

The Eternal Present and Stump-Kretzmann Eternity

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SUMMARY

A classic difficulty of the conception of divine eternity as timelessness is that it seems impossible for an atemporal deity to be causally active in the world. Stump and Kretzmann, in their seminal article "Eternity," claimed to be able to resolve this problem by formulating a new species of simultaneity, viz., eternal-temporal simultaneity. Although their proposal has received extensive criticism, little has been said concerning the notion of the "eternal present" which underlies their analysis. It is argued that apart from construing divine eternity as a sort of embedding hyper-time, it does not seem possible to make sense of Stump and Kretzmann's description of the eternal present.

THE ETERNAL PRESENT AND STUMP-KRETZMANN ETERNITY Introduction

A great many contemporary thinkers would probably agree with Nelson Pike's judgement that "A timeless individual could not *produce, create, or bring about* an object, circumstance or state of affairs," since so doing would temporally locate the agent's action. [1] Pike's claim is to be taken in what medieval thinkers called "the composite sense," namely, that what is impossible is a timeless being's doing what is described; and the objects and circumstances in question must be temporal, since it is easy to conceive of a world in which a timeless being produces (tenselessly) timeless objects. So understood, Pike's claim does seem to raise a significant problem for the contention that God is timeless. For it is essential to Christian theism that any reality *extra Deum* is the product of God's creative activity. So if some temporal object *O* begins to exist at a time *t*, that event is the result of God's action of creating *O* at *t*. *Prima facie* the phrase "at *t*" qualifies the gerund "creating," thus dating God's creative action. But if there is a time at which God acted to create *O*, then God's act has a temporal location. So unless there is some strange way in which one's acts can be divorced from one's being, it therefore follows that God has a temporal location, that is to say, He is temporal.

Opponents of divine timelessness can therefore be understood as claiming that

1. God is timeless

and

2. God is creatively active in the temporal world

are broadly logically incompatible, on the basis of the necessary truth of

3. If God is creatively active in the temporal world, God is really related to the temporal world

and

4. If God is really related to the temporal world, God is temporal.

Since (2) is essential to Christian theism, (1) must be abandoned.

Why think that (3) and (4) are necessarily true? With respect to (3), it seems inconceivable that God's causal relation to the world and the events/things in it could be regarded as anything other than a real relation. Indeed, God's being related to the world as cause to effect seems to be a paradigm example of a real relation. As for (4), its intuitive basis is the inconceivability of divorcing an agent's being from his actions or his actions from their effects in such a way that the effects could be temporal but the agent timeless. In virtue of the real relation between a cause and its effect, the temporality of the effect entails the temporality of the cause as well.

Given the reality of tense and God's causal relation to the world, it is, indeed, very difficult to conceive how God could remain untouched by the world's temporality. At the first moment of time, God stands in a new relation in which He did not stand before (since there was no before!). We need not characterize this as a change in God (perhaps change entails a "before" and "after" for an enduring subject), but this is a real, causal relation which is at that moment new to God and which He does not have in the state of existing *sans* creation. Even if the beginning of the temporal world is the result of a timeless volition of God, the fact that the world is not sempiternal but began to exist out of nothing demonstrates that God acquires a new relation at the moment of creation. At the moment of creation, God comes into the relation of *sustaining the universe* or at the very least that of *co-existing with the universe*, relations which He did not before have. Since He is free to refrain from creation, God could have never stood in those relations; but in virtue of His decision to create a temporal universe God comes into a relation with the temporal world the moment the temporal world springs into being. As Aquinas explains,

whatever receives something anew must be changed, either essentially or accidentally. Now certain relations are predicated of God anew; for example, that He is Lord or governor of this thing which begins to exist anew. Hence, if a relation were predicated of God as really existing in Him, it would follow that something accrues to God anew, and thus that He is changed either essentially or accidentally. . . . [2]

As God successively sustains each subsequent moment or event in being, He experiences the flow of time and acquires a growing past as each moment elapses. Hence, even if God remains intrinsically changeless in creating the world, He nonetheless undergoes an extrinsic, or relational, change, which, if He is not already temporal prior to the moment of creation, draws Him into time at that very moment in virtue of His real relation to the temporal, changing universe.

It does no good simply to appeal to non-explanatory spatial analogies in order to justify God's timeless sustenance of a temporal world, as William Hasker has done: "Just as the non-spatial God can act outside of space so as to produce effects at every point in space, so the timeless God can act outside of time, that is, in eternity, so as to produce effects at every point in time." [3] The analogy breaks down precisely because space is not tensed. Hence, God can create spatial things without entering into spatial relations with them (He does not have to be *here* to create things *here*); but some explanation is required for how God can create temporal things without entering into temporal relations with them (how He sustains things *now* without existing *now*).

Stump and Kretzmann's E-T Simultaneity

Aquinas attempted to avert extrinsic change and, hence, the temporality of God by denying that God stands in any real relations to creation, a singularly difficult doctrine. [4] If, on the other hand, we think that God is really related to the world in virtue of His creative activity in the temporal world, then we must deny the necessary truth of

4. If God is really related to the temporal world, God is temporal in order to undercut the argument for divine temporality.

In 1981 Eleonore Stump and the late Norman Kretzmann sparked a renewal of interest in the doctrine of divine timelessness by proposing a model of God's relationship to time which allegedly demonstrated the possibility of God's being atemporal and yet really related to the world. The heart of the Stump-Kretzmann proposal lies in their conception of a new species of simultaneity, which they call "eternal-temporal simultaneity" (or "ET-simultaneity"). [5] They take the generic concept of simultaneity to be *existence or occurrence at once* (that is, *together*). "Temporal simultaneity" refers to a species of this generic concept and means *existence or occurrence at one and the same time*. Temporal simultaneity and simultaneity are not the same, since between two eternal entities or events there obtains another species of the generic concept of simultaneity called "eternal simultaneity," which is *existence or occurrence at one and the same eternal present*. Thus, the two species of simultaneity are distinguished by the specific content given to the general notion *at once*, or *together*. Simultaneity in general involves co-existence or co-occurrence, but does not specify whether this co-existence or co-occurrence is at one and the same time or at one and the same eternal present.

Stump and Kretzmann's definition of ET-simultaneity has received extensive criticism; but their notion of the "eternal present," which is presupposed by their definition, has been overlooked by commentators. It is important that Stump and Kretzmann have a coherent understanding of the nature of the eternal present, not only in order to clarify the new species of simultaneity they introduce, namely, eternal simultaneity, but also because the notion of the present--both the temporal present and the eternal

present --features prominently in their definition of ET-simultaneity. So what do Stump and Kretzmann understand by the expression "eternal present?" Although for Stump and Kretzmann eternity is not equivalent to atemporality--they have the peculiar view that whatever is eternal is alive, for example-- [6], nonetheless they hold that eternity entails atemporality. Clearly, then, the eternal present is not the temporal present. Nevertheless they claim that this fact "does not rule out the attribution of presentness . . . to the life . . . of such an entity, nor should it. Insofar as an entity is or *has* life, completely or otherwise, it is appropriate to say it has present existence in some sense of 'present'" [7] They clarify what sense that is when they comment, "no eternal entity has existed or will exist; it *only* exists. It is in this sense that an eternal entity is said to have present existence." [8] The only way in which an entity could literally possess presentness and yet it never be true of that entity that it will exist or that it has existed would be if time were composed of a single instant at which that entity existed. Since an eternal entity is, however, atemporal, Stump and Kretzmann's characterization of its having present existence as *only existing* must seemingly imply that its existence is literally tenseless and therefore only metaphorically present.

But here things begin to get complicated. Apparently misled by the metaphor of the "eternal present," Stump and Kretzmann feel compelled to deny that the eternal present--like the present of a time composed of a single instant--is an evanescent instant which elapses as soon as it occurs: "the eternal, pastless, futureless present is not instantaneous but extended, because eternity entails duration The eternal present . . . is by definition an infinitely extended, pastless, futureless duration." [9] They are thus led to embrace the notorious notion of "atemporal duration." According to Stump and Kretzmann "the life of an eternal entity is characterized by beginningless, endless, infinite duration." [10]

Their advocacy of atemporal duration has drawn heaps of criticism. As Padgett complains, "atemporal duration" is just an oxymoron, since duration simply is the span of time through which an entity might endure. [11] Temporality is thus inherent to the meaning of "duration." Stump and Kretzmann recognize that their combining duration with timelessness constitutes "the most flagrant of the difficulties" with their view; but they seek to soften its impact by insisting that "atemporal duration" is "technical terminology" which uses familiar words in unfamiliar ways and noting that technical uses of familiar terms--like "black hole" or "Big Bang"--are common and go unprotested in other theoretical disciplines. [12] What is surprising about this defense is that expressions like "black hole" and "Big Bang" are precisely not technical terminology, but ordinary language expressions which every scientist recognizes as metaphorical. On this pattern we should take expressions like "eternal present" or "atemporal duration" as appropriate metaphors for God's mode of existence. But Stump and Kretzmann are committed to construing eternity as literally some sort of extension which is the paradigm of duration. [13] According to them temporal duration is "only apparent duration," while atemporal, infinite duration is "genuine, paradigmatic duration." [14] By contrast, no scientist would take the Big Bang to

be the paradigm for explosions or black holes to be the paradigm of holes. To contend that temporal duration is only apparently duration because it lacks the permanence of eternity is as ridiculous as saying that a bomb blast is not an explosion because it involves no expansion of space itself or that a perforation is not a hole because it involves no gravitational self-collapse. The metaphors "black hole" and "Big Bang" are appropriate because the entities or events so referred to are reminiscent of genuine explosions and holes. If, then, temporal duration is, as seems undeniable, genuine duration, it follows that eternity is not a genuine duration. [15] Because it does not elapse, an eternal state is reminiscent of something that endures, but the terminology of duration can only be used of it metaphorically.

Of course, one may move "beyond the terminological novelties" by dropping the terminology of duration altogether and speaking of eternity, as Stump and Kretzmann are wont to do, simply in terms of an atemporal *extension*. [16] The idea of atemporal extension is clear, since the concept of space involves extension which is atemporal. Now if one does wish to conceive of eternity as an atemporal extension, one is obliged to explain the nature of this extension, its topological and geometrical properties. [17] But Stump and Kretzmann admit that eternity has none of the properties normally associated with extension. Minimally any extension must be such that it can be regarded as a manifold, that is to say, one can specify points within it which are non-identical. But according to Stump and Kretzmann eternity does not even fulfill this most minimal of conditions: it has no actual parts or phases and is not divisible even potentially or conceptually. [18] The conclusion seems irresistible that this "extension" is not topologically different from a single mathematical point. Not even the most primitive metric can be non-trivially defined for eternity, since non-identical points cannot be specified within it, much less ordered by a relation of betweenness. Topologically and geometrically, then, eternity seems to be no kind of extension, but a point. [19]

Stump and Kretzmann respond to this criticism, first, by asserting that it has not been shown that divisibility is essential to extension. [20] They note that on discrete theories of time there exist extended but indivisible atoms (or chronons). Moreover, the specious present, though extended, is as such not divisible, even conceptually. The eternal present may be thought of as God's specious present which covers all of time. Moreover, even if space and time are continuous, one may not licitly generalize that all extensions are divisible. Secondly, Stump and Kretzmann attempt to provide some rationale for regarding eternity as an extension despite its indivisibility. [21] Eternity must be thought of as extended because the alternative--that eternity belongs to the evanescent realm of becoming--is metaphysically impossible. Eternal extension or atemporal duration are predicated analogically of God, and although it is impossible to state what features are shared by temporal and atemporal extension, we can say that "eternal duration . . . is a measure of existence, indicating some degree of permanence of some sort on the part of something that persists--although, of course, divine existence, permanence, and persistence will be analogous to, not identical with, temporal existence, permanence, and duration." [22]

This two-fold response seems clearly unavailing. First, it belongs analytically to the concept of extension that a multiplicity of points can be, at least conceptually, specified within it. Indeed, for eternal duration to be "a measure of existence" some metric on this manifold must be specified, which is impossible without a multiplicity of ordered, specifiable points. The proffered counter-examples of chronons and the specious present are based on misunderstandings. For a moment of time even to be a chronon one must be able to specify instants which constitute its boundaries, or, at least, if its boundaries are fuzzy, which do not lie outside its span. If chronons endure for 10^{-23} second, we can conceptually, if not physically, divide it into lengths of 10^{-33} second. [23] As for the specious present, Stump and Kretzmann conflate the psychological present with the ontological present. The psychological present has for us a minimal duration, but whatever interval of time is actually present is conceptually divisible into smaller intervals. The eternal present, however, is not supposed to be God's psychological present, but the actual mode of His existence. The indivisibility of His psychological present does not imply the indivisibility of His mode of existence. If the mode of His existence is conceptually indivisible, then His eternity is topologically point-like, even if His psychological present necessarily takes in the whole extent of time. Finally, the essential conceptual divisibility of an extension is not due to over-generalization from the cases of space and time. We can conceive, for example, of other sorts of extensions in logical space, such as a gradient recording temperature and pressure, and all these must be susceptible to specification of non-identical points along the extension, or one simply does not have an extension. An extension without conceptually specifiable points is as much a contradiction as atemporal duration.

When we examine Stump and Kretzmann's reasons for thinking of eternity as an extension, I think it is evident that they have been misled by the metaphor of the "eternal present." Since they conceive of eternity on the model of the tensed present rather than of a tenseless state, they are exercised to deny of eternity that "radically evanescent existence" which characterizes the temporal present and which "could not be the existence of an absolutely perfect being," which must be "permanent, utterly immutable actuality." [24] Thus, they explicitly state their aim as attempting "to frame the notion of a mode of existence consisting wholly in a present that is limitless rather than instantaneous." [25] This attempt to combine presentness with permanence forces them to the conclusion that the eternal present "is indivisible, like the temporal present, but it is atemporal in virtue of being limitless rather than instantaneous, and it is in that way infinitely enduring." [26]

The best sense that I can make of the Stump-Kretzmann notions of the eternal present and atemporal duration is that our time dimension is embedded in a hyper-time in which God endures, such that at every moment of hyper-time the entire temporal series is present (Figure 1).

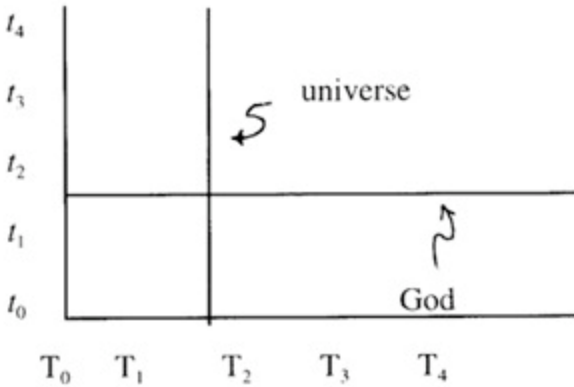


Figure 1

Fig. 1. The horizontal T-axis represents hyper-time, in which God endures infinitely. The vertical t -axis represents time, in which our universe endures. When T_2 is present for God, the entire temporal series of events is present to Him.

On this view even though our temporal present is radically evanescent, for God in hyper-time, or eternity, all our presents are equally real in His hyper-present. By the same token, the hyper-present is permanent from the standpoint of any temporal observer and is in that sense eternal. The present instant of hyper-time encompasses the whole of time and, as an instant, is indivisible. In God's eternal present the whole temporal series of events is laid out before Him. He can survey the whole series of events in that single hyper-instant and act at any point in our temporal series without changing or waiting for events to elapse. God can be said to have atemporal duration in the sense that He does not endure throughout time, but does endure in hyper-time, or eternity. Thus, on this model the notions of the eternal present and atemporal duration turn out to be coherent. [27]

Remarkably, several statements by Stump and Kretzmann suggest that they are struggling to express just such a view. For example, in response to Brian Leftow's allegation that since, on Stump and Kretzmann's view, eternity cannot contain distinct positions, "eternity is pointlike, not extension like," [28] they assert, "this inference holds only if it exhausts the possibilities for any mode of existence to describe it either as linelike or as pointlike, and there is no good reason to think that modes of existence higher up the ladder of being or of more dimensions than our own are limited in that way." [29] Here they explicitly appeal to higher dimensional reality in order to explain how what appears to us as a point is extended in a higher dimension. Again, they state, "On the doctrine of eternity, the eternal present persists, encompasses time, and is unbounded." [30] Here eternity is conceived as an infinite, embedding dimension in which time exists. Finally, Stump and Kretzmann attempt to illustrate their model by describing the attempts of a three-dimensional person to communicate his spatial location to one-dimensional creatures via spatial indexical expressions like "here." [31] This analogy suggests

construing eternity as a hyper-time in which God attempts to communicate to creatures in time that all of them regardless of their temporal location exist "now." Thus, construing eternity as an embedding hyper-time not only renders coherent much of what Stump and Kretzmann say, but is even suggested by not a few of their own statements.

Nevertheless, it is obvious that they would not accept such a construal of their view. The chief difficulty lies in the fact that in hyper-time God would not have complete possession all at once of His interminable life. We could eliminate this problem by limiting hyper-time to a single hyper-instant in which the whole series of temporal events in the universe exists; but such a solution is hardly acceptable, since God would then have evanescent existence in hyper-time. If His life is extended in hyper-time, then the hyper-present is constantly shifting for God, and our whole universe passes Him by in a fleeting hyper-instant. We could solve this difficulty in part by having God sustain our time dimension across hyper-time, so that it does not instantly pass away (Figure 2).

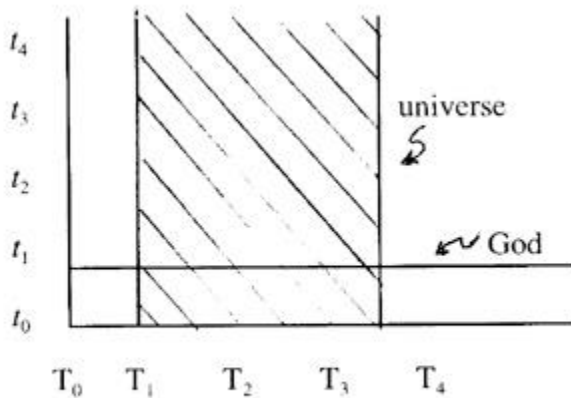


Figure 2

Fig. 2. By sustaining time across moments of hyper-time, time acquires width as well as length.

If God chose to create time from the infinite hyper-past and sustain it into the infinite hyper-future, nothing in time would ever pass away for God. Still, if hyper-time is tensed, it remains the case that God would not possess His life all at once.

Perhaps we could avoid this problem by denying that hyper-time is tensed, so that God's life exists tenselessly as a B-series of events. But then God still has, at least, the *experience* of hyper-temporal becoming and so does not possess His life all at once in that sense. Perhaps we could adopt Stump and Kretzmann's suggestion that God's specious present in tenseless hyper-time embraces the whole of hyper-time, so that nothing is lost or gained by Him experientially or metaphysically. But I have elsewhere pointed out the fatal flaws in such a view with respect to God's timely action in a tenseless time, and the same goes for hyper-time. [32] God could not act to create or destroy time at a certain

moment of hyper-time, since all moments of hyper-time appear to Him as equally "now." But perhaps a final gambit could be played: we could conceive of God's hyper-time as tenseless and composed of a single hyper-instant which is speciously present to God and in which our time dimension is embedded. On this view, eternity consists of a single, tenseless instant of hyper-time at which God creates our whole temporal series of events. This hyper-instant is not a duration, but neither is it evanescent, since it is tenseless. It appears as present to God, but there is no problem with timely action, since hyper-time, or eternity, consists of a single instant. Such a model comes startlingly close to the classical conception of eternity. The central difference consists in the fact that eternity was taken by its classical defenders to be a state of timelessness, not an embedding hyper-temporal dimension. If we construe eternity as hyper-time, it follows that God must exist at minimally one instant of time where His hyper-temporal world-line (even if only a point) and the world-line of the universe intersect. [33] Thus, curiously, at some arbitrary point in time it would be true to say, "God now exists." Before that time it would be true to assert "God will exist" and thereafter "God did exist." Ironically, we were forced to such a model by attempting to provide a coherent interpretation of Stump and Kretzmann's notions of atemporal duration, eternal extension, and the eternal present; but all of these have now been sacrificed by the model suggested. Moreover, the model of hyper-temporal eternity depends for its metaphysical possibility on the tenseless theory of time, since God's hyper-time, if not our time, is conceived to be a tenseless time. But Stump and Kretzmann are eager to expound a model of eternity which is compatible with theories of time that are essentially tensed. Thus, the construal of eternity as a tenseless hyper-time would be doubly objectionable to them.

Conclusion

Ultimately, then, I have been unable to find an acceptable, coherent model of Stump-Kretzmann eternity. This negative conclusion requires us to regard such expressions as "eternal present" and "atemporal duration" as metaphors appropriate to God's mode of existence. Stump and Kretzmann practically admit as much in characterizing such expressions as wholly analogical. For analogical predication without some univocal, conceptual content cannot be regarded as anything more than metaphor. [34] Such metaphors are apt for divine eternity because they convey to us that God's timeless state does not pass away like a temporal instant, that it is permanent. The opposite of evanescence is not duration or extension, but permanence. Permanence is really what Stump and Kretzmann are anxious to safeguard, and this property of eternity is guaranteed by God's tenseless existence and action on theories of divine timelessness, not by incoherent notions like atemporal duration or conceptually indivisible extension. [35] Defenders of divine timelessness who conceive of eternity as topologically point-like have not in the least thereby compromised God's permanence. If we take eternity to be a tenselessly existing state topologically like a point, then two eternal entities can both be located tenselessly at the same point which represents eternity. Thus, "eternal simultaneity"

makes sense. But if one entity is eternal and the other temporal, then the question becomes the adequacy of Stump and Kretzmann's definition of the ET-simultaneity relation, a question which I have taken up in another place. [36]

Footnotes

Nelson Pike, *God and Timelessness*, Studies in Ethics and the Philosophy of Religion (New York: Schocken Books, 1970), p. 110.

[2]

Aquinas *Summa contra gentiles* 2. 12. 5. For discussion see Michael-Thomas Liske, "Kann Gott reale Beziehungen zu den Geschöpfen haben?" *Theologie und Philosophie* 68 (1993): 224.

[3]

William Hasker, *God, Time, and Knowledge*, Cornell Studies in the Philosophy of Religion (Ithaca, N.Y.: Cornell University Press, 1989), p. 154.

[4]

See discussion in my "The Tensed vs. Tenseless Theory of Time: A Watershed for the Conception of Divine Eternity," in *Questions of Time and Tense*, ed. Robin Le Poidevin (Oxford: Oxford University Press, 1998), pp. 223-31.

[5]

Stump and Kretzmann formulate the following definition of ET-simultaneity:

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

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

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

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

(Eleonore Stump and Norman Kretzmann, "Eternity," *Journal of Philosophy* 78 [1981]: 441).

[\[6\]](#)

This property of an eternal entity they erroneously read into Boethius's account (see William Lane Craig, "Boethius on Theological Fatalism," *Ephemerides theologicae Lovanienses* 64 [1988]: 324-347).

[\[7\]](#)

Stump and Kretzmann, "Eternity," p. 434.

[\[8\]](#)

Ibid.

[\[9\]](#)

Ibid., p. 435.

[\[10\]](#)

Ibid., p. 433.

[\[11\]](#)

Alan Padgett, *God, Eternity and the Nature of Time* (New York: St. Martin's, 1992), p. 67: "Stump and Kretzmann have chosen the wrong word. The word 'duration' means an interval of time, namely, that interval of time through which something endures. The notion of an atemporal duration is, therefore, a contradiction in terms;" so also Stephen T. Davis, *Logic and the Nature of God* (Grand Rapids, Mich.: Wm. B. Eerdmans, 1983), p. 19; Richard M. Gale, *On the Nature and Existence of God* (Cambridge: Cambridge University Press, 1991), p. 48; Katherin A. Rogers, "Eternity Has No Duration," *Religious Studies* 30 (1994): 7.

[\[12\]](#)

Eleonore Stump and Norman Kretzmann, "Eternity, Awareness, and Action," *Faith and Philosophy* 9 (1992): 464-465.

[\[13\]](#)

Stump and Kretzmann, "Eternity," pp. 444-445; idem, "Atemporal Duration: a Reply to Fitzgerald," *Journal of Philosophy* 84 (1987): 216, 218.

[\[14\]](#)

Stump and Kretzmann, "Atemporal Duration," p. 218.

[\[15\]](#)

So Brian Leftow, *Time and Eternity*, Cornell Studies in the Philosophy of Religion (Ithaca, N.Y.: Cornell University Press, 1991), pp. 125-127.

[\[16\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," pp. 465-466.

[\[17\]](#)

Paul Fitzgerald, "Stump and Kretzmann on Time and Eternity," *Journal of Philosophy* 82 (1985): 260-269.

[\[18\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," p. 46; cf. idem, "Atemporal Duration," p. 215: "Nothing that is incompatible with divine simplicity can count as E-duration;" cf. pp. 218-219. Helm rightly complains that "atemporal duration" becomes so qualified that nothing remains but the bare words (Paul Helm, *Eternal God* [Oxford: Clarendon Press, 1988], p. 35). Strangely, on p. 216 of "Atemporal Duration" Stump and Kretzmann do seem to allow conceptual divisibility of atemporal duration: continuous time, they explain, is not composed of actual or even potential parts, rather

"it is *potentially divisible* conceptually. And Fitzgerald provides no reason for thinking that the subphases of E-duration are to be treated otherwise than those of temporal duration . . . since the potential divisibility of any duration is conceptual only, there is no discrepancy between any possible divisibility of E-duration and God's nature as pure actuality."

Here they seem to countenance the idea that a duration as a whole is logically prior to any intervals or points which can be specified in it and endorse the possibility of conceiving eternity in this way. Their mature view seems clearly to contradict such an endorsement. If we do conceive of eternity as a conceptually divisible duration, then metrical questions cannot be avoided. For example, for any two non-identical points a and b in eternity, is the distance $(a, b) > 0$? If not, how is eternity different from a point? If so, how does God have possession of His life "at once"? Similarly, for any three points a , b , and c , if b is between a and c , is the distance $(a, b) > (a, c)$? The same two questions arise with respect to negative and affirmative answers to this question.

[\[19\]](#)

The best analogy for Stump-Kretzmann eternity which I can think of would be a series of points having a light-like separation in Minkowski space-time. The metric of such a manifold requires that the interval, or space-time separation, between any two points lying along the path of a light ray *in vacuo* be zero. This is the case even for events which occur millions of years apart and light years away from each other: their space-time separation is zero. Lucas and Hodgson comment,

"Topology is concerned with 'nearness', points and sets of points that are close together, that is those where the distance between them tends toward zero. In an ordinary space the distance between two points can be zero only if the two points are coincident, but in Minkowski space two points on the path of a light ray are not, according to our criterion, separated, even though they are, according to intuitive reckoning, a great distance apart. Hence whereas in an ordinary space two points are near only if the distance between them is tending toward zero, which can happen only when they are themselves actually coincident, in Minkowski space two points can be counted as being topologically near to each other without approximating in the least to be coincident" (J. R. Lucas and P. E. Hodgson, *Spacetime and Electromagnetism* [Oxford: Clarendon Press, 1990], pp. 34-35).

Perhaps Stump and Kretzmann could model divine eternity on the world-line of a light ray, conceding that it is, after all, made up of a multiplicity of points, but having a metric such that the separation of any two points is zero. Perhaps such a feature could be interpreted as God's possessing His life all at once.

[\[20\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," pp. 466-468; idem, "Atemporal Duration," pp. 215-216.

[\[21\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," pp. 468-469; idem, "Atemporal Duration," pp. 218-219.

[\[22\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," p. 469.

[\[23\]](#)

See G.J. Whitrow, *The Natural Philosophy of Time*, 2d ed. (Oxford: Clarendon Press, 1980), p. 201:

"Acceptance of the ideas of spatial and temporal atomicity in physics does not, of course, preclude us from applying mathematical concepts of space and time involving numerical continuity in our

calculations, but the infinite divisibility associated with these concepts will then be purely mathematical and will not correspond to anything physical."

Also relevant in this connection is Philip L. Quinn, "On the Mereology of Boethian Eternity," *International Journal for Philosophy of Religion* 32 (1992): 57.

[\[24\]](#)

Stump and Kretzmann, "Atemporal Duration," p. 218; cf. idem, "Prophecy, Past Truth, and Eternity," in *Philosophy of Religion*, ed. Jas. Tomberlin, Philosophical Perspectives 5 (Atascadero, Calif.: Ridgeway Publishing, 1991), p. 396: "The existence of an absolutely perfect being must be an indivisibly persistent present actuality."

[\[25\]](#)

Stump and Kretzmann, "Atemporal Duration," p. 218.

[\[26\]](#)

Ibid.

[\[27\]](#)

Curiously, however, ET-simultaneity may not survive in this re-interpretation, since in two-dimensional time simultaneity becomes relativized to a dimension, as explained by Murray MacBeath, "Time's Square," in *The Philosophy of Time*, ed. R. Le Poidevin and M. MacBeath, Oxford Readings in Philosophy (Oxford: Oxford University Press, 1993), p. 196.

[\[28\]](#)

Leftow, *Time and Eternity*, p. 128.

[\[29\]](#)

Stump and Kretzmann, "Eternity, Awareness, and Action," p. 471.

[\[30\]](#)

Ibid., p. 466.

[\[31\]](#)

Ibid., pp. 470-473. Unfortunately, the analogy is misconstrued due to a misuse of indexical expressions. In the one-dimensional world, the creatures are supposed to recognize an absolute *here*, which is the location of the creature which occupies the mid-point of the line segment which is their world. The aim of this analogy is clearly to construct a spatial tense on the analogy of "now." But the attempt misfires; for creatures elsewhere on the line segment the specified point can not be truly regarded as *here*, but as *there*. It can only be truly regarded as here for the creature who occupies it. The customary view of spatial indexicals is that none of the points on the line is objectively *here* or *there*, these being person-dependent expressions of spatially tenseless facts. Objective spatial tenses would require us to say that in the postulated one-dimensional world there really are objective, person-independent facts like *The end-point is here* or *The mid-point is up ahead*. But it does not require the absurdity that only one point in space qualifies as being *here*. That would be like saying that only one point in time ever qualifies as *now*, when in fact objective tense requires merely that any time the expression "now" is correctly used the time of usage be objectively present. In general, Stump and Kretzmann seem to have been misled by the word "absolute" with which they preface "here" and "present." The upshot is that when the 3-D person says to the 1-D creature "We're all here together," the 1-D creature will recognize that the expression "here" has a different referent than when he uses it, just as he recognizes that each of his fellow creatures would refer to his own place on the line segment as "here." It is also significant to note that the 3-D person does in fact share the same single dimension with the 1-D creatures; he fails to be on the line only in virtue of being off it in the second and third dimensions, and co-ordinates can be assigned to him in that one shared dimension. Similarly, a hyper-temporal being causally connected to our temporal world would have to share our temporal dimension at minimally one point where the dimensions intersect.

[\[32\]](#)

See discussion in my "On the Argument for Divine Timelessness from the Incompleteness of Temporal Life," *Heythrop Journal* 38 (1997): 165-171.

[\[33\]](#)

This would seem to be the hyper-time at which God acts causally to create time and the universe. Since this point of intersection is shared by time and hyper-time and could be at any time, it follows that God may have created the world in, say, 1898--or maybe He has not yet created the world! From God's perspective such mid-time creation would not involve backward causation, since God in hyper-time acts to create the whole time-line at one hyper-instant, but for us temporal creatures His action would seem to involve backward causation, since it also occurs at a moment of ordinary time. These sorts of difficulty might well cause one to doubt the metaphysical possibility of higher temporal dimensions, in contrast to higher spatial dimensions.

[\[34\]](#)

See William P. Alston, "Aquinas on Theological Predication: A Look Backward and a Look Forward," in *Reasoned Faith*, ed. Eleonore Stump (Ithaca, N.Y.: Cornell University Press, 1993), pp. 145-178.

[\[35\]](#)

For an analysis of permanence, see Quentin Smith, "A New Typology of Temporal and Atemporal Permanence," *Noûs* 23 (1989): 307-330, and Leftow, *Time and Eternity*, pp. 132-133. I should add merely that Leftow conflates instants (which are durationless) with moments (which have arbitrarily short non-zero duration). Eternity is not like a single moment which is both a first and last moment; rather it is like an instant and so has no first or last finite period of existence.

[\[36\]](#)

It is noteworthy that in the proposed definition simultaneity is not defined in terms of a shared location, but in terms of a shared property. Relative to a location either in time or in eternity, both x and y are said to be present. This is not a shared location (contrast: "in the present"), since x and y are not both located in the "eternal present" nor in any temporal present. Such a procedure seems peculiar, since two entities' sharing a property relative to some location hardly suffices for simultaneity. Relative to the eternal reference frame, for example, God and Jones are both intelligent, but they are not therefore in any way simultaneous. But when it comes to the property of presentness, I think, we can make sense of such a procedure. For example, we could define temporal simultaneity by stating that x and y are simultaneous iff relative to time t x and y are both present. The problem with the Stump-Kretzmann definition is that the word "present" in the definition refers to entirely different properties, namely, temporal presentness and eternal presentness, so that there is no shared property involved. The fact that the "eternal present" must be taken as metaphorical only underscores this conclusion. We cannot circumvent this problem by giving tenseless, token-reflexive truth conditions relative to eternity or to moments of time for statements like " y is present," since in eternity as well as at most moments of time there are no such tokens. Rather we must find some common property shared by God and temporal entities relative to either's "reference frame" which intuitively suffices to found a simultaneity relation. I think that the essence of the Stump-Kretzmann definition would be preserved if we state that relative to either frame " x and y are both real," one eternally real and the other observed as temporally real relative to the eternal "reference frame" or one temporally real and the other observed as eternally real relative to a moment of time. Not only does *real* seem to be the univocal element common to the eternal present and the temporal present, but Stump and Kretzmann later revise their definition of ET-simultaneity in such a way as to make it tenseless. Their use of the word "present" is thus confusing and, I fear, inconsistent. They even speak of spatial locations as being present to a non-spatial God. If

Stump and Kretzmann insist on a shared property of literal presentness, then I fear that the incoherence found in their notion of the eternal present will also bring down their definition of ET-simultaneity.