

SPACE AND TIME FROM A NEO-WHITEHEADIAN PERSPECTIVE

by Joseph A. Bracken, S.J.

Abstract. Russell Stannard distinguishes between objective time as measured in theoretical physics and subjective time, or time as experienced by human beings in normal consciousness. Because objective time, or four-dimensional space-time for the physicist, does not change but exists all at once, Stannard argues that this is presumably how God views time from eternity which is beyond time. We human beings are limited to experiencing the moments of time successively and thus cannot know the future as already existing in the same way that God does. I argue that Stannard is basically correct in his theological assumptions about God's understanding of time but that his explanation would be more persuasive within the context of a neo-Whiteheadian metaphysics. The key points in that metaphysics are (1) that creation is contained within the structured field of activity proper to the three divine persons of the Christian doctrine of the Trinity and (2) that the spontaneous decisions of creatures are continually ordered and reordered into an ever-expanding totality already known in its fullness by the divine persons.

Keywords: actual occasions; creation; divine initial aims; efficient causality; eternity; final causality; God-world relationship; space-time; structured field of activity; time (A-series versus B-series); togetherness of past, present, and future; Trinity; Whiteheadian societies

In an article titled "God In and Beyond Space and Time," British physicist-turned-theologian Russell Stannard offers his own understanding of the notion of panentheism in a collection of essays devoted to that topic (Stannard 2004, 109–20). He first discusses the differences between objective time as measured in theoretical physics and subjective time, time as experienced by human beings in normal consciousness. Because objective

Joseph A. Bracken, S.J., is Professor Emeritus of Theology at Xavier University, 3800 Victory Parkway, Cincinnati, OH 45207-1049; e-mail bracken@xavier.edu.

[*Zygon*, vol. 42, no. 1 (March 2007).]

© 2007 by the Joint Publication Board of *Zygon*. ISSN 0591-2385

time, or four-dimensional space-time for the physicist, does not change but exists all at once (past, present, and future plotted on a graph together with the three spatial coordinates), Stannard argues that this is presumably how God views time from eternity, which is beyond time. We human beings, by contrast, are limited to experiencing the moments of time successively and thus cannot know the future as already existing in the same way that God does. Stannard concedes that not all scientists and philosophers agree with this notion of space-time as a “block universe,” but he argues that it seems to be consistent with the mathematics of relativity theory (2004, 113).

In this article I argue that Stannard is basically correct in his theological assumptions about God’s understanding of time but that his explanation would be more persuasive within the context of the neo-Whiteheadian metaphysics that I have developed over many years, the key point of which is that Whiteheadian “societies” are to be understood as structured fields of activity for their constituent actual occasions. Given such a field-oriented understanding of Whiteheadian societies, one can stipulate with Stannard that God is both in time and beyond time and that God knows past, present, and future simultaneously somewhat akin to the block universe as employed in theoretical physics.

By way of explanation, I first cite a key passage out of Stannard’s essay and then indicate how it can be reinterpreted in neo-Whiteheadian terms.

We are so accustomed to thinking in terms of us all sharing the one space and the one time, that it requires a severe mental wrench to conceive of something radically different: namely, that we each inhabit our own space and our own time, and these will differ from each other if we are in relative motion. The reason most people go through life unaware of this is that for the speeds we normally encounter in everyday life, the differences between our various estimates of distance and time are so small as to make no practical difference. Nevertheless, the effects are there all the time. (Stannard 2004, 111)

Where I would differ from Stannard is in proposing that we not only exist within our own space and time but unconsciously create our own space and time in successive moments of existence. If an individual’s consciousness is understood as an ongoing intentional field of activity for successive moments of experience (in Alfred North Whitehead’s language, actual occasions), this field should have its own space-time structure. The actual occasion of the moment, in other words, is at the center of its own spatial world and finds itself integrating past events, the present situation, and future possibilities in its self-constituting “decision” here and now. That structure will, of course, inevitably change as new moments of experience add their own pattern of spatial and temporal self-awareness to the overall structure of the field. But the intentional field remains stable enough so that the individual experiences an enduring sense of self-identity as he/she moves about and experiences the flow of events in and around him/herself.

In this way the ongoing structure of the field is the concrete basis for our memory of the past and our anticipation of the future. Yet in the end it is only our own world, not the world, which we thus inhabit.

Why is this not apparent to us? Why do we human beings normally think of ourselves as existing in space and time rather than as creating our own space and time? As I see it, it is because our individual worlds or fields of activity sufficiently overlap so that we end up co-creating a common field of activity with approximately the same space-time parameters for all of us. This commonly structured field of activity is, to be sure, dependent upon the dynamic interrelation of all the actual occasions at work both within us and in other individuals (in Whiteheadian terms, other societies of actual occasions) at any given moment. Yet, such intense activity is always below the level of conscious experience. Instead our common sense experience leads us to believe that space and time are objective realities existing independently of us rather than in total dependence on us and our contemporaries.

Stannard comments that this happens because our estimates of distance and time are roughly the same as our fellow human beings'. But he also notes that in relativity theory we are dealing with interrelated events in space-time rather than with the things of common sense experience (2004, 111). Likewise, within Whitehead's metaphysical scheme there are no separately existing *things* that need time to move from one place to another; there are only dynamically related *events* of approximately the same duration rapidly succeeding one another and sometimes involving change of place (Whitehead 1978, 73). If then the pattern of succession of actual occasions within ourselves and our neighbors is more or less the same, we find ourselves functioning within basically the same space-time parameters. Yet it also is true that some persons age faster or slower than others and that we occupy different places with respect to one another within our conjoint field of activity or common space. Hence, upon further reflection it becomes clear that we do indeed live within our own subjective space-time worlds even as we share and co-constitute a conjoint field of activity.

Turning now to consideration of the God-world relationship and of the way in which God experiences events taking place within the space-time continuum, I propose, first, what I have explained elsewhere in greater detail (Bracken 1991, 123–39; 1995, 62–65; 2001, 109–30), namely, that God is to be understood as three distinct persons in ongoing dynamic interrelation. Each of these divine persons is in Whiteheadian terms a personally ordered society of actual occasions presiding over a completely unlimited field of activity. Yet these three fields of activity necessarily merge to constitute a single all-inclusive shared field of activity so as to guarantee the reality of the three divine persons as one God. The structure of that common divine field of activity is, moreover, determined by the ongoing

relations of the three divine persons to one another as set forth in classical trinitarian theology. The Father is the source of the divine life; the Son is the self-expression or Word of the Father; the Spirit is the Mediator between the Father and the Son in their ongoing relations to one another. Is there likewise a space-time structure for the divine persons within this divine field of activity? I would argue yes, given my earlier presupposition that Whiteheadian actual occasions or self-constituting subjects of experience necessarily co-constitute a common space-time structure for one another through their ongoing dynamic interrelation. Yet within this divinely constituted space-time structure God is, as Alan Padgett maintains, “relatively timeless.” That is, with respect to human standards of measurement, our limited frame of reference based on observation of the laws of nature, we cannot judge how long a single moment for the divine persons lasts (Padgett 1992, 130; 2001, 92–110).

Likewise, in accord with what I have explained elsewhere I stipulate that the world of creation originally came into being and continues to exist within this divine field of activity (Bracken 1991, 140–60; 1995, 63–66; 2001, 131–55). Because the divine field of activity is infinite or strictly unlimited, creation cannot exist apart from God but only in God. Yet, because creation as a whole is a complex set of overlapping and hierarchically ordered fields of activity for created actual occasions, it can exist within the divine field of activity and yet retain its own ontological identity apart from the three divine persons. Fields, unlike Aristotelian substances, can interpenetrate and be layered within one another without loss of ontological identity. Lower-level fields at the atomic and molecular levels of existence and activity, for example, evidently provide the infrastructure for the operation of higher fields of activity at the organic and environmental/communitarian levels of existence and activity within nature, and the upper levels set necessary parameters for the ongoing existence and activity of the lower-level fields of activity. The divine persons existing within the all-encompassing divine field of activity thus experience what is going on within the world of creation and are able to respond to events taking place within creation even more accurately and completely than the mind or soul within a human being is able to monitor what is happening in his/her body and respond to it with its own decisions. What is key here, of course, is that the space/time structure proper to the world as a whole and its various subdivisions is thus in God rather than that God is somehow constrained by the space-time parameters of this world in dealing with creation.

Hence, while I agree with Padgett that God is both the ground of time and the Lord of time so that in effect we exist in God’s time rather than God existing in ours (Padgett 1992, 122–26), I interpret the experience of time or duration both within God and in the world of creation somewhat differently than he does. I agree that both God and creatures experience past, present and future; but, contrary to Padgett, I propose that within

every such moment of experience both for the divine persons and also for all creaturely actual occasions there is what John McTaggart called a “B-series” understanding of past, present, and future in which these simultaneously coexist as ordered to one another sequentially in terms of earlier and later rather than existing separately from one another as past, present, and future (Padgett 1992, 96–97). Unlike past, present, and future in McTaggart’s “A-series” in which only the present actually exists at any given moment, past, present and future in the B-series are all present to and affect one another in each successive moment of eternity both for the divine persons and in each successive moment of time for all creatures. I am appealing here to Robert Neville’s understanding of eternity as the “togetherness” of past, present, and future within the process of concrescence for Whiteheadian actual occasions. That is, an actual occasion makes a “decision” in the present moment that is heavily conditioned by its past and that has an immediate impact on its future (Neville 1993, 95–120; Whitehead 1978, 21–22).

Each of the three time dimensions, accordingly, is actively interrelated with the other two at every moment of both time and eternity. The settled past influences both present decision making and projections for the future; the present moment looks back to the past in anticipation of the future; the future as the realm of possibility is continually being reconfigured by past events insofar as they affect choices in the present. But, whereas creaturely actual occasions can appropriate only part of their past and part of their future into the present moment, the divine persons can incorporate their entire past and their entire anticipated future into each moment of divine coexistence. As a result, the divine persons can incorporate the entire history of creation or the cosmic process without remainder into their own “frame of reference,” the divine field of activity. In this way, they “see” the historical sequence of events within creation but in such a way as to see each event as it happens in the context of its significance or value for the created process as a completed whole within the parameters of the divine communitarian life.¹

Here I am borrowing from the analysis of time and eternity offered by Wolfhart Pannenberg in his *Systematic Theology*, Volumes I and III (1991, 401–10; 1998, 595–607). Where I differ from Pannenberg is in the claim that, while the divine persons thus know every event as it happens in this cosmic epoch, they do not directly will it or otherwise make it happen one way rather than another. Rather, more in line with the thinking of Whitehead on this point, I propose that the principal activity of the divine persons with respect to their creatures is in terms of final rather than efficient causality. That is, they continually order into a more comprehensive whole what creatures decide in virtue of the creatures’ own finite self-constituting “decisions” from moment to moment. For this purpose, as Pannenberg claims, the divine persons need full knowledge of past, present, and future

within the space-time continuum. But, instead of directly causing what the creature will decide by way of its self-constitution from moment to moment, they simply empower the creature to make its own decision by imparting to it a share in their own creativity, their own divine decision-making power (Bracken 2006, 83–85).²

There is no doctrine of divine predestination in this approach to the God-world relationship. The divine persons, to be sure, communicate at every moment what Whitehead calls divine “initial aims” to their creatures to inspire a good rather than a bad decision (1978, 244). The actual decision, however, is always the responsibility of the creature. The key responsibility of the divine persons at every moment of the divine life is to keep ordering and reordering into an ever-expanding intelligible whole the decisions of their creatures within the temporal order. This certainly is akin to what Whitehead had in mind with his concept of the divine consequent nature (1978, 346), with one exception. Whereas Whitehead envisions God as totally involved with the cosmic process from moment to moment and thus as not knowing future events as factual until they actually occur,³ I stipulate, as noted above, that the divine persons know at every moment the past, present, and future of the cosmic process in its totality and thus order each successive event within the space-time continuum in terms of its impact, great or small, on the cosmic process as a whole. They do this without violating the spontaneity or, in the case of human beings, the freedom of the created subject of experience to make its own self-constituting “decision.”

In brief, then, in this matter of God’s knowledge of the future it should be possible, as Stannard suggests, to reconcile the opposing viewpoints represented by classical metaphysics and process-oriented modes of thought. God knows the future of the cosmic process in its fullness but does not by that fact predetermine it. This is possible only because God exists beyond time in eternity. Only from this privileged frame of reference in eternity can God experience a “block universe” or “B-series” of events in the temporal order from moment to moment and by divine initial aims provide guidance to creatures in their self-constituting decisions. Mathematicians and physicists, accordingly, in thinking through the logical implications of relativity theory in terms of a block universe have inadvertently offered theologians a major new insight into the God-world relationship, the way God relates to creatures in the temporal order without determining in advance what will happen from moment to moment.

NOTES

1. See here Brian Leftow 1991, 217–45. Leftow defends a theory of God as absolutely timeless on the grounds of divine immutability and simplicity, but he uses the model of divine and temporal frames of reference in somewhat the same way that I do here. That is, he argues that the temporal order exists in its entirety within God and is sustained therein by God rather than that God somehow exists here and now within the temporal order so as to deal with creaturely events as they happen.
2. This is akin to what Thomas Aquinas maintains in the *Summa Theologica*, I, Q. 14, a. 13 in which he argues that God knows contingent events in the created order by communicating the act of being to them as they happen (“in their presentiality”). But there is one key difference. Whereas in my scheme God simply empowers creatures to make their own decisions, within Aquinas’s theory it is not clear how God can be the primary cause of an event without reducing the creature as secondary cause of the same event to the status of an instrument of the divine will.
3. “God and the World are the contrasted opposites in terms of which Creativity [the cosmic process as a principle of becoming] achieves its supreme task of transforming disjoined multiplicity, with its diversities in opposition, into concrescent unity, with its diversities in contrast” (Whitehead 1978, 348). Hence, in Whitehead’s metaphysical scheme God and the world co-develop within one and the same temporal process. There is, accordingly, no way for God to transcend the cosmic process so to “prehend” a future event in the world before it actually happens.

REFERENCES

- Bracken, Joseph A. 1991. *Society and Spirit: A Trinitarian Cosmology*. Cranbury, N.J.: Associated University Presses.
- . 1995. *The Divine Matrix: Creativity as Link between East and West*. Maryknoll, N.Y.: Orbis.
- . 2001. *The One in the Many: A Contemporary Reconstruction of the God-World Relationship*. Grand Rapids, Mich.: Eerdmans.
- . 2006. *Christianity and Process Thought: Spirituality for a Changing World*. Philadelphia: Templeton Foundation Press.
- Leftow, Brian. 1991. *Time and Eternity*. Ithaca, N.Y.: Cornell Univ. Press.
- Neville, Robert Cummings. 1993. *Eternity and Time’s Flow*. Albany: State Univ. of New York Press.
- Padgett, Alan G. 1992. *God, Eternity and the Nature of Time*. New York: St. Martin’s.
- . 2001. “Eternity and Relative Timelessness.” In *God and Time: Four Views*, ed. Gregory E. Ganssle, 92–110. Downers Grove, Ill.: InterVarsity.
- Pannenberg, Wolfhart. 1991. *Systematic Theology*, Vol. I. Trans. Geoffrey W. Bromiley. Grand Rapids, Mich.: Eerdmans.
- . 1998. *Systematic Theology*, Vol. III. Trans. Geoffrey W. Bromiley. Grand Rapids, Mich.: Eerdmans.
- Stannard, Russell. 2004. “God In and Beyond Space and Time.” In *In Whom We Live and Move and Have Our Being*, ed. Philip Clayton and Arthur Peacocke, 109–20. Grand Rapids, Mich.: Eerdmans.
- Whitehead, Alfred North. 1978. *Process and Reality: An Essay in Cosmology*. Corrected ed., ed. David Ray Griffin and Donald W. Sherburne. New York: Free Press.