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The creation–conservation dilemma and presentist four-dimensionalism

WILLIAM F. VALLICELLA
5172 South Marble Drive, Gold Canyon, AZ 85219

Abstract: **On traditional theism, God is not only a creator but also a conserver. The doctrine of conservation, however, appears to face a dilemma. Either conservation is continuous re-creation with consequences inimical to diachronic identity, or conservation is an operation upon a pre-existent entity, which, because it is pre-existent, is in no clear need of conservation. This article first makes a case for the dilemma, and then proposes a way between its horns. Safe passage is possible if we adopt presentist four-dimensionalism, i.e. the conjunction of presentism, according to which temporally present items alone exist, and four-dimensionalism, the doctrine that individuals are not continuants but wholes of temporal parts.**

The creation doctrine of traditional theism involves two ideas whose relation to each other poses a considerable philosophical challenge.[1] The one idea is that God created the world from nothing in the finite past. The other idea is that divine creative activity does not cease with the world's beginning to exist, but continues in the form of an ongoing conservation of what was brought into existence. The second idea implies that creatures, once in existence, lack the power to continue in existence on their own: without divine conservation from moment to moment they would fall into nothingness. If God were merely an originating, but not a continuing, cause of the world's existence, the result would be deism, which we may simply set aside. But if God is both an originating and a continuing cause, the question arises as to how these two types of divine causation fit together. For at least they seem to be quite different.

The problem may be cast in the following form. No doubt creation is creation *ex nihilo*: the God of traditional theism is not a demiurge who operates upon pregiven materials. But is conservation also a species of divine action *ex nihilo*? Or does it, unlike creation, presuppose a pre-existent object upon which God operates? The aporetic phase of this article will argue that on either alternative, at least as these have hitherto been developed, difficulties emerge. On the first alternative,

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according to which creation and conservation are both *ex nihilo*, conservation becomes a moment by moment re-creation in such a way as to imply a temporal-parts ontology of created individuals which may be thought to threaten their diachronic identity. The first alternative, implying as it does a temporal-parts ontology, also seems incompatible with the idea that the world temporally comes into (present) existence by divine agency as opposed to being (merely) atemporally dependent on God for its tenseless existence. On the second alternative, however, according to which creation is *ex nihilo* but conservation is not, the need for conservation becomes hard to discern.

The dilemma, then, is this. Either conservation is continuous re-creation with consequences inimical to diachronic identity, or conservation is an operation upon a pre-existent entity, which, because it is pre-existent, is in no clear need of conservation. After the horns of this dilemma have been duly sharpened, we will consider whether there is safe passage between them.

Conservation as divine action *ex nihilo*

If creation and conservation are both species of divine action *ex nihilo*, then the question arises as to what their difference consists in. Descartes, we will recall, held that 'a substance, to be conserved at every moment that it endures, needs the same power and the same action which would be necessary to produce it and create it anew if it did not yet exist'.[2] This seems to imply that there can be no essential difference between creation and conservation. A natural idea is that there is a difference, but that it is only accidental: in the case of God's *conservation* of x at t, there is a time t^* (t^* earlier than t) such that x exists at t^*, whereas in the case of God's creation of x at t, there is no time t^* (t^* earlier than t) such that x exists at t^*. The difference is accidental because it has nothing to do with the nature of divine activity, the nature of its *terminus a quo* (God), or the nature of its *terminus ad quem* (creatures). It has only to do with something extrinsic to God, His activity, and creatures, namely, whether or not the creature exists prior to the time of the divine act. If it does, then the divine act is conservation; if it does not, then the divine act is creation.

This way of viewing matters is captured by the following tenseless definitions of Philip L. Quinn:

D1 God creates x at t = df God willing that x exists at t brings about x existing at t, and there is no t' prior to t such that x exists at t'.

D2 God conserves x at t = df God willing that x exists at t brings about x existing at t, and there is some t' prior to t such that x exists at t'.[3]

As Quinn points out, these definitions imply that God creates only those contingent individuals whose existence has a first instant.[4] Contingent individuals lack-

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ing a first instant are not created but conserved. Thus, God can conserve what He never created. There are two ways this could come about. A contingent individual with an infinite past cannot be created, given D1, but can nonetheless be conserved. And the same holds for a contingent individual which has existed through a finite temporal interval if the interval is topologically open in the past, or as we might also say, half open in the earlier direction.

Thus, Quinn's definitions imply that there is no essential difference between creation and conservation. Creation is just a special case of conservation, namely, conservation for individuals whose existence has a first instant.

Now if there is no essential difference between creation and conservation, then conservation would appear to be indistinguishable from continuing creation, indeed from a continuing re-creation of an individual at every moment of its existence, with consequences inimical to an individual's identity over time. In criticism of Quinn's definitions, William Lane Craig writes,

> **If at every *t* God creates *ex nihilo*, is it really *x* which exists at successive instants rather than a series of simulacra? Since there is no patient subject on which the agent acts in creation, how is it that it is the identical subject which is recreated each instant out of nothing rather than a numerically distinct, but similar, subject?**[5]

Quinn is, of course, aware of this sort of objection, but is unimpressed by it, holding that God 'can create one and the same individual more than once'.[6]

Quinn thinks that this can be seen to be acceptable if we carefully distinguish it from the 'plausible principle that God cannot introduce a single individual into existence on more than one occasion'.[7] Thus, for Quinn, God's continuing re-creation of an individual moment by moment once it has been introduced into existence, is consistent with the individual's strict identity over time.

This, however, is a hard saying. If God re-creates an individual instant by instant out of nothing, as opposed to operating upon an individual that already exists, then 'its' being or existence is new at each instant. How then can 'its' identity fail to be new at each instant? How can it fail to be a different, though perhaps qualitatively indiscernible individual, at each instant? It must be admitted that Craig has put his finger on a serious difficulty for the view that creation and conservation are both species of divine action *ex nihilo*. If this view implies, as it seems to imply, that created individuals cannot remain strictly self same over time, then that is a strike against it. But can Craig do better?

Conservation as presupposing a pre-existent object

In response to Quinn, Craig defends the plausible thesis that there is an *essential* difference between creation and conservation. The difference is rooted not in the divine power and action, which is presumably the same in both creation and conservation, but in the terminus of the action. Whereas creation first brings

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a thing into existence out of nothing, conservation operates upon a thing that already exists. As Craig puts it, 'In creation God does not act on a subject, but constitutes the subject by His action; in contrast, in conservation God acts on an existent subject to perpetuate its existence.'[8] In creation, there is no 'patient entity'; in conservation, there is.

An initial puzzle

There is something puzzling about Craig's thesis. Quite simply put, why is divine action required to perpetuate a thing's existence, given that conservation *presupposes* an existent subject upon which to act? Why is there any need for conservation on this assumption? Suppose God creates x at time t. Clearly, God cannot conserve x at t given the essential difference between creation and conservation, namely, that creation is *ex nihilo* while conservation is not. But at every time t^* later than t, it would seem that conservation is either unnecessary or impossible. For at every time t^* later than t, either x exists or it does not. If x exists at t^*, then there is *no need* for God to conserve it at t^*. But if x does not exist at t^*, then there is *no possibility* that God conserve it at t^*, given that conservation requires a 'patient entity'.

Again, if God creates x at t, then either x persists on its own (either by its own power, or else by 'existential inertia')[9] until some later time t^*, or it does not. If x persists on its own until t^*, then there is no need for divine conservation of x from t to t^*. But if x does not persist on its own until t^*, then conservation is needed, but cannot be taken to presuppose a patient entity.

This objection assumes that the act of conservation, like the act of creation, is simultaneous with its effect. But this assumption is not obvious, and some passages in Craig's article seem to deny it. So let us examine the consequences of supposing that the act of conservation is temporally prior to its effect. The picture is this: God creates x at t, and then God acts upon x at t' ($t' > t$) so as to bring about x's being conserved at t^* ($t^* > t'$). This may seem to defuse the objection. For x at t' is a patient entity, but x's existence at t' does not guarantee x's existence at t^*. So conservation is *needed* to ensure that x last from t' to t^*. And conservation is *possible*, since that which is to be conserved, namely, x at t^*, is distinct from that upon which God acts, namely, x at t'. We might put this by saying that the *conservandum* (that which is to be conserved) is distinct from the patient (that upon which God acts in conserving). The idea is that God's conserving activity is always occurring infinitesimally prior to its effect, and is thus never simultaneous with its effect.

This idea, however, is also problematic. If God creates x at t *ex nihilo*, then precisely at t there is no patient entity; how then does God bring it about that x lasts from t to any time later than t? The problem is that there is nothing for God to act upon at t. Thus we trade in the old dilemma for a new one. In His capacity

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as conserver, either God acts upon x at t, or He acts upon x at a time later than t. The first alternative is impossible because conservation, on Craig's view, requires a patient entity. So God acts upon x at a time later than t. But x – that very individual – cannot exist at times later than t unless x has been continuously conserved from the instant of creation. This conservation from the instant of creation, however, is impossible to understand given Craig's demand that conservation be an action upon a pre-existent individual.

Craig's official definition of conservation reads as follows: 'God conserves e iff God acts upon e to bring about e's existing from t until some $t^* \rightarrow t$ through every sub-interval of the interval $t \rightarrow t^*$.'[10] This definition speaks of God acting upon e, but is silent on the question as to *when* God acts upon e. If t is the moment of creation, then at t there is no e for God to act upon; (e is coming into existence at t, and so does not yet exist at t). So God cannot begin conserving until after t has elapsed. But this implies that God's conserving activity 'always comes too late'. For it is precisely at t that God must begin conserving if e is to survive the elapsing of t. But this is what is ruled out by the *essential* difference Craig sees between creation and conservation.

The need for conservation and what it implies

To advance the critique a step further, we now consider the conditions under which conservation is needed, and what this need for conservation implies for the ontological structure of created individuals.

We begin with the obvious point that conservation must be a *positive* action on God's part. It cannot be a mere permitting to exist. No-one will say that God's conservation of creatures is His refraining from annihilating them. But if conservation is a positive action upon something that already exists, then its action cannot be a bestowal of existence (which is what creation is), but must be the counteracting or suspension of a tendency toward nonexistence, a tendency which threatens to become actual at a later moment. (I don't say 'the next moment', since I am assuming the continuity of time.) If there is such a tendency toward nonexistence, it would explain the need for the conservation of something that already exists. And if there is no such tendency, then it will be difficult to see why conservation, as something essentially different from creation, is needed in the first place. As I understand Craig's view, this tendency towards nonexistence, and thus the need for divine conservation, is grounded in the nature of time. For he tells us that

> **The very idea of the need for conservation in being … implies an A-theory of time, according to which temporal becoming is real and moments of time do elapse and cease to be. Conservation of an entity is necessary if that entity, like the moment at which it exists, is not to lapse into non-being.**[11]

Now if temporal becoming is real, it doesn't follow straightaway that something

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that ceases to be temporally present also ceases to exist; but the latter is a plausible view, and I will let it pass uncontested. Thus I will be assuming with Craig that to lose the *temporal* determination of presentness is to lose the *ontological* determination of existence: to become past is to pass away.

This raises the following question: what must the ontological structure of created individuals be if, in the absence of divine conservation, they would lapse into non-being with the elapsing of time? I will try to show that created individuals subject to such an existential *lapsus* must be wholes of temporal parts, and so cannot be continuants. If so, Craig's underlying ontology is incoherent. For on the one hand, his demand that conservation be *essentially* different from creation requires that created individuals be continuants; while on the other hand, the need for conservation requires that created individuals be wholes of temporal parts, and thus not continuants. To put it another way, if *x* persists self-identically after the moment of its creation, as it must if it is to be a 'patient entity' vis-a-vis divine conservation, then *x* is a continuant in a technical sense I am about to define; but if *x*'s existence has a tendency to lapse with the elapsing of time, a tendency that must be offset by divine conservation if *x* is to remain in existence, then *x* is not a continuant. To be able to maintain that the difference between creation and conservation is that the former is *ex nihilo* while the latter is not, Craig must think of creatures as continuants as opposed to wholes of temporal parts. But to think of them as requiring ongoing divine conservation, he cannot think of them as continuants. The alleged incoherence thus consists in being committed to holding that creatures are both continuants and non-continuants.

A continuant, by definition, is (1) wholly present, present as a whole, at each time at which it exists, and (2) is metaphysically capable of existing at more than one time. (The function of clause (2) is to distinguish continuants from instantaneous events.) In terms of a currently fashionable jargon, continuants persist by *enduring* rather than by *perduring*.[12] So if there is any reason to avoid the term 'continuant', we could just as easily for the purposes of the present argument employ the barbarous term 'endurant'. 'Continuant' here is a *terminus technicus*; it is not to be confused with such pre-analytic terms as 'individual' or 'thing'.

The contrast I wish to exploit is that between a continuant and a process. A continuant, unlike a process, does not have temporal parts or stages, with different parts present at different times. (The history of a continuant has temporal parts, but a continuant is distinct from its history.) A material process (e.g. a thunderstorm) is not wholly present at each time at which it exists, but only present in part at each time at which it exists, with different parts at different times. It thus takes time to unfold and complete itself. Its being is spread out over an interval of time, and not just over a region of space. But a material continuant, though spread out over a region of space, is not spread out over an interval of time. If a mountain is a continuant, it is wholly present, wholly located, wholly 'there', at each time at which it exists. It is 'existentially complete' at each moment of its existence.

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Continuants therefore do not need to be 'existentially completed' by any outside agent, or by the passage of time. This implies that continuants remain strictly self-identical over time, no matter how long they last. Indeed, we can say that, once a continuant exists, its being is unaffected by the passage of time in the sense that a continuant cannot lose any of its being (existence) or identity with the passage of time except by utterly ceasing to exist. Nor does a continuant require the passage of time in order to gain any of its being. As soon as a continuant exists, it exists as a whole. As soon as a continuant ceases to exist, it ceases to exist as a whole. The very being and identity of a continuant is not subject to change during the temporal interval through which it exists. This is clear from the fact that change in a continuant is mere alteration: it is not the continuant itself that changes, but only its properties or states. By definition, a thing alters if and only if it has incompatible properties at different times. But this presupposes that one and the same thing exists at different times and thus remains unchanged through these times. For the partisans of alterational change, the slogan on the front of their T-shirt reads: 'No change without unchange', and the slogan on the back: 'Change *in* a continuant is not change *of* a continuant'.

Since continuants lack temporal parts by definition, there can be no question of later temporal parts of a continuant being 'horizontally' caused by earlier ones. There can also be no question of any temporal part of a continuant being 'vertically' caused by God. Again, this is because continuants lack temporal parts. So if God conserves a continuant, His conserving activity must be directed to the continuant as a whole and not to its temporal parts. But this is impossible to make sense of. For as soon as continuant S exists, it exists as a whole. Thus as soon as God creates S, S exists as a whole, which is to say that all God has to do to keep S in existence is to (1) refrain from annihilating S, and (2) arrange S's empirical environment in a propitious manner. But neither of these amount to divine conservation, which is both positive and non-empirical: positive, in that divine conservation is not a mere permitting to exist; non-empirical, in that divine conservation is not a species of secondary or natural causation. For example, suppose S is a continuant whose normal lifespan is, say, sixteen years. Think of a domestic feline. Once a cat exists, it cannot cease to exist unless it is metaphysically destroyed (annihilated by God), or killed by environmental factors (predators, disease, etc.) or dies a 'natural death' of old age. To invoke an analogy that would not have occurred to al-Ghazali, for continuants the metaphysical 'default setting' is existence, not nonexistence. Thus, there is simply no need for divine conservation of continuants. If there are any continuants, they are self-conserving.

Again, if God creates continuant S at *t*, *when* does he conserve S? Presumably, at every time later than the time of creation and earlier than the time of S's cessation. But at every such time S exists as completely as it did when it was first created. So conservation is unnecessary. There is simply nothing that needs conserving. The passage of time cannot 'eat away at' the being and identity of a

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continuant because once a continuant exists, change in it is always only change of properties. Change in a continuant is alterational change, not existential change.

Now consider an entity that requires divine conservation. At each moment at which it exists, it threatens to lapse into nonexistence. This writing table, for example, is safe and secure empirically speaking: no termites are attacking it from the inside, no fire and water from the outside. But on traditional theism it is metaphysically insecure in that it requires ongoing divine support to remain in existence. Its metaphysical 'default setting' is nonexistence, and it needs to be switched out of this default setting moment by moment if it is to remain in existence. We can unpack this metaphor by saying that the very being or existence of an entity needing conservation is in continuous flux, continuous transition towards non-being. Or at least this is the case when the entity is considered in abstraction from its being divinely conserved. For such an entity, to be is to pass away. Thus an entity needing divine conservation is subject not only to temporal becoming, but to existential becoming as well. It has a tendency to change in its very existence from moment to moment, and not merely in its properties.

Could such an entity be a continuant? Clearly not: a continuant is wholly present and complete at each time at which it exists, whereas an entity requiring divine conservation is not wholly present and complete at each time at which it exists. A continuant is unaffected in its being by temporal passage, whereas an entity requiring divine conservation is constituted in its being by temporal passage. A continuant is an ongoing ipseity, while an entity needing conservation is continuously lapsing into alterity. To put it less continentally, and more continently, a continuant is statically self-identical during the interval through which it exists, whereas an entity requiring divine conservation is in itself continuously perishing – which is why it needs ongoing conservation.

But this is tantamount to saying that individuals requiring divine conservation are wholes of instantaneous temporal parts. For only if an individual is composed of temporal parts does it make sense to think of its existence as subject to an existential *lapsus* moment by moment, and thus as requiring conservation moment by moment. To appreciate this, one must realize that there is nothing in the doctrine of temporal parts that entails the denial of either presentism or the A-theory of time. Thus there is nothing in the doctrine of temporal parts that entails that temporal parts of individuals are not subject to the ravages of temporal passage. Presentism is the view that the only temporal items that exist are *present* items, where 'present' picks out the irreducible monadic property of temporal presentness, a property which, because irreducible, cannot be understood in terms of the B-relation of simultaneity. No doubt every temporal item is present *to* itself, i.e. simultaneous with itself, but only a tiny fraction of temporal items are present, full stop. Thus presentism entails the A-theory of time, but not vice versa: an A-theorist could hold that past and present temporal items exist.

Although temporal parts theorists typically subscribe to a B-theory of time,

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according to which there are no such irreducible monadic A-properties as presentness, pastness, and futurity, holding instead that the reality of time is exhausted by the B-relations of earlier-than, later-than, and simultaneous-with, a temporal parts theorist could easily embrace presentism.[13] I shall have more to say in the next section about the compatibility of temporal parts theory and presentism.

My critique of Craig's view may be summed up as follows. If conservation differs from creation in requiring a 'patient entity', as per Craig's central thesis, then conserved entities must be continuants or endurants, as these terms have been defined above. For only a continuant, only something that endures self-identically through the period of its existence, will be 'patient' vis-a-vis God's conserving activity. But continuants are simply in no need of conservation by God or any other agent. Once they exist, their continuing to exist is in no need of explanation. Thus, the demand that divine conservation be of patient entities issues in the contradiction that entities needing conservation both are and are not continuants.

A solution to the dilemma

Our dilemma consists in being forced to choose between a doctrine that implies that created individuals lack diachronic identity, and a doctrine that presupposes such identity, by presupposing that created individuals are continuants, but in presupposing diachronic identity eliminates the very need for divine conservation. If conservation is a continuous re-creation, then, instead of an individual remaining self-same through an interval of time, what we have is a series of numerically distinct, albeit similar, individuals. If, on the other hand, conservation is an action upon a pre-given continuant, then the securing of diachronic identity will not be a problem, but it will be impossible to understand why conservation is needed in the first place.

It would be nice to be able to solve this problem in such a way that we also accommodate in some measure the intuition that creation is something more robust than atemporal metaphysical dependence.[14] What Quinn's tenseless definitions suggest is a B-theoretic 'block universe' in which nothing literally comes into existence. To be sure, such a static universe could still atemporally depend for its tenseless existence on God, since without God there would be no explanation of why precisely *this* sum total of matter-energy rather than some other such total or none at all should (tenselessly) exist;[15] but in a universe in which nothing literally comes into (present) existence, God cannot play the role of cause of any literal coming-into-existence.

To solve our problem in line with the foregoing desideratum we need to adopt an A-theory of time according to which temporal becoming is mind-independently real, and the elapsing of time is a passing away. (Thus the elapsing of time has not merely temporal, but also ontological, import.) If time is continuously

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elapsing and thus continuously threatening to erode the being of individuals, there is a need for divine conservation.[16] But we also need to adopt, *pace* Craig, a temporal-parts ontology of individuals. For if individuals need conservation of their existence moment by moment, then *their very existence* must be liable to cessation moment by moment. There must be something in their very ontology that inclines them towards nonexistence. But this is possible only if individuals are not continuants, but wholes of temporal parts. We have seen that the existence and identity of a continuant is precisely not exposed to temporal becoming. For change in a continuant during the time it exists is always only change in its properties (alteration) and never change in its existence or identity.

But how can diachronic identity be secured if creatures are composed of temporal parts? I will try to show that not only does the need for conservation entail both presentism and temporal parts ontology, but also that this combination of doctrines (presentist four-dimensionalism, to give it a name) solves the diachronic identity problem. Let us begin with an analogy, bearing in mind that there is no such thing as a perfect analogy, and that any physical analogy for a metaphysical relationship is bound to be crude.

Consider the flame on a propane-fuelled grill. The initial ignition of the gas whereby the flame first comes into existence corresponds to the act of creation, while the continuous supply of propane corresponds to ongoing conservation. The flame is kept going not by a series of re-ignitions, but simply by a continuous supply of fuel. This corresponds to the notion that conservation is not continuous re-creation, but an action upon a pre-given individual. God, as it were, supplies 'metaphysical fuel' to keep a creature going once He has 'ignited' it *ex nihilo*. The initial flame is sustained; it is not as if there is a series of numerically distinct flames. But the flame is not a continuant because it is not wholly present at each time at which it exists. It is a burning of fuel and thus a process divisible into temporal phases. The flame is not something that merely changes its properties over time; it changes in its very existence. But if the flame is composed of temporal phases, how can it be numerically the same flame throughout the interval?

This question arises only on the B-theoretic assumption that all of the temporal phases equally, and thus tenselessly, exist. But on a presentist A-theory, this assumption is false: only the present phase exists. Since only the present phase exists, there cannot be a problem about how any two equally real or coexistent phases are the same. For if only the present moment and its occupants exist, then successive phases of a process are never coexistent. The flame's identity over time does not require the static relating of static objects tenselessly existing at distinct B-positions; it is rather a dynamic ongoing self-identity in the present. Since the flame's past phases did exist, they do not now exist; hence there can be no question as to how they form a unity in the present with the present phase. The flame is not a series of numerically distinct albeit similar objects, but a self-same object whose existence is an *existing* or *presencing* in the temporal present.

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What I am suggesting, therefore, is that the problem of diachronic identity becomes a pseudo-problem once presentist four-dimensionalism is adopted. For if presentism is true, the temporal parts of an individual are not tenselessly co-existent.

To appreciate the foregoing, it must be borne in mind that individuals do not have their temporal parts in the same way they have their spatial parts. An individual's spatial parts are literally spread out in space. This tempts us to say that the temporal parts of a process are 'spread out in time'. But this is a misleading phrase since it can be taken to suggest a picture according to which the temporal dimension is like a fourth spatial dimension, a *t*-axis in addition to the familiar *x*, *y*, and *z* axes. This comports well with the B-theory of time, but not with the A-theory. On a presentist A-theory, to say that the temporal parts of a process are 'spread out in time' can only mean that the process comes into being gradually with the passage of time as opposed to being complete at each moment of its existence. Thus on presentism, an item lacks temporal parts and is wholly present at each moment of its existence if and only if it does not gradually come into existence with the passage of time but exists fully or completely at each moment of its existence. And an item has temporal parts and is partially present at each moment of its existence if and only if it is continuously coming into existence and passing out of existence at each moment of its existence.

Another difference between spatial parts and temporal parts is that the following principle holds for spatial but not for temporal parts: no existent *x* can have *y* as a part if *y* does not exist. This seems true for spatial parts. An existing table cannot have nonexistent spatial parts. But there is no reason to think that an existent table cannot have nonexistent *temporal* parts. Of course, the present temporal part of a table cannot have nonexistent temporal parts; but a table, as a whole of temporal parts, can easily have temporal parts that did exist and will exist and which, therefore, do not exist given the truth of presentism.

It is worth noting that anyone who is a presentist and also believes in processes/events is presumably committed to some such account as the one just given. For it is obvious that a process is not wholly present at each moment of its existence. Processes persist by perduring, by having different temporal parts at different times. It is just that these times and their occupants are not equally real or coexistent. Thus it is not that radical a step for a presentist who believes in processes/events to view what are standardly taken to be non-process individuals as composed of temporal parts.

Objections and replies

Although there is not the space for a full discussion of all the assets and liabilities of presentist four-dimensionalism, I should briefly address three worries

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before concluding: one about change, one about causation, and one about occasionalism.

How is change possible on presentist four-dimensionalism?

If my table is a series of temporal parts with each one lasting but a moment, then how is it possible for the table to change? For all we have on presentist four-dimensionalism are temporal parts coming into existence and passing out of existence. These items, being instantaneous, do not gain or lose properties. And the table itself, since it does not endure, does not gain or lose properties.

What follows from this, however, is not that there is no change, but that there is no *alteration* given that alteration, as defined above (*x* alters if and only if *x* has incompatible properties at different times), demands an unchanging substrate of change. There is change, but it is what we may call existential change. Every physical thing is changing in its very existence moment by moment. Thus I disagree with Lawrence Lombard when he writes that 'a world in which things go out of existence and other things come into existence … is a world in which the idea that things change is *simulated* but is not realized'.[17] What I would say is that such a world is one in which things change *in excelsis*. For existential change, affecting as it does the very substance of things is 'more radical' than mere alteration. What Lombard is entitled to say is merely that the world in question is one in which the idea that things *alter* is simulated but not realized.

Now, my point is not so much that this rejection of alterational change in favour of existential change is true; it is rather that this view is what classical theism demands. For if the world is existentially dependent on God moment by moment, it is difficult to see how the created world could be a world of continuants or 'endurants'. It cannot have quite so lofty an ontological status. A temporal-parts ontology of created individuals thus offers itself as an excellent means of effecting the requisite ontological demotion. But then change, which no doubt exists, cannot be analysed in terms of alteration.

Presentist four-dimensionalism and secondary causation

Some might think that there is a simple knock-down argument against presentism, to wit: (1) If *x* causes *y*, then both *x* and *y* exist. But (2) some present items are caused by items which are not present. One might naturally think that the present temporal stage of my table is caused by past temporal stages, and that these interstage causal links are what explain the connection of the present table stage with past table stages rather than with, say, past Quine stages. Therefore, (3) some items exist which are not present. Presentism is incompatible with secondary or natural causation.

Presentism has the resources for a response to this objection from causal connections. One carefully worked out response is to be found in a paper by John

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Bigelow.[18] Bigelow's idea, which he borrows from the Stoics, is that causation is a relation between two presently true propositions. Suppose the barking of the dog startled the cat. This is not a relation between two events, one temporally prior to the other, but a relation between two propositions, both of which are now true. Thus, it is now true that the dog barked (past tense), and now true that the cat is (present tense) alarmed. If causation can be understood as a relation between two propositions rather than between two events, then premise (2) above is false, and the argument from causation against presentism fails.

Presentist four-dimensionalism and occasionalism

If God creates/conserves each stage of an individual, then it seems that there is no room for secondary (natural) causation, with the result that God is the only genuine cause. Thus presentist four-dimensionalism may be thought to entail occasionalism. But if we take the view that natural causes and effects are propositions, then perhaps we can reconcile natural causation with divine causation, maintaining the reality of both. Natural causation is real because it is a real relation between propositions. Divine causation is real because it is the causing of the existence of a world for the propositions to be true of. On the face of it, then, the threat of occasionalism can be parried. To enter any further into this problematic would require a separate article.

Conclusion

Our dilemma is that we seem forced to choose between Package A and Package B in the following table, which are suggested by the positions of Quinn and Craig, respectively:

Package A	Package B
There is no essential difference between creation and conservation.	There is an essential difference between creation and conservation.
Both creation and conservation are *ex nihilo*.	Creation is *ex nihilo*; conservation is of patient entities.
Individuals are wholes of temporal parts.	Individuals are continuants.
There is no temporal passage; real time is exhausted by McTaggart's B-series.	There is temporal passage; presentism is true.
Creation is atemporal ontological dependence.	Creation is a bringing into existence.

Presentist four-dimensionalism provides a way between the 'cliffs of Quinn' and 'crags of Craig'. We take the first three points from Package A and combine them with the last two from Package B. Thus we adopt the view that there is no essential difference between creation and conservation (*contra* Craig); that both are *ex nihilo*; and that individuals are wholes of temporal parts. But we combine

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this with the view that presentism is true and that creation is a dynamic bringing into existence in the present.[19]

Notes

1. 'Creation' can be used in a wide manner so as to embrace conservation, and in a narrow manner so as to form a contrast with it. The latter usage shall predominate in this article, except in sentences such as the one to which this is a footnote.
2. René Descartes *Philosophical Essays*, Laurence Lafleur (transl.) (Indianapolis IN: Bobbs-Merrill, 1964), 105. The passage is from the Third Meditation.
3. Philip L. Quinn 'Creation, conservation, and the Big Bang', in John Earman *et al.* (eds) *Philosophical Problems of the Internal and External Worlds* (Pittsburgh PA: University of Pittsburgh Press, 1993), 598. I have renumbered Quinn's definitions.
4. *Ibid*.
5. William Lane Craig 'Creation and conservation once more', *Religious Studies*, **34** (1998), 184.
6. Philip L. Quinn 'Divine conservation, continuous creation, and human action', in A. J. Freddoso (ed.) *The Existence and Nature of God* (Notre Dame IN: University of Notre Dame Press, 1983), 76.
7. *Ibid*.
8. *Ibid*., 183.
9. Thus, either an individual causes itself to continue to exist, or else just continues to exist without cause. On the second alternative, its 'natural state' would be to continue in existence, and its ceasing to exist would be what requires a cause.
10. Craig 'Creation and conservation', 187.
11. *Ibid*., 188.
12. In terms of this jargon, 'persistence' is taken to be neutral or pre-analytic, while 'endurance' and 'perdurance' name competing analyses of what persistence consists in. Cf. David Lewis *On the Plurality of Worlds* (Oxford: Basil Blackwell, 1986), 202. Lewis reports that he borrows the terminology from Mark Johnston. Note that Craig appears to use 'persist' and cognates in his own way as equivalent to 'endures' and cognates.
13. For details, see Berit Brogaard 'Presentist four-dimensionalism', *The Monist*, **83** (2000), 341–356.
14. A point Craig insists on: 'It is clear that the biblical authors' notion of creation is not some metaphysical doctrine of ontological dependence, but involves the idea of a temporal origin of that which is created'; Craig 'Creation and conservation', 181.
15. This is essentially the point that Quinn makes against Adolf Gruenbaum in 'Divine conservation', 606.
16. Craig's view is stronger than this. He holds, in 'Creation and conservation', 188, that *only* on an A-theory of time is divine conservation needed, and that 'On a B-theory of time, no such lapse [the lapse into non-being] occurs, and so conservation is unnecessary'. Arguably, however, conservation is needed on both theories of time. It is just that on a B-theoretic 'block-universe' view, there will be no essential difference between creation and conservation. Hence the need for conservation will just be the need for creation. And the need for the latter will be the need for an explanation of why precisely this sum total of matter-energy exists rather than some other, or none at all.
17. Lawrence Brian Lombard 'On the alleged incompatibility of presentism and temporal parts', *Philosophia*, **27** (1999), 253.
18. John Bigelow 'Presentism and properties', in James Tomberlin (ed.) *Philosophical Perspectives* 10 (Cambridge MA: Blackwell Publishers, 1996), 35–52.
19. I thank Peter Byrne, Berit Brogaard, and the *Religious Studies* referees for their comments. Please send correspondence to BillVallicella@compuserve.com.

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