Does God Know the Future? Can God Be Mistaken?: A Reply to Richard Swinburne

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Richard Swinburne is an internationally-known analytical philosopher, and he is the Nolloth Professor of Philosophy of the Christian Religion of Oxford University. His reputation as a Christian apologist is well deserved, and his many contributions are too numerous to mention here. Without intending to show any lack of appreciation for his significant insights and clarifications of Christian faith over many years of scholarly work in the academic community, I would like to show that his argument for a modified view of divine omniscience overlooks a carefully nuanced meaning of God’s knowledge of the future in Boethius’ Consolation of Philosophy. In his analysis of divine timelessness, Swinburne concluded that the Augustinian idea of God’s foreknowledge was logically incoherent and contradicted human freedom. I believe that a Boethian view of eternity offers a different conclusion. It assumes that time is real to God and that divine omniscience does not contradict human freedom. I will also show that Boethius gave systematic formulation to the view of eternity found in the early Church Fathers in contrast to Swinburne’s view that the pre-Augustinian Fathers believed time was absolute and everlasting. I will also show that Swinburne’s concept of eternity as everlasting time is inconsistent with relativity physics and the big bang singularity.

1. The Early and Later Swinburne

Is God Timeless?

In 1965, Swinburne wrote an extended essay for The Church Quarterly Review on “The Timelessness of God.” Beginning with the ideas of immutability and Creator, Swinburne argued God must be timeless; otherwise, God would be involved in change and thus be a finite creature instead of being Creator. Hence he concluded that God is necessarily timeless.²
He chose the 6th Century philosopher Boethius as his basic source for explaining the traditional view of eternity, but then he proceeded to confuse Boethius' view with Augustine's definition of eternity as timelessness. The equation of Boethius' and Augustine's views of eternity is commonly made, but recent studies (by Karl Barth, Wolfhart Pannenberg, and Richard Sorabji as noted below) have shown that Boethius offered a carefully nuanced interpretation that is different than Augustine's. Christine Mohrmann maintains that Boethius was not an Augustinian, noting that his theological language came from liturgical sources. Helen M. Barrett has also shown that his concept of eternity goes beyond Augustine's idea of timelessness and that he was indebted largely to the Greek philosophical tradition. She shows that for Boethius eternity is a "quality of life, not mere quantity, something quite different from everlastingness, something infinitely richer and fuller than timelessness or perpetual duration."4

The early Swinburne believed that Karl Barth and Paul Tillich were the only "two sources of opposition to the Boethian doctrine which I know within Christian Theology," though he noted that many secular writers were opposed to it, particularly David Hume. Swinburne rightly noted that Barth objected to the concept of the timelessness of God on the grounds that God is a living God who revealed himself in the real events of history, particularly in the Incarnation. Barth emphasized that only if God truly embraces the temporal can he redeem humanity. Just the opposite of what Swinburne said, Barth agreed with Boethius' definition of eternity.6

In his article on "The Timelessness of God," Swinburne said that Barth's thinking is logically contradictory because he includes time within God's essence while affirming that God knows the future. Swinburne said Barth wants to have his "cake as well as eat it."7 Swinburne was of course right to say God cannot be involved temporally in the world and timeless at the same time. In this respect, Barth argued that the incarnation is impossible if God is timeless. For this would be a fundamental denial of God having a real relationship with humanity.8

The early Swinburne argued against Barth's idea that God "lives through changing experiences." That is to say, Swinburne did not believe that God experiences real events in time and in history. If Barth were right to say that God was involved in time, Swinburne believed the alternative would be to assume that there could be no divine foreknowledge. Swinburne writes: "In order to save divine action, we might wish to go further and deny divine foreknowledge (though Scripture and tradition weigh very heavily in its favor). But if we did do this and claimed that, in the ordinary sense, God was a God acting and experiencing in time, we should have to reconcile this with the doctrine of divine timelessness, which Swinburne believed was impossible to do logically."9 He says this would be "an uphill task."10 Since the early Swinburne believed there is no "before" or "after" in God's awareness of things, one cannot say that God experiences time. He writes: "God's experience has no temporal parts, no beginning, and no end."11

This difficulty is similar to another problem that the early Swinburne considered—the Boethian paradox of how God can "be aware at the same time of events which happen at different times."12 Boethius in the 6th century A. D. summarized this prevailing view of Christian thought in De Consolatione Philosophiae (5.6) when he wrote: "Eternity is the whole, perfect, and simultaneous possession of endless life."13 The early Swinburne
offered a fine interpretation of this view:

Now conceive of a being, for which history moved very, very much faster than for us. For such a being, a thousand years in his sight would be but as yesterday—so soon passes it away and we are gone. What we would see as distinct events such a being would see as one whole event. Two events, which would be to us at some given time one past and one future, would be part of one event viewed at one time by it.\textsuperscript{14}

This explanation shows that God’s “time scale is different from ours” and because of this ontological difference God is able to see all of time as happening simultaneously. This means God is able to see things with “infinite velocity.”\textsuperscript{15} The early Swinburne also acknowledged the logical limits of explaining how God can be eternal, but he affirmed that God’s reality appropriately includes an element of mystery since our world is conditioned by time.\textsuperscript{16}

Having provided an excellent illustration of what Boethius meant by eternity, Swinburne spoils it all by linking it to the Augustinian idea of timelessness. He writes: “Since there is nothing before or after that one [simultaneous, momentary] experience, it cannot be said to take place in a time—God’s experience has no temporal parts, no beginning, and no end.”\textsuperscript{17} This conclusion is a non sequitur. His illustration shows that in fact time was real to the very essence of God. In this respect, Barth has shown that Augustine and Boethius held to two different views of eternity—an insight that Swinburne overlooked in his reading of Barth.\textsuperscript{18}

Augustine in Platonic fashion defined time in terms of the motion of heavenly bodies.\textsuperscript{19} Boethius, on the other hand, defined time as having its condition in eternity, and thus time was not a negation of eternity. This means for Boethius that eternity is not a timeless abstraction; rather, eternity is instant unlimited duration, whereas time is limited duration separated by the distances of the past, present, and future. To be sure, Plato spoke of time as the moving image of eternity, but time was like a mirage whereas eternity was a realm of static, unchanging, invisible forms.\textsuperscript{20} Plato thus divorced the invisible world of reality from the visible world of copies. The worldly realm of copies is thus inferior and is a negation of the invisible real world above. Plato thus defines time as representing the circular motion of the heavenly bodies. This means time is separated from the eternal realm and devoid of the essence of reality.

Because time is rooted in change, Plato believed the physical world is essentially evil as opposed to the goodness of the eternal world. As such, eternity is necessarily timeless because it represents what is the true, the beautiful, and the good and it is thus incapable of participating in time. On the other hand, Plato affirmed that if there was any measure of goodness in this visible world it was because it had transcended the limits of time and was able to share in the goodness of the other world. But this was a one-way street. We are supposedly able to share in the goodness of the other world through spiritually transcending the limits of time, but the other world is not able to share in our sufferings and participate in our humanness. This is why the doctrine of the incarnation is impossible within a Platonic metaphysics. By definition, Plato considered the eternal as timeless because time is a negation of the eternal.
Augustine adapted the Platonic notion that God cannot be involved in motion and temporal change because He is totally immutable. Hence time is something God knows about because He created it when He created the world, but God exempts himself from direct involvement in it because He is timeless. Augustine’s idea was that if God really embraced time, God would cease to be eternal.

It is this element of timelessness and a static philosophical understanding of total immutability that Barth finds objectionable. Barth objected to this view primarily because it contradicted the incarnation. How can God really redeem us if God Himself in the life of Jesus is not really present in the world? Of course it is Patricipassionism to say that the Father suffered in the world, but on the other hand, did not the Father suffer the loss of His Eternal Son when Jesus was rejected by his own people and died on the cross?

Is God A Temporal Being?

If Swinburne defended the concept of timelessness (and foreknowledge) in 1965, he revised his view in his book, *The Coherence of Theism* (1977), rejecting the concept of divine timelessness and foreknowledge in favor of the view that God is after all a temporal being. That is, God experiences the passing moments of time in the same way we do. A basic difference is that God had no beginning, and hence God is everlasting in time. To be sure, Swinburne believed God has perfect omniscience about the past and present, but like us, God allegedly cannot know what has not yet happened in the future.

This revised work was followed up in the following year with another book, *The Christian God*. Here Swinburne lays out only two options for defining eternity: “That he is everlasting (i.e., exists at each period of time past and time future) or that he is timeless (he exists outside time).” He now rejects his earlier view as incoherent. He also thinks that the idea of divine foreknowledge is a contradiction of human freedom and inconsistent with the Bible. Swinburne writes: “Even if someone does always have true beliefs that are justified in such a way as to amount to knowledge about what such agents will do, that can be no more than a lucky accident. So there cannot be a necessarily omniscient being existing at the same time as some free agent.”

In yet another book, *Is There A God*? published in 1996 and designed for “a wider public,” Swinburne allowed that God could be “mistaken” and “surprised” by the events of the future, allowing that God was in a sense a “prisoner of time,” but of his own choosing because he freely created the world.

2. A BOETHIAN OPTION

Swinburne has now become a part of an increasing number of Christian thinkers who have taken up a limited view of God’s omniscience. However, there is a third option that Swinburne failed to consider.

This third option is the view that time is real to the essence of God, but it does not reduce God to “only a temporal being” who “exists at each moment of unending time.” Swinburne appeals to both Barth’s *Church Dogmatics* and Oscar Cullmann’s *Christ and Time* as support for his view that God is a temporal being, but this is a serious misreading of their views. Barth describes God’s total involvement in time, especially in Jesus Christ, while emphasizing that God’s eternity is distinct from time: “God’s eternity . . . is
the fulness of all times and therefore of each of our moments.”30 This further means, as Barth has argued, that there is “before” and “after” in God. The presence of unlimited life in God includes the idea that eternity is real duration and not simply the negation of time.31 Swinburne’s mistaken assertion that Barth turns God into a temporal being thus misses Barth’s agreement with Boethius. Barth regretted that Boethius’ definition “was never properly exploited.”32

In this respect, Barth said time is limited duration, but eternity is unlimited duration. Because time and eternity are positively related to each other, there is no theological reason why God could not become temporal in a dialectical sense. Further, there is no logical reason why the temporal could not become a permanent feature of the divine life without at the same time reducing God to a temporal being. In this sense, Barth rejected the term “immutability” because it suggested a static notion of divine changelessness as if God could not embrace the temporal world in his very essence.33

Is Foreknowledge Incompatible with Free Will?

Swinburne argues that if God knows the future, then humans are not really free. He writes: “No one [not even God] can be guaranteed to have true beliefs in advance about the actions of free agents.”34 In this respect, Swinburne allows that God is “time’s prisoner”35 and that God can be “surprised” by choices that we will make in the future. Swinburne suggests that we should not think less of God because of his ignorance of our future since “no one can have essential foreknowledge of such free actions.”36 This means then God is also subject to the uncertainties of the future.

Swinburne further says that if God did claim to know the future of our actions, then he could be mistaken. He writes: “No one (not even God) can know today (without the possibility of mistake) what I will choose to do tomorrow. So I suggest that we understand God being omniscient as God knowing at any time all that is logically possible to know at that time. That will not include knowledge, before they have done it, of what human persons will do freely.”37

Swinburne is clearly right that Augustine’s view of divine timelessness together with his view of predestination effectively eliminates the meaning of human freedom, or at least trivializes it.38 Calvin more fully developed this Augustinian interpretation of divine foreknowledge. In stark terms, Calvin even accounts for human cruelty in terms of divine providence:

Let us imagine, for example, a merchant who, entering a wood [forest] with a company of faithful men, unwisely wanders away from his companions, and in his wandering comes upon a robber’s den, falls among thieves, and is slain. His death was not only foreseen by God’s eye, but also determined by his decrees.39

Calvin recognized that it was Augustine who introduced this notion of absolute predestination into Christian theology, whereas the early Greek Fathers affirmed free will.40 As opposed to Augustine, Boethius continued the tradition of the early Greek Fathers who affirmed the reality of human freedom, while also maintaining that the future is known by God, though not in advance of real events.41 In this sense, Boethius says
explicitly that God does not in the strict sense of the term have “foreknowledge” at all because everything is immediately known to him:

If you will weigh the foresight with which God discerns all things, you will rightly esteem it to be the knowledge of a never fading instant rather than a foreknowledge of the “future.” It should therefore rather be called provision or providence than prevision because, placed high above lowly things, it looks out over all as from the loftiest mountain top.\textsuperscript{42}

He goes on to say: “God sees all things in His eternal present.”\textsuperscript{43} Thus God in the truest sense of the term does not foreknow at all; God simply knows! Boethius also shows that human freedom is not compromised or trivialized.

Wherefore this divine foreknowledge does not change the nature or properties of things: it sees things present to its contemplation just as they will turn out some time in the future. Neither is there any confusion in its judgments of things: with one glimpse of the mind it distinguishes what will happen necessarily and what will happen non-necessarily. For example, when you observe at the same time a man walking on the earth and the sun rising in the sky, although you see both sights simultaneously, nevertheless you distinguish between them and judge that the one is moving voluntarily, the other necessarily; in like manner the intuition of God looks down upon all things without at all disturbing their nature, yet they are present to Him and future in relation to time. Wherefore it is not opinion but knowledge grounded in truth when He knows that something will occur in the future and knows as well that it will not occur of necessity.\textsuperscript{44}

Considering the logical difficulties associated with an Augustinian view of timelessness, it is not surprising that Nelson Pike in his book, \textit{God and Time}, persuaded Swinburne to abandon the concept of foreknowledge.\textsuperscript{45} Following the lead of Pike, Swinburne developed what he has called an “attenuated” interpretation of divine foreknowledge. He writes: “So no one (not even God) can know today (without the possibility of mistake) what I will choose to do tomorrow.”\textsuperscript{46} In explicit terms, Swinburne argues that God “exists at each moment of unending time.”\textsuperscript{47}

\textbf{The Pastoral Implications of Boethius’ View of Eternity}

John Wesley believed that it was pastorally significant to affirm a Boethian interpretation of eternity.\textsuperscript{48} Wesley said, there is neither “foreknowledge or after-knowledge in God.” All time is present to God as a single whole, without erasing the reality of temporal developments. The source of Wesley’s view is not from Augustine; rather, Wesley’s source is Boethius.\textsuperscript{49} Wesley highlights the pastoral significance of this view of time and eternity in his sermon “On Predestination.” He is particularly sensitive to the problem of theological determinism because he wants to preserve the integrity of human freedom. Otherwise, God is responsible for acts of sins. In a lucid discussion, Wesley explains the relation of time and eternity, noting that time is a real fragment of eternity:
As all time, or rather all eternity (for time is only that small fragment of eternity which is allotted to the children of men) being present to him at once, he does not know one thing before another, or one thing after another, but sees all things in one point of view, from everlasting to everlasting. As all time, with everything that exists therein, is present with him at once, so he sees at once whatever was, is, or will be to the end of time. But observe: we must not think they are because he knows them. No; he knows them because they are. Just as I (if one may be allowed to compare the things of men with the deep things of God) now know the sun shines. Yet the sun does not shine because I know it: but I know it because it shines. My knowledge supposes the sun to shine, but does not in any wise cause it. In like manner God knows that man sins; for he knows all things. Yet we do not sin because he knows it; but he knows it because we sin. And his knowledge supposes our sin, but does not in any wise cause it. In a word, God looking on all ages from the creation to the consummation as a moment, and seeing at once whatever is in the hearts of all the children of men, knows everyone that does or does not believe in every age or nation. Yet what he knows, whether faith or unbelief, is in no wise caused by his knowledge. Men are as free in believing, or not believing, as if he did not know it at all.30

Wesley concludes that unless this distinction between time as a real development as opposed to eternity as the comprehensive moment of all time is preserved, then humanity would “not be accountable” for its moral behavior and not “capable either of reward or punishment.”31

3. The Bible and Predictive Prophecy
The Biblical Category of Promise-Fulfillment and Divine Foreknowledge

The early Swinburne believed divine foreknowledge was a biblical teaching and that it was logically consistent. The later Swinburne believes the biblical view of eternity is that God exists “everlastingly” in time, and this means that God lacks foreknowledge. I do not believe Swinburne’s later view is consistent with Scripture.32

One of the prominent themes in Old Testament scholarship is the concept of promise. Gerhard von Rad shows that “promise and fulfillment is so characteristic of Israel’s whole existence before God.”33 The concept of promise expresses the belief that God has a future plan for Israel. This plan was first revealed in God’s promise to Abraham and it included the specific prediction that he would have a son and that he would occupy a specific land as a permanent homeland. It involved the further prediction that through his son all the world would be blessed (Gen 18:19; 21:1; 22:15-18; 26:1-5; Dt. 1:11; 1 Chr. 16:16). This promise was an assurance to the Israelites of God’s steadfast love, and it was this promise that guided them through the difficult times of their pilgrimage.

The New Testament interpreted this promise to have specific reference to the Church. Peter’s sermon on the day of Pentecost announced that the original promise to Abraham had its final fulfillment, not merely in the exodus of the Israelites from Egypt, but in Jesus’ resurrection from the dead. Peter said that the death/resurrection of Jesus was part of “the definite plan and foreknowledge of God” (Acts 2:23).
If God is bound by time and unable to know the future, then Peter’s belief in divine foreknowledge is wrong. Swinburne frankly said that God cannot know what will be tomorrow. This means though God may have had a general plan in mind by which he hoped to redeem a world that he supposedly did not know would Fall, God could not have known for sure that Abraham would have a son who would freely be a source of eternal blessing for the whole world. God could not have known for sure that Abraham would occupy the land of promise. God could not have known for sure that the final fulfillment of the promise to Abraham would have its fulfillment in Jesus of Nazareth. Yet the biblical concept of promise carries with it the belief that God’s promises are assured and cannot fail (II Peter 1:19).

**Predictive Prophecy and Foreknowledge**

The possibility that God could be mistaken is inconsistent with the pervasive sense of God’s unfailing reliability assumed throughout the Bible. In the wake of higher biblical criticism in the 19th century, there have been hundreds of books written on the idea of biblical inspiration. The possibility that the Bible is mistaken in some of its details or that it might not even have been divinely inspired are issues that have been hotly debated in modern theology. Now Swinburne has introduced the serious possibility that even God could be mistaken.

Swinburne’s source for developing this idea seems to have come from his discipline as an analytical philosopher and not from a realistic reading of the Bible. Most of the biblical writings were produced by prophets whose interpretation of history shaped the religion of Israel. In this respect, a primary role of the prophets was to interpret the events of history (past, present, and future) according to God’s word given to them.

Prophecy often included the idea of prediction. R. K. Harrison, a higher biblical critic of Wycliffe College, Toronto University, writes:

The prophets continually predicted the future . . . They experienced little immediate difficulty in surveying both the nearer and the more distant historical scene, and uttered remarkably accurate predictions with regard to some events which had no immediate causal relationship to the happenings of their own day. Indeed, it was no less a person than Isaiah who appealed to the idea of fulfilled prediction as the vindication of prophetic activity (45:21; 46:9f).54

He goes on to point out: “There can be no doubt that predictive abilities were regarded as an important part of prophetic endowment in the ancient world.”55 He further notes:

The predictive function was normative for many individual prophets, who were clearly depicted to be the possessors of distinctive psychic gifts. Thus Elisha had the ability to discern the content of plans made in secrecy at some distance (2 Kgs. 6:12), while an unnamed prophet with remarkable prescience, foretold the birth of Josiah some 330 years prior to the event (I Kgs. 13:2). Since there is no question of textual corruption in either of these two instances, the only logical explanation must be that of predictive insight.56
There are in fact numerous predictions recorded in the Bible. Harrison particularly notes that Bethlehem was predicted by Micah (a contemporary of Isaiah) (Micah 5:2; Matt 2:6) as the birthplace of the messiah. The subjugation of Tyre by the Babylonians was predicted by Ezekiel (26:2ff.) and Zechariah (9:1ff.).

Gerhard von Rad has shown that Isaiah considered himself to be following in the succession of earlier prophets (Isaiah 44:26; 45:19), and that what they had "prophesied long ago is now beginning to be fulfilled" (Isaiah 443:9ff; 44:7; 45:21). Von Rad further shows that Isaiah believed that the words being put into his mouth by God would also be fulfilled (Isaiah 45:10ff). Von Rad further shows that Isaiah believed that the difference between a true prophet of God and a false prophet of heathenism is that the Lord is "controller of world-history." This distinctive feature of a true prophet is an answer that "almost takes one's breath away—the Lord of history is he who can allow the future to be told in advance." Von Rad shows that "proof from prediction" is an idea that Isaiah "is conspicuously eager to use." Of particular significance is Isaiah's reinterpretation of the events of salvation history. The earlier events in the history of Israel are only a "type of the new" as though salvation history was like a road "leading from prophecy to fulfilment." Von Rad shows Isaiah believed that this new development "had been foretold long ago."

Von Rad shows that the predictive prophecy of Isaiah was related primarily to a reinterpretation of the events of salvation as he anticipated the future deliverance of God, not only for Israel but for all nations. Von Rad writes: "Never before had a prophet so sharply marked off the inauguration of the eschaton." He further points out that there is another class of prophecy that he calls "apocalyptic." It does not entail a predictive reinterpretation of the past saving events of history, but rather its prediction of the future is based on dreams and visions. Von Rad writes of this class of predictive prophecy:

The last things can be known; indeed, they can be exactly calculated [italics mine]; but this is only possible for the initiated, who understand the art of decoding these predictions, for they are mostly in cypher.

One of the features of apocalyptic literature in the Book of Daniel is that the whole scope of world-history is presented as "already present." The events of history have already taken place in "heaven." The Son of Man who comes down from heaven "does not come from the realm of the unformed, but from the divine world on high. All this is described as from a spectator's point of view; the vision is not conceived as projected from its recipient's own historical standpoint, he does not stand within the events he beholds, but outside, and as he looks, all world history passes before his spirit like a film." Von Rad shows that this new concept of "foretelling" means that the past and future are present in "heaven." This means "the past and the future... were alike revealed as a complete course of historical events foretold by God." In the prophetic literature such as in Isaiah, the future was foretold based on its unfolding developments in the course of salvation history, but in Daniel's apocalyptic writings the future was already present in heaven.

The New Testament often mentioned that certain things happened in the life of Jesus because "it is written" or "the scripture had to be fulfilled." These twin phrases are cited by Peter to explain that Judas' role was a fulfillment of prophecy: "Brethren, the scripture had
to be fulfilled, which the Holy Spirit beforehand by the mouth of David, concerning Judas who was guide to those who arrested Jesus” (Acts 1:16). Peter believed this happened because “it is written in the book of Psalms, Let his habitation become desolate, and let there be no one to live in it” (Acts 1:20). Here is affirmed that certain things were predicted beforehand. Though modern hermeneutics sees the New Testament use of Old Testament prophecy as a contrived historiography, a realistic reading of Acts 1:16 shows that Peter assumed that God foreknew specific details and thus what happened to Jesus was not a surprise or a “lucky guess.”

This theme of foreknowledge is a prominent idea in the New Testament. Bethlehem was predicted by Micah as the birthplace of the messiah (Micah 5:2-Matt 2:6). Jesus predicted that he would be killed but would rise on the third day (Matt 16:21). The significant timing of this prediction is that it is linked to a specific calendar event—the Passover event, showing that Jesus was the fulfillment of the OT sacrificial system. Jesus predicted that Judas would betray him (Matt. 26:20). Jesus predicted Peter would deny him three times on the night of his betrayal. (Matt. 26:34). Jesus foreknew that a colt would be tied in a very specific location “on which no one has ever sat” in a village near Jerusalem, and he instructed his disciples to bring it back to him, specifically telling them what to say to those who would question them (Mark 11:1-7). Agabus predicted Paul’s arrest with the symbolic use of his girdle (Acts 21:10). John believed that certain events surrounding the death of Jesus were predicted “so that you may believe” (John 29:35). This importance of prediction is further illustrated in the Revelation to John: “The revelation of Jesus Christ, which God gave him to show to his servants what must soon take place; and he made it known by sending his angel to his servant John, who bore witness to the word of God and to the testimony of Jesus Christ, even to all that he saw. Blessed is he who reads aloud the words of the prophecy, and blessed are those who hear, and who keep what is written therein, for the time is near” (Rev. 1:1-3).

There are specific texts which refer to divine foreknowledge: (1) “God has not rejected his people whom he foreknew” (Romans 11:2); (2) “For those whom he foreknew he also predestined to be conformed to the image of his Son” (Romans 8:29). (3) Ephesians 1:4—“Even as he chose us in him before the foundation of the world, that we should be holy and blameless before him.” (4) Ephesians 1:9-10—“For he has made known to us in all wisdom and insight the mystery of his will, according to his purpose which he set forth in Christ, as a plan for the fullness of time, to unite all things in him, things in heaven and things on earth.” (5) 2 Peter 1:19-20—“And we have the prophetic word made more sure. You will do well to pay attention to this as to a lamp shining in a dark place, until the day dawns and the morning star rises in your hearts. For of all you must understand this, that no prophecy of scripture is a matter of one’s own interpretation, because no prophecy ever came by the impulse of man, but men moved by the Holy Spirit spoke from God.” (6) 1 Peter 1:20—“He was destined before the foundation of the world but was made manifest at the end of the times for your sake.” (7) 1 Cor. 2:7—“But we impart a secret and hidden wisdom of God, which God decreed before the ages for our glorification. None of the rulers of this age understood this; for if they had, they would not have crucified the Lord of glory.”

It could possibly be argued that predictive prophecy in Scripture does not entail the
view that God knows the details of the future, but rather it reflects God’s pre-ordained decrees that certain things will necessarily happen. Though God is a free agent who could force upon us a foreordained plan, this would eliminate human freedom that Swinburne rightly wants to protect. Nor is this view consistent with the whole tenor of Scripture with its assumption of human responsibility.

Another alternative would be to “demythologize” the idea of predictive prophecy, reinterpreting it as an existential feeling of hope. Walther Eichrodt has shown it is a mistake “to see the real value of this hope in an increasing inwardness and spiritualization.” He argues against the idea that “the deeper truth of prediction” should be “reduced to a general readiness to hope.” According to this attenuated view, its “real value resides in the psychological disposition.” If this interpretation is accepted, then Eichrodt believes “all the internal links between the OT hope and NT reality of salvation have been severed.”

Eichrodt believes that the “proof from Scripture” method of the New Testament is not something that modern interpreters can accept in an unqualified manner because it is fraught with a contrived interpretation of the Old Testament, but he believes that even this method has enduring significance because it expresses belief in “the consummation of God’s sovereignty.” That is, Israel’s history was preparatory for “a once for all decisive event” in Jesus Christ. Eichrodt is not here arguing against the idea of predictive prophecy, but rather he was speaking to the hermeneutical problem of how the New Testament freely re-interpreted the Old Testament in a Christological manner. Similarly, von Rad has argued for a “typological correspondence” method assumed by the NT writers—that is, history is a unity because Yahweh is the Lord of history and hence the events of the past foreshadow the future activity of God. A realistic reading of the New Testament use of the Old Testament Scripture shows that God’s knowledge of the future is a fundamental conviction of the biblical writers, but according to Swinburne, if a prediction comes true, it is nothing more than a “lucky incident.”

Predicting the Future as a Universal Phenomenon

The idea of foretelling the future is of course not unique to the Bible. It is a universal human phenomenon. Yehezkel Kaufmann has shown that the Bible itself does not deny the possibility of foretelling the future in pagan divinization and sorcery. The biblical condemnation of sorcery is related to the fact it does not rely upon God as the source of truth, and thus it is a sign of unbelief and rebellion (Dt 18:10f., 1 Sam. 28:3,9). The difference, for example, between Joseph and Egyptian sorcerers was that Joseph depended upon the Lord. Joseph was a prisoner in Egypt where sorcery and divination were a way of life. The Bible ascribes Joseph’s sudden rise to political authority in Egypt as due to his superior ability to foretell the future. Based on Pharaoh’s dreams, Joseph was able to foresee seven years of bounty followed by seven years of famine. Joseph gave God the credit for his ability to see into the future (Gen 41:25). The difference between Joseph’s ability to foretell the future and sorcery is that Joseph derived his gift from the Lord.

Daniel was a statesman at the court of a heathen monarch where sorcery was a common practice. Daniel emerged as a person of eminence because he was able to interpret the dreams of the pharaoh and predict the future in a way that was impossible for his heathen counterparts. Daniel denied that he had an innate ability to predict the future,
but rather it was because “there is a God in heaven who reveals mysteries” (Dan 2:28). Among his predictions was the rise of four empires. The details of his predictive prophecy was a revelation of what “will be in the latter days” (Dan 2:28). His remarkable ability to describe the 2nd century B.C. occasioned considerable debate in higher biblical criticism, leading to the conclusion that the author was an unknown Jew living in the time of the Macaabees. My point is here not concerned with a higher biblical critical issue, but rather to show that a realistic reading of the Bible shows that it assumed God knows the specific events of the future. If we today have trouble with the logic of divine omniscience, the biblical writers did not.

Eternity and Time in the Bible

The Bible does not address the issue of time and eternity in an explicit manner. In this respect, the biblical word for eternity is everlasting or unlimited duration (οὐφαρ). However, it can be argued the Boethian definition is the implicit meaning of “everlasting” as it is used in Scripture.

Pannenberg explains the general sense of the biblical view of eternity when he interprets Psalm 102:25-27: “Of old thou didst lay the foundation of the earth, and heavens are the work of thy hands. They will perish, but thou dost endure; they will all wear out like a garment. Thou changest them like raiment, and they pass away; but thou art the same, and thy years have no end.” Pannenberg writes:

The Psalms . . . are telling us that God is always unchangeably himself. This means that distance in time is of no significance to him: “A thousand years in thy sight are but as yesterday when it is past” (Ps. 90:4). Why yesterday? Why not today? We are accustomed to think of duration as present, but yesterday is the time that is complete before us, yet still present and not lost in the past. In the same way all times is before the eyes of God as a whole. The thousand years simply indicate the great span of time that is before his eyes. We might equally well speak of a thousand light-years or any length of time that we choose. The thousand years of the psalm are not meant to be a literal span of time or to be a starting point for calculation. They are simply meant to show that any span of time is simply like yesterday in the sight of God.

Pannenberg draws from Gerhard von Rad’s writings to show the Old Testament imagery of heaven as the dwelling place of God included the idea that “for God, the future, and especially the future event of salvation, is already there for him.” Pannenberg particularly refers to von Rad’s exposition of Ps. 119:8, Ezek. 2:1ff, Isa. 34:4, and Zechariah 1:7-6:8 where the end-time events on earth are already present in heaven.

Anthropomorphisms—In What Sense Does God Have a Change of Mind?

Anthropomorphisms are figures of speech to express the view that God is a living God who respects and interacts freely with his creatures. God speaks (Gen. 1:3), hears (Ex. 16:12), sees (Gen. 6:12), smells (I Sam 26:19), laughs (Ps. 2:4), whistles (Isa. 7:18), has eyes (Amos 9:4), hands (Ps. 139:5) arms (Isa 51:9), ears (Isa. 22:14), and feet (Nahum
God is often described as limited by the unfaithful actions of Israel. On occasions, God is described as “surprised” and thus capable of changing His mind. We are told that God “was sorry that he had made man on the earth, and it grieved him to his heart. So the Lord said, ‘I will blot out man whom I have created” (Genesis 6:6). But immediately God changed his mind again because he saw that Noah was a righteous man, and so God permitted him to be rescued from the flood.

After Saul had disobeyed the command of the Lord, God is described as changing His mind about choosing Saul to be king: “The word of the Lord came to Samuel, ‘I repent that I have made Saul king” (1 Sam. 15:11). Here it would appear that God is being described as changing his mind as if he were surprised by the developments in the life of Saul. Yet when Samuel went to Saul to tell him that God had rejected him as king, Samuel says: “The Glory of Israel will not lie or repent; for he is not a man, that he should repent” (1 Samuel 15:29). The obvious point here is that the Bible often uses anthropomorphisms in speaking of God. To take such texts literally is a misuse of the figurative nature of human speech, especially in reference to God. An example of anthropomorphism is Isaiah 59:1-2: “Behold, the Lord’s hand is not shortened, that it cannot save, or his ear dull, that it cannot hear; but your iniquities have made a separation between you and your God, and your sins have hid his face from you so that he does not hear.” Clearly one does not need to instruct Isaiah that God does not have hands, ears and a face. Nor does one need to inform the biblical writers that God is really not surprised by the events of the future when Israel is disobedient.

Another example of anthropomorphism is when the Lord is described as appearing to Moses “by the oaks of Mamre” (Gen 18:1), announcing to him that Sodom (where his nephew Lot lived) would be destroyed. On the one hand, God says he will investigate to see if Sodom is as bad as it has been reported to Him so that “I will know”—as if God really did not know! Yet, in this same context, God says he foreknows that “Abraham shall become a great and mighty nation, and all the nations of the earth shall bless themselves by him’ (Gen. 18:17).

Anthropomorphisms thus do not entail a rejection of God’s knowledge of future, but rather their intent is to show that God is a living, personal reality who respects human freedom and that God holds human beings responsible for their misuse of freedom. In this respect, Origen spoke of the stretching of language in the Bible when it attempts to speak of God as a personal reality who is involved in time. Clement of Alexandria puts it this way:

Wherefore let no one imagine that hands, and feet, and mouth, and eyes, and going in and coming out, and resentments and threats, are said by the Hebrews to be attributes of God. By no means; but that certain of these appellations are used more sacrally in an allegorical sense.

On the other hand, Swinburne takes anthropomorphisms literally. As an example, he believes that God’s “change of mind” not to destroy Nineveh entails the idea that God did not really know that he would show compassion in the future. This conclusion represents a rather big leap in his argument. Following this logic, one would have to interpret
such anthropomorphisms as God having hands, arms, and eyes literally. A more realistic reading of these anthropomorphic texts is to see them as affirming that God's decisions are based on human responsiveness to the will of God. This is perfectly compatible with divine foreknowledge.

4. **DIVINE FOREKNOWLEDGE IN THE EARLY CHURCH FATHERS**

Swinburne wrongly interprets the Fathers of the first three centuries when he says they interpreted eternity to mean time is unending. Swinburne writes:

The simple, naïve, initial view is that God is everlasting. He determines what happens at all periods of time ‘as it happens’ because he exists at all periods of time. He exists now, he has existed at each period of past time, he will exist at each period of future time. This is, I believe, the view explicit or implicit in Old and New Testaments and in virtually all the writings of the Fathers of the first three centuries. 88

An examination of the Early Church Fathers will show that their view was one of the sources of Boethius’ classical formulation of eternity. The Bible of course is not a handbook on philosophy or theology, but rather it is a witness to God’s personal disclosure of Himself in the context of salvation history. The contribution of the early Greek Fathers was to explain this biblical history of salvation in the light of the categories of Greek philosophy. They thus gave us the classical doctrines of Christology and the Trinity, but they also introduced the categories for explaining the difference between time and eternity, culminating in Boethius’ definition that “eternity is the complete possession of an endless life enjoyed as one simultaneous whole.”

**Two Senses of Eternity**

Richard Sorabji’s classical study, *Time, Creation, and The Continuum* (1983), has shown that there were two senses of eternity prior to Plotinus—it could mean everlasting or it could mean the transcendent present of all finite temporality. 89 Under the influence of Plotinus, Sorabji noted that Boethius introduced a distinction into Christian theology between ‘everlasting’ (sempiternus) and eternity (aeternus) so that it was no longer necessary to distinguish between the two senses of the same word. Everlasting came to refer to duration in time, whereas eternity meant the “now” of the past, present, and future. 90

Sorabji noted that Augustine gave the first complete definition of eternity, but he believed Boethius gave a ‘philosophically superior’ definition that became normative for Christian theology. 91 He noted that Boethius overcame the determinism of Augustine by allowing that temporal development was as real to God as to human beings. Though Sorabji used the term, “timelessness,” for a Boethian concept of eternity, he used it in the restricted sense that God transcends time. In showing that Boethius believed time was real for God, Sorabji notes that Boethius believed God has “a knowledge of things temporal” and that he made “it more central than it had been in his Ineo-Platonic predecessors (such as Plotinus).” 92 In this sense, time was not a negation of eternity, but rather the sequences of time were taken seriously by God who allowed for human freedom. Sorabji notes that “he enhances it [divine knowledge of the future], by making the further point,
which so far as I know is new, that somebody who sees your action, but not in advance, in no way restricts your freedom." 93 Sorabji believes this concept of eternity was an improvement over Augustine’s idea.94 Sorabji’s interpretation also is similar to the same insights of Barth and Pannenberg about the difference between Augustine and Boethius.

Justin Martyr—Proof from Predictive Prophecy

Justin Martyr (ca. 99-165) is known as an early Christian apologist. He is also called Justin the Philosopher. In The Apology addressed to the Roman emperor Antonius Pius in defense of Christianity, Justin gave special and extensive attention to predictive prophecy as proof of the truth of Christianity.95 His main point is that “the things which He absolutely knows will take place, He predicts as if already they had taken place.”96

Justin argued that the idea of predictive prophecy did not entail the idea of determinism. He was greatly concerned to show that foreknowledge and human freedom were compatible. He wrote:

But lest some suppose, from what has been said by us, that we say that whatever happens, happens by a fatal necessity, because it is foretold as known beforehand, this too we explain. We have learned from the prophets, and we hold it to be true, that punishments, and chastisements, and good rewards, are rendered according to the merit of each man’s actions.97

Irenaeus Affirmed Divine Simultaneity, Foreknowledge, and Free Will

The writings of Irenaeus (ca. 125 – ca. 202) are considered to be a continuation of the teachings of the apostle John through Polycarp who knew John intimately.98 He was the first “Father” of the church to offer a systematic view of Christian doctrine, and he felt it was necessary to explain logical difficulties insofar as they could be explained.

Two difficulties are—divine foreknowledge and how God can exist everlastingly. Yet he believed both of these beliefs are scriptural. Irenaeus noted that the Scriptures affirm that the Father has foreknowledge of the very day and hour of when Jesus will return to the earth, but Jesus did not have this knowledge in his earthly existence.99 Consequently, he says: “If, then, the Son was not ashamed to ascribe the knowledge of that day to the Father only, but declared what was true regarding the matter, neither let us be ashamed to reserve for God those greater questions which may occur to us.”100 He thus writes: “We are able by the grace of God to explain some of them, while we must leave others in the hands of God.”101

He notes that one mystery that we cannot explain is what God was doing before he created time. He affirms that time came into being with creation, and then he noted that “no Scripture reveals to us what God was employed about before this event. The answer therefore to that question remains with God, and it is not proper for us to aim at bringing forward foolish, rash, and blasphemous suppositions.”102

Irenaeus argued that perfect knowledge belongs only to God, noting that God has the power of “foreknowing all things.”103 Thus he says: “We should leave things of that nature to God who created us, being most properly assured that the Scriptures are indeed per-
fect, since they were spoken by the Word of God and His Spirit; but we, inasmuch as we are inferior to, and later in existence than, the Word of God and His Spirit, are on that very account destitute of the knowledge of His mysteries.”

This appeal to mystery was not an attempt to dodge philosophical difficulties, but to acknowledge that God as Creator transcends our finite logical abilities.

Irenaeus also affirms there is no temporal distinction within God. He notes that we say “that a man sometimes is at rest and silent, while at other times he speaks and is active.” Yet God “always exists one and the same instant” and “divisions of time cannot fittingly be ascribed to Him.”

Here is an early statement on the simultaneity of time in God.

Clement of Alexandria Defined Eternity as the Instant Whole of All Time

In an attempt to explain in a thoughtful way the truths that had been revealed in the history of salvation, Clement of Alexandria (who died about 215 A.D.) was one of the first Christian writers to synthesize Greek philosophy and Christian thought. He was born at Athens, and lived at Alexandria. He formulated the concept of the relation of time and eternity that became part of the accepted view of time in Christian thought in Boethius.

He defined eternity this way: “Eternity . . . presents in an instant the future and the present, also the past of time: He further defines eternity as “limitless duration.” Putting these two ideas together produces the notion of eternity as an instantaneously enduring present and the simultaneous whole of all time. Indicating that he did not think of eternity as endless time, Clement of Alexandria said: “For God is not in darkness or in place, but above both space and time.”

He also writes: “The First Cause is not then in space, but above both space, and time, and name, and conception.” He writes: “Further, Peter in the Acts says, ‘Of a truth, I perceive that God is no respecter of persons; but in every nation he that feareth Him, and worketh righteousness, is accepted by Him.’ The absence of respect of persons in God is not then in time, but from eternity.”

Indicating that he believed in divine foreknowledge, he writes: “Prophecy is foreknowledge; and knowledge the understanding of prophecy; being the knowledge of those things known before by the Lord who reveals all things.” Clement of Alexandria thus sees a positive relationship of God and time, noting that time is present in God’s eternity. He does not define God as timeless, but as “limitless duration.” The past, the present, the future are distant from each other for us, but with God they occur simultaneously in an instant.

Origen Affirmed The Compatibility of Foreknowledge and Human Freedom

Origen was born in Alexandria (185 – 254 A.D.) and became a pupil of Clement of Alexandria. His writings had a pronounced influence upon the theology of Athanasius and the Cappadocian Fathers, who were the pivotal figures in the formulation of orthodox Christological and Trinitarian theology. He was trained in the contemporary neo-Platonic school of Alexandria, which is believed to have been founded by Ammonius Saccus.

Plotinus was the famous student of Ammonius Saccus, and he in particular developed the classical view of pantheism based on neo-Platonism. Origen was one of his fellow-students. Wolfhart Pannenberg shows that Plotinus believed the transitions from one moment to the next moment only makes sense if eternity is the comprehensive presence
of the whole of time (past, present, future). Pannenberg then shows that Boethius in the 6th century appropriated this definition to mean that eternity is the unending, total, and perfect possession of life as opposed to Augustine’s reversion back to the Platonic notion of time as the moving image of eternity and as the negation of eternity.113 Sorabji has noted that Plotinus and the neo-Platonists believed that “although the future is indefinite and contingent, divine knowledge of it can be definite and necessary.”114

Though a philosopher, Origen does not appeal to philosophy as the basis of his theology, but rather he appeals to Scripture, though he allows it is “possible for some knowledge of Him to be gained by means of the visible creation and the natural feelings of the human mind.”115 Though some awareness of God is discoverable through reason, it is through revelation that God is known as personal. If Plotinus and neo-Platonists held to an impersonal view of the divine Nous (Mind) based on philosophical thought, Origen clearly differentiates it from the Christian view in this way: “If, then, it is once rightly understood that the only-begotten Son of God is His wisdom hypostatically existing, I know not whether our curiosity ought to advance beyond this.”116 He goes on to argue in this same context that the divine Wisdom is the only-begotten Son of God who is “without any beginning” and who has “the power of foreknowledge.”117

As an indication that Jesus was truly God, he refers to Jesus’ foreknowledge that Judas would betray him. He then addresses the questions whether or not the divine foreknowledge “causes” this event to happen. His pagan critic, Celsus, “imagines that an event, predicted through foreknowledge, comes to pass because it was predicted; but we do not grant this, maintaining that he who foretold it was not the cause of its happening, because he foretold it would happen; but the future event itself, which would have taken place though not predicted, afforded the occasion to him, who was endowed with foreknowledge, of foretelling its occurrence.”118 Origen further explains that simply because God foreknows an event, that does make it an inevitable happening.119

He further writes: “Now, in Ps. cvii., Judas is spoken of by the mouth of the Savior, in words beginning thus: ‘Hold not Thy peace, O God of my praise; for the mouth of the wicked and the mouth of the deceitful are opened against me.’ Now, if you carefully observe the contexts of the psalm, you will find that, as it was foreknown that he would betray the Saviour, so also was he [Judas] considered to be himself the cause of the betrayal, and deserving, on account of his wickedness, of the imprecations contained in the prophecy.”120 Origen insists that God’s foreknowledge does not cause events to happen in the future. It is possible future things could have happened differently. Origin rejects determinism, but the future which is yet to happen is already known to God because God’s existence “environs” the past, the present, and the future.121

His reflections on the nature of eternity thus grew out of his concern to explain the inter-personal relationship of the Triune God. He shows that the Trinitarian nature of God was revealed in time (the economic Trinity), but the Father, Son, and the Holy Spirit are eternal (the immanent Trinity). The Scriptures teach “the Father generates an uncreated Son, and brings forth a Holy Spirit, not as if He had no previous existence, but because the Father is the origin and source of the Son or the Holy Spirit, and no anteriority or posteriority can be understood as existing in them.”122 Origen believes that from the Scriptures “we must understand, therefore, that as the Son, who alone knows the Father,
reveals Him to whom He will, so the Holy Spirit, who alone searches the deep things of God, reveals God to whom he will.” Origin explains this order of knowing is not to be taken as a designation of time, as if the Spirit by a temporal development came to exist or as if the Holy Spirit was once ignorant of the Father. Otherwise, “the Holy Spirit would never be reckoned in the Unity of the Trinity.” Thus he writes: “When we use, indeed, such terms as ‘always’ or ‘was,’ or any other designation of time,” they are not be taken absolutely, but with due allowance; for while the signification of these words relate to time, and those subjects of which we speak are spoken of by a stretch of language as existing in time, they nevertheless surpass in their real nature all conception of the finite understanding.”

Basil of Caesarea—Time Is a Created Reality

Basil of Caesarea (ca. 330-379) also affirms the beginning of time with creation. He speaks of the “eternal and infinite” as “outstripping the limits of time.” He writes: “Thus was created . . . the succession of time, for ever pressing on and passing away and never stopping in its course. Is not this the nature of time, where the past is no more, the future does not exist, and the present escapes before being recognized? And such also is the nature of the creature which lives in time.” He further writes: “Thus the writer who wisely tells us of the birth of the Universe does not fail to put these words at the head of the narrative. ‘In the beginning God created;’ that is to say, in the beginning of time.” He further says that “the first movement of time” occurred “when the formation of this world began.” Creation thus serves as “the training ground where they learn to know God.” He further argues that the beginning of time was “indivisible and instantaneous.”

The beginning of the road is not yet the road, and that of the house is not yet the house; so the beginning of time is not yet time and not even the least particle of it. If some objector tell us that the beginning is a time, he ought then, as he knows well, to submit it to the division of time—a beginning, a middle and an end. Now it is ridiculous to imagine a beginning of a beginning. Further, if we divide the beginning into two, we make two instead of one, or rather make several, we really make an infinity, for all that which is divided is divisible to the infinite. Thus then, if it is said, ‘In the beginning God created,’ it is to teach us that at the will of God the world arose in less than an instant, and it is to convey this meaning more clearly that other interpreters have said: ‘God made summarily’ that is to say all at once and in a moment.

Basil explains “the saying of the gospels as to our Lord Jesus Christ’s ignorance of the day and hour of the end” (Mark 13:32), in order to answer the critics who believe this shows that Jesus was “unlike in essence and subordinate in dignity” to the Father.” Basil affirms that the Father “by His own prescience and faculty of forecasting the future has knowledge coextensive with the universe,” but he argues that this passage does not lessen the same essence of Jesus as the Son of God with the Father. Basil argues that this passage means that this knowledge belongs to God in the first place, and thus it belongs to Jesus
secondarily. That is, the Father is the cause of Son’s knowing this future event. Here Basil affirms that time began with creation and that God has knowledge of all things—past, present, and future.

Gregory of Nyssa—Time Flows from Eternity

Gregory of Nyssa (ca. 331–ca. 396) emphasizes that the divine life is exempted from all temporal distinctions unlike created things. He writes: “The creation ... comes into existence according to a sequence of order, and is commensurate with the duration of the ages ... But the world above creation, being removed from all conception of distance, eludes all sequence of time; it has no commencement of that sort; it has no end in which to cease its advance, according to any discoverable method of order.” He is insistent that there is no “time-interval as existing before Creation.” Because God is “uncreated,” his nature “escapes all distinctions of before and after.” He further writes: “There is nothing by which we can measure the divine and blessed Life. It [the Trinity] is not in time, but time flows from it; whereas the creation starting from a manifest beginning, journeys onward to its proper end through spaces of time; so that it is possible, as Solomon somewhere says, to detect in it a beginning, an end, and a middle; and mark the sequence of its history by divisions of time. But the supreme and blessed life has no time-extension accompanying its course, and therefore no span nor measure.” He further says that the divine preexistent reality has “no reckoning of time.” He further writes: “The world’s Creator laid time and space as a background to receive what was to be; on this foundation He builds the universe. It is not possible that anything which has come or is now coming into being by way of creation can be independent of space and time. But the existence which is all-sufficient, everlasting, world-enveloping, is not in space, nor in time: it is before these.” He writes: “Eternity is characterized by having no beginning and end.” Eternity is defined “where time is not.” He further writes: “Extensions in time find no admittance in the Eternal Life.”

Gregory of Nyssa believes that if God is subjected to time, this denies his infinity and it disrupts the unity of the Trinitarian life of God because it would confuse the meaning of God as the “Father” and the origin of the Son. He says the same conclusion affects the Person of the Holy Spirit whose existence would not be infinite. That is to say, if God is not “above” the sequence of time, God would no longer be the “Ungenerate” and thus he would be the temporal origin of the Son, thus making God finite. In this respect, Gregory makes the concepts of “Ungenerate” and “Endless” basic to the idea of “infinitude” and “the everlastingness of Deity.” At the same time, he insists that if God is limited by time, then He is not Ungenerate, that is, He is not infinite. He further says that “every duration conceivable is environed by the Divine nature, bounded on all sides by the infinity of Him Who holds the universe in His embrace.” This means the past, the present, and the future are bounded on all sides by God who transcends these temporal distinctions. In this respect, he denies that God “passes on afresh to something that lies before,” though “it is thus that we think and speak” because of our finitude. He further says: “The Divine life is one and continuous in itself, infinite and eternal, in no wise bounded by any limit to its infinity.” He defines eternity as meaning “beyond the ages.”

In Gregory, time began with creation, time is rooted in eternity, and God includes within his essence the full extent of time and space because he “environed” all time, as
5. CREATION, ETERNITY, AND RELATIVITY THEORY

The Creation of Space-Time

Creation (Genesis 1-3) serves as the framework for the history of salvation that began with the call of Abraham in Genesis 12. As already noted, the early Church Fathers believed creation entailed the beginning of time in which God was progressively revealed as Father, Son, and Holy Spirit. Space-time is thus the stage upon which the drama of salvation is played out. God’s self-revelation in history (the economic Trinity) is reflex of what God is in himself (the immanent Trinity). This means time is related to eternity as the manifestation of what is true about God. In this respect, time had a beginning with divine creation and will have an end in the eschaton. The interval between creation and the eschaton is the time of salvation history.

The belief that time had a beginning was confirmed by two Oxford University mathematicians/physicists, Stephen W. Hawking and Roger Penrose, who demonstrated in 1970 space-time had a beginning with a big bang singularity. That is, the universe began from a single point (a singularity). This means our universe had a finite beginning approximately 15 billion years ago when an infinitesimally small, dense soup of energy (a trillionth the size of a proton in the nucleus of atom) began to expand. Though this “big bang singularity” was virtually nothing in size, it contained all the matter/energy in the universe as we know it today, including all the planets, stars, and galaxies.

It should be carefully noted that the universe did not begin to expand into an already existing space. Rather, the expanding universe was the expansion of space itself. Into what is space expanding if it is not more space? The answer is—nothingness. There is nothing “out there” into which space-time is expanding. This contradicts common sense, but contemporary science tells us this is the way the world really is.

George Smoot (an astrophysicist and researcher at the Lawrence Berkeley Laboratory and member of the Center for Particle Astrophysics and Space Sciences Laboratory) raises this question: “What was there before time began?” He replies: “Facing this, the ultimate question, challenges our faith in the power of science to find explanations of nature. The existence of a singularity—in this case the given, unique state from which the universe emerged—is anathema to science, because it is beyond explanation.” Richard Gott, a Princeton physicist, put it this way: “What caused the singularity and what happened before it. The standard answer for what happened before the big bang singularity is this: time was created at the singularity. , along with space. Thus, time did not exist before the big bang, and thus nothing happened before it.”

What happened before time was created was the question first asked by Ireneaus and later repeated by Augustine, as already noted. Swinburne believed this was an incoherent question, thus indicating that the idea of something existing before time was an impossibility. However, it is this question that science is now asking. So perhaps it is not such an incoherent question, even if science acknowledges that it cannot answer it.

If there was once a big bang singularity, this would need to be explained, but science recognizes that it does not have an explanation to account for “the shock of that instant” of creation of space-time. Christian theology has always maintained the mystery
that God created the world out of nothing. Does this mean that science now recognizes God to be the necessary presupposition for creation? In his book, *God and the Astronomers*, Robert Jastrow saw this implication of the big bang singularity as the scientist’s nightmare: “For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.”

Stephen W. Hawking holds the same professional appointment that Isaac Newton once held, the Lucasian Professor of Mathematics at Oxford University. Hawking has changed his mind about a single point of beginning, arguing instead that the original condition of space-time was a sphere instead of a sharp point. This eliminates the necessity for a divine creator since there would be no single point needing to be explained. That is, the universe had its own initial conditions within itself. This would mean that there is no absolute beginning because the condition for space-time was present from the beginning as a perfect sphere. Thus if you could move your finger around this infinitely small original sphere, it would be smooth and rounded and your finger would come back to the same place where it began. Hawking admits that this is “just a proposal.” Some scientists object to this speculation because such a spherical shape of reality would involve time travel which violates other physical laws. Indeed Hawking once believed in the possibility of time travel into the past, arguing that there may be people who will come to us from the future—until some of his students convinced him that this was “the biggest mistake” of his professional career.

Hawking’s original theorem seems more consistent with the idea of an expanding universe which leads back to the idea that everything began at a single point with “a sudden beginning for the Universe.” Apparently this is why other scientists are yet to be “convinced” that Hawking’s later view is correct, especially since his belief lacks scientific evidence and appears to contradict the initial condition for an expanding universe. George Smoot noted that Hawking tried to explain away the idea of a beginning single point for the origin of the universe by “arguing the singularity out of existence.” Hawking intentionally set forth this view as an alternative to a religious explanation. Of course, no one knows yet (apart from divine revelation) what was before the Big Bang. Scientists tell us that they can reconstruct the beginnings of the universe back to “a ten-millionth of a trillionth of a trillionth” of a second after the Big Bang, but they cannot take us back to the original instant of creation. From this instant, the big bang expansion simply “created space-time as it went.”

One of the most dramatic paradigm shifts in the history of physics was the discovery that space and time are not two independent entities but a unitary entity (like a piece of “fabric”), though it possesses timelike and spacelike directions. This understanding of space-time was one of the consequences of Einstein’s theory of special relativity—that the speed of light is the same no matter what one’s frame of reference and that energy is equivalent to mass times the speed of light squared (E=MC^2). We usually think of space as having three dimensions. For example, one walks into a room and notices that it has width, length, and height. One can move back and forth in the room or climb stairs allowing us to go up or down. But we experience time quite differently. We cannot go
back and forth in time. We only move forward in time. Yet when things are described in terms of very high energy (at the speed of light), space and time are seen as four aspects of the same thing. This means there is no separation of space and time. They appear independent in our daily lives, but they become one as motion approaches the speed of light.

In this respect, the law of special relativity destroyed Newton’s view of time. Newton interpreted time as being the same everywhere in the universe. Whether in London or in another galaxy, the tick of the clock was the same. This is what he meant by absolute time. Just as atoms were thought to be indivisible and uniformly spread throughout absolute space without change, so time was absolute throughout the universe without any variation. Common sense thus supposed there was no connection between space and time. Physical space was held to be a flat, three-dimensional continuum. Time was also imagined to be independent of space—as a separate, one-dimensional continuum, completely homogeneous along its infinite extent. Any point in time could be regarded as an origin from which to take duration past or future to any other time-instant.

Contrary to this view, Einstein showed that while space is three dimensions, time is the fourth dimension. According to special relativity, time beats at different rates, depending on how fast one (or something) moves through space. That is to say, time as measured by real clocks actually ticks differently relative to the speed of the observer. Einstein’s prediction about time slowing down with increasing speed has been confirmed repeatedly with atomic clocks orbiting around the earth. We perceive space and time as separate entities only because we move slowly in our relation to each other, but the tick of the clock becomes slower with high velocity. So the idea of a universal clock has been shown to be wrong.

Einstein’s theory of general relativity shows that space is also relative just as time is. Unlike Newton’s view of absolute space, Einstein showed that matter (=condensed energy) curves spacetime. Without the density of matter, there would be no curved space, and without this curvature of space there would be no gravity. Newton defined gravity as the attraction between masses, and the closer masses are to each other the stronger the force of attraction is to each other. However, Einstein showed that gravity was acceleration caused by the curvature of space.

Michio Kaku, Professor of Physics of New York City University, offers a helpful way to visualize space with the following illustration. Stretch out a bed sheet and place a rock in the center. The rock will curve the sheet in its direction. Then imagine rolling marbles around the bed sheet in a circular fashion. This circular movement is caused by the curvature of the bed sheet around the rock. This is the Einsteinian definition of gravity—curved space-time causes acceleration or motion. The reason why planets orbit around the sun is because they are moving in the space curved by the density of the sun. The reason why we can stand on the earth is because the earth warps the space around us. Hence we are pulled in the direction of the earth. Space cannot remain flat in the presence of matter.

In this respect, motion is not “a motion in space” but rather motion is just “motion”; it is the “displacement of various spatiotemporal regions.” That is, acceleration depends upon the curvature of space determined by the amount of matter-energy in that space. This is illustrated in the science fiction movie, Star Trek. Captain Kirk uses “dilithium crys-
tal's" to power the Enterprise that is able to generate enough energy to warp space-time into pretzels. When the Enterprise travels from the earth to Alpha Centauri at "warp-factor 5," it does not physically move through space to this star; rather, the star comes to the Enterprise.\textsuperscript{173}

Just as time is not the same for every frame of reference, so space is not the same for every frame of reference. The relativity of space means that one person may see something as being twelve inches long, but another person traveling at a much faster rate of speed will view the same object as one inch long; and both are right. This is because the faster something moves the denser its space becomes.\textsuperscript{174}

Here is another illustration provided by Kaku to explain the curvature of space. If one gets on a merry-go-round in a playground, the curvature of space explains why one can be thrown off if one changes horses and fails to hold on. The outer rim of the merry-go-round moves faster than the center of the platform. This means the outer rim has a greater density and becomes smaller, resulting in a greater curvature of space. This is why one has to hold on with a firm grip because its increased curvature of space results in an acceleration that can throw one off and onto the ground.\textsuperscript{175} The faster an object moves the more condensed it becomes and its size is flattened accordingly. To be sure, the curvature of space formed by a merry-go-round is not visible to the eye, but it is nonetheless the scientific explanation for the feeling of acceleration that one feels.\textsuperscript{176}

On earth, things are observed as relatively the same size, and time is experienced rather uniformly in terms of the motion of the earth. This relative uniformity is what makes human life and community possible. Some scientists have suggested that it appears the expansion of space-time developed in such a way that the universe, metaphorically speaking, was expecting to be known by intelligent beings. This is known as the anthropic principle—that conditions and circumstances were so remarkably and unbelievably favorable and accurate for the emergence of human life on the earth that it seems the universe was preparing for their arrival.\textsuperscript{177}

It is this stable "reference frame" on earth that serves as the setting of salvation history. Theologically, the implication of Genesis 1-3 is that the space-time continuum is more fundamentally understood as having its condition in God's eternal life. In this sense, God is neither timeless nor spaceless. God's eternity includes space and time as being real to God's very essence. "Do I not fill heaven and earth?" writes the prophet about God's all-inclusive nature (Jer. 23:23). Paul speaks of the invisible things of God being clearly seen through the things that are visible (Romans 1:20). The idea that God is timeless and spaceless is contradicted by the divine act of creation itself. The very fact of creation shows that God includes space-time within his triune life.

The earthly space-time continuum is the presupposition of the history of salvation. God can be known in the world because he created it. To be sure, the Big Bang theory does not prove that God created the world. From a scientific standpoint, it has not been possible to determine what took place at the instant of creation. Theoretical physicists are puzzled about what happened at the first instant of the Big Bang. At this point, the known laws of physics break down. Hawking believes that if we knew what happened at that instant, we would know the mind of God. In other words, it would resolve the mystery of God's being so that we would be as God.\textsuperscript{178}
Based on the history of salvation, Christian theology believes God created all things. The big bang theory says that the universe was created almost out of nothing (an infinitely small bundle of energy),\textsuperscript{179} but Christian theology believes that the universe was created by God out of nothing—not out of God’s essence (pantheism) and not out of some other pre-existent substance (dualism).\textsuperscript{180} However, if God created space-time, this means that time and space are equally real and present to God in all of their relative dimensions. God fills all time (omniscience) and all space (immensity).

\textit{Simultaneity Breakdown and Traveling into the Future of Time}

Unlike a Newtonian view, the laws of relativity offer a way of conceiving the idea of eternity as simultaneity. In particular, the law of time-dilation or the breakdown of simultaneity means two events will be viewed simultaneously by one observer, but another observer moving relative to the other observer will not view these same two events simultaneously. As Shadowitz writes:

\begin{quote}
Time may indeed go at different rates for different observers. We are speaking here of real, objective, time—the time intervals measured by accurate clocks—not the apparent, subjective time of the mind. Space, likewise, is flexible according to relativity. What X would call one square foot might be one square inch for Y, yet both might be correct. Space and time were shown to be relative quantities, not immutable and absolute.\textsuperscript{181}
\end{quote}

In other words, the relativity of time and of space is “not an optical illusion, but is ‘real’ as any physical effect that can be measured.”\textsuperscript{182} This means simultaneity is not absolute but can hold only in a particular frame of reference.\textsuperscript{183}

Instead of space and time being absolute, it is the speed of light that is absolute. Einstein illustrated the absoluteness of the speed of light in reference to a moving train.\textsuperscript{184} Suppose you are driving 99 miles per hour and you race past another car that is only going 30 miles per hour. Ahead of both of you is a train going 100 miles per hour. If a bystander were to measure your speed relative to the train, he would show that the train was only going one mile faster than you were driving, while it was going 70 miles faster than the person you passed. Let’s suppose now that the train is a beam of light. In this case, the bystander would measure the train still going 100 miles faster than you were going, while at the same time the train was traveling 100 miles faster than the slower vehicle. If you were able to travel 179,000 miles per second and another person would travel only 179 miles per hour, a bystander measuring how fast a light beam was traveling ahead would show that in both instances light was traveling 186,000 miles per second faster than both of you. No matter how fast one travels, one cannot catch up with a light beam and one cannot gain any distance on a beam of light relative to another person. However, the faster one travels the slower one’s clock will tick. The point of this illustration is to indicate contrary to Newton that space-time is relative, while the speed of light is absolute. Light is thus simultaneously beamed in all directions, transcending all “reference frames.” From the standpoint of our common sense, this is incoherent. Yet this counterintuitive fact surprised Einstein as much as anyone else.\textsuperscript{185}
“What is real” thus depends upon the concept of a “reference frame.” One cannot simply define everything in terms of one’s own frame of reference. In particular, the nature of space-time depends upon many “reference frames.” The size of an object moving in one “reference frame” will not be the same size when it is moving in another “reference frame.” Likewise with time. It has been demonstrated that aging, for example, can be affected by speed. The faster we move in space, the slower our aging process. Smoot points out that astronauts have aged slower than the rest of us, even though it is a minuscule difference. Just as perplexing to common sense is the paradoxical reality that two simultaneous events happening in one “reference frame” will not be simultaneous in another “reference frame.” There have been “real experiments” that “provide striking confirmation of time dilation,” writes Sartori. For example, experiments have been done with the decay of muons showing that they age more slowly in motion than at rest. Also atomic clocks carried in jet planes circling the earth in opposite directions demonstrate time dilation.

Kip Thorne, the Feynman Professor of Theoretical Physics at the California Institute of Technology, has explained this “simultaneity breakdown” with the following illustration. Imagine that you zoom past me in a sports car that is one kilometer long, driving at a speed of 162,000 kilometers per second. As you pass me, your car backfires, producing a puff of smoke from the tailpipe. Two microseconds later, as seen by you, a firecracker on your front bumper detonates. The two events are separated by 2.0 microseconds for you, but for me they are separated by 4.51 microseconds. This is not just a difference in mental perception, but this is a real difference in measurement and timing relative to one’s speed. This “simultaneous breakdown” shows that the future actually comes quicker for a person in a faster moving frame of reference than one in a slower frame of reference. I. Richard Gott shows that travel to the future is possible based on the laws of relativity, though one cannot go back in time. Travel to the future is a real possibility because objects can approach the speed of light, but an object would have to travel faster than the speed of light to go back in time. Since “the speed limit” in the universe is the speed of light, travel into the past is not possible. Though space-time is four dimensions, we can move freely about in space but we cannot move back in time. Einstein thought of time like a mighty river moving forward, though it often zigzagged through valleys and plains. Matter-energy might briefly shift its direction, but generally the river of time flowed smoothly forward, never reversing itself. So time travel into the past is impossible, but travel into the future is possible. Gott writes:

Do you want to visit Earth 1,000 years from now? Einstein showed how to do it. All you have to do is get in a spaceship, go to a star a bit less than 500 light-years away, and return, traveling both ways at 9.995 percent of the speed of light. When you come back, Earth will be 1,000 years older, but you will be only 10 years older. Such speed is possible—in our largest particle accelerators we bring protons to speeds higher than this (the best so far has been 99.999946 percent of the speed of light, at Fermilab). One of the implications of the law of relativity is that Swinburne’s notion of the “uni-
verse’s clock” does not exist, and the notion of “the cosmic clock ticking away” is a relic of Newtonian physics. There is no absolute and everlasting time. The idea that there is a simultaneity breakdown between two different “reference frames” is incoherent only if one absolutizes one’s own “reference frame.”

A theological question arises out of this “simultaneity breakdown”—in which frame of reference does God experience time? Is there a simultaneity breakdown” for God as well? In this respect, does God experience the events of time sequentially and differently for each time-frame in the universe? Or better yet, does not God experience all different time-frames simultaneously in his eternal life so that there is no “simultaneity breakdown” for God at all?

Even as the speed of light transcends every reference frame, it can be thought that God embraces all space-time reference frames. Even as the speed of light moves ahead into the future of our time, even so God includes the future of all times. Even as we gather up the experiences of the past, the present, and the anticipated future into one single consciousness, even so God synthesizes everything simultaneously and completely in his triune life—the past, the present, and the future. While our knowledge of the future is based on educated guesses, God’s knowledge is perfect because he is the unbounded power of the future. To put it metaphorically, God can travel faster than the speed of light so that the past, present, and future are always present to him. One of the implications of the law of relativity is that time travel into the past is not likely to be a possibility for humans since we cannot travel faster than the speed of light. Kaku believes that if we were to be able to reverse time and travel into the past, we would have to harness the amount of energy contained in the original big bang singularity.

According to the law of relativity, travel into the future may be possible, but travel into the past seems impossible. However, God is infinite. He is not subject to any speed limit posted in the universe. This of course is not at all to imply that relativity theory proves the Boethian concept of eternity, but it is to say it offers a way of conceiving the biblically-based idea of God as the simultaneous moment of all times.

Einstein introduced “the paradox of the twins” in his original paper on special relativity theory to illustrate travel into the future. This paradox illustrates that there is no universal clock but rather time is measured differently in reference to the speed of different observers because reality itself is shaped by the speed of motion. It further showed that it was theoretically possible to travel into the future. Einstein’s initial proposal argued that if one twin took a long trip on a spaceship going at nearly the speed of light, upon returning this twin would be much younger than the other twin who remained on the earth. Sartori reports that Einstein’s thought experiment about the “twins” generated considerable debate in the 1950’s and 1960’s, but eventually Einstein’s thought experiment was universally accepted. As counterintuitive to common sense as the law of relativity seems to be, especially in reference to traveling into the future, Sartori notes that only a few ‘‘crackpot’ papers claiming to disprove Einstein’s theory [on time dilatation] are circulated to this day.”

Thought experiments have sometimes been proposed for illustrating the time dilation involved in the twin paradox, using a powerful telescope that would allow the twins to view each other. In speculating on this kind of possibility, scientists have also noted that travel into the future would require special technology in order “to avoid too much wear and tear
on the human body. Drawing from these kinds of thought experiment, let us imagine that Peter tells his twin brother Paul to have a safe trip as he is launched into outer space at Kennedy Space Center traveling almost at the speed of light. In the meantime, Peter returns to Chicago, gets married, has a family, begins his business career, his wife of ten years dies with cancer, his youngest daughter is killed in an car wreck by a drunk driver, he remarries, and he becomes the president of the company. After twenty years, he flies to Edwards Air Force Base in California where Paul will be landing in a space shuttle. When Paul greets Peter, there is a noticeable difference in their appearance. Peter is showing the stress of twenty years of family life, business responsibility, personal tragedy and success, along with all the normal processes of aging. Paul on the other hand has not aged at all. Because time slowed down in the lightning-fast rocket, he has only been gone for a few moments from his frame of reference. While it had been twenty long years for Peter, it was only a few brief moments of exciting travel for Paul. Peter had already begun to lose his hair, develop an expanding waistline, and show signs of wrinkles with gray hair, but Paul was still youthful looking. Now suppose that Paul was able to observe his brother’s life from the rocket through a high-tech telescope. The events of Peter’s life (past, present, future) as they unfolded sequentially over a twenty-year period according to earth’s time would have been like a few moments for Paul upon his return. To be sure, if two event are causally related in one frame of reference, the cause precedes the effect in any frame of reference. So the almost-simultaneous observations of the space-traveler (Paul) does not negate the principle of causality functioning in Peter’s time frame. Similarly, God’s simultaneous experience of all time does not negate the causal relationship in our earth time.

This is of course a science-fiction illustration of “time dilation,” but in another sense it is not really a paradox. As Hawking writes: “The twins paradox is a paradox only if one has the idea of absolute time at the back of one’s mind. In the theory of relativity there is no unique absolute time, but instead each individual has his own personal measure of time that depends on where he is and how he is moving.”

If God is not limited by earth-time or by any specific temporal reference frame in the universe, but is in fact the real source of light and the creator of space-time, God’s observations of the sequences of events on the earth would appear absolutely simultaneously. This is only to say that God as the creator of the space-time continuum transcends it as the Eternal. This does not minimize or deny the actual course of sequential events in our earth time and it does not eliminate human freedom even though our future is already known to God, though not in advance of it happening.

If one asks, “Does God know all of the intricate details of what will happen tomorrow?” the answer is YES but not in advance of the event! This is because from God’s infinite frame of reference, he knows everything (past, present, future) all at once by virtue of his eternity even though in our reference frame the event is still to happen. This is not just an epistemological difference as if were only a matter of different perceptions! Rather, both perceptions are true to the facts! If this seems incoherent, this is because one is being ‘trapped by common sense’ instead of seeing astutely the way reality actually is. Relativity theory has confirmed that the simultaneity and absoluteness of time for all reference frames is a myth. This is why Sorabji has noted that contemporary physics is similar to the view of time held by Boethius.
Swinburne’s Newtonian View of Absolute Time

Swinburne’s view is based on an outdated Newtonian belief that time is absolute. Swinburne assumes that time is like an arrow that flows uniformly from an endless past to an endless future. He insists that time has always existed. He writes: “Whether or not the universe has a beginning, time could not have.”208 He says “empty time must already exist” before the universe.209 That is, time was “empty” until the material substance which makes up the world came into existence. He writes: “Time would be, as it were, the logical substratum for the existence of substances.”210 In his book, Space and Time (1968), he disregards relativity theory, affirming that “time would exist without physical objects”211 and that “time is absolute.” In an astonishing way, Swinburne says that “Newton’s claims about time were correct.”212

His analysis of time shows that he implicitly rejects Einstein’s law of the relativity of space-time. In his book, The Christian God (1994), he devotes an entire chapter to the nature of time, and his analysis is based on the logic of common sense as if Einstein had never existed. He demoted relativity theory to a footnote, saying: “I ignore the special and general Theories of Relativity . . . because I do not think they make any great difference to the issues.”213

Swinburne wrongly interprets the “relativity of simultaneity,” for he thinks simultaneity breakdown is only epistemological and not actual. That is, he says the “relativity of simultaneity” is a reflection of “a limit on our knowledge.”214 This is a misinterpretation of Einsteinian relativity. The scientific literature on special and general relativity shows that time is relative and that simultaneity breakdown (and time dilation) is an objective fact when it involves different reference frames. As reported above, numerous real experiments have demonstrated the actual existence of time-dilation. Because the experimental evidence is so decisive and so conclusive, Sartori has noted that those very few who oppose the fact of time dilation of relativity theory are ignored by the scholarly community.215

It is as though Swinburne has been “trapped by common sense.”216 He writes: “I think we must be able to do this [that is, talk about time before the universe began].” He writes: “Something can only have a beginning if at an earlier time it was not.”217 Swinburne’s reasoning is based on common sense, but the Early Church Fathers believed that in a metaphorical sense one can say that there was a “before” when there was no time—i.e., before creation there was no time; only God existed in eternity before time began. Their reasoning was based on Genesis 1:1. The big bang singularity means that space-time had a beginning and what existed previously (if anything) is inexplicable.

Swinburne’s view that time extends endlessly into the past and future contradicts relativity theory which tells us in a paradoxical way the universe is expanding, not into “empty time” and not into “empty space”; rather, space-time itself is expanding into nothingness. As “weird” as this sounds logically, contemporary science tells us the evidence is overwhelming in support of this fact. Swinburne’s idea that “God and time” exist side by side prior to creation and that time is absolute contradicts the view that space-time is relative.218 His assumption that “any period of time” is “infinitely divisible”219 goes back to the early Greeks and led to Zeno’s denial of change and motion, but as Milić Capek points out, contemporary physics renders this concept meaningless.220

A. N. Whitehead noted over 60 years ago the “obvious commonsense notion has been
A Reply to Richard Swinburne

entirely destroyed” by relativity theory, though it “still reigns supreme in the work-a-day life of mankind.” 221 Whitehead notes: “One by one, every item [of the Newtonian scientific worldview] has been de-throned.” 222 Likewise Milić Čapek noted that a “Newtonian-Euclidean form of understanding” still prevails even though physicists “explicitly reject the authority of Euclid and Newton.” 223 He also points out that even some scientific and philosophical “interpreters failed to draw all the consequences” of contemporary physics. 224

One of the apparent reasons why this commonsense view prevails is because the ideas of relativity are so counterintuitive, Sartori has noted “relativity is a challenge, but the challenge is in the ideas, not in the mathematics.” 225 So radical is the new way of thinking that Čapek has observed “the contemporary revolution in physics is more far-reaching than the so-called Copernican revolution in the 16th century.” 226 He points out one of the most revolutionary features is that time had a real beginning instead of existing before the universe came into existence. 227

One certainly hesitates to set aside common sense based on ordinary experiences, but relativity physics illustrate that the logic of common sense is not always right. In this respect, Kip S. Thorne speaks of the “weird behavior of space and time” which is not observed in our everyday life because of our “slowness” as compared to the speed of light. 228 In other words, a commonsense view of time is contradicted by the way things really are.

Sorabji says the “more recent speculations in the physics of time will be found to have analogues in antiquity.” 229 He believes the laws of relativity support the Boethian concept of the simultaneity of all time in God, 230 noting that “there is a recent example of this view in contemporary physics.” 231 Swinburne cites Sorabji’s study on time as one of his sources, 232 but he ignores the connection between relativity theory and Boethius’ and Origen’s view of eternity. In particular, he does not discuss Sorabji’s defense of Boethius’ view that God knows the future, not in advance of it happening, but by virtue of his transcendent existence over all time. Sorabji has pointed out that Swinburne wrongly thinks that because Origen and Boethius were indebted to neo-Platonism for their categories of eternity and time the alleged “absurdity” of their view can be accounted for. 233 Swinburne did not respond to Sorabji’s critique in his subsequent works.

Is God Finite?

I believe Swinburne’s view of eternity as everlasting time implicitly transforms God into a finite being. This can be seen when Swinburne says that God “exists at all periods of time. He exists now, he has existed at each period of past time, he will exist at each period of future time.” 234 He further says: “God and time exist together—God is a temporal being.” 235 This means God exists in time just as we do.

The later Swinburne failed to ask in what sense God’s reference frame is different from ours. For Christian faith, who God is does not in the first place depend upon finite logic based on commonsense, but rather He Who Is is made known in revelation (Exodus 3:14). The early Church Fathers believed, based on the implications of Scripture, that time had a beginning and will come to an end. Likewise contemporary science says space-time had a beginning. It is also says that space-time will have an end, either in a big crunch or more probably as entropy (based on the Second Law of thermodynamics) will
have reached a maximum so that space-time dissipates into nothingness as a result of its expansion.\textsuperscript{236} If God is “only a temporal being,” then God is finite because time is relative and finite and he too must cease to exist with the death of the universe.

Wolfhart Pannenberg has likewise noted that the idea of God as a temporal being, “makes God into a finite being if it implies that like ourselves God at every moment of his life looks ahead to a future that is distinct from the present and sees the past fading away from him.”\textsuperscript{237}

To be sure, the word “infinite” is not found in the Scriptures, but the early Greek Fathers have shown it is a corollary term to eternity. Infinity is not simply a mathematical concept implying that finite time is extended endlessly. Rather, infinity is a theological\-metaphysical concept that entails the idea of God’s cosmological transcendence—that God transcends everything finite.\textsuperscript{238} Yet the infinite is not simply the negation of the finite; it also embraces it. If the infinite were simply the negation of the finite and defined as something over against it as a timeless realm, then the infinite would simply be another “finite” thing alongside other finite things.\textsuperscript{239}

Basil described God as “outstripping the limits of time, Ibecause God is eternal and infinite.” He notes that “even before this world an order of things \[the life of the Trinity\] existed of which our mind can form an idea, but of which we can say nothing, because it is too lofty a subject for men.”\textsuperscript{240} We can think of the infinite, but we cannot imagine (or picture) it because it transcends our finite understanding. Basil offers a contrast between the infinite and the finite time by noting that created things exist in the “succession of time, and for ever pressing on and passing away and never stopping in its course. Is not this the nature of time, where the past is no more, the future does not exist, and the present escapes before being recognized? And such also is the nature of the creature which lives in time.”\textsuperscript{241} The difference between the finite and the infinite is why we cannot picture the infinite. Nor can we picture the idea of a beginning of space-time because “God is the Creator of the universe.” Yet we are able to think it because it is part of a body of truths that are “intellectual and invisible.”\textsuperscript{242}

\textbf{Swinburne’s View of Time—An Implicit Rejection of the Trinity}

\textit{Perichoresis} is a term that John of Damascus used in the eighth century to describe the way the Three Persons of God eternally interpenetrate and share in each other’s personal life. We noted above that Origen believed that the distinction between the infinite and the finite (eternity and time) is the basis for explaining the unity of the divine trinity. God the Father is “Ungenerate,” while the Son is “eternally begotten” of the Father and the Holy Spirit eternally “proceeds” from the Father. Origen thus shows the distinctions of time (past, present, future) do not apply to God’s eternal essence. Their relationship to each other cannot “be measured by any divisions of time.”\textsuperscript{243} This means there is no temporal “progressive advancement” in the relationship of the three Persons.\textsuperscript{244} Though God the Father is the Father of the Son, this has no time-specific meaning, for the Son has always existed even before there was a beginning in time. Likewise with the Holy Spirit who has always existed, though the Spirit “proceeds” from the Father. Origen says the Son and Spirit have their existence from the Father, but “not in time.” He further distinguishes between “antioriety” and “posterity,” noting these terms do not apply to the Trinitarian Persons.\textsuperscript{245}
Perichoresis is a term that these early Greek Fathers used to describe the way the Three Persons of God eternally interpenetrate and share in each other’s personal life. Unless the three divine persons are a simultaneous unity of life, there can be no trinity. If the three divine Persons experience the past as disappearing from view and if each Person waits for an uncertain future that is yet to happen, the unity of the three Persons of God is split and the oneness of God is denied. Gregory of Nyssa has specifically noted that if God is bounded by time then “the Holy Trinity exhibits discord with itself.”

This would mean we have a finite tritheism at best. The idea of the Son of God as “begotten” of the Father and the Holy Spirit as “proceeding” from the Father would be dramatically transformed into a time-conditioned meaning—if “eternity” simply means unending time. In this sense, the Son and the Spirit would exist alongside the Father in time instead of being a differentiated trinity of one God. As opposed to this, Barth has shown God exists in “pure duration” and we “exist from one time to another.” Because God’s duration is not limited by time, “He can be and will be true to Himself, and we can and may put our trust in Him.”

When the early Swinburne argued for a timeless God, he was assuming what Hegel called “the bad infinite of the understanding,” as if the infinite were some “thing” that stood over against the finite. The later Swinburne revised his notion of the infinite to a mathematical concept of unending time, thus eliminating a real distinction between the finite and the infinite. “The true infinite of reason” (as Hegel put it) assumes that God transcends all finite distinctions while dialectically including the finite within his larger life.

I will not argue for a Hegelian view of God here (which the early “right wing” Hegelians interpreted in an orthodox way), but surely a “true infinite” includes the idea that God includes time as well as transcends it. The “true infinite” also serves as the foundation for Christian theology affirming that God is intrinsically a differentiated unity, a Trinity. The idea of eternity as the simultaneity of the successive moments of time is one of the implications of the unity of the immanent and economic trinity. That is to say, if God has revealed his one being in the economy of history as Father, Son, and Holy Spirit, then this plurality in God’s revelation (the economic Trinity) is a reflex of the plurality in God’s eternal being (the immanent Trinity). The immanent Trinity is simultaneously the economic Trinity even as God’s eternity simultaneously includes the whole of time.

6. Concluding Observations

I mentioned above that the creation of space-time served as the setting for the history of salvation begun with the call of Abraham (Genesis 12). A decisive moment in this history was the revelation of God’s name to Moses as “I AM WHO I AM” (Exodus 3:14). Jesus is presented in the Gospel of John in a series of disclosures as “I AM.” For example, Jesus said: “Before Abraham was, I am” (John 8:58). Paul Ricoeur believes that Revelation 1:4—“the one who is, and who was, and who is coming”—is a re-translation of Exodus 3:14. It is fitting that theology should understand the being of God (“I Am”) as the eternal present of all times—the past, the present, and the future: “Holy, holy, holy, is the Lord God Almighty, who was and is and is to come!” (Rev. 4:8). Because God transcends all temporal distinctions is why God can “show to his servants” what will take place in the future (Rev. 22:6).

The direction of the history of salvation from its beginning with Abraham was moving
in a linear way toward the future when the kingdom God would come. The main motif in Jesus’ preaching was the coming kingdom of God. The New Testament believed this kingdom had already come in Jesus, and yet it was still to come in the future. Paul spoke of a date in God’s own mind when this future would happen; he called it “the appointed time” (I Cor. 7:29). It is fitting that the book of Revelation concludes with the future expectation that “space-time” will be transformed into a “new heaven and a new earth” Rev. 21:1) where the history of salvation culminates in God “dwelling with his people” and there will be “no more death” (Rev. 21:4). Our hope is in God who is eternal. Pannenberg has shown that God is presented in the history of salvation as the God of hope because the coming kingdom of God assumes the priority of the future over the present and past because God is the future of all time. There is nothing more ahead of him. God can be trusted because he is the power of the unbounded future and embraces all time: “I am the Alpha and the Omega, the first and the last, the beginning and the end” (Rev. 22:13).

I once saw a bumper sticker on a car that said: ‘Don’t worry about tomorrow. God is already there.’ A Boethian concept of eternity shows that God is the unbounded future and he thus knows all things—our past, present, and future—but not in advance of their happening! Thanks to relativity theory this concept of the early Greek Fathers, implicit in Scripture, is a logically consistent idea even though it is counterintuitive to common sense.

In conclusion, I believe we should take the relativity and the big bang theories seriously. That is, the only space and time that we know about are the ones we experience, and contemporary physics has corrected our commonsense misunderstanding of space-time. This is not to affirm philosophical positivism, as if the only reality is space-time (the physical universe). Rather, it is to say that temporal distinctions are finite, whereas God is revealed in the history of salvation as eternal. This means, as Wesley put it, that time is a fragment of eternity. As such, time is real to the very essence of God, and as biblical anthropomorphisms show God relates to humans on their level, respecting their own personal freedom of choice. Yet God as eternal “is the whole, perfect, and simultaneous possession of endless life.” Because time is real to the essence of God, Swinburne is right to say that it is logically impossible for God to know the future in advance of its actual happening, but he should also agree with Clement of Alexandria who said nearly 300 years before Boethius that God’s “eternity . . . presents in an instant the future and the present, also the past of time.” The early Swinburne hinted at this when he spoke of God metaphorically as if He was moving with “infinite velocity.” As we noted above, Sorabji shows that contemporary physics confirms the intelligibility of this concept.

This Boethian view of eternity has been ably defended recently by Brian Leftow. He writes: “I think that a defender of God’s eternity can assert that (in a strictly limited sense) one and the same event is present and actual in eternity though it is not yet or no longer present or actual in time. That is, it can be true at a time t that an event dated at t + 1 has not yet occurred in time, and yet also correct at t to say that that very event exists in eternity. That all events occur at once in eternity, I submit, does not entail that they all occur at once in time”.

NOTES
1. Richard Swinburne, “The Timelessness of God,” Church Quarterly Review (July-September,
A Reply to Richard Swinburne

2. Ibid. pp. 334-335.
5. Ibid., p. 330.
8. Barth, Church Dogmatics, 2.2.662.
10. Ibid., p. 484f.
11. Ibid., p. 482.
12. Ibid., p. 480.
16. Ibid., p. 486.
17. Ibid., p. 482.
18. Church Dogmatics, 2.2.610ff; cited by Pannenberg, Systematic Theology 1:404n.
21. Barth, Church Dogmatics, 2.2.609.
23. Ibid., p. 131.
24. Ibid.
27. The Coherence of Theism, p. 225
29. Ibid., p. 225. To be sure, Cullmann argued that eternity meant unending time, but then he also argued that God was “Lord over time” and was thus able to foresee the future. Cullmann, Christ and Time, trans. Floyd V. Wilson (London: SCM Press, 1962). Cullmann was also assuming a commonsense view of time.
30. Barth, Church Dogmatics, 2.2.662.
31. Barth, Church Dogmatics, 2.1: 615; cited by Pannenberg, Systematic Theology, 1:405.
32. Barth, Church Dogmatics, 2.2.610ff; cited by Pannenberg, Systematic Theology, 1:404n.
35. Ibid., p. 144.
36. Ibid., p. 143.
40. Ibid., 1:258-261.
43. Ibid.
44. Ibid., pp. 64-65.
47. Ibid., p. 9.
48. Some American theologians initiated what they call “the openness of God” theology as an alternative to “the traditional Christian view” (=Calvinism). Their main concern is pastoral and devotional, and they want to preserve human freedom that has been vitiated by Calvinism. Unfortunately, they did not take their cues from Barth and Pannenberg on divine omniscience and thus they did not consider that Boethius and the early Greek Fathers offered a way to reconcile divine foreknowledge and human freedom. Cf. *The Openness of God* (Downers Grove, Ill.: InterVarsity Press, 1994) ed. by Clark Pinnock, et al.
49. Wesley published an article in *The Arminian Magazine*, 8 (1785): 336, by “a late author,” which was entitled, “On the Eternity of God.” It was a critique of Locke’s view of “duration,” defending Boethius’s concept of eternity.
51. Ibid.
55. Ibid.
56. Ibid., p. 757.
57. Ibid., p. 775.
59. Ibid.
60. Ibid.
61. Ibid.
62. Ibid., 2:248.
63. Ibid.
64. Ibid.
65. Ibid.
66. Ibid., 2:302.
67. Ibid., 2:311.
68. Ibid., 2:312.
A Reply to Richard Swinburne

69. Ibid., 2:313.
70. Ibid., 2:315.
71. Ibid., 2:314.

72. One of the most difficult hermeneutical problems is the New Testament use of the Old Testament scriptures. Von Rad has shown that "the New Testament shows a freedom and breadth and vitality in interpreting the Old Testament" (Old Testament Theology, 2:337). He notes that in the New Testament that the coming of Jesus is interpreted as though "all Israel's experience of Jahweh had been planned with reference to Jesus Christ, and that it was only for those who believed in him that the long-transmitted writings became fully and finally actual" (ibid. 2:330). James Barr has noted that this freedom to "Christianize the Old Testament" has occasioned considerable concern among some Old Testament scholars who insist upon "the distinctness of the Old Testament from the New, and from Christianity in general." (James Barr, The Concept of Biblical Theology: An Old Testament Perspective (Minneapolis, MN: Fortress Press, 1999), p. 253). Von Rad was critically aware of this problem, and he frankly admitted that he did not have a final solution to it. (Old Testament Theology), p. 356.

74. Ibid., 1:503-504.
75. Ibid., 1:504.
76. Ibid.
77. Ibid., 1:505.

80. Richard Rice in his essay on "Biblical Support for a New Perspective," in The Openness of God (pp. 30-55) cites numerous passages that show God has foreknowledge, but he largely sidesteps their meaning and minimizes their predictive element by expounding on the nature of human freedom that is assumed in the Scripture. His basic working assumption is that divine foreknowledge and human freedom are contradictory, and hence he assumes that the biblical texts on foreknowledge do not really mean that God knows the future! The weakness of this view is well expressed in the authors' own terms when they admit: "We do not believe that this view is capable of 'proof' in any hard sense. We know that our arguments are open to question" (pp. 9-10). A basic weakness of the "openness of God" movement is that it did not consider the third option of Boethius. It is also merely assumed a commonsense view of time and ignored relativity physics. The "openness movement" appropriately insists that God does not know things in advance of their happening, but so did Boethius agree with this viewpoint.
81. Pannenberg, Systematic Theology, 1:401.
82. Ibid., 1:402.
83. Ibid.
85. Origen, "Origen De Principiis," Ante-Nicene Fathers, 4:253. The authors of The Openness of God (1994) have rightly argued that biblical anthropomorphisms show that God responds to human freedom and that his actions are conditioned on human choices, but then these authors take a big leap in their argument to conclude that therefore God does not know the future. This is a non sequitur. Nor did they draw from other resources such as the Early Greek Fathers who offered a solution to this problem. Cf. The Openness of God, pp. 30,55.
89. Sorabji, Time, Creation, and the Continuum, p. 114f.
90. Ibid., pp. 115-117.
91. Ibid., pp. 102, 255-256.
92. Ibid., pp. 255-256.
93. Ibid., p. 256.
94. Ibid.
96. Ibid., 1:
97. Ibid., 1:177.
100. Ibid., 1:401.
101. Ibid., 1:399.
102. Ibid., 1:400.
103. Ibid., 1:566.
104. Ibid., 1:399.
105. Ibid., 1:400.
107. Ibid., 2:348.
108. Ibid., 2:461.
109. Ibid., 2:495.
110. Ibid., 2:360.
112. Ibid., p. 114.
114. Sorabji, Time, Creation, and the Continuum, p. 255.
116. Augustine pointed out that the Greek hypostasis is the Latin equivalent of persona. He writes: “Our Greek friends have spoken of one essence, three substances [ὑπόστασις]; but the Latins of one essence or substance, three persons” from Book VII On The Trinity.
118. Ibid., 4:246.
120. Ibid., 4:440.
121. Ibid., 4:440.
122. Ibid., 4:440.
124. Ibid., 4:253.
125. Ibid., 4:253.
127. Ibid., 8:55.
128. Ibid.
129. Ibid.
130. Ibid.
A Reply to Richard Swinburne

132. Ibid., 8:276-277.
134. Ibid., 5:69.
135. Ibid.
136. Ibid.
137. Ibid.
138. Ibid., 5:99.
139. Ibid., 5:100.
140. Ibid.
141. Ibid., 5:97-100.
142. Ibid., 5:98.
144. Ibid., 5:296.
145. Ibid., 5:297.
146. Ibid.
153. Swinburne, The Christian God, pp. 94, 143-144
156. Hawking, A Brief History of Time, p. 68.

162. Hawking, *A Brief History of Time*, p. 50. To be sure, there are theories that propose that the initial conditions of the Big Bang are irrelevant, such as inflationary theories advocated by Andrej Linde. Out of a chaotic condition anything could develop, so it is argued. Yet as Willem Drees points out, each of these theories accept the theory of the Big Bang, noting that standard cosmology accurately accounts for the evolution of the Universe since the original Big Bang expansion. *Beyond the Big Bang, Quantum Cosmologies and God* (La Salle: Ill: Open Court Press, 1990), p. 44.


165. Ibid., p. 292.


170. Ibid., p. 91.


183. Ibid., p. 59.


186. Ibid., p. 80.

187. Shadowitz, *Special Relativity*, p. 44.

188. Gott, *Time Travel in Einstein's Universe*, p. 75.

189. Sartori, *Understanding Relativity*, p. 82.

190. Ibid., p. 200.


193. Gott, *Time Travel in Einstein's Universe*, p. 33

194. Swinburne, *The Christian God*, pp. 143-144. “The Openness of God” movement also assumes a Newtonian view of absolute time. American process theology holds a more credible view of God and time than “The Openness of God” movement because it incorporates relativity theory in its view. In this respect, I believe that “The Openness of God” movement is an unintended apologetic for process theology because of the inadequacies of its Newtonian perspective. That is, once it is realized that “The Openness of God” movement relies upon an out-of-date view of time, it will be more natural to embrace a process view of God and time. In this respect, Hartshorne speaks of divine relativity as a parallel idea to scientific relativity. However, I think both American
process theology and “The Openness of God” movement have an inadequate concept of creation because in both views God is not the creator of time.

195. Ibid., p. 72, 139
197. Shadowitz, *Special Relativity*, p. 43.

202. Ibid., pp. 194.
203. Gott, *Time Travel in Einstein’s Universe*, p. 34.
204. In Sartori’s illustration of the twins, Barbara is the space traveler who is traveling at 0.6c and she sees Arthur age much faster from her high-tech telescope as she starts her trip back home to earth, and Arthur observes her as aging more slowly. Time dilation means things slow down for Barbara in her reference frame, but what she “sees” through her telescope regarding Arthur who exists in a different reference frame is speeded up. This is where the concept of simultaneity breakdown is relevant. Sartori shows that the “turn-around” in the space trip is what accounts for the permanent simultaneity breakdown between the two different reference frames. Cf. Sartori, *Understanding Relativity*, pp. 195ff.

206. R. G. Mitchell, *Einstein and Christ, A New Approach to the Defence of the Christian Religion* also illustrates the concept of eternity in reference to the time-dilation implications of the theory of special\general theory of relativity. He notes: “Einstein’s proofs and subsequent experiments are easy to follow but immensely difficult to accept. However, that is how reality exists.” p. 30.

209. Ibid., p. 95.
210. Ibid.
212. Ibid., p. 245.
214. Ibid. Similarly, in an article, “Eternity and the Special Theory of Relativity,” *International Philosophical Quarterly* 33.2.130 (June 1993):221, Alan Padgett also misinterprets the relativity of simultaneity as epistemological rather than actual. As noted below, time dilation is actual because time itself is lengthened by the action of the curvature of space-time. This means the relativity of simultaneity refers to simultaneity itself, not to the relativity of the measurement of simultaneity. Padgett’s further denial that if something is located in time it must be located in space is a surprising misinterpretation of relativity theory (ibid., p. 222).

218. Ibid., pp. 94-95.
219. Ibid., p. 73.
222. *Modes of Thought*, p. 177.
224. Ibid., p. xiv.
227. Ibid., p. 40.
230. Ibid., p. 254.
231. Ibid., p. 257.
235. Ibid., p. 140.
238. Ibid., 1:397.
241. Ibid.
242. Ibid.
244. Ibid., 4:253.
245. Ibid., 4:270.
247. Barth, *Church Dogmatics*, 2.2.609.
252. William Lane Craig is worried that if one takes relativity theory literally one will succumb to positivism. This is a *non sequitur*: Relativity theory and the big bang theory only tell us what is true about the physical universe (space-time). It is obscurantist to contest the well-established results of science and to develop an alternative view of space and time based on theological or metaphysical grounds. In this respect, Willem Drees has noted that the patristic idea that time was created (*creatio cum tempore*) is today “a reasonable interpretation of most contemporary cosmologies” *Beyond the Big Bang*, p. 127. Craig wants to talk about a philosophical concept of time that is not related to scientific time, and it is apparent that his real intent is to preserve a mistaken commonsense view of time. This is misguided because the only time we know is the time that science has described as existing, revealing that our commonsense explanation is wrong. To talk about a philosophy of time that is not a “philosophy of physical time and space” is unwarranted. The Bible assumes that the creation of the physical universe (space-time) is the setting for salvation history. The early Greek Fathers assumed that space and time were physical entities created by God through which God revealed Himself. If Craig is worried about positivism, he should be more worried about a Gnostic and mythical view of time. Unfortunately much of the ongoing discussion among American analytical philosophers of religion, particularly in the broadly orthodox tradition, prefer Newton to Einstein. This is seen in William Lane Craig, “The Special Theory of Relativity and Theories of
As Sartori shows, the consensus of contemporary physics is that the relativity of simultaneity means that events in one inertial frame will not be simultaneous in another inertial frame. Padgett, however, misinterprets simultaneity to mean only that the measurement of simultaneity is relative, not simultaneity. Cf. Padgett, “The Special Theory of Relativity and Theories of Divine Eternity,” *International Philosophical Quarterly* 333.2.130 (June 1993): 221. He wants to say that there is absolute simultaneity for all observers. Yet this contradicts relativity theory. As Shadowitz puts it: “Two events that occur simultaneously for one observer do not occur simultaneously for another observer, moving at constant speed relative to the first, because the velocity of light is the same for both. Two observers measure completely different events. Consequently, it is possible for each to contradict the other, yet for each to be correct.” (Shadowitz, *Special Relativity*, p. 34). Padgett also misinterprets the relativity of simultaneity because he only considered the special theory of relativity. Padgett is right to say that the special theory of relativity explains the “method we use to measure simultaneity between distant events is a matter of convention” “Eternity and the Special Theory of Relativity,” *International Philosophical Quarterly*, 22.2.130 (June 1993), p. 221, but he fails to see that the general theory of relativity introduces an entirely different conclusion. As Milič Čapek put it, in the special theory of relativity, time dilation was a “quasi-perspective distortion resulting from the relative motion of two inertial systems and perfectly reciprocal in both systems, but in the former the general theory of relativity it is an actual modification of the proper time itself.” (Milič Čapek, *The Philosophical Impact of Contemporary Physics*, p. 200). This is to say that time itself is modified and lengthened by the action of the curvature of space-time. As Sartori shows, the “paradox of the twins” is resolved when it is seen that what makes the space-traveling twin younger than the one who stays on earth is the “turnaround” when the twin shifts from one inertial frame to another. (Sartori, *Understanding Relativity*, p. 194). It was this recognition of the two theories of special relativity and general relativity being combined, along with experimental evidence, that ended the controversy over time dilation in the 1950s and 1960s. This recent book suffers because its authors are reluctant to accept the full implications of the laws of relativity theory and the big bang theory. Also this book suffers because its authors do not seem to realize that the consensus of contemporary physics is that the relativity of
simultaneity is actual, not merely epistemological. In this respect, Padgett misunderstands the implication of relativity theory rather than Eleonore Stump, Norman Kretzman, and Brian Leftow. Cf. Padgett, “Eternity as Relative Timelessness,” God and Time, p. 99. For a larger discussion of special and general relativity in understanding the relativity of simultaneity, see Milić Capek, The Philosophical Impact of Contemporary Physics, pp. 199-205. Sartori expresses the consensus of contemporary physics when he says: “Relativity requires us to reject the notion of absolute time,” [Understanding Relativity, p. 54] and “simultaneity is not absolute but can hold only in a particular frame of reference” (ibid., p. 59).

254. Brian Leftow, “Eternity and Simultaneity,” Faith and Philosophy 8 (1991): 165. Cf. Brian Leftow, Time and Eternity (Ithaca, NY: Cornell University, 1991). John Polkinghorne offers a caricature of Boethius’ point of view when he puts it in the category of time as “a trick of human psychological perspective.” Cf. Faith, Science & Understanding (New Haven: Yale University Press, 2000, pp. 132ff. Polkinghorne carefully notes that time is relative, and he appropriately does not consider God simply a temporal being. He sees in the “divine nature a temporal pole of engagement with creation as well as, of course, an eternal pole” (ibid., p. 151). This is perfectly consistent with Boethian interpretation. Polkinghorne also writes: “The strongly temporal character . . . seems to imply that God, knowing the universe as it actually is, would know it temporally. The future would be brought into being as time evolves and it would appear that God, knowing all that can be known, would nevertheless not yet know the unformed future” (ibid., p. 150). Again this is perfectly consistent with Boethius. However, Polkinghorne misunderstands Boethius’ basic insight that God does not know events in advance of their happening, but because God as the transcendent Creator of space and time is the simultaneous moment of the past, present, and future, he knows all of our future events even though these future events have not yet occurred for us. This means that God’s knowledge of our future allows for human freedom because God’s knowledge is conditioned upon what will in fact be our future. In this respect, Polkinghorne confuses Boethius’ view with Augustine’s view of divine timelessness. Similarly, Arthur Peacocke argues against God’s knowledge of our future because he thinks this is deterministic. Cf. Theology for a Scientific Age (Minneapolis: Fortress Press, 1993), p. 129. Peacocke and Polkinghorne cite each other as support of their own views, and they incorporate spacetime relativity in their thinking of God’s relation to time. Cf. John Polkinghorne, Scientists as Theologians (SPCK, 1996). In this respect, they clearly recognize time as finite and created, and they affirm time is fundamentally distinct from eternity. So they do not define eternity as endless time. Instead, Peacocke affirms that time is created by God (Peacocke, pp. 131, 132). Peacocke thus says that “God transcends created time as its Creator” while acknowledging “that created time is ‘in God.’” (ibid., p. 132). All of this is perfectly consistent with Boethius, but there is a basic incoherence in their thinking about God’s relation to spacetime relativity. Peacocke affirms that God is the Creator of spacetime and that he transcends the past and present of time, but he is unable to transcend our future. The incoherence is seen in that God is supposedly the Creator of all time, but He is unable to transcend future time. Is God then truly transcendent? In this respect, they fail to incorporate fully an important element of spacetime relativity—the concept of the relativity of simultaneity. On the one hand, they say God “transcends” all created times simultaneously (ibid., p. 130)—except that God does not transcend the future. Willem Drees, a Dutch philosopher of science and religion, puts it this way: “In the special theory of relativity the notion of simultaneity as having a universal meaning with respect to a ‘now’ is lost. This in turn raises serious issues for statements about God having time, being related in a special way to ‘the past’ or acting as to influence ‘the future.’ ‘Past’ and ‘future’ can be used as concepts relative to an observer located at some position on a specific worldline in spacetime. The problem arises when a definite article is used, speaking about ‘the past’ and ‘the future,’ as if these are global concepts. Thus, problems arise in theologies which insist that ‘God’s future’ is open, or make other claims which assume the existence of a universal notion of time. As long as God lacks a specific
location and state of motion, it is difficult to understand the meaning of God knowing the past or influencing the future.” Willem B. Dress, “A Case Against Temporal Critical Realism? Consequences of Quantum Cosmology for Theology,” *Quantum Cosmology and The Laws of Nature*, ed. R.J. Russell, Nancey Murphy, and C.J. Isham (University of Notre Dame Press, 1996), p. 331. Drees specifically rejects the view of Polkinghorne and Peacocke that assumes God is spatially coincident with every spacetime point—except the future. Because Polkinghorne excludes God being spatially coincident with the future, Drees notes that Polkinghorne’s view is not in line with relativity theory (ibid., p. 332). Polkinghorne’s view is really a compromise between Newton’s and Einstein’s theory of time. He holds to the relativity of the past and present, but then falls back on a Newtonian concept of the future. Given the relativity theory of time dilation which has been confirmed by repeated scientific experiments, the concept of God knowing the future is an intelligible idea that is perfectly consistent with human freedom and contingency. In this respect, Boethius’ view is not a “block” notion of time—the idea that the past, present, and future are really an “illusion” as if implicitly they merge together as a single block. Čapek and Ian Barbour have noted that such a “block” view is incompatible with relativity theory, and yet they also point out some events are past for one observer in one inertial reference frame and future for another observer in a different inertial reference frame; however, there is an absolute distinction of the past and future of the same event for all observers. This means the future does not have the possibility of causing an event to occur in the past in the spacetime spectrum. In this respect, the relativity of simultaneity and causality are compatible with each. Cf. Ian G. Barbour, “Bohm and Process Philosophy: A Response to Griffin and Cobb,” *Physics and the Ultimate Significance of Time*, ed. David R. Griffin (Albany: State University of New York Press, 1986), p. 168; cf. Čapek, “Relativity and the Status of Becoming,” *Foundations of Physics* 5.4 (December 1975): 607-617. This real distinction among the past, present, and future is fundamental to Boethius’s view of eternity. God transcends all inertial reference frames, but the casual relation among events in the flow of time in our inertial reference frame is not negated as such. Polkinghorne misinterprets Boethius on this very basic point, wrongly assuming that Boethius considered time to be a “trick” of the imagination. More troublesome for the novel view of Polkinghorne and Peacocke, however, is its incompatibility with the biblical concept of divine omniscience and the Christian tradition extending back to the thinking of the early Greek Fathers who affirmed human freedom. Polkinghorne and Peacocke seem to be motivated by a commendable concern to protect human freedom, but it seems unwise, in my opinion, simply to set aside the thinking of the church on a basic idea which has had such long history.