Eternity and Simultaneity

Brian Leftow
Boethius and later medieval writers assert that God is timeless. Yet in the course of modelling God's knowledge on human observation, they assert that God sees temporal events which are really present for Him to see. This entails that though God's acts of knowledge are not temporally simultaneous with temporal events, they are in some other sense simultaneous with them. I explore the attempt of Eleonore Stump and Norman Kretzmann to explain this other sort of simultaneity between eternal and temporal entities, then develop an alternate account of the relations of time and eternity.

Boethius, Aquinas and a host of other medieval luminaries hold that God is not located in time. That is, they assert that though God exists, there is no time at which God exists.1 One project for which Boethius and his compatriots found this claim important was that of showing that divine foreknowledge of our future is compatible with genuinely free human action.

The claim that foreknowledge and freedom are not compatible can be based on these premisses:

1. There are truths about future human actions.
2. Necessarily, God at all times believes all and only truths.2
3. What is past is beyond any human being's power to affect.

For suppose that one truth about future actions is that

\[ P \text{. On September 26, 1999, at 1:05 p.m., George feeds some ducks.} \]

If God at all times believes all truths, then God believed \( P \) yesterday. If God is necessarily omniscient, it is not possible that God believed \( P \) and yet \( P \) is false; in any possible world in which God believes that on September 26, 1999, at 1:05 p.m., George feeds some ducks, George does then feed some ducks. So George can avoid his fowl fate only if George can effect it that yesterday God did not believe that \( P \). But per (3), what is past is beyond any human's power to affect. It follows, then, that George cannot avoid feeding ducks. On a libertarian view of freedom, one does an act freely only if it is in one's power to avoid doing it. So on such a view of freedom, it seems, God's having foreknowledge entails that George does not act freely; despite appearances, the ducks are not getting a free lunch. Parallel arguments will
work for any human action of which it is at some time true that someone will do it.

Boethius and his followers block this argument by denying that God is in time. If God is not in time, then while God necessarily believes all and only truths, there is no time at which He believes these things: (2) is false. If God is not in time, God’s beliefs do not occur at the same time as anything, and so do not occur at any time in our past. Thus freedom is saved.

Well and good. But we want to know just how a timeless God manages to have true beliefs about events in time. Boethius and the rest explain this on the model of observation. Boethius states that an eternal being is always present to itself and (has) the infinity of mobile time present to it.3 Thus (in a famous image) an eternal God has all of time spread before Him as a man atop a hill has all of a road before his gaze; both have knowledge just by seeing what is there to be seen. Aquinas writes on the same subject that
eternity...comprises all time...all things that are in time are present to God from eternity...because His glance is carried from eternity over all things as they are in their presentality.4

Aquinas clearly is saying more than that God is aware of temporal things. He is saying that God is aware of temporal things because they are really present for Him to observe, even as you see this page because it is really present for you to see.5 Now if a temporal thing is really present to God, it seems to follow that God and that thing exist simultaneously. We thus have what is at least a paradox. To solve the freedom-foreknowledge conundrum, Boethius et al. deny that God’s existence is simultaneous with temporal events. Yet to explain how foreknowledge is possible, Boethius and company affirm that God’s existence is simultaneous with temporal events. Charity dictates saying that Boethius and the rest are not just contradicting themselves, and so have at least two sorts of simultaneity in mind. This raises a question, though. What kind of simultaneity relates a timeless God and temporal things? What do “this thing is present to God” or “God and this thing exist simultaneously” assert, if not “God and this thing exist at the same time”?

This may sound like a merely technical question. I think that it is of broader import, for at least three reasons. First, if Boethius and friends cannot adequately explain their second sort of simultaneity and ground it in a plausible theory about the relations of eternity and time, their escape from contradiction will seem ad hoc and unpersuasive. There is also a second way in which the question affects how we evaluate the Boethian treatment of foreknowledge and freedom. Boethius, Aquinas and the rest picture the whole of time spread before a timeless God’s gaze. Thus they see all times, including both our future and our past, as related to God’s vision in the same way. So for
Faith and Philosophy

Boethius *et al.*, if a timeless God's believings are simultaneous with our future, they are also simultaneous with our past. If they are simultaneous with our past, though, we may have the freedom-foreknowledge problem all over again. For if God's believings are simultaneous with our past, then perhaps they are after all *in* our past, or are *as if* past in a relevant way. If the freedom-foreknowledge problem does not arise anew, we want to be told why. To tell us why, Boethius and company must explain their second sort of simultaneity. Only if this sort of simultaneity does not underwrite the claim that God's believings are in our past or as if so is the Boethian resolution of the freedom-foreknowledge problem finally viable.

Let me try to clarify this "as if past" status. Alvin Plantinga argues this way:

Suppose in fact Paul will mow his lawn in 1995. Then the proposition "God (eternally) knows that Paul mows in 1995" is now true. That proposition, furthermore, was true eighty years ago.... Since what is past is necessary, it is now necessary that this proposition was true eighty years ago. But it is logically necessary that if this proposition was true eighty years ago, then Paul mows in 1995. Hence his mowing then is necessary in just the way the past is. But then it neither now is nor in future will be within Paul's power to refrain from mowing.

The key premisses of Plantinga's argument are that

4. "God (eternally) knows that Paul mows in 1995" is now true, and
5. If "God (eternally) knows that Paul mows in 1995" is now true, it was true 80 years ago.

According to Boethius and his allies, God is related in the same way to all times. This supports (5); if God's relation to time is such as to permit the truth of (4), it would equally have let "God (eternally) knows that Paul mows in 1995" be true 80 years ago. If (4) is true, then, a timeless God is as if in our past; though He is not literally in our past, truths about Him have for us the necessity of the past. To fully vindicate the Boethian response, then, one must show how a Boethian can plausibly deny (4). I will suggest below that on one construal of Boethius' second sort of simultaneity, a Boethian can do this.

A third reason to explore Boethius' second sort of simultaneity is that if God and temporal things cannot in any sense exist simultaneously, one must withdraw or seriously qualify either the claim that God is timeless or the claim that God and temporal creatures are present to one another. The first claim is one of the main contributions of later Greek philosophical thought to orthodox Christian theology. The second seems basic to the Biblical picture of God as aware of and interacting with temporal creatures. Thus at this rather dry, abstract juncture, we have a test of whether one heirloom of Greek metaphysics really can cohere with the heritage of Hebrew monotheism in a single conception of God.
ETERNITY AND SIMULTANEITY

In their paper "Eternity," Eleonore Stump and Norman Kretzmann offer a creative, sophisticated attempt to shed light on timeless-temporal simultaneity. I will examine their effort and recommend an alternate account of such simultaneity. Stump and Kretzmann base their account of eternal-temporal (ET-) simultaneity on a metaphysical picture of the relation of time and eternity. This picture has two chief components, the claim that eternity is infinite life without succession and the Einsteinian claim that simultaneity is relative to reference-frames. Let me explain these components and the picture of which they are part.

I. Stump and Kretzmann on time and eternity

I will first lay out the concept of infinite successionless life. A life's events, states and processes succeed one another if and only if they do not occur at once. Iff some events etc. in a life occur at or before t, and some at or after t+1, when t+1 succeeds t, the second set of events etc. succeeds the first. A life contains succession, then, iff not all parts of it occur at once. By contrast, iff a life lacks succession, all of it occurs at once: no phase of it is earlier than any other phase of it. Eternal life, then, is a timelike extension without earlier and later parts. As any life located in time has earlier and later parts, a life without succession is atemporal, i.e. without temporal location and so without temporal duration. Only if a life has earlier and later parts is some of it past and some of it future. If a life lacks earlier and later parts, all of it is present. Again, if a life begins, there is a time at which it begins; if a life ends, there is a time at which it ends. Hence an atemporal life can neither begin nor end. A duration without beginning or end, one would think, is in some sense infinite. Thus an eternal life is a single infinitely extended present. But again, though an eternal life is a genuine infinite extension, it is partless.

These claims raise many questions, and many philosophers doubt that anything could satisfy the description here assembled. But all I want to do at present is to set out the picture of time-eternity relations this concept generates. Let us make the common assumption that only that of time which is present is actual. We can then picture time and Boethian eternity as

two infinite parallel horizontal lines, the upper one of which, representing eternity, is entirely and uniformly a strip of light (where light represents... an indivisible present...), while the lower one, representing time, is dark everywhere except for a dot of light moving steadily along it.

As the moving dot of light glances on each portion of the lower strip, that portion of the strip is simultaneous with the upper strip, or more precisely with the whole of the upper strip: as the upper strip is ex hypothesi a single indivisible duration, if any of it is simultaneous with the dot, all of it is. Were the lower dot simultaneous with only part of the upper strip, part of the upper strip would be earlier than the dot-simultaneous part and part would be later,
and so the upper strip would contain relations of earlier and later. Because each dot-location is simultaneous with the whole upper strip, each is simultaneous with precisely the same portion of eternal duration, namely all of it. Yet the dot-locations are not temporally simultaneous with each other. They remain discrete, one after another, on the lower line. Nor are they simultaneous as the upper line and the lower dot are, since this latter relation, ET-simultaneity, links an eternal and a temporal term, not two temporal relata. In this metaphysical picture, then, the relation of being-somehow-simultaneous is not transitive. That dot-locations are ET-simultaneous with the same upper line does not entail that they are in any sense simultaneous with one another.

This view of the relation between time and eternity also raises a great many questions, most of which will not be discussed here. One which will (because its answer introduces ideas which we use later) is this: how can dot-locations be simultaneous with the same portion of the upper strip and yet be in no way simultaneous with one another?

II. The relativity of simultaneity

To answer this question, Stump and Kretzmann invoke the Einsteinian thesis of the relativity of simultaneity. According to the special theory of relativity, the question of whether two events occur at the same time does not have only one answer. Rather, its answer depends on one's state of motion. Stump and Kretzmann invite us to consider this standard example: a train passes by an observer standing still relative to the ground. The train is struck at both ends by lightning, just when (the observer would say that) the train's mid-point is directly in front of this observer. Light from the front and rear lightning-strikes travels the same distance (1/2 the length of the train) at the same speed (light-speed) to reach the observer. Thus the light of the front strike reaches the observer just when the light of the rear strike does; this observer sees the strikes at once. In this person's experience, then, the strikes are simultaneous.

There is another observer sitting down within the train. The train is at rest relative to this observer, since he is moving exactly as it is. Relative to the ground observer, the train is travelling at 3/5ths the speed of light. The train-observer, then, is moving toward the front lightning strike and away from the rear one at 3/5ths light speed (as the ground observer sees it). So light from the front strike reaches the observer on the train some time before light from the rear strike does. If the train observer sees both strikes, then, he sees the front one some time before he sees the rear one. In this person's experience, the two events are not simultaneous.

For the ground-observer, the two lightning-strikes occur at once. For the train-observer, they do not occur at once. According to special relativity,
neither observer sees things distortedly or makes a mistaken judgment of simultaneity. Both are right. The events are truly simultaneous relative to the ground observer and truly non-simultaneous relative to an observer who is in motion relative to the ground observer. Given special relativity, there is no such relation as absolute simultaneity, or simultaneity regardless of point of view. There is only simultaneity relative to different observers in motion relative to one another, or more generally to different objects in relative motion. Let me now introduce a term which will prove useful: an inertial frame of reference is a system of objects at rest relative to one another. Thus the ground and the ground observer constitute one inertial reference-frame, while the train and the train-observer constitute another. What the example shows is that there is no absolute simultaneity, but only simultaneity relative to different frames of reference.

Given special relativity, the relation of being-somehow-simultaneous (i.e. being simultaneous relative to some reference-frame) is intransitive. For all x, y and z, if x is somehow simultaneous with y and y is somehow simultaneous with z, we cannot infer that x is somehow simultaneous with z. For it could be that x is simultaneous with y in one reference-frame, y is simultaneous with z in another and there is no third frame of reference in which x and z are simultaneous. If being-somehow-simultaneous is intransitive, then there is just no problem in the claim that dot-locations ET-simultaneous with the same portion of the upper strip are in no way simultaneous with one another. There only appeared to be a problem because the question was posed in the outmoded terms of absolute simultaneity and transitive somehow-simultaneity.

III. The Stump-Kretzmann definition

Stump and Kretzmann try to capture their picture of time and eternity in their definition of ET-simultaneity. Taking eternity to be like a frame of reference in addition to any temporal reference frames, they define ET-simultaneity thus:

For every x and for every y, x and y are ET-simultaneous iff

(i) either x is eternal and y is temporal, or vice versa; and

(ii) for some observer, A, in the unique eternal reference frame, x and y are both present—i.e. either x is eternally present and y is observed as temporally present, or vice versa; and

(iii) for some observer, B, in one of the infinitely many temporal reference frames, x and y are both present, i.e. either x is observed as eternally present and y is temporally present, or vice-versa.11

This definition directly reflects Stump and Kretzmann's picture of time and eternity; it expresses, or tries to express, what it is for the top strip of light
in Stump and Kretzmann’s image to be together with the lower light-dot. This definition may seem to say that x and y are ET-simultaneous because x and y are simultaneous both in the eternal and in a temporal reference frame. But on this reading, eternal x would exist in time and temporal y would exist in eternity. Stump and Kretzmann deny that this occurs:

Nixon is temporal, not eternal, and so are his life and death. (That Nixon is both alive and dead in the eternal present) then cannot be taken to mean that the temporal entity Nixon exists in eternity, where he is simultaneously alive and dead, but rather (that) one and the same eternal present is ET-simultaneous with Nixon’s being alive and...with Nixon’s dying, although Nixon’s life and Nixon’s death are themselves neither eternal nor simultaneous. 12

To Stump and Kretzmann, for an eternal thing to occur in time would make it temporal, and for a temporal thing to exist in eternity would make it eternal. 13 Thus temporal things cannot exist in eternity, nor eternal ones in time. Nor (say Stump and Kretzmann) is there a third overarching framework, in addition to time and eternity, in which both eternal and temporal things can exist or occur. 14

This given, it seems that in (ii), x is eternally present with an eternal event of observing a temporal y, and in (iii) y is temporally present with a temporal event of observing an eternal x. (ii) and (iii) seem to suggest that it is because eternal and temporal beings can observe one another that they can exist simultaneously without existing in single overarching framework.

IV. Questions of Interpretation

Were this the meaning of (ii) and (iii), ET-simultaneity could not do the job that Boethius and Aquinas ask of it. These writers claim that God and temporal things exist at once to help to explain how a timeless God can perceive temporal things. 15 So they cannot in turn explain how God and temporal things exist at once by asserting (inter alia) that God observes temporal things, for this would render the first explanation vacuous. Stump and Kretzmann are in a like position. Early in their discussion of ET-simultaneity, they write that

we need...a simultaneity relationship between two relata of which one is eternal and the other temporal. We have to be able to characterize such a relationship coherently if we are to be able to claim that there is any connection between an eternal and a temporal entity or event. 16

If eternal and temporal things observe one another, there certainly is a “connection” between them. So like Aquinas and Boethius, Stump and Kretzmann need to characterize ET-simultaneity without appealing to eternal-temporal observation.

There are at least two further reasons for Stump and Kretzmann not to appeal to ET-observation in defining ET-simultaneity. First, as they stand, (ii) and (iii) seem to entail that two things or events are not ET-simultaneous...
unless two observers note that this is so. But surely relations of simultaneity exist even if there are no observers, provided that if there were observers, they could note the appropriate relations. Second, if the mention of observation stands, the definition of ET-simultaneity becomes circular. For all x and y, x observes y only if y causes x to have a certain experience: to analyze observation, we must invoke causality. According to Stump and Kretzmann, if one term of a causal relation is timeless and the other is temporal, cause and effect must exist simultaneously. So to analyze ET-causal relations, we must invoke ET-simultaneity. But then any definition of ET-simultaneity which invokes ET-observation (or other causally-implicated ET-knowledge) is implicitly circular, for to analyze fully the concept of ET-observation, we must bring in the concept of ET-simultaneity.

We must ask, then, just how vital Stump and Kretzmann's talk of ET-observation is. This talk looms large in (ii) and (iii), and so in discussing (ii) and (iii), Delmas Lewis, Paul Fitzgerald, Stephen Davis and Richard Creel have taken ET-observation as integral to Stump and Kretzmann's meaning. But Stump and Kretzmann state in a footnote that their talk of observation is dispensable:

> It is important to understand that by "observer," we mean only that thing, animate or inanimate, with respect to which the reference frame is picked out.

Thus Stump and Kretzmann circumvent the problems just raised. The real import of their definition is just that for every x and y, x and y are ET-simultaneous iff

(i) x is eternal and y is temporal, and

(iv) in the unique eternal reference frame, x is eternally present and y is present with respect to x (though not located within x's frame of reference), and

(v) in one of the infinitely many temporal reference frames, y is temporally present and x is present with respect to y (though not located within y's frame of reference).

In commenting on an earlier version of this paper, Prof. Stump explained "present with respect to" in (iv) and (v) as simply meaning "neither past nor future with respect to." As Stump and Kretzmann deny that there are such relations as eternal or ET-pastness and -futurity, (iv) and (v) so taken can only deny temporal pastness and futurity to x and y. Now temporal pastness and futurity indeed can link only pairs of temporal entities, not a temporal and an eternal being. But why does this fact entail that eternal and temporal beings are in any sense co-present? They or their durations could have at least two other relations: they could be discrete, or they could be incommensurable.
V. Discrete times and eternity

A number of philosophers have argued that there could be at least two discrete temporal series. Let us say that if one moment is earlier or later than or simultaneous with a second, the two moments are temporally connected. Then two discrete temporal series would be two series of moments, A and B, such that every moment in A is temporally connected with every moment in A, every moment in B is temporally connected with every moment in B, yet no moment in A is temporally connected with any moment in B. There is no contradiction in supposing that there are two such series, whether or not one could ever have evidence that two such series exist.

Is it possible to have evidence that a temporal series other than one’s own exists? Suppose, as is plausible, that it is a necessary truth that temporal cause-events occur at the same time as or earlier than or (if backward cause-event is possible) later than temporal effect-events. If temporal cause and effect must be temporally connected, no event in one temporal series can have effects in another series. For if this is so, then if event E in A causes event E* in B, it follows that E is temporally connected with E*, and so that A and B are not discrete after all. Nor if this is so can one remember any events from a second discrete temporal series if (per impossibile) one somehow finds oneself there, causelessly, and then causelessly returns. For a mental event E is a memory of some other event E* only if E* is among the causal conditions of E. So no evidence of the existence of a second temporal series could take the form either of memories of living in that series or of effects of that series’ events in this series.

Another possible source of evidence might be the characteristics or effects of an event which caused the second series to exist. Specifically, someone could suggest that perhaps as our knowledge of the traits of the Big Bang grows, we might come to see that that event had properties which could be best explained by saying that it led to the formation not just of our spacetime but of at least one more discrete spacetime. However, on this supposition the Big Bang either would or would not be located in time-series A and B. Were it not, it would violate the condition that temporal cause and effect must be temporally connected; hence the Bang is located in both series. But every event in every temporal series is temporally simultaneous with itself. If this is true, then if the Big Bang caused both A and B, there is an event in series A (the Bang) which is A-simultaneous with an event in series B (the Bang), and so A and B are not discrete temporal series. Instead, they are disjoint portions of one single spacetime with a rather odd topology.

Still, one could perhaps learn by revelation that a second time-series exists. This may depend in part on whether God is temporal. A temporal God could not create a second time-series. For if God creates at time t, what God creates
begins to exist at time t. So if God exists at t in time-series A and at that
point creates series B, B begins to exist at t: the first moment of B is simul-
taneous in A with a moment in A, and so A and B are not discrete. I cannot
see at all how a temporal God who had not created it and was altogether
causally insulated from it could know that a second temporal series existed.
If He could not know this, He could not reveal it. But God's ways are
inscrutable; perhaps He could know this, and then if He had also established
a record as a reliable teller of truths, His revealing that B exists would be a
good reason to believe that B exists. On the other hand, if God is timeless,
then He can in eternity create both A and B without its following that any
moment in A is temporally simultaneous in A or in B with any moment in
B, for His acts of creating them have no location in either temporal series.23
If God can create a second time-series, He can know that one exists, and so
can reveal this. If an eternal God were to establish a record as a reliable teller
of truths to dwellers in A, and then were to reveal B's existence to the
A-dwellers, the denizens of A would have good reason to believe that B
exists.

We have, then, one or perhaps two ways to obtain evidence that a second
temporal series exists; there may be still others. But even if these all turned
out to be impossible, I would not for that reason conclude that no second
time-series is possible. I am realist enough not to be disturbed by the thought
that possibly there is a state of affairs for the obtaining of which we can have
no evidence.

If discrete time-series are possible, perhaps eternity and time are related as
such series would be. On what grounds might one reject this suggestion? The
only ground that occurs to me is this. Events in discrete time-series would
be causally insulated from one another. Theists who believe that God is
eternal believe that God's intentions have had effects in time, and so maintain
that there are causal relations between eternity and time. If there are such
relations, then eternity and time are not causally insulated, and so not discrete.
But even if this is an adequate response, Stump and Kretzmann cannot give
it. For they hold that one must first make sense of ET-simultaneity before one
can appeal to ET-causal relations.

VI. Incommensurable times and eternity

Even if discrete temporal series are not possible, that times and eternity
cannot be earlier or later than one another is compatible with their being just
incommensurable. Events A and B are temporally incommensurable (TI)
under a certain description just in case under that description one cannot have
reason to affirm or deny that A and B are temporally connected. For instance,
let A be an event locally simultaneous with my clock's striking 2 in frame-
work of reference R, and let B be an event causally independent of A and
locally simultaneous with my clock's striking 2 in frame of reference R*. Under these descriptions, A and B are TI. Within one reference-frame, we can say whether A and B occur at once. Again, if A causes B or vice versa, this establishes a temporal priority between them which holds in all frames of reference, and so holds even when A and B are considered under the descriptions given. But there is no "super-reference-frame" with respect to which we can say whether causally independent events described as in distinct reference-frames are simultaneous under that description. So again, as so described, A and B are TI. If events can be TI under a description, that events are neither past nor future with respect to one another under a description does not entail that they are present with one another under this description.

Let us say that events A and B are durationally incommensurable if A is temporal, B is eternal and we cannot have reason to affirm or deny that A and B are simultaneous. To Stump and Kretzmann, eternity is like another temporal reference-frame. Stump and Kretzmann deny that the same event can occur both in eternity and in time. Further, by their own stipulation, they cannot appeal to causal relations between eternal and temporal events to explain the simultaneity of the eternal and the temporal. Thus it seems that for Stump and Kretzmann, if A occurs in eternity and B at some time, no description is available under which they occur at once or do not occur at once within a single reference-frame, and we cannot appeal to causal relations between them to establish their durational order: their relations are just like those of A and B described as occurring in distinct frames of reference. So arguably A and B are durationally incommensurable.

In sum, if x is temporally present (in some reference-frame) and y is eternally present, it just does not follow that x and y are in some sense simultaneous. They could instead be discrete or incommensurable. If so, then for eternally present and temporally present beings to exist simultaneously, some further condition must be satisfied. It is not clear what that further condition might be or could be. If we cannot come up with one, this may reveal an underlying flaw in the Stump-Kretzmann picture of time and eternity.

VII. Other problems

Two other qualms about the Stump-Kretzmann view of ET-simultaneity deserve mention. First, Stump and Kretzmann posit four distinct simultaneity relations, ET-simultaneity, ordinary temporal simultaneity, eternal simultaneity (linking two eternal relata existing in the same eternal present) and the generic simultaneity relation "existence or occurrence...together," of which the other three relations are species. One would prefer to have fewer. Second, the Stump-Kretzmann theory of ET-simultaneity does not rid us of (4) and could almost be tailor-made for affirming it. That a timeless being's
knowing what He knows is simultaneous with the present moment seems a good reason to say that “God (eternally) knows that Paul mows in 1995” is now true. No denial of (4) can be plausible if the now at which God knows when Paul mows is simultaneous with the present moment.

VIII. Time and eternity: toward another view

For these reasons among others, one might want to ask if another account of an eternal God’s simultaneity with temporal things is available. Stump and Kretzmann hold that Nixon’s life is ET-simultaneous with and hence present to an eternal entity, and Nixon’s death is ET-simultaneous with and hence present to an eternal entity, although Nixon’s life and Nixon’s death are themselves neither eternal nor simultaneous.28 Nixon’s life and his death do not occur at the same time. As both are temporal events, they cannot be ET-simultaneous. I will now suggest that (to borrow Stump and Kretzmann’s language) “Nixon is temporal, not eternal, and so are his life and death” and yet “the temporal entity Nixon exists in eternity, where he is simultaneously alive and dead.”29 I will, that is, make the paradoxical suggestion that temporal events are eternally simultaneous. As Anselm puts it,

eternity has its own simultaneity, wherein exist all things that occur at the same time...and that occur at different times...30

Following Boethius and Aquinas, Stump and Kretzmann hold that an eternal God sees all events happen at once.31 The statement “an eternal God sees all events happen at once” is ambiguous. It might assert that God’s seeings of each individual event happen at once. This is how Stump and Kretzmann take it. In their picture of time and eternity, each new dot-location on the lower line is ET-simultaneous with the same portion of the upper line, while this upper portion is eternally-simultaneous with itself; so this portion as seeing one dot-location is eternally-simultaneous with this portion as seeing another. But “an eternal God sees all events happen at once” might instead assert that all events happen at once, and/or that God perceives that they do. This is how Anselm took it, and how I will take it. Moreover, this looks like what Boethius and Aquinas mean to say. The natural reading of their image of a man on a hill seeing the whole expanse of a road is that all of the road is really there at once to be seen.

My argument from this point onward will be philosophical rather than historical, though. I will try to recommend this alternate picture of time and eternity on its merits. I will show that this alternate view removes the need to define a relation of ET-simultaneity, makes do with fewer distinct sorts of simultaneity than the Stump-Kretzmann view, and allows one to deny (4) and
so defend the Boethian resolution of the foreknowledge-freedom problem. I will also block what is perhaps the most serious objection to this alternate view.

IX. Some rival views

The statement "an eternal God sees all events happen at once" actually admits of at least four readings. If it asserts that what God sees is all events occurring at once, one can say either that they really do occur all at once, as God sees them, or that they do not. If it asserts that God's seeings of events all occur at once, one can conjoin it with either an indirect or a direct realist theory of divine perception. Let us look briefly at these four readings.

i. If God sees all events as occurring at once even though they do not really do so, i.e. though they are not really simultaneous in any reference frame, God sees things inaccurately, and so is in error. But if God is omniscient, God cannot err. So this alternative is unacceptable if God is omniscient.

ii. If we say that God's seeings occur all at once and take the indirect-realist option, then by "an eternal God sees all events as happening at once" we mean that all events occur at once in God's eternal experience even though they do not do so outside that experience. We can mean by this that the direct objects of God's awareness are not events themselves, but eternal representative entities. This saves God from error. On this reading, events occurring all at once are not the object but the medium of God's "vision," and there is no commitment to the correctness of a judgment that things really occur all at once.

Still, this reading complicates our ontology by introducing eternal divine equivalents of sense-data. Arguably it lessens the perfection of God's mode of knowing by making it indirect rather than direct. It also leaves us the discomfort of having to say that the way an omniscient, cognitively perfect God sees things is not the way or even a way they really are (though this way of seeing does not deceive God).

iii. William Alston suggests that all God's seeings occur at once and involve direct perception of temporal entities. On this view, events occur sequentially in time and also all at once for God, though they do not all really occur at once and though there are no divine sense-data. For Alston, God is eternally directly aware of temporal events precisely as temporal and successive. Yet God's awareness does not vary, because the whole span of time is included in God's specious present. As Alston puts it,

In using the concept of the specious present to think about human perception, one thinks of a human being as perceiving some temporally extended stretch of a process in one temporally indivisible act. If my specious present lasts for e.g. one-twentieth of a second, then I perceive a full one-twentieth of a second of e.g. the flight of a bee "all at once." I don't first perceive the first
ETERNITY AND SIMULTANEITY

half of that stretch of the flight, and then perceive the second. My perception, though not its object, is without temporal succession. It does not unfold successively. It is a single unified act. Now just expand the specious present to cover all of time, and you have a model for God’s awareness of the world.... A being with an infinite specious present would not, so far as his awareness is concerned, be subject to temporal succession at all.... Everything would be grasped in one temporally unextended awareness.33

This move remedies the defects of (ii). But it inherits Stump and Kretzmann’s problems in defining ET-simultaneity. It also affords no resources for denying (4). Finally, this view inherits the difficulties of the concept of the specious present.34

iv. Our last alternative is that all temporal events occur at once for God and really do occur at once—that their being related to God places them in a new relation of simultaneity in which they would not stand if (per impossibile) there were no eternal being. Now there is no temporal reference frame in which all events occur at once. Actual causal relations place constraints on simultaneity which all temporal frames of reference respect. If event A causes event B, A and B occur at once in no temporal reference frame, and so no temporal reference-frame contains a simultaneity relation linking A and B. So if there is a simultaneity relation linking all actual events, this relation exists in an atemporal reference frame: if all events really occur at once, they occur at once in an atemporal reference frame. On this fourth alternative, then, temporal events occur and temporal entities exist all at once in eternity. This eternal simultaneity of all temporal events, I suggest, is expressed in the Boethian-Thomist image of the man on the hill surveying the road. So rather than defining eternal simultaneity as the relation in which two eternal events stand if they occur at the same “eternal present,” as Stump and Kretzmann do, on this view we should define it as the relation in which any entities stand if they occur at the same “eternal present.”

I will shortly try to explain and defend this fourth alternative. Given this section’s argument, if I can show that the fourth alternative has the advantages claimed at the end of section VIII, I will have given reason to consider it the best one. Before I launch my main exposition, though, I will argue directly for the most paradoxical part of this position, the claim that temporal things exist both in time and in eternity.

X. From God’s spacelessness to creatures’ timelessness

Traditional theists affirm that God has no spatial location. Now there can be distance only between discrete locations in space or objects at such locations. So if God is not located in space, there can be no spatial distance between Himself and spatial beings. If there can be no distance, there is none. That is, we may infer from this what I will call the Zero Thesis: the distance between God and every spatial being is zero. This zero distance is always
between the whole of God and every spatial being. If God has no spatial location, He has no spatial parts, and if He has no spatial parts, it cannot be that one part of Him is at one distance from a spatial thing, and another part is at another.

A partisan of some Aristotelian or Rylean doctrine of categories might object to my derivation of the Zero Thesis. This friend of semantic categories would say that as God is not the kind of thing which can be in space, God is not the kind of thing of which we can affirm or deny distance: on this view, “there can be no spatial distance between God and spatial creatures” is a category-negation rather than an ordinary negation, and so its semantics are such that it does not entail the Zero Thesis. Moreover, on this view the Zero Thesis is actually ill-formed. For it arguably is equivalent to “there is a distance between God and spatial creatures, and this distance is zero,” a conjunctive proposition whose first conjunct the doctrine of categories declares nonsensical.

Though I cannot discuss this fully, I find no good reason to accept these claims. If the Zero Thesis and its equivalent are ill-formed nonsense, as the categorist asserts, then how can we understand them well enough to tell that they are equivalent? Further, the equivalent mentioned is problematic only if a zero distance is a positive distance. But a distance of zero is just an absence of distance; that we can assert a zero distance in a positive, existential form is just a consequence of the fact that we use the word “distance” in denying distance. Moreover, it is true and intelligible that necessarily, there is no distance between God and any spatial thing. If a proposition is true and intelligible, so is whatever it entails. But as what is necessarily true is actually true, that necessarily, there is no distance between God and any spatial thing entails that actually there is no distance between God and any spatial thing. The Zero Thesis merely rephrases this latter claim. So to allow that the category-negation “there is no distance between God and any spatial thing” does not entail the Zero Thesis, we must deny either the modal rule that □P entails P, the rule that if a proposition is true and intelligible, so is whatever it entails, or the claim that category-negations are necessary truths. The categorialist will not deny the third claim. But the first two seem beyond reproach. So we are stuck with the Zero Thesis.

The Zero Thesis has a startling consequence. A particular A moves relative to a particular B just in case first the distance between A and B (in a particular frame of reference) is D and then both still existing it is not D. But the distance between God and any creature is always the same: every part of God is always at zero spatial distance from any creature, in any reference-frame. Thus if God is spaceless, there is no motion relative to God. This does not however deny the reality of motion tout court. Recall that according to special relativity, motion is relative to a frame of reference, i.e. to a system of other
entities. That there is no motion relative to God does not entail that there is no motion relative to other things. There is nothing problematic in the thought that an object at rest in one frame of reference (e.g. God’s) is in motion in other reference-frames.

Now I consider the following thesis eminently defensible:

M. There is no change of any sort involving spatial, material entities unless there is also a change of place, i.e. a motion involving some material entity.

(M) entails, for instance, that there are no thoughts in human beings unless there are (say) changes in the brain which involve motion of micro-particles, and that there is no change of color without (say) rearrangement of micro-particles somewhere in the color-perceiving situation, and that there is no rotation of ultimate micro-particles (if there are any) without their distinguishable though inseparable parts’ changing places, etc. (M) is not a reductive thesis. Rather, it asserts only that other changes supervene on changes of place. Nor does (M) impose any restriction on what entities are involved in these changes of place. If (M) is true, though, then no spatial thing can change in any way in relation to God.

There may be no non-spatial things apart from God. Or it may be that there exist apart from God only non-spatial things which obviously cannot change, e.g. various sorts of abstract entity. If either is so, then we have already ruled out all change in relation to God, and no more argument is required. Partisans of changeable angels or discarnate souls and so on might contend that these things may exist. But even if such things exist in some possible world, they do not exist in the possible world which is actual, at least if there is any truth in contemporary physics.

Contemporary physics treats time as one more dimension in addition to the dimensions of space, whatever else it may be. Now whatever is located in one dimension is ipso facto located in all other dimensions of the same continuum. Thus imagine a two-axis co-ordinate system, representing a two-dimensional geometry, and a point P within this system. If one adds a third axis to the system, P acquires a third-co-ordinate, just because the system now has a third axis. In doing this, one in effect embeds the first two dimensions within the third dimension; whatever is located in the first two will also have a location in the third. The same will hold for any higher number of dimensions; as a rule, something is located in one dimension of a geometry if and only if it is located in all. So if it is correct to represent time as another dimension, it follows that whatever is not in space is not in time either: only spatial things are temporal. To digress for a moment, if this is true, it is important. For most theists affirm that God is non-spatial. Hence if in fact only spatial things are temporal, these theists should also grant that God is non-temporal. But rather than press this, let me return to my main argument.
Now whatever changes first has a property F, then has a property which entails having not-F (as when a face first is pale, then blushes). Nothing can have contradictory properties at the same time. Hence change requires that the subject of change be located in time: only temporal things can change. So given the space and time of the actual world, only spatial things are temporal, and only temporal things can change, whence it follows that only spatial things can change. Note that I am not claiming that these conclusions hold in all possible worlds. Perhaps there is a possible world in which time is not a fourth dimension of a physical geometry, and in this world, perhaps there are spaceless, temporal and changeful things.

My argument, then, is that given the Zero Thesis, (M) and one very general property of time, it follows that in the actual world there is no motion or change relative to God. So if a frame of reference is a system of objects at rest relative to one another, then it appears that God and all spatial objects share a frame of reference, one in which nothing changes. Now if an event occurs in one frame of reference, it occurs in all, albeit simultaneous with different groups of events. So all events which occur in other reference-frames occur in the frame at rest relative to God. But how can this be, if nothing changes there? The answer, I think, is that relative to God, the whole span of temporal events is always actually there, all at once. Thus in God's frame of reference, the correct judgment of local simultaneity is that all events are simultaneous. But all events are simultaneous in no temporal reference frame. Therefore the reference-frame God shares with all events is atemporal.

Now this argument may seem wild. But I submit that if the Zero Thesis is true, it is quite reasonable. For to define motion relative to an object, all one needs is time-coordinates and a relation of relative distance, and if one can define relative motion between two objects, one can speak of the two as sharing or not sharing an inertial reference-frame. Perhaps this argument will seem to some to be a reductio of the Zero Thesis; one person's modus ponens is another's modus tollens. But let me pose a question on behalf of the Zero Thesis. Theists hold that though He is spaceless, God is omnipresent. The Zero Thesis lets one give literal meaning to the claim that a spaceless God is omnipresent. If one denies the Zero Thesis, is literal omnipresence at all possible for a spaceless God?

XI. An objection: does occurring in eternity entail tenseless time?

The suggestion that all temporal events occur in eternity and therein are in some sense simultaneous invites the following argument:

If all temporal events occur at once, then it is false that some exist now, others no longer exist and still others do not exist yet. Rather, since all events exist at once, past and future events are as fully actual as present events. Thus
the claim that all temporal events occur simultaneous with an eternal entity and with one another wipes out the ontological distinction between present, past and future, enforcing instead a "tenseless" theory of time.

William Lane Craig, Bowman Clarke, Richard Creel and Deimas Lewis have recently advocated essentially this line of thought. Creel, Clarke and Lewis take this reasoning as decisive against the claim that God is timeless, as each thinks he has good reason to consider tenseless theories of time false. Lewis adds this twist:

In the eternal present in which God beholds all of temporal reality, there is no contrast between past, present and future with respect to existence... Since God is unaware of an objective nonrelational difference between the existence of things present and the existence of things past and future, there is no such difference as there appears to be from our perspective in time. Otherwise God does not apprehend temporal things and events as they truly are... Yet God is omniscient... God's view of things must be the correct view... Hence if God is (also) eternal, then the present does not differ with respect to existence from the past and the future.

Perhaps it is partly to avoid such arguments that Stump and Kretzmann give the account they do of ET-simultaneity, avoiding the claim that temporal events are eternally simultaneous. Now I am not going to enter the lists for or against tenseless theories of time. Rather, whatever the merits or demerits of a tenseless view, I hope to show in the following that the existence of an eternal being and of the eternal simultaneity relation I suggest is compatible with a tensed theory of time, according to which only present (and perhaps past) events exist (in time), so that there is a genuine and radical ontological distinction between present (and perhaps past) events and future events.

Craig, Lewis and the others seem to suppose that if an event occurs in eternity, then it occurs simpliciter, and so does not remain to be brought into existence with the passage of time. I think this conditional is false. 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 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.

We can see how this can be so by applying anew the relativity of simultaneity. If simultaneity and presentness are relative to reference-frames, then if present events are actual in some way in which future events are not, this sort of actuality is itself relative to reference-frames. Thus there is a (strictly limited) sense in which the relativity of simultaneity entails a relativity of actuality, if one restricts full actuality to present events. Consider three events, Harpo, Chico and Groucho. Let us say that in reference frame R, Harpo and Chico occur at once
and occur before Groucho, and that in reference frame R*, Harpo occurs before Chico and Groucho, which are simultaneous:

<table>
<thead>
<tr>
<th>Frame R</th>
<th>/</th>
<th>Frame R*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harpo</td>
<td>/</td>
<td>Harpo</td>
</tr>
<tr>
<td>Groucho</td>
<td>/</td>
<td>Groucho</td>
</tr>
<tr>
<td>Chico</td>
<td>/</td>
<td>Chico</td>
</tr>
<tr>
<td>past → future</td>
<td>/</td>
<td>past → future</td>
</tr>
</tbody>
</table>

It seems to me that in this case, Chico is actual in R before Chico is actual in R*. By saying that Chico is actual or occurs in R “before” it is actual in R*, I do not imply that there is some single temporal “superframe” overlapping R and R*, relative to which we can construct a single time-series on which to order events occurring in the two frames, and relative to which Chico’s-occurrence-in-R is before Chico’s-occurrence-in-R*. Nor do I mean to suggest that Chico in R is in any way really distinct from Chico in R*, or that Chico’s occurrence in R is in any way really distinct from Chico’s occurrence in R*. I mean only to point to this fact: in both R and R*, Harpo is before Groucho, and in R, Chico occurs with Harpo, while in R*, Chico occurs with Groucho.

Let me put this more precisely, subscripting temporal terms like “now” to indicate the reference frame with respect to which I am speaking (e.g. “now\_R”). To help make my point, let me also introduce a non-temporal relation P of causal priority. This relation will generate causal series defined without reference to temporal position or modality. P-series will be constituted of just those causal relations which are absolute and invariant within all temporal reference frames. In the example given, for instance, Harpo is P-prior to Groucho, and Chico is not a member of this segment of this P-series, though unless Chico has neither causes nor effects, Chico occurs somewhere in some P-series. We will say, however, that if an event such as Chico is simultaneous\_R with an event in a P-series, that event occurs in R at the P-point of the P-series event with which it is simultaneous\_R.

With these devices, let me describe the situation diagrammed above. In this situation, relative to the P-series, Chico occurs (is actual) in R before Chico occurs (is actual) in R*; the P-point at which Chico occurs in R is P-prior to the P-point at which Chico occurs in R*. Also, in this situation, if in R it is now\_R the P-point at which Harpo occurs, that Chico is now\_R actual in R does not entail that Chico is now\_R* actual in R* (though it does follow that Chico, is\_R*, was\_R or will be\_R actual in R*). The relativity of simultaneity to reference frames brings with it a relativity of presentness, and so a relativity of actuality. The claim that Chico is actual with Harpo in R is compatible with the claim that Chico is actual with Groucho in R*. Each is a true description of the single physical reality as it exists within a particular real reference-frame.
One might think to use this relativity of actuality to argue that the apparent difference in ontological status between the present and the future is merely illusory. The argument would go this way: whatever occurs simultaneously with an already-occurring event itself already occurs. In R, Harpo and Chico occur at once. In R*, Chico and Groucho occur at once. Both frameworks' facts of simultaneity are genuine. Hence although Groucho is in the future according to R, Groucho is already occurring (thanks to R*)—and so a future event is already occurring. Tensed theories of time entail that no future events are already occurring. Hence tensed theories of time are false, and there is no ontological difference between the present and at least some future events. The slip in this argument, a defender of tensed time can say, is that it does not take the framework-relativity of actuality seriously enough. It presumes that there is just one attribute (or whatever), actuality-simpliciter, and that things simply either have this or do not. A tensed theory of time can deny this, and hold instead that a distinction between present (and perhaps past) events and future events is real but framework-relative. If present actuality is ontologically special, then as there is no absolute simultaneity and so no absolute, framework-independent now, there is no absolute present actuality. There is merely present actuality in this framework and that; things are not just actual-simpliciter or not, but are actual-in-R, actual-in-R* and so on. There is only one Chico and one occurrence of Chico, but this one occurrence is actual in many different frameworks, and so has many different actualities. If events in the future in our reference-frame “already” are present or past in some other reference-frame, still they are not already actual in our reference-frame. Only this latter would constitute an actual future of the sort tensed theories of time must deny.

That an event is present and actual at t in a frame R does not entail that it is present and actual at any particular time in another frame R*. If we take eternity as one more frame of reference, then, we thus can say that a temporal event’s being present and actual in eternity does not entail that it is present and actual at any particular time in any temporal reference frame (though it does follow that this event is, was or will be actual in all temporal reference frames). Again, an event occurs in eternity simultaneously with all other events, but this does not entail that the event occurs at the same time as all other events in any other reference-frame. Rather, in eternity, all events occur at once, and they occur in sequence in temporal reference frames. Events are present and actual all at once in eternity, but present and actual in sequence in other reference frames. An eternal frame of reference, I submit, just is one in which all events occur at once, even though they occur sequentially in any temporal frame of reference. If Chico can occur with Groucho in R*, and this does not wipe out the ontological asymmetry between the present (and past) and the future, Chico can occur with all events in eternity without destroying
the ontological asymmetry between present or past and future. Thus on the implications of eternity for time, I take up a position midway between Stump and Kretzmann on the one hand and Lewis et al. on the other. Counter to Stump and Kretzmann, I submit that if there is an eternal being, all temporal events etc. are really simultaneous in eternity. Counter to Lewis and the others, I maintain that temporal events' occurring at once in eternity does not entail that they do so in time, or that tensed theories of time are false. Also counter to Lewis, I suggest that there is no fact of present occurrence of which God is unaware. For the occurrence of things in eternity with God, which He perceives there, is the very occurrence by which they occur in time, though there occurrences are successive rather than all at once.

That in God's frame of reference all events occur simultaneously does not entail that God does not know all the facts about simultaneity which obtain in temporal reference frames. God's being located in just the eternal frame of reference does not put a limit on what He knows. From any reference-frame, one can extrapolate what judgments of simultaneity would be correct in other reference-frames. Presumably, then, an eternal God can have this knowledge in His own way. So (as Stump and Kretzmann observe38) for every temporal now, God knows what is happening now (i.e., simultaneous with that now), and for every eternal now, God knows what is happening now (namely, everything). I am unsure whether (as Stump and Kretzmann suggest) this constitutes an adequate response to the question of whether a timeless God can know what is happening now—that is, can know what is expressed by propositions involving ineliminable temporal indexicals. But as this is a problem for any version of the doctrine of divine timelessness rather than for my specific version of it, I postpone discussing it to another paper.39

XII. An objection: must whatever occurs in eternity be eternal?

My proposal naturally prompts a question: if events exist in eternity, then why aren't they eternal beings? A short answer is that one can take being temporal and being eternal as mutually exclusive modal properties. One can say that an entity is temporal iff it is the kind of thing which can be located in a series of earlier and later events, states, processes etc., and that an entity is eternal iff it cannot be so located. If being temporal is a modal property, then even if an entity is located in an eternal frame of reference, it remains fully temporal, because it retains its modal properties. One can also answer the question by noting that any temporal event located in eternity is also located in time. This remains true even if the event is in eternity, and this is again an adequate basis for distinguishing temporal from eternal entities.

Stump and Kretzmann deny that eternal and temporal entities can “exist or occur together” in eternity or time, because they think this would make temporal things eternal and eternal things temporal. In accepting this conse-
sequence, they implicitly accept a different view of what it is to be temporal and what it is to be eternal. On their account, to be temporal is to be located in time, and to be eternal is to be located in eternity. So on the Stump-Kretzmann view, my second suggestion amounts to claiming that all temporal things are also eternal things.

But there is a clear sense in which a temporal thing located in eternity would not be an eternal thing. A temporal being in temporal reference-frames has its duration by successively enjoying parts of it. Thus within eternity (a) its fourth-dimensional extension or duration would have parts. (b) not all parts of its duration would occur at the same present. This would entail at least that if this is a conscious thing, it could at any point in its duration be aware of some other points in its duration only by memory or precognition (if such a thing exists). (c) its duration's parts would be ordered as earlier and later. (d) in most cases, its duration would have a beginning and an end. There thus is a distinction to be made between being located in eternity and being eternal. To be eternal is to have a partless duration in a single infinite extended present. Even if every being with a partless duration is located in an eternal reference-frame, it is at least conceivable that beings without partless durations be located there (this paper gives a conception of it, and it is not obvious that that conception is incoherent), and it makes sense to say that even if they were, they would differ significantly from truly eternal beings. If this is conceivable, being located in eternity does not entail being eternal. As the present account of temporality and eternality respects the fact that this entailment fails and the Stump-Kretzmann account does not, the present account is preferable.

Earlier I suggested that our problems with Stump and Kretzmann's definition of ET-simultaneity may manifest an underlying problem in their picture of time and eternity. The problem may lie here. Because Stump and Kretzmann take temporality and eternality to be locational rather than modal attributes, they cannot allow temporal and eternal beings to be located together in a single frame of reference. Thus they are forced to try to define a sort of simultaneity (ET-simultaneity) which is not within but between reference-frames. They could not say more about this than that iff temporal entities are temporally present and eternal entities are eternally present, they are co-present (and it is not clear that one can say more about this). We saw above that this definition does not succeed.

XIII. Time and eternity

All of the foregoing has led up to some proposals about the natures of time, eternity, temporal beings and eternal beings which I will now develop. I will first state these proposals informally, then develop some technical terms, then use these technical terms to state them more precisely.
I suggest defining a temporal entity as one which can stand in relations of temporal precedence and simultaneity (i.e. be part of what McTaggart called a B-series), and an eternal entity as *(inter alia)* one which cannot bear these relations. As I have argued, this definition allows a temporal entity to remain temporal even if it is present in eternity. That an eternal being cannot be located in a B-series entails that an eternal entity is necessarily eternal.

If temporal events occur within an eternal reference frame, they must occur all at once, even though within temporal reference frames the occasions of their actuality are ordered sequentially. If they did not occur all at once, there would be change within eternity, first one event and then another being actual. But as we have seen, where there is no time, there can be no change. Now a four-dimensional timeless solid can harbor "change" in the sense that at one point along its temporal dimension it is F, and at another such point it is not F. But this is not the sense of "change" or of existing at two points in time which I mean to exclude. The 4D solid A always (timelessly) involves two facts about A and F; that A is F at t and that A is not F at t+1. Where there is change in the meatier, "purely temporal" sense, first A is F, and there is no other relevant fact linking A and F, and then A is not F, and there is no other relevant fact linking A and F. It is in this sense of change that what exists in eternity cannot change. In eternity, events are in effect frozen in an array of positions corresponding to their ordering in various B-series. Yet these same events really do occur in the meatier, purely temporal sense within all temporal reference frames, as do changes of the kind eternity precludes.

As eternity does not allow change, we can define an eternal reference-frame as a frame such that all events which occur within it must occur simultaneously, even if they may occur non-simultaneously in other reference frames, and a temporal reference frame as one in which events can fail to occur simultaneously. If we do this, again, we define an eternal reference-frame in terms which allow that events may occur in eternity which also occur in time.

Let us now develop the machinery to say all this more precisely. First, let us so understand "now" that occurring now does not entail having a position in a B-series of earlier and later events. That is, let us in effect take "now" and "occurring now" as primitive terms univocally applicable to temporal and eternal things. Anyone who does not want to render the phrases "eternal now" or "eternal present" flat-out contradictions or equivocations must do this. This move does not create a "third mode of existing" embracing the eternal and the temporal; eternal-temporal remains an ultimate and exclusive disjunction. Nor does this move entail that occurring-now is absolute rather than framework-relative. A semantic point can hardly dictate a physical conclusion. And even if it could, how could stipulating that occurring now does not entail location in any B-series entail that all located nows must have the same location in all B-series?
SECOND, let us define two locutions, A- and B-occurs. Let us say that an event E A-occurs iff E occurs now. Let us also say that event E B-occurs iff E’s location in a B-series of earlier and later events is t, and it is now t. Obviously, whatever B-occurs occurs now, or A-occurs. But I reject the reverse inference. If whatever occurred now B-occurred, occurring now would entail having a location in a B-series.

Let us now define two relations, A- and B-simultaneity. Two events are B-simultaneous iff they have the same location in a B-series in the same reference frame. Intuitively, A-simultaneity is a relation of occurring at the same now. Two events are A-simultaneous if they are B-simultaneous and they B-occur. Also, all A-occurring events not located in a B-series but located at the same atemporal now are A-simultaneous.

An event A-occurs and does not B-occur if it is not located in a B-series, or else if it A-occurs and is located in a B-series but does not A-occur at its B-series location. If an event occurs and does not occur at a B-series location, it occurs in some atemporal now. This is what we have when a temporal event occurs in an eternal frame of reference. Of course, there is a sense in which an event which occurs in eternity occurs at its place in its B-series. For presumably it has a location in a timeless array of events which represents atemporally the temporal sequence of the B-series, and in temporal reference-frames, the event B-occurs at this location.

Note that these definitions do not involve special temporal or eternal kinds of simultaneity, though in fact nothing eternal can B-occur or be B-simultaneous with something else. These definitions do permit us to speak of simultaneity between temporal, eternal and both eternal and temporal things: temporal things can be A- and B-simultaneous, and eternal things can be A-simultaneous with one another and with temporal things. More important, these definitions do not make eternal-temporal simultaneity into something sui generis. On the Stump-Kretzmann account, while ET-simultaneity is an instance of generic simultaneity, it is still a unique kind of simultaneity which can obtain only between an eternal and a temporal being. It thus seems somewhat ad hoc and suspicious. On the present account, the A-simultaneity which obtains between an eternal God and temporal entities is univocal with the A-simultaneity which obtains between temporal entities. Finally, while Stump and Kretzmann’s theory of simultaneity involves four distinct simultaneity relations, the present theory involves only two, or perhaps three if one contends that it tacitly includes generic simultaneity. This is a gain in simplicity.

With this background, let me offer these tentative definitions:

R is an eternal reference-frame iff R is such that necessarily, all events which A-occur in R A-occur A-simultaneously-in-R. Alternately, R is an eternal reference-frame iff within R, the relations “earlier” and “later” can
hold only between locations in the atemporal analogue of a B-series, and not between A- or B-occurrences.

R is a temporal reference-frame iff it is not the case that R is such that necessarily, all events which A-occur in R A-occur simultaneously. Alternatively, R is a temporal reference-frame iff within R, the relations “earlier” and “later” can apply not only between locations in the atemporal analogue of a B-series but also between A- and B-occurrences.

K is an eternal entity iff K can A-occur/exist but cannot B-occur/exist; that is, if K can exist now but cannot be a located in a B-series. Alternately, K is eternal iff K can be A-simultaneous but cannot be B-simultaneous with other entities.

K is a temporal entity iff K can B-occur/exist; that is, if K can have a location in a B-series.

If these definitions hide no nasty surprises, they let us say that a temporal thing can occur within an atemporal reference frame without compromising the absolute distinction between temporal and eternal things or reference-frames. They let us say that an eternal frame of reference includes an A-simultaneous array of events located sequentially in temporal B-series. They also let us say that events A-occur in both eternity and time, but B-occur only in time. Yet temporal events which A-occur in eternity also B-occur in time, and so occur in eternity as ordered in timeless analogues of their B-relations.

XIV. Applications

The notion that we are always present with God in eternity may have interesting religious implications. Whatever religious implications it has must be lived with regardless of the precise version of the doctrine of timelessness for which one opts since there is no before or after in eternity or for an eternal being, there is nothing of God’s eternal existence which is “before” His creating the world: given that He is eternal and has created, He has eternally had the world for company whether or not it is literally present in eternity.

The notion that we are always present with God in eternity may also be of philosophical use. Some philosophers have puzzled over how an eternal entity can act on and perceive events in time. If the definitions above are viable, we may be able to dissolve this puzzle. For perhaps we can argue that an eternal entity acts on those temporal entities which are present with it in eternity, and these actions have consequences for temporal entities as they exist in time. (We could say that actions in eternity are prior to consequences in time not temporally but “by nature.”) Perhaps, that is, an eternal deity need not act on temporal things in time to act on temporal things. Again, perhaps an eternal thing need only be eternally co-present with a temporal thing to observe it. Of course, these moves leave us the task of explaining causal relations between timeless entities. But perhaps we can make headway on
this via counterfactuals expressing dependence. The theory of time and eternity developed here vindicates Boethius’ response to the freedom-foreknowledge problem. Like Stump and Kretzmann’s, this view explains why an eternal God’s simultaneity with the events of our past does not locate Him in time in our past. The Stump-Kretzmann explanation is that ET-simultaneity just is not the sort of simultaneity which has this consequence. On the present view, God’s believing are simultaneous with events of our past only in a non-temporal reference-frame: that is, in a frame where nothing is past (though things’ temporal order is respected in another way). Thus in any frame in which there is a past, it is false that God’s believing are in the past, for in that frame, God’s believing are simultaneous with no temporal event.

Another challenge to Boethius arose from the claim that an eternal God’s believing are as if in our past, and the claim that

4. “God (eternally) knows that Paul mows in 1995” is now true.

(4) appears to follow from

6. God eternally knows that Paul mows in 1995

by a rule of tense-logic, that (letting “Pr()” symbolize the tense-logical operator “it is now the case that”) for any formula P, regardless of its tense, P entails Pr(P). But I want to suggest that it does not, and that (4) is in fact false, so that if an eternal being exists, this rule of tense-logic (and perhaps others) must be qualified.

Let us begin from the fact that on the present view, eternity is another now in addition to all temporal nows, and so is a locus logically like a time, to which one can index the truth of propositions. We use the system of tenses to relate times or timelike loci to sentences’ times of utterance; for instance, using the present tense often indicates that that of which one speaks is going on while one speaks. If in time, eternity is a now in no way simultaneous with any temporal now, then no ordinary tense relates our times of utterance to eternity. Nor can we infer from this that talk of the eternal is tenseless. What is true tenselessly (e.g. that 2+2=4) is true at all times. What is true in eternity is true, but true at no time. To speak of what is the case in eternity, then, one must distinguish an eternal-present tense in addition to present, past and future tenses. Using the external-present tense indicates that that of which one speaks is the case, but is not the case before, during or after one’s speaking. This description of the eternal-present tense does not distinguish between a tense appropriate to events in a temporal series discrete from ours and a tense appropriate to events in eternity. But this is as it should be. For neither eternity nor a second temporal series is located in our time, and so the difference between them is irrelevant to our tense system.

The Boethian in particular should be glad to distinguish an eternal-present tense. For the Boethian wishes to reject (4). If (4) is false, then there is a time
at which (6) is not true. If a proposition is tenselessly true, it is true at all times. So it follows that (6) is not tenseless. If (4) is false, further, (6) is not in the ordinary present tense. For if it were, (6) clearly would entail (4). It seems then that without an eternal-present tense, a Boethian cannot explain the tense-status of the verb in (6). If one grants an eternal-present tense, it is plausible to say that the verb in (6) is in this tense.

If (6) is in the eternal-present tense, (6) is true, but not true at any time before, during or after the present. Now if this is so, (6) is relevantly like a claim about a temporal series discrete from ours. Letting “B” name such a series, let us ask whether it could be that

4a. “God knows (in B) that Paul mows in 1995” is true now.

If (4a) is true, God now knows in B that Paul mows in 1995. But if this is so, there is a time in our time-series which is a time at which God has knowledge in B: that is, there is a time common to our time-series and B, counter to hypothesis. Hence (4a) is false. But if (4a) is false, then since (4a) is quite like (4), so is (4). So if (6) is in the eternal-present tense, (4) is false, and the Boethian treatment of freedom and foreknowledge stands. But even if there is no eternal-present tense, and the tense-status of (6) is just unclear, (4) is still false provided that (as is true on the present account but not on the theory of ET-simultaneity) in time, eternity is in no sense simultaneous with any time, and so is relevantly like a discrete time-series. Now even if all this is true, we can still say e.g. that God now knows that Paul mows in 1995. But we can say such things only because we too stand in the eternal now, and so can use “now” to refer to the eternal now rather than any temporal now. We can use “now” this way if it has a sense something like “at a time or timelike locus simultaneous with this utterance,” for this utterance is simultaneous in temporal reference-frames with various times, and simultaneous in the eternal reference-frame with the eternal now.

The present theory allows that if a proposition P is true at t, “P at t” is true at eternity. So on the present view, truths corresponding to truths about future human free actions are also true in eternity. But these are not true in eternity before we perform the actions in eternity, for nothing in eternity is before anything else. Nor are they true at times before our free actions; eternity is not in our past or as if in our past. Of course, that a proposition about a human action is true in eternity at a particular point in an eternal B-series array lets us infer just when the action occurs in time (as from a proposition’s truth at 2:00 in R plus appropriate further information one can determine just when it is true in another reference-frame). But what we infer is just that the proposition is true when our action makes it true, not that it was true before. Nor does the fact that the proposition’s truth is eternally at just a certain point in a B-series infringe human freedom. This entails at most that a certain action
is performed at some time, not that it could not have been avoided. I submit, then, that the theory of time and eternity developed here rescues the Boethian approach to freedom and foreknowledge.

Finally, at the outset of this paper I raised a question: can the timelessness of God be reconciled with the Biblical picture of God and creatures as present to one another? Some philosophers have in effect argued that if God is present with us, He must be present with us in time. I have tried to suggest that God may be present with us because we are present with Him in eternity—and yet are fully temporal. On these assumptions, timelessness and the Biblical picture can indeed be reconciled.47

NOTES

1. Boethius defines eternity as “the complete possession all at once of illimitable life” (Consolation of Philosophy V, prose 6, quoted at N. Kretzmann and E. Stump, “Eternity,” Journal of Philosophy 78 (1981), p. 430). Thus whatever is eternal is alive. Boethius also asserts that “nothing placed in time...can embrace the whole extent of its life equally...whatever lives in time...does not yet grasp tomorrow, but yesterday it has already lost” (ibid.). That is, whatever has a location in time does not possess its life all at once, but instead lives through it part by part. Hence (according to Boethius) whatever does possess its life all at once does not have a location in time. For Aquinas’ views, cf. Summa Theologiae (henceforward ST) IA 10, 1, 2.

2. In speaking of God as having beliefs, I follow current convention to simplify the discussion. William Alston has thrown the claim that God really does have beliefs into question in “Does God Have Beliefs?,” Religious Studies 22, pp. 287-306.


8. Some critics have thought the claim that a present is extended yet partless to be a contradiction (cf. Paul Fitzgerald, “Stump and Kretzmann on Time and Eternity,” Journal of Philosophy 82 (1985), pp. 260-69; Herbert Nelson, “Time(s), Eternity and Deration,” International Journal for Philosophy of Religion 22 (1987), pp. 3-19). I believe these misgivings to be misguided. The notion of a time-atom appears to be coherent; though most philosophers consider time continuous rather than of atomic structure, I do not know of any good arguments that the claim that time is atomic involves a contradiction. But a time-atom is
a minimum part of time, something extended yet not divisible (save perhaps conceptually) into smaller parts of time. Were a time-atom present, the present would be extended yet partless. So I take it that the claim that a present is extended yet partless is no contradiction. (For more on this, cf. my "Eternity, Time and Space," read to the Society of Christian Philosophers' Midwestern Regional Meeting in October, 1987. For an extended treatment of time-atoms, cf. Richard Sorabji, *Time, Creation and the Continuum* (Ithaca, NY: Cornell University Press, 1983), chs. 21-26, passim.) Still, those who find an extended present troubling can simply view eternity as a "frozen instant," something pointlike: the time-eternity relations the text will describe would obtain equally with eternity so construed.


15. Human beings can observe only events, states etc. in our immediate pasts. This is because we depend for our experience on causal signals from these events, and such signals take some time (however little) to reach our organs of perception. Boethius, Aquinas *et al.* probably did not know that perception involves a time-lag. When they claimed that God perceives events which are strictly simultaneous with His own existing, they probably thought they were modelling God's perception exactly on human perception. But were God's perception strictly modelled on our own, temporal things would have to be in God's immediate past to be observed.

Still, though Boethius and company may have had some incorrect reasons to make it, the claim that God perceives events which are somehow simultaneous with Him is likely correct. As an eternal being can have no past (or future), an eternal being cannot perceive events in its past (or future); the text argues below that all that an eternal God perceives is in His eternal present. Moreover, God's knowledge is traditionally called immediate. One implication of this is that He does not depend on causal signals for His knowledge, however observation-like it might be otherwise. So it could be argued that even if He were not eternal, still because God's knowledge does not depend on a signal, there would be no temporal gap between an event's occurring and God's knowing that it has occurred. Were this so, God's knowing would still be (temporally) simultaneous with the event known.


17. "An eternal entity or event cannot be earlier...than...any temporal entity or event...any relationship between what is eternal and what is temporal...must be some species of simultaneity." *Ibid.*

18. One could avoid this circularity by denying Stump and Kretzmann's claim that ET-simultaneity must figure in the explanation of ET-observation. Instead, one could reverse the relation between them, claiming that ET-observation or some ET-causal relation is prior to and helps to explain the existence of ET-simultaneity. This would not be a wholly implausible move, since presumably there are temporal *relata* for ET-relations.
only because an eternal God has created them. For a bit more on this, cf. my "The Roots of Eternity," *Religious Studies* 24 (1989), pp. 189-212.


21. Stump and Kretzmann’s denial that ET-pastness and -futurity exist was quoted above. Stump and Kretzmann hold that "because an eternal entity is atemporal, there is no past or future, no earlier or later, within its life...no eternal entity has existed or will exist: it only exists" (p. 434). This entails that a relation of pastness or futurity between eternal entities would be unexemplifiable—which seems a good reason to say that no such relation exists.


23. If possibly there is a second temporal series, and the text’s argument that a temporal God could not create a second temporal series is sound, it may be that one can argue from God’s omnipotence to His timelessness. For if God is omnipotent, He can actualize every possible state of affairs, save those for which we introduce special restrictions (e.g. evil states of affairs if God is necessarily morally perfect, or (per Alvin Plantinga) states of affairs which He can actualize in only a weak sense because their actuality requires the cooperation of free creatures). The existing of a second temporal series does not seem to be the sort of state of affairs for which restrictions on omnipotence are needed; it does not require the cooperation of free creatures, is not an evil, and does not seem to have any other traits in virtue of which it would be beyond an omnipotent being’s power. Hence if this is possible and God is omnipotent, God can actualize it. But God can actualize it only if He is timeless. Hence God is timeless.

24. I specify local simultaneity to avoid problems which arise for ascriptions of distant simultaneity within relativity theory. For a discussion of these problems, cf. Wesley Salmon, *Space, Time and Motion* (Minneapolis: University of Minnesota Press, 1980), pp. 73, 93-127.

25. I am careful to relativize my conclusion to events as described in certain ways in order to render this second case independent of the first. If discrete times are impossible, then if events are not in one another’s past or future, it follows that they occur at once. So events can in fact be TI only if discrete times are possible. But even if, given all the facts, two events must occur at once, it can still be the case that given only that these events fall under certain descriptions, we cannot validly infer that they occur at once. That events are
TI is at least an epistemic possibility (as long as we do not know that discrete times are impossible) if not in fact a metaphysical possibility. But if this is in any sense possible, I can suggest that the incommensurability of time and eternity is a metaphysical possibility.

27. Ibid.
28. Ibid., p. 443.
29. Ibid.
32. One could argue that this is Aquinas’ view. For him, the representative entity would be God’s own nature (cf. *ST* Ia 14, 5), which is identical with God Himself (cf. *ST* Ia 3, 3). But I think Aquinas’ view includes both this and an eternal presence of temporal entities. I argue for this reading in *op. cit.* n. 5.
36. Lewis, *op. cit.*, pp. 82-83.
41. For discussion of how an eternal being can be extended yet have no parts, cf. my "Boethius on Eternity," History of Philosophy Quarterly 7 (1990), pp. 123-42.
42. Every temporal frame of reference generates its own unique B-series. This is a consequence of the relativity of simultaneity to reference-frames. Thus it is oversimple to say that God, in eternity, sees all events spread out in their temporal order. Events have many temporal orderings. If God is omniscient, He must be aware of all of them.
43. I take it, with Duns Scotus and Richard Swinburne, that so-called analogy theories of God-talk reduce to forms of univocity (or equivocity) theory in the end.
44. Thus if eternal truth is tenseless truth, the concept of eternity is otiose—all we need speak of is omnitemporal truth. Cf. Martha Kneale, "Eternity and Sempiternity," in Marjorie Grene, ed., Spinoza (NY: Doubleday, 1973), pp. 227-40.
46. That "P at t" is true eternally entails that P is true at t. If P is true at t entails that P was true before t and thence leads to fatalism, this is so for reasons independent of the doctrine of divine eternity. But I think it entirely consistent for a Boethian to deny that propositions about future human free acts are true or false before the act; that these propositions have a truth-value in eternity does not entail that they have a truth-value at any particular point in time. Moreover, I doubt that even the truth of P before t really does get us to fatalism.
47. An ancestor of part of this paper was read at the 1987 APA Pacific Division philosophy of religion colloquium. This paper has profited by comments then offered by William Alston, Peter Appleby, Philip Quinn and Eleonore Stump. The present version has benefitted by further comments from William Alston and two anonymous referees for Faith and Philosophy.