirit and that any one alone was incomplete. As a result, the major religious traditions of the West (Christianity, Judaism, and Islam) have looked forward to a resurrection of the dead, not to a future based on the intrinsic immortality of the soul.

While there are still a minority of supporters of supernatural dualism or its variants in the philosophic and scientific communities (most notably Swinburne 1986; Popper and Eccles 1977; Eccles 1980), the burden of proof now seems to be on them, for while it is obvious that we still have much to learn about the human mind, our understanding of the nature of matter and the relation of mind and body no longer seems to necessitate an extramaterial soul. More important, what we do know of the workings of the mind seems to preclude such an option.

For those who already recognize the difficulties of mind-body dualism, this critique may seem to belabor the point. I wish to emphasize its

importance, however, because how we conceive of the human mind influences how we conceive of the divine mind. If one holds to a mind-body dualism for humans, then this helps to explain, in turn, the God-world relation. God, like us, is a disembodied "thinking thing" that, like us, is able to affect the material world through willful action. But unlike us, God's action on the world is not limited to a single body but encompasses all of creation.

If we are not immaterial souls attached to material bodies, what is God? And in what sense does God have a mind? Before that question is approached, let us first consider how we might profitably think of the human mind-body relation apart from supernatural dualism, for this too will have a bearing on how we think of the divine mind.

THE BRAIN AS A MIND-GENERATOR.     The sciences give us an interesting but incomplete perspective on the nature of the human mind. Atoms are combined into organic molecules that, in turn, combine into cells that combine into organisms. In some organisms we find the emergence of a nervous system composed of individual neurons that can transmit information back and forth. In vertebrates, this neural system gives rise to a centralized brain. This brain, by the time we get to humans, is of extraordinary size and complexity. It enables, among other things, regulation of bodily functions (respiration, heartbeat, body heat), coordination of perceptual representations, complex bodily movements, rational thinking, and decision making. Damage to specific areas of the brain often (but not always) results in equally specific impairments in one of these or other abilities.

The brain also allows, through its capabilities for memory, representation, and reasoning, the spinning of a self—a continuous narrative of who we have been, who we are, and what we intend to be. Some brain deficits also impair this ability. Certain types of amnesia (such as Korsokoff's syndrome) permanently prevent the formation of new long-term memories—leaving the victim existing in an eternal present. As too many of us are aware, strokes, Alzheimer's disease, and like ailments result in the impairment of a wide range of mental abilities, the loss of which can be seen as a slow unraveling of the self.

How is it that the brain gives rise to a conscious self? How is it that mere matter can produce subjectivity? Despite their agreement that consciousness is produced through the activities of the brain, philosophers and scientists remain sharply divided as to how the brain produces consciousness. It would be fair to say that at this point of the investigation no one truly knows the answer to this question, despite frequent protestations to the contrary. Even so, we can delineate some of the likelier positions.

*Identity Theory.*   Most prominently put forth by Feigl (1967), identity theory claimed that each mental event is identical with a physical event and even implied that certain types of mental events are identical with certain types of physical events. This early "type-type" thesis received rather withering criticism, in significant part because the success of the computer seemed to show that you could run identical softwares on different hardware. The same information may be recorded on a machine made of silicon chips and on one made of mechanical wheels and gears. The differences in brain anatomy from one individual to another also seemed to make the "type-type" thesis impossible, since individuals can think the same thing (e.g., "I am going to get the mail now") even though their brain structures differ slightly. Despite this "official death," a version sometimes referred to as "token-token" identity still exists and underpins, at least tacitly, most functionalist and other more reductionist programs. As put forth most clearly by Davidson (1982), every mental state is a brain state but not every brain state is a mental state, and even identical brain states may give rise, according to situation, to different mental states.

*Functionalism.*   This program in its various forms probably represents the current majority opinion of cognitive scientists and philosophers of mind. Functionalism identifies the properties of the mind with types of information processing, typically using the software-hardware distinction of computers as a model. The computer metaphor has been modified somewhat as it has come to be realized that the brain operates more like a parallel distributed processor than the familiar serial digital computers that sit on our desktops (Churchland 1995). Even so, the basic correlation remains the same. Sight can be explained in terms of visual information processing, memory in terms of information storage and retrieval. A satisfactory account of consciousness, however, has proved to be more contentious, and this is what much of the literature has been devoted to in recent years. One strategy is to deny, more or less, that there is a problem of consciousness to be faced (e.g., Dennett 1991a). Another is to identify consciousness with a certain type of information processing (e.g., Baars 1988; Dretske 1995).

*Emergent Holism.*   While functionalists fight battles over how the mind works, holists emphasize that there is indeed a mental reality to be fighting about. Emergentists do not engage functionalism directly but are more concerned with drastically reductionist theories that claim that mind is "nothing but" a certain organization of matter or that human beings are "nothing but" genetic machines. By contrast, emergentists argue that the mind and consciousness are real phenomena that are emergent and, therefore, in some sense irreducible to

lower-level phenomena (Koestler 1969; Campbell 1974; Sperry 1976). Emergent realities obey the laws of lower-level realities (e.g., chemistry and physics) but also obey new, emergent laws of their own, which in turn exert a "downward" causation on lower-level events. This hierarchical understanding of the world, in which lower-level events do not have ontological priority over higher-level events, allows room for the causal efficacy of consciousness and the mind. The conscious mind is an emergent, higher-level reality caused by the operations of our brain-in-the-body. What aspects of brain activity give rise to consciousness and how they do so are issues typically left unaddressed by emergentists or considered something of a mystery.

*Quantum Mechanics.*     Roger Penrose (1989; 1994) has been the most prominent advocate in recent years for the position that the solution to the puzzles of the mind and the solution to certain puzzles in quantum mechanics are linked and that consciousness should be seen primarily as a quantum mechanical phenomenon that results, in part, because of certain structures of the brain that can affect reality at the quantum mechanical level. Penrose's thesis is perhaps more speculative than most, in part because it hinges on the discovery of a yet to be found new theory of quantum mechanics. Its appeal mainly lies in its offering an alternative approach to those dissatisfied with functionalism or computational models while still being both naturalistic and scientifically based.

*Other Options.*     Other respectable positions such as elminative materialism (Churchland 1986) or the "new mysterians" (McGinn 1991) may be cited, although they tend to represent more extreme ends of the spectrum. Not all of these positions are in direct conflict. As already indicated, functionalism implies, at a certain level, some sort of identity theory. Every functional state is correlated with a brain state, even if we find the expressing of the relation philosophically difficult. Likewise, every emergent, conscious state may be correlated with either a functional state or (less likely) a peculiar quantum state. As such, these differing approaches represent not so much outright conflict (although that exists, too) but rather a range of working options in what is an ongoing research project. My own feeling is that the solution, if we can reach one, is still not around the corner and that we still have a lot of work ahead of us. Great strides have been made in our understanding of the brain, and the differing philosophical approaches have, by and large, illuminated something crucial in each of their respective accounts. I agree with the mysterians to the extent that functionalism, field theory, and the other current proposals have not (at least yet) solved the problem of consciousness. I do not agree with the mysterians' resignation that it is insoluble. Much has yet to be learned, but enough has been done that we at least have some

idea where to look, and we have a very good idea of what some of the constraints on an account of consciousness are.

THE INTENTIONAL STANCE: AN INTERIM STRATEGY?    It is one thing to investigate human minds, for we assume that all humans are conscious beings with roughly equivalent mental capacities. A more difficult problem is posed when the topic of animal consciousness or artificial intelligence is brought up, for here we are faced with the questions, not only of whether other creatures or machines are conscious but also of what kind of criteria we use to make such a judgment.

While they will not be discussed here, I pose these questions to introduce one approach that was developed, at least in part, to solve them. This approach is known as the intentional stance and has been put forth by Daniel Dennett (1987; 1991a), one of the most prominent and (sometimes) controversial thinkers in cognitive science and philosophy of mind. The intentional stance does not fit neatly into the typology just laid out, although it has some affinities with both functionalist and holistic approaches (this despite Dennett's own reductionist tendencies; see Dennett 1991b). While the intentional stance has some significant limitations as a satisfactory approach in the philosophy of mind (see, e.g., Dahlbom 1993), it has some utility as a practical first step. Surprisingly, it also has some utility for theology despite Dennett's (1995) recent, singularly uninformed diatribes against religion. The applicability of the intentional stance, however, takes some explaining, beginning with a description of what it is.

Dennett desires the intentional stance to be the basis for developing an objective account of the activities both of mind and of consciousness itself. It does this by setting aside the ontological questions regarding the status of mind, mental states, and consciousness. Dennett claims (not always consistently) that he is not interested in what consciousness "really" is, whether computers could "really" be conscious, or other metaphysically tainted questions, and suggests that such questions are, in any case, intractable. Rather, he is concerned with giving a satisfactory account that describes conscious states and explains both their causes and effects. Moreover, this account is to be an objective one, based not simply on introspective thought experiments (although it can include these) but on actual verbal reports of subjects under testable conditions and evidence from neuroscience, information science, and related disciplines.

More important, the intentional stance provides a framework for interpreting not only these reports but also a wide range of behaviors. These are behaviors, verbal or otherwise, that imply intentionality. In the philosopher's vocabulary, *intentionality* means "to be about something," and an intentional agent is an agent who has states (thoughts, desires,

fears) about other objects. Often enough, these are goal-directed states, so that intentional agents tend also to be seen as purposive ones.

Dennett emphasizes that, so far as the intentional stance is concerned, he is indifferent as to whether intentional states are "actually" present or whether an animal (for instance) really has thoughts or fears or desires. What he is concerned about is whether it is predictively useful to describe that animal in terms of intentional states. This is what characterizes and differentiates the intentional stance from two other approaches that Dennett singles out: the physical stance and the design stance (Dennett 1987, 16–19). The physical stance explains and makes predictions based on knowledge of the physical constituents of a given system, typically meaning the base elements and molecules and their attendant physical laws. The design stance, by contrast, explains and predicts based on a knowledge of a system's design. If we know the blueprints well enough, we can tell what a machine is used for and how it will behave. The design stance, while not contradicting the physical stance, nevertheless ignores it because it is predictively less cumbersome to analyze on the basis of the design. Similarly, the intentional stance, while not contradicting the design or physical stances, nevertheless ignores them for the same reason. It is predictively less cumbersome to analyze some systems in terms of the intentional stance rather than the design or physical stances.

One might take the example of the recent chess match between the IBM computer Deep Blue and the grandmaster Gary Kasparov. In theory, Kasparov could have utilized any of the three stances when competing against the computer. Ignoring for the moment the hurdles posed by the uncertainty principle and complexity theory, if Kasparov had known his physics and had had the time or computing power, he theoretically could have calculated the motions of electrons within the computer that would have resulted in certain configurations. These, in turn, could have been correlated with future chess moves, and he could have used this knowledge to predict what the computer would do next.

To say the least, this would have been a time-consuming task. An alternative would be to make predictions of the computer's moves based on an intricate knowledge of how the computer is designed. Here, one doesn't have to know much about all the individual electrons; one simply has to predict the next moves based on one's knowledge of circuit boards, logic gates, data bits, and so forth. One could even ignore this and simply work out the behavior based upon how the software is designed. Unfortunately, this is still a monstrous task and is considerably beyond even the abilities of the programmers, who were surprised by some of the computer's behavior when analyzing the data after the match.

Kasparov, however, took neither of these avenues but, instead, opted for the intentional stance. That is, he acted as if the computer were a rational agent with goals (e.g., to checkmate in three moves), plans ("it desires to checkmate me with the queen and rook"), and suppositions ("if I move my knight, it will think I am trying to threaten its queen when I'm really going for the pawn"). That the intentional stance was predictively successful may be seen by the fact that Kasparov ended up winning the match and succeeding in his own goal of winning a lot of money.

Deep Blue, from the point of view of the intentional stance, is a relatively simple system. It has thoughts and goals about a very limited domain (chess), and its range of possible behaviors is relatively small, concerned only with the movement of pieces on a chessboard. The intentional behavior of animals, and particularly of humans, is more complex and thus needs a more sophisticated intentional description. Here we must speak not only of goals, desires, and suppositions but also of fears, doubts, intuitions, and the like. Because of this complexity inherent in human behavior, the intentional stance isn't predictively fool-proof, as any student of psychology (or politics, or history) can testify. Humans can be notoriously unpredictable. But, Dennett asserts, this is only in the context of a great deal of predictability. Otherwise the intentional stance wouldn't be useful at all. To the contrary, it is extremely useful, even if it isn't foolproof. And, of course, the other stances are not foolproof either. The design stance, for instance, assumes that the system does not break down, while the physical stance must deal with the uncertainty principle and other difficulties.

Dennett is not concerned about "intrinsic intentionality," about whether the objects to which we ascribe thoughts, beliefs, and desires really have thoughts, beliefs, and desires. This is a metaphysical question that is simply not useful. As such, the intentional stance can be applied to any system as long as it is a predictively useful approach to take. Dennett suggests (somewhat tongue in cheek) that the intentional stance can be taken toward such objects as plants and thermostats (Dennett 1987, 29–31). We can speak of a plant's "desire" to grow toward the sun and of a thermostat's "belief" that the house is too cold. Of course, in such simple cases, the intentional stance is not terribly useful. It does not provide any new information that a design stance or perhaps even a physical stance would provide, nor is it computationally much simpler for these types of objects.

With animals, an intentional stance might be more useful, and Dennett has examined this question regarding specific research with vervet monkeys (Dennett 1987, 237–86; 1989). While Dennett remains doubtful, it does seem to me appropriate and useful to speak of the

behavior of some (and perhaps many) animals from the viewpoint of the intentional stance. This approach seems particularly appropriate for an animal like the vervet, which has a complex series of quite specific calls used in different situations and a well-mapped-out dominance-subordinance social structure (Cheney and Seyfarth 1990). A stronger case could be made for the great apes.

Despite its strengths, or rather because of them, the intentional stance has some weaknesses when it comes to sketching a satisfactory philosophy of mind and theory of consciousness. On the one hand, its ontological agnosticism does prove useful in constructing a sophisticated theory of intentional behavior applicable not only to humans but also to animals and computers. But on the other hand, the intentional stance founders when we come to the more philosophical (and sometimes scientific) issues of the mind-body question. How exactly is the mental related to the physical? What exactly is consciousness? How does it differ from other states?

On these issues and others, Dennett has been taken to task by a range of philosophical critics (see Dahlbom 1993 for a sampling of these objections). It should be observed, additionally, that Dennett himself does not completely follow through with this agnosticism, for in more recent writings (Dennett 1991a; 1991b) he has proved more willing to tackle the ontological question, suggesting that our conscious states are analogous to a fictional story, that they are real patterns but only patterns. According to Dennett, our conscious states do not play the directly causal role that we like to think they do.

Happily, we do not have to deal directly with such questions at this moment. Our broader concern is not with Dennett's metaphysics (aspects of which are particularly odious in Dennett 1995) but with the more general question of the relation of the philosophy and science of mind to the idea of the mind of God. It turns out that Dennett's intentional stance poses an interesting problem. If we can use the intentional stance to analyze objects independent of ontological questions of mind-body relation and "intrinsic intentionality," what happens when we apply the intentional stance to God?

PART II: THE MIND OF GOD

GOD AS AN INTENTIONAL AGENT.    Conventionally speaking, most Christians (indeed, most theists) conceive of God in terms of an analogy with humankind. That is, when we speak of God, we speak of God as an intentional agent writ large, only better. Humans believe, plot, deceive, love, and sacrifice. God loves, heals, redeems, answers prayers, and judges. This way of interpreting God, in terms of an intentional agent in some

sense like ourselves, has deep roots in Christianity as well as Judaism and Islam.

In the most ancient Old Testament texts we find the greatest anthropomorphisms: God walks in the Garden of Eden, wrestles with Jacob, and shows Moses his backside. More important, God makes a covenant with Abraham and his sons, rescues the Israelites from the Egyptians, whom God punishes, and gives Moses the Ten Commandments. God punishes the evil, rewards the good, speaks to and through the prophets, gets angry, and loves Israel as an unfaithful spouse. The entire theological vocabulary of the Old Testament is impossible without intentional language. We find the same pattern in the New Testament. "God so loved the world, that he gave his only Son." God speaks to the apostles and answers their prayers. God promises forgiveness and redemption. More important, God *becomes* human.

Even a very brief glance at the theological tradition reveals how faithfully the language of the scriptures is carried through. Typically, the question has been not whether God can be meaningfully described as an intentional agent but how. Ancient theology, inheriting the notion of an impassable God, had to explain how God could have not only the wholly befitting characteristics of supreme love and rationality but also the apparently crasser (and fleeting) emotions of wrath and jealousy that are at times portrayed in the Bible. Aquinas developed his theory of analogical predication in part to deal with such anthropomorphisms as required by an intentional stance (*Summa Theologica*, Q. 13). Luther, perhaps more than any other of the reformers, spoke freely of God as an agent—judging, forgiving, condemning, and sanctifying.

A more nuanced discussion of the history of Christian thought could probably present differences in how God has been thought of as an intentional agent, but it is only in the modern period that there has come to be any discomfort in speaking of God in terms of intentional language at all. Many of the attempts at demythologization and deconstruction can be seen, in one sense, as attempts to rescue theology from intentional language. These projects, to varying degrees, have been seen as doing away with the notion of God as well. There is a real sense in which God must, at some level, be seen as an intentional agent.

Even so, it is generally conceived that, while God is an intentional agent, God is not an intentional agent exactly like us. There are certain intentional qualities we feel are appropriate or necessary to describe God and God's actions; there are others that we feel are either unnecessary or inappropriate. Thus, a typical list of God's attributes might include (among other things) goodness, justice, loving-kindness, rationality, and purposiveness. We even say that God loves, that God has a plan for us, and that God answers prayers. It would never be said,

however, that God is vindictive, that God is irresolute, or that God is unfaithful.

The usefulness for the ordinary believer of describing God in this fashion should be fairly obvious. Dennett emphasizes the explanatory and predictive power of the intentional stance. To describe God intentionally provides, at least theoretically, a powerful way of describing certain features of the believer's reality. That God purposefully, rationally, and lovingly created the world can say a great deal about how we should view the world. That God promises to redeem each and every one of us not only in the present but also at the end of time similarly guides and informs personal behavior and the way the world is viewed.

HOW CAN GOD HAVE A MIND?     Despite the usefulness of the idea, it may be argued that the existence of an intentional God is highly problematic. The problem comes particularly to light as we examine the mind-body problem and we begin to realize that mind, as we know it, requires the substrate of the body, and particularly the brain, to exist at all.

In an earlier section, we examined briefly the position of supernatural dualism and the difficulties it entails. It would appear, at least superficially, that the death of supernatural dualism poses problems for the existence of theism as well. For if, indeed, God is seen as being analogous to a human agent but writ large, we come upon a problem. Even though the historical doctrine of the church has been the resurrection of the dead, in the history of Christian thought there has been a tendency to contrast the physical and the spiritual to the extent of their becoming another dualism. As such, traditional language of God has tended to apply an analogy or at least parallelism in the relation of the human mind and the divine. Even more broadly, it may be said that God's relation to the world is analogous to the human relation of mind to body. Just as the human person is a nonmaterial soul that acts on the material human body, so too is God a nonmaterial rational being or soul that acts on the world. But if this dualism is not true for humans, can it be true for God? If a brain is necessary for having a mind, then where is God's brain?

The difficulty of reasoning this way can be seen in the work of Wolfhart Pannenberg (1993, 138–61; 1994, 175–202). Pannenberg believes that the solution to the riddle of both the ontology of God and of the mystery of human consciousness lies in field theory and, specifically, the interpretation of the spirit as a type of field. For Pannenberg, mind is carefully distinguished from spirit. Mind emerges through the appearance of and increased ability for language, with the advanced mind being one that has transcended itself or achieved self-consciousness. Spirit, by

contrast, is the condition for mind to occur at all. Pannenberg (1993, 151) states, "The field, wherein the formation of language occurs, may be called a spiritual field."

God is an all-encompassing spirit-field, while humans are enspirited conscious minds. Pannenberg seems to intend even spirit and consciousness to be different things, the former being a necessary condition for the latter. The relation between spirit and consciousness is not easily parsed from Pannenberg's writings, although one might suppose that since spirit is a field, consciousness too can be described in terms of a field or as an emergent reality within the spiritual field. A field theory of consciousness can make some sense, as the works of Roger Penrose and others indicate. From Penrose's perspective, the brain is set up in such a fashion as to generate such a field. From Pannenberg, one might assume a similar situation or one where the brain "pulls down," interacts with, or is produced by this field. Thus, the body, brain, and spirit-field together constitute the human person and allow one to act as an intentional agent. In the case of God, however, the first two qualities are missing. God is pure field.

In what sense, then, can we meaningfully make sense of God as a personal agent? Pannenberg, to his credit, is quite aware of this problem and expends some effort to avoid overly personalistic interpretations of God's being and action. For instance, he criticizes Swinburne and other analytic philosophers for too easily assuming the personal character of God (Pannenberg 1991, 379). But even in the context of Pannenberg's own theology, intentional language must still be used. God loves, God redeems, and God acts. And since Pannenberg has already distinguished spirit from mind, the problem persists. If we are going to attribute intentionality at all, does there not have to be a basis for that intentionality?

Arthur Peacocke (1993) also has dealt with this question, but his position is rendered more intractable by the emphasis he places on the idea of God as a personal agent. Peacocke, like Pannenberg, is fully cognizant of the difficulties of speaking of God as a personal agent. With regard to the human mind, Peacocke endorses the perspective of emergent holism. The human mind is an emergent reality, produced by but not explainable in terms of neurobiology. For Peacocke, human consciousness and mentality is impossible without the substrate of the brain; he even goes so far as to refer to the human person as a brain-in-a-body. He denies, however, that the same is true of God, who is not to be seen as an emergent feature of the world. Despite this, Peacocke continues to endorse an understanding of God that is, at least partially, in terms of an intentional agent. His cautious locution is enlightening:

Since the personal is . . . the highest category of entity we can name in the order of created beings, and since "God" is the name we give to this "X," we therefore

have good reason for saying that God is (at least) "personal", or "supra-personal" and for predicating personal qualities of God as less misleading and more appropriate than impersonal ones—even while recognizing, as always, that such predications must remain ultimately inadequate to that to which they refer, namely, God. (Peacocke 1993, 111–12)

Peacocke's solution is, in part, not to give one. A certain level of uncertainty (what Peacocke calls the "ontological gap") pervades our knowledge and understanding of God, so that our language must be couched in its "less misleading" aspect. For Peacocke, we must continue to speak of God in intentional terms, even though we have no idea of how such a thing can be.

In attributing intentional action to God both Peacocke and Pannenberg are relying on a form of analogical argument most prominently associated with Aquinas. God is an intentional agent like human agents but not exactly like human agents. God does not sin. Everything predicated to God is predicated to the degree of perfection. Moreover, a major disanalogy is allowed to remain at the level of ontology, for while the human mind requires the complex physical substrate provided by the brain, the same is not required and, in fact, is denied in the case of God.

TAKING AN INTENTIONAL STANCE TOWARD GOD.    The problem is now fully posed: if we reject supernatural dualism, can we intelligibly speak of God as an intentional agent? Pannenberg, Peacocke, and other theologians have recognized, to varying extents, the difficulties posed by this question. Typically, the analogy between the human mind and the divine mind is recognized but weakened in such a way as to bypass the difficulties imposed by our own current understanding of the human mind.

Dennett's intentional stance, however, presents a new alternative: abandon the mind-body analogy altogether. Treat God, not as a human being writ large, but directly as an intentional system, in the way that a thermometer, a chess program, or a vervet monkey can be interpreted as an intentional system.

The intentional stance is unconcerned about the broader ontological issues of what physical system or design produces the intentional system in question. Furthermore, the intentional stance is unconcerned about whether an agent "really" has thoughts or feelings or pains. What matters is the real pattern before us, that it is objectively useful to attribute intentional behavior to that reality we call God. From this, it is only partially appropriate to speak, as some physicists do, of the "mind of God." In taking the intentional stance towards God, we are not attributing to God all the features of mind that we ourselves experience but only those qualities that predictively make sense, much as we attribute only

those intentional qualities to a chess computer that are appropriate given the context of its abilities. Of course, the difference between God and a chess computer is enormous but so too (most of us presume) is the difference between God and ourselves. The intentional stance allows a way of expressing this while retaining intentional attributes of God that seem quite necessary.

The main difference between the analogical reasoning that is usually employed and the intentional stance is the literalness of the latter. Analogical reasoning must deal with both analogies and disanalogies. The intentional stance, by contrast, is a more direct and literal approach. It is the difference between saying that God is *like* a rational and loving human being and saying that God *is* a rational and loving being. That is the pattern of God's action.

And what is the character of this real pattern that we call "God"? Answering this question is the fuller apologetic and explanatory task of theology. Natural science currently claims to describe the world in objective terms without reference to intentionality or mind, and scientists such as Hawking and Davies refer to the "mind of God" only in their reflective moments. Theology by contrast, argues that some events (or the bases of those events) do require an intentional description—in these events there is a real pattern of intentionality. This is the thrust of much of the recent discussion over the anthropic principle and the argument from design. It is precisely what John Polkinghorne (1994, 229) means when he states that "physics discerns a cosmos which in its rational mathematical beauty is shot through with signs of mind, and for the religious believer it is the mind of the creator which is thus revealed." It is what Pannenberg (1993, 134) means when he states that a spiritual field shapes the process of evolution.

It may be that the intentional stance can serve in theology as in the philosophy of mind: as an interim strategy that ignores essential questions. Does God "really" love us? Is there a physical or design stance to be taken toward God? These types of questions are only rarely taken up, and their import has to date been underappreciated. If we recognize that human minds are in some sense the product of natural processes, this affects how we think of the divine mind and in what sense (if at all) it relies on or is emergent from lower-level processes. In this context, the intentional stance provides at least an additional tool for speaking intelligibly of God and God's action without having to resort to some of the vagaries that a rejection of supernatural dualism and an analogy from the human mind-body relation require. There is a sense in which we can, along with the physicists, speak of the mind of God, all the while recognizing the distinctive differences between the human and the divine.

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