Religious Studies (2012) **48**, 337–356 © Cambridge University Press 2012
doi:10.1017/S0034412511000291

A Thomistic metaphysics of creation

GAVEN KERR

School of Politics, International Studies, and Philosophy, Queen's University Belfast, 21 University Square, Belfast, BT7 1PA, Northern Ireland
e-mail: gkerr07@qub.ac.uk

Abstract: This article seeks to advance a Thomistic metaphysics of creation in light of certain claims made by Stephen Hawking on the beginninglessness of the universe. I start with an exploration of Hawking's proposal that a beginningless universe entails an uncreated universe. This propels me into Aquinas's contention that a created beginningless universe is indeed possible, and thence I consider the metaphysics behind Thomas's position in this regard. Given this metaphysics of creation, I contend that there follow some interesting conclusions with regard to our notion of a creator God and the means for establishing the existence of such.

In this article, I propose to examine the metaphysics of creation as construed by St Thomas Aquinas. As a preparation for the discussion, I shall begin with a consideration of the views of the contemporary physicist Stephen Hawking on the notion of creation; the importance of this section will be twofold: (i) it will serve as an entryway into the mediaeval discussion of the possibility of an eternally created universe; (ii) it will provide a foil for the account of creation I want to introduce in the next section. Accordingly, in the second section, I shall attempt to unearth the metaphysics of creation that the historical Aquinas adopted, and show how St Thomas could consistently entertain the possibility of an eternally created universe. In the final section, I shall draw out some interesting features of Thomas's metaphysics of creation; in particular, I shall argue as follows: (i) that, contra Hawking and those of similar mind, one can adhere to the view that the universe is created even if it doesn't have a beginning; (ii) that on the basis of the metaphysics outlined in the second section, the creator–creature relationship is one best thought of in terms of participation, and also that the creator is not just a significantly more powerful being than creatures, but a being of an altogether different kind than they; (iii) that given the creator–creature relationship, the options for a successful proof for the existence of a creator God will be significantly reduced.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

The motivation for this article is not simply a desire to offer an account of Aquinas's metaphysical thought and its relation to his views on creation. Rather, it is to show that a lot of contemporary intuitions and presuppositions surrounding the notion of creation, such as those apparent in Hawking's views on the matter, are somewhat distant from that of a traditional philosophically inspired account. In particular, it is often assumed that belief in creation is synonymous with belief in a beginning of the universe; one of the major motivations of this article is to show that, metaphysically speaking, this is an unwarranted assumption. Overall, what I hope to show is that if we accept Aquinas's account of creation, then we are led to a notion of a creator and His relationship to creatures that is somewhat more profound than is popularly believed; and those wishing to undermine belief in a creator God must engage with the metaphysics of the matter, rather than undermining popular, often unreflective, beliefs based on unwarranted assumptions.

Introduction

Nearly all contemporary scientists accept big bang cosmology as offering the best account for the beginning of the universe.[1] It is often assumed on the back of big bang cosmology that the question of the creation of the universe and its dependence or otherwise on the activity of a creator can be settled if we can settle what happened before the big bang. A tempting inference is often made to the effect that if we have a beginning of the universe, there must be a cause of the universe. And the latter inference goes hand in hand with the wider assumption that to be created is to have a beginning of existence.

Stephen Hawking is one scientist who endorses the assumption that to be created is to have begun to exist. In his highly popular work, *A Brief History of Time*,[2] Hawking claims that on the classical theory of gravity there are only two possible ways in which the universe can behave: either it has existed for an infinite time, or it has a beginning with a singularity at some finite time in the past. However, on the quantum theory of gravity, there arises a third possibility: space–time could be finite, yet have no singularities that form a boundary or edge signifying its beginning.[3] On this model, space–time would be like the surface of the earth: finite, but with no boundary beyond which one can go. Given the latter, one could not, hypothetically speaking, go back to the starting point and observe the boundary between the universe and nothingness, just as one cannot walk off the face of the earth. Given that on this account there is no boundary to space–time, there is no question of its boundary conditions. Consequently, the universe is a self-contained system; we need not look for an explanation of the universe by asking what conditions were in place to cause the big bang.

Understanding the particular details of Hawking's physics is not primarily important to understanding the more philosophical point he is trying to make. His

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

point is that given the lack of boundary conditions, the very lack of a beginning for the universe, it is inferred that, whilst finite, the universe is neither created nor destroyed, it just is.[4] And given the lack of a beginning of the universe, Hawking infers the lack of a need for a creator. Thus, for Hawking, a finite beginningless universe is a finite uncreated universe.

Hawking's position quite naturally has implications for the question of God's role in creation. As he states:

> The idea that space and time may form a closed surface without boundary also has profound implications for the role of God in the affairs of the universe. With the success of scientific theories in describing events, most people have come to believe that God allows the universe to evolve according to a set of laws and does not intervene in the universe to break these laws. However, the laws do not tell us what the universe should have looked like when it started – it would still be up to God to wind up the clockwork and choose how to start it off. *So long as the universe had a beginning, we could suppose it had a creator* [my emphasis]. But if the universe is really completely self-contained, having no boundary or edge, it would have neither beginning nor end: it would simply be. What place, then, for a creator?[5]

As we see from this quote, Hawking associates closely the beginning of the universe with its creation, such that the creation of the universe is signified by its beginning in time, its being started off by God. But if a model of the universe can be presented that is self-contained such that it is without a beginning, then, according to Hawking, the role of the creator of the universe is radically reduced. Hawking thus clearly connects the beginning of the universe with its being created; and this is a theme that is found in several important instances throughout the book.[6] The latter is in fact the popular assumption that I alluded to in my opening paragraphs, i.e. that belief in the creation of the universe is a belief in a beginning of the universe, and it is this assumption that I seek to challenge in this article.

It is always perilous when a specialist in one field, say metaphysics or theology, attempts to enter another field, say physics, and lay down authoritative conclusions for the newly entered field; it was precisely the latter that resulted in the whole Galileo fiasco, whereby the Church, fully confident in its own metaphysically and theologically inspired cosmology, decided to lay down normative rules for specialists working within the field of physics. It is equally perilous for a physicist to enter a field such as philosophy, metaphysics in particular, and lay down authoritative claims for that field.[7] As an indication of the peril of a physicist entering metaphysics, note that Hawking connects the question of the beginning of the universe with the question of the creation of the universe; so much so that if the universe has no beginning, then it has no creation, in which case, what role for a creator?

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

For those with a background in metaphysics, the question of a thing's beginning and the question of a thing's creation are two formally distinct types of question. The beginning of a thing signifies the time at which it came into existence, but the creation of a thing signifies the mode of its coming into existence. Often the beginning of a thing's existence coincides with its creation, but the two are not necessarily synonymous. The creation of a thing is the bringing of a thing into existence; whereas the beginning of a thing is the time at which the thing came into existence. One cannot have the latter without the former, but one can indeed have the former without the latter, since one can conceive of a non-temporal causal dependency, such that some entity, *x*, is the cause of F in *y*, without F's ever having had a beginning in *y*. For instance, imagine that the sun and the moon have existed eternally, and accordingly the light of the sun has eternally illuminated the surface of the moon. Despite the illumination of the moon never having begun, since both sun and moon are assumed to be eternal, the moon nevertheless depends on the sun for its illumination. Thus, a dependence on another for a given characteristic, illumination in this case, does not entail that that characteristic need have begun in the thing. The light of the sun is thus analytically though not temporally prior to the illumination of the moon.[8]

Now, if Hawking is correct and a beginningless universe is an uncreated universe, one would think that a Christian philosopher, convinced of the creation of the universe, would surely *not* hold the view that the universe could be without a beginning; since, on Hawking's account, if such a philosopher were convinced of the creation of the universe, then that philosopher would be committed to the view that the universe had begun to exist. Yet Thomas Aquinas is one such Christian philosopher (and an influential one at that!) who holds that the universe could be both created and eternal, i.e. without a beginning. The metaphysics that supports this view will be outlined in the next section, but one reason that he had for holding it was his own dissatisfaction with the arguments offered in support of the view that the universe had a beginning in time. Given what he perceived to be the weaknesses of such arguments, he held that the doctrine of the beginning of the universe was a truth of faith revealed in scripture.[9]

On Thomas's view, even if the universe were eternal, i.e. without a beginning, it would still require a cause for its existence; since, as Thomas sees things, the universe, whether finite or infinite, is not self-existing, in which case it depends on another for its existence. And so, something eternal could stand to receive existence from without, and be thereby created. What this implies is that a thing, *x*, need not have a beginning, and yet could still be dependent on another, *y*, for its existence, in which case *y* would be analytically though not temporally prior to *x*. The foregoing offers us something of the flavour of Thomas's view, and its metaphysical scaffolding will be explored in the next section.

Before proceeding, I should point out that I do not here propose to argue for the existence of God as Thomas construes Him. Rather, I shall address the substantive

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

issue over whether or not a beginningless universe radically reduces the need for a creator. Thus, in this article I am concerned with the role of the creator, and not with the issue over whether or not the creator actually exists. It is one thing to lay out the role of the creator, it is another thing to demonstrate the actual existence of such. Thus, in this article, my references (along with Aquinas's) to a creator should be taken to rest on the putative assumption of God's existence.[10]

I should also raise the following issue, if only to set it aside from the main theme of the article. Thomas rather characteristically envisaged God as being pure existence, or existence itself. On this account, existence is a principle of an actual thing and thereby predicable of things. However, in a post-Fregean and post-Quinean world, philosophers are prone to thinking of existence, not in terms of a principle of being attributable to something, but rather in terms of a second-order predicate predicable of first-order predicates which are themselves predicable of actual things. In this sense, existence is thought of in terms of quantification, such that, existential statements of the kind: '*x* exists', can be reparsed in the form of: 'there is an *x* such that . . .'. To be, then, is to be the value of a bound variable.[11] As I say, I bring up this issue only to dismiss it as tangential to the central aim of this article. However, my initial reaction to such a position is that it treats being, and thereby existence, as a univocal concept having only a single sense: the quantificational sense. Accordingly, any uses of 'exists' that resist the quantificational form, such as tensed existential statements, must be reinterpreted so as to fit the quantificational form. The question of the fittingness or otherwise of non-quantificational uses of 'exists' into quantificational form is a question best dealt with in an in-depth treatment of existence. Nevertheless, it seems to me that philosophers who wish to interpret 'exists' solely in the quantificational manner prima facie reject the analogy of being, to the effect that there are a number of senses of being that are all connected in some way.[12] In any case, when I speak of Thomas's conceiving of God as existence itself, one must read that on the basis of the putative intelligibility of there being a genuine non-quantificational use of existence.

Aquinas on creation

From the beginning to the end of his career, there are certain recurring themes that crop up in Thomas's philosophy of creation, especially with regard to the meaning of the creative act. In this section I shall consider what Thomas takes creation to be and the degree to which reason can offer a demonstration of this truth. As we shall see, Thomas believed that reason could penetrate somewhat into the nature of creation such that the universe's being created *ex nihilo* is demonstrable but not its being created in time, i.e. having a beginning. The notion of the universe's having a beginning was, for Thomas, a doctrine of faith. This current section will incorporate much of Aquinas's metaphysical views and will

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

thereby be couched in his own metaphysical language. I elucidate Aquinas's thought within the terms that he expressed it for two reasons: (i) an exploration and re-translation of exactly what Thomas meant by each and every one of his metaphysical terms would take me beyond the goal of this article, especially when there are a number of highly readable studies of Aquinas's metaphysical thought;[13] and (ii) it is the view of a growing number of contemporary Thomists (and scholastics more generally), even those of an analytic cast of mind, that attempts to rehabilitate Aquinas's metaphysical thought within a contemporary philosophical climate alien to his own do damage to the profundity of that thought and as such the latter must be approached and understood on its own terms.[14]

Turning then to Aquinas's metaphysics of creation, in the commentary on the *Sentences*, Thomas offers us, for the first time in his career, the view that to create something is to produce a thing in existence according to its total substance.[15] This is a view that Thomas repeats in several of his major works.[16] Taken in itself, this concise formula and its variations does not seem to convey much; indeed, all of the quotations in n. 16 were listed somewhat out of context, since they are presented by Thomas as conclusions, not principles. Thomas does not begin with the principle that creation is the production of the total substance in being, he arrives at that conclusion, and the question is how he does so.

In order to juxtapose creation to simple change, Thomas argues that change or motion requires some underlying subject within which it occurs; creation on the other hand does not presuppose such a subject.[17] Thus, it would seem to be the case that if there is some being that embraces all that is, including the most basic subject within which all change occurs, that being's productive activity will be properly called creation; and implicit in this is the view that the act of creation presupposes nothing, but everything presupposes such an act.[18] Now, within Thomas's philosophical theology, God is being itself; in the terminology of the *De Ente et Essentia*, God is the being whose essence is identical with its existence, thereby being characterized as pure being (*esse tantum*). Thus, as pure being signifying precisely what it is to be and not what it is to be 'this' or 'that', God embraces all that is and nothing that is not. It follows then that creation, as it is the production in being of the total substance and presupposes nothing, is solely attributable to God; for everything other than God is composed of essence and existence, in which case nothing other than God embraces everything that is. No creature then can create, since no creature can produce a total substance in being; rather, a creature must presuppose some pre-existing subject on which to work. Effectively, a creature does not cause existence, but presupposes existence and passes it along to other creatures. Thus, a creature's productive activity is really only a form of change in what has already been created, whereas God's productive activity, embracing the total substance and presupposing nothing, is properly called creation.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

Thomas accordingly sees the notion of creation as involving two implicit commitments. First, as we have already noted, creation does not presuppose any component of the thing created, i.e. in creation there is no underlying subject on which to work, and in this respect creation is juxtaposed to change.[19] Second, non-being must precede the being of the thing created. Thomas is quick to qualify the latter remark by stating that the priority of non-being to being in the thing created is not, at the moment, to be taken as any kind of temporal priority. What he has in mind here is a priority in nature (or what I have termed 'analytical priority'), whereby the essence of the thing created receives its existence from some superior cause.[20] What Thomas is here articulating in this second point is a theme that I shall come to shortly: that all finite beings depend on that which is being itself (God) for their existence, that is to say, all beings come from and depend on that which is simply being, but this is not to say that there is a beginning of existence absolutely speaking.

According to Thomas, the two foregoing aspects of creation determine its status as *ex nihilo* in two ways: first, because creation presupposes nothing and so is from nothing presupposed, and second, because the thing created comes to being from non-being, i.e. from nothing.[21] Thomas then goes on to make the claim that if these suffice for the nature (*rationem*) of creation, then creation *ex nihilo* is demonstrable in a philosophical fashion and has indeed been defended by the philosophers, since a commitment to such is a commitment to the theses outlined above.[22] We thus have an indication of the degree to which reason can penetrate the doctrine of creation, in which case we know how far the philosopher can delve into this issue for Thomas: reason can demonstrate (i) that God's productive causality presupposes nothing and (ii) that in the creature, non-being naturally precedes being. It is the task of the metaphysician to establish the foregoing aspects of creation.[23]

Before proceeding, enough has been said at this point to distinguish creation from natural generation. As noted, (i) God's creative act presupposes no underlying subject and (ii) a creature's non-being naturally precedes its being, such that without the activity of some superior productive cause the creature would be precisely nothing. Natural generation could possibly fulfil the second criterion, to the effect that a naturally generated substance would not exist prior to its current existence, in which case its non-being precedes its being. However, natural generation does not fulfil the first criterion, since natural generation presupposes some underlying subject within which the generation takes place. And this, as will be recalled, is precisely why Thomas does not think that creation is a kind of change or motion, since change or motion (or indeed natural generation) presupposes some underlying subject within which the change or motion (or generation) takes place.[24]

Moving on, as we have seen in the commentary on the *Sentences*, Thomas qualifies the mode by which non-being precedes being in the thing created, at

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

least as this is demonstrable by the philosopher. He tells us that non-being precedes the being of a creature in the order of nature, that is to say, creatures do not naturally possess being, but derive their being from another (a superior cause), which presumably does possess being naturally. What we see Thomas groping at here is the fundamental theme of the distinction between essence and existence in creatures and the dependence of the latter on God, within whom there is no such distinction.

In a well-known and much-discussed text, *De Ente et Essentia*, Thomas presents us with a synopsis of a metaphysical position that he more or less retained for his entire career. In chapter 4 of this small treatise Thomas offers argumentation for there being a real distinction between essence and existence in finite things and, given the latter, argues that the cause of existence in all finite things is a being that is being itself, which is God.[25] The exact details of how Thomas establishes the real distinction and the existence of God are not my concern in the present article. Nevertheless, there are some salient features of Thomas's argumentation that are worth focusing on, and these will give rise to some further insights into his metaphysics of creation.

In every essence/existence composite, there is a potentiality for the act of existence that it receives from God. God is not composed of essence and existence, in which case God does not stand in potency to any such act – God is His own existence, pure and simple. Therefore, the existence that all and anything possesses is derived from God. God then is the unique source and fount of all being; all being is derived from Him. This reasoning strengthens that already seen in the second book of the *Sentences* commentary wherein it was held that all creatures receive existence from a superior cause (n. 20). The being of all existing things originates in God as the source of all being. Given that God causes existence but does not presuppose any act of existence distinct from Himself, and this insofar as He is pure existence, God creates out of nothing, that is to say, God's creative causality does not presuppose anything on which to work, God originates everything that exists and is thereby master over and superior to all that derives existence from Him.

Given the above considerations, what can be said about the view that in the created thing non-being naturally precedes being? Creatures do not possess existence essentially, that is, it is not natural for a creature to exist; it must receive its existence from another. If left to themselves, creatures would not exist, because existence is not something identical with the nature of any creature, rather, existence is identical only with the nature of the creator. Thus, in the creator being naturally precedes non-being. God, as being itself, is naturally prior to non-being; other than God there is nothing and it is from nothing other than His own being that God brings things into being. Creatures on the other hand do not exist of themselves; they depend on God for their being. Thus, non-being naturally precedes their being; their natures are nothing until brought into being by God.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

And the latter is what Thomas means when he states that non-being precedes being in created things. Assuming the veracity of the position laid out in the *De Ente*, we have a philosophical demonstration of the natural priority of non-being to being in created things, and this because they are subject to distinction between essence and existence, in which case they do not exist in virtue of what they are, in which case they do not exist unless they receive existence from some superior cause – God.

Only God, who is being itself, exists essentially, all other things exist through dependence on an act of being granted to them by God. This indicates for Thomas that the relationship between creature and creator is one of participation, whereby that which is composed of essence and existence participates in an act of existence that is derived from that which is not so composed.[26] The participation framework between creature and creator is an important one the consequences of which shall be drawn out in the final section. Suffice to say it entails for Thomas the view that it is not through two distinct acts that God (i) brings things into being and (ii) sustains them in being; rather, insofar as creatures participate in the being granted to them by God, it is the selfsame act by which God gives being to creatures and sustains them in being.[27]

Given that it is a single divine act by means of which things are (i) created and (ii) sustained in being, and given that this divine act is *ex nihilo*, it follows that the sustaining of temporal creatures in being is also *ex nihilo*. So, temporal creatures, for as long as they exist, are caused to exist *ex nihilo* through a divine act embracing all that is. For instance, a creature, x, may begin to exist at t_1 and continue to exist through t_2 to t_n, whereat it ceases to exist. On Aquinas's account, from t_1 to t_n, x participates in a single act of creation from God, and such an act is *ex nihilo*, given that (i) it presupposes no underlying subject on which to work, and (ii) it is located in God and thereby naturally precedes the being of x. Therefore, in a single act of creation *ex nihilo* God causes a being, x, to exist at t_1 through t_2 to t_n, but this does not entail that at t_1 through t_2 to t_n God causes x to exist.

The foregoing serves to highlight that for Aquinas God is not an agent at the beginning of a linear chain of events starting everything off; rather God is at the head of all created being, and anything that was created, is currently being created, or will be created participates in a single act of creation from God. The temporal reference point is thus to be found in the creature receiving an act of existence, and not in God, who creates and sustains by a single act of creation. If a visual analogy is required, the example of the sun's eternally illuminating the moon can be rehabilitated to serve our purposes (see n. 8). Imagine once again that the sun is eternal, spreading its rays over anything that comes within its periphery, but imagine this time that the moon is temporally finite, i.e. that it began to be and that it will cease to be. So, for as long as the moon is illuminated, it is participating in the illumination of the sun, which is eternally illuminating anything that comes within the scope of its rays; from the moment it came into existence until the

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

moment it ceases to exist, the moon will be illuminated by the sun. Nevertheless, once the moon goes out of existence and ceases to be illuminated, no concomitant change occurs in the sun; the sun still shines eternally and illuminates anything that comes within its scope. Transferring the analogy then to divine creation, by a single act God brings into being and keeps in being all created essences, and for as long as such essences participate in God's single creative act, such essences are sustained in being; nevertheless, should such created essences undergo change and go out of being, no such concomitant change need occur in God. Thus, Thomas's metaphysics of creation and the related participation relationship between God and creatures implied therein places Aquinas firmly within the Augustinian/Boethian tradition of understanding God's eternity as a single instant that is present to all events past, present, and future.[28]

Let us now draw this section to a close by recapitulating some of Thomas's characteristic views on the metaphysics of creation, and from that determining how he can consistently defend the possibility of an eternally created universe.

The creature is caused to exist, in which case *what* it is in no way determines *that* it is. This is Thomas's famous teaching that there is a distinction and composition of essence and existence in things; and it is just insofar as a thing is such a composite that it is a creature. The composition of essence and existence points to a causal regress in the line of existence, a regress that for Thomas is only terminated in existence itself, which is God. A creature then is dependent on God, as existence itself, for its act of existence. Creative causality then involves the origination of existence, (i) from no prior subject other than God, (ii) in an entity whose non-being naturally precedes its being. Given the foregoing, creation is not change/motion/natural generation, since all of these presuppose some underlying subject within which they occur. Creation is thus the radical dependency on a creator for existence, and this dependency entails that creatures participate in the act of being granted to them by God.

Given these metaphysical views, Aquinas can consistently adhere to the creation of the universe without having to hold that it began to exist in time, even though he accepted the latter on the basis of revealed doctrine. He can do so because on his account creation involves the dependence of a creature on the creator such that (i) the creator causes the creature to exist without presupposing any underlying subject on which to work and (ii) the creature's being is naturally preceded by its non-being. These commitments, essential as they are to Thomas's views on creation *ex nihilo*, are not precluded by the assumption of an eternal universe. Recall the analogy in n. 8 of the sun's eternally illuminating the moon. The sun illuminates the moon out of its own ability to illuminate that which is other than it; even though the illuminating of the moon did not have a beginning, since *ex hypothesi* both sun and moon are taken to be eternal, the moon's darkness, nevertheless, naturally precedes its being illuminated, such that if the sun were not to illuminate the moon, the moon would be in darkness. Similarly,

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

an eternal universe, unless it is self-existing, is dependent on another for its existence and ultimately on God, and such dependence entails the natural priority of its non-being to its being, since if the cause of the universe were to withdraw its causal activity, the universe would be precisely nothing. Consequently, on Aquinas's metaphysics of creation, creation *ex nihilo* is possible for a universe that does not have a beginning in time.

The nature of creation

Drawing from the metaphysics outlined above, I shall now tease out some salient themes that are relevant to our present discussion. I shall begin with Hawking's view introduced at the beginning of this article, and I shall show that a denial of the beginning of the universe in no way undermines belief in the createdness thereof. I shall then argue that the Thomist conception of the creator–creature relationship is one of participation and it is a conception whereby the creator is not envisaged as a being of the same ontological type as the creature yet significantly more powerful. Finally, given the latter, the theist's options for a successful demonstration of a creator God are significantly diminished.

Hawking and the beginning of the universe

At the beginning we introduced Hawking's view that the beginning of the universe is synonymous with its creation; this is a view that is commonly accepted by atheist and theist alike, and I noted in my opening paragraphs that it is somewhat unreflective and unwarranted. Accordingly, on this view, any model of the universe that denies its beginning also denies its being created. And this, as we have seen, was precisely Hawking's model: a finite universe with no boundary, in which case he takes the universe to be beginningless and therefore uncreated. However, what this position does not consider is the notion of a creator as a cause of existence. A cause of existence need not begin the universe; such a cause need only grant existence to the universe.[29] The granting of existence to the universe does not exclude the possibility of a beginningless universe; for there is no contradiction in the notion of a universe being without a beginning yet requiring a cause of its existence, in the same way there is no contradiction in the notion of an eternally existing sun's causing the illumination of an eternally existing moon. An effect, *y*, depending on a cause, *x*, for its existence does not entail that *y* had to have a beginning of its existence. And this is precisely what Aquinas's metaphysics has shown us: that one can consistently adhere to the creation of the universe without adhering to its having had a beginning.

To insist on the need for a creator is not to insist on the need for something outside of the boundary of the universe giving it its first nudge into existence, nor is it to insist, in a quasi-design fashion, on something that sets up the conditions

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

for the possibility of the universe. Rather, to insist on the need for a creator is to insist on the need for a cause of existence. On Hawking's account we can have finite space–time without a boundary. This merely tells us that the universe did not have a beginning; it tells us nothing of the actual existence of the universe. For either the existence of the universe is gratuitous, in which case it receives existence from without, or it exists in virtue of what it is. But it is arguable that the latter is not the case, since existence in no way enters into our understanding of the universe; we can entertain different models of the universe all of which could exist, thereby indicating that what it is to be a universe is not what it is to be. So, arguably, whatever the universe is, it is not existence itself, even though it is itself existing. Consequently, Hawking's model presupposes the existence of the universe and does not explain it; so the question arises: what accounts for the existence of the universe? And it is precisely the latter sort of question that marks the entryway into the metaphysics of creation adopted by Aquinas.[30]

Hawking and his followers are of course free to reject the metaphysics outlined in the course of this article. However, such a rejection would miss the point. If Hawking were to reject Aquinas's metaphysics and deny the need for a creator on the back of a denial of the beginning of the universe, Aquinas or one of his followers could simply reply that Hawking's denial of a need for a creator is really only a denial of a need for something to kick-start the whole universe; but this is what Thomas and his followers also deny, and yet they are committed to the notion of a creator. So, in order for there to be anything at all threatening in what Hawking has said, he or his followers must show that the universe does not have any characteristics that require a cause outside of the universe itself; specifically, it must be shown that the very existence of the universe is either (i) causally irrelevant or (ii) determined by means of natural causes. Hawking has not approached the issue in this manner, since he is primarily concerned with the boundary conditions of the universe and with the beginning or seeming beginning thereof; he is not concerned with the sheer existence of the universe, a concern more suited to the metaphysician. But surely the creation of the universe is connected directly with the question of its existence, since the question of the creation or otherwise of the universe is the question of its mode of existence, which is in turn a species of the question: why is there something rather than nothing? And the latter is the question of metaphysics *par excellence*. Consequently, the question of the creation of the universe is a question of metaphysics, and is somewhat distinct from the question of its beginning. Thus, anyone wishing to deny that the universe is created will have to enter the metaphysical arena and contend with the metaphysics that Thomas has outlined. Otherwise, one cannot confidently claim that contemporary scientific models on which the universe is envisaged to be without a beginning remove the need for a creator.[31]

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

The creator–creature relationship

The universe no doubt exists, and if Hawking is right it is a self-contained physical system without a beginning, but this does not preclude dependency on a higher cause for its existence. In the context of Aquinas's metaphysics, this dependence on a higher cause is dependence on a creator; and within the same metaphysical framework, a creator, precisely as creator, is not a composite of essence and existence, as creatures are, but is existence itself. Such a being is not simply an entity that has existence, but is an entity that encompasses within itself that which it is to be – the fullness and perfection of being. Creatures on the other hand limit the fullness of being to their own particular modes. Thus, every creature signifies a certain mode of being, a certain way in which being could be realized. The imperfection of creatures in relation to the creator then is cashed out in Thomistic terms precisely insofar as creatures do not and cannot realize the fullness of being, and so depend on that which encompasses in itself the fullness of being. Creatures thus do not depend on just another extremely powerful being of the same ontological kind as they, but on a being of a radically different kind, one that can plausibly be construed as a superior being insofar as it is not dependent in the way that creatures are.

Furthermore, insofar as creatures only realize a certain mode of being, and this as opposed to God who encompasses the fullness of being, the creator–creature relationship is best thought of in terms of participation. On the latter account creatures take a part in the causal power of their creator, who, precisely as creator, is a superior being than they and whose creative causality is not simply that of providing the first nudge to the series or winding up the clock. Conceiving of creative causality in terms of participation entails that creatures are in fact dependent on a higher kind of being, and this cause is higher insofar as it is that without which the causal property in question (in this case, existence) would be absent from the lower beings if it were not present thereto. This is the typical Platonic view that beings of a lower kind (participants) depend on some being or beings of a higher kind for certain properties that the former do not possess essentially whereas the latter do. And this conception of creative causality serves to exorcise even further the notion that to be created is necessarily to begin to exist, since if God's causality as creator is exercised in terms of the granting of existence to creatures who in turn participate in the act of existence so granted, then God's relationship to creatures is not best understood as a temporal causal priority, or even in terms of efficient causality, but in terms of the analytical priority of a being who realizes the fullness of existence to beings who realize existence only partially. More Platonically, one could say that God is that which it is to be and creatures participate in this so that they can be said to exist but not be said to be identical to the existence that they thereby possess, since the latter is proper only to God.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

Now, the granting of existence to any creature and, conversely, the participating in the act of existence so granted provide an explanatory account of both the origin and the sustaining of creatures in being. Creatures exist insofar as they participate in the act of existence granted to them by God, and creatures continue to exist for as long as they participate in the selfsame act of existence granted to them. Thus it is a single creative act by which creatures are both brought into being and remain in being. In n. 8, I borrowed the analogy of an eternally existing sun's illuminating an eternally existing moon as the means by which to conceive of the possibility of an eternally created universe. This analogy can also go some way to show how the creator–creature relationship is one of participation, since according to the analogy, the moon very clearly participates in the light of the sun in order to be illuminated, and the sun not only causes the moon's illumination, but sustains it, thereby acting as both cause and sustainer in one and the same act. Nevertheless, the analogy is deficient insofar as there is presupposed something on which the sun's causal activity is exercised, and this is the moon on which it shines its light. Transferring the case to God's creation, the analogy would suggest that when God creates, He shines light upon some underlying subject, thereby bringing it into existence. But it is precisely the latter that Thomas sought to deny when he argued that the act of creation presupposes nothing. Thus, whilst it has served us well in elucidating some key points, the analogy of the sun's eternally illuminating the moon is somewhat deficient as an aid to understanding divine creation. In my opinion the best analogy that we have for the creator–creature relationship can be taken from the arts, in particular singing. When a singer sings a song, both the material for the song and the structure that it takes originate in the singer. The song is sustained in being for as long as the singer keeps singing, and the song follows its own logic note by note, but all within the context of the singer's bringing the song about. Thus, in the singer–song relationship the act by which the singer sings the song and the act by which the singer sustains the song are one and the same. And I submit that the relationship between song and singer is precisely the relationship that Aquinas envisages between creature and creator.[32]

How to find God

If a contemporary theist seeks to search after a creator whilst at the same time honouring the insights of contemporary science, he or she really ought not to go looking for God in the boundary conditions of the universe. If Thomas's metaphysics of creation is correct and to be created is simply to participate in the act of being granted by God, then looking at the boundary conditions of the universe will not bring one to God; all it will reveal will be further conditions not ontologically distinct from the universe itself. Rather, what the theist must do is seek out reasons for why there must be an entity of a fundamentally different kind from the universe, one on which the universe depends in order to be. The task for

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

the theist then is to show that creatures are entities of such a kind that they could not be unless there existed an entity of a fundamentally different kind; and if the latter can be established, then one would be on the clear path towards affirming the existence of a creator of the universe.

If my reasoning is correct, then the available options for a successful argument for God's existence, where God is understood as a creator, are significantly reduced. This is because not all of the traditional arguments for a first cause will establish a being from which all existing things flow and in which all existing things participate for their existence. In order to establish the latter one must, in a rather Platonic sense, observe certain characteristics within the universe the cause of which cannot be found within the universe itself but point to some cause that in itself possesses such characteristics. In my opinion, the most promising argument in the latter respect, and one which I have defended elsewhere, is Aquinas's argument from the *De Ente et Essentia*.[33] In the latter, Thomas observes that finite entities do not possess existence essentially and thereby are caused to exist. Through a complex process of argumentation, Thomas then goes on to infer that such entities depend on existence itself (*esse tantum*) for their existence, and this is what we understand to be God. Given that this argument delivers a God that is pure existence from which all existing things flow and on which all existing things depend, it returns for us a creator God as this has been outlined in the current article. Consequently, the most promising project for the contemporary philosophically minded theist should be to recapture the genuinely metaphysical thought of Aquinas in *De Ente et Essentia* and its application to contemporary (mis)understandings of the notion of and need for a creator. In the latter respect, St Thomas's metaphysical thought will be capable of bringing much enlightenment to our contemporary discussions over the nature of creation.

At the beginning I indicated that a motivating factor in writing this article was to dispel a certain popular notion of a creator in favour of a more philosophically profound notion. The popular notion is one that has captured the imagination of scientists like Stephen Hawking, is seen to be at work in many of the debates engaged in by proponents of the new atheism, and no doubt informs many rank-and-file Christians' views of creation; and this is to the effect that God's creative causality is nothing more than providing the first nudge to the series of causes, winding up the clockwork as it were. If the reasoning in this article is correct, then God and His creative causality cannot be conceived in such a mechanistic fashion; the popular notion of a creator as simply the first instigator of existence must therefore be dispelled in favour of a more profound (I would say, more Platonic) notion of creation. This will have far-reaching implications for such hotly debated topics as God's role in evolution, the problem of evil, and the ultimate goal of all existing things; but such topics are best left for another occasion.[34]

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

References

Aquinas, T. (1926) *Summa Theologiae* (Turin: Marietti).
(1927a) *De Potentia Dei* (Turin: Marietti).
(1927b) *Summa Contra Gentiles* (Turin: Marietti).
(1929) *In IV Libros Sententiarum* (Paris: Lethielleux).
(1962) *Tractatus De Substantis Separatis* (West Hartford: Saint Joseph College).
(1976a) *De Aeternitate Mundi* (Rome: Editori di San Tommaso).
(1976b) *De Ente et Essentia* (Rome: Editori di San Tommaso).
(1996) *Quaestiones Duodecim Quodlibetales* (Rome: Commissio Leonina, and Paris: Les Éditions du Cerf).
Augustine (1991) *Confessions* (Oxford: Oxford University Press).
Boehner, P. (2007) *Medieval Logic: An Outline of its Development from 1250 to c. 1400* (Oregon: Wipf and Stock).
Clarke, W. N. (1994) 'The meaning of participation in St. Thomas', in *Explorations in Metaphysics — Being, God, Person* (Notre Dame and London: University of Notre Dame Press), 89–102.
Fabro, C. (1950) *La Nozione Metafisica di Partecipazione secondo S. Tommaso d'Aquino* (Turin: Società Editrice Internazionale).
(1961) *Participation et causalité selon S. Thomas d'Aquin* (Louvain: Publications Universitaires).
(1974) 'The intensive hermeneutics of Thomistic philosophy: the notion of participation', *The Review of Metaphysics*, **27**, 449–491.
Geiger, L.-B. (1953) *La participation dans la philosophie de s. Thomas d'Aquin* (Paris: Librairie Philosophique J. Vrin).
Hawking, S. (1998) *A Brief History of Time* (London: Bantam Press).
Kelly, T. (1997) 'Ex possibili et necessario: a re-examination of Aquinas's third way', *The Thomist*, **61**, 63–84.
Kenny, A. (2002) *Aquinas on Being* (Oxford: Oxford University Press).
Kerr, G. (forthcoming 2012) 'Aquinas's argument for the existence of God in *De Ente et essentia*, cap. iv: an interpretation and defence', *Journal of Philosophical Research*.
Klima, G. (1996) 'The semantic principles underlying Saint Thomas Aquinas's metaphysics of being', *Medieval Philosophy and Theology*, **5**, 87–141.
(2004) 'On Kenny on Aquinas on being: a critical review of *Aquinas on Being* by Anthony Kenny', *International Philosophical Quarterly*, **44**, 567–580.
Lerner, E. (1991) *The Big Bang Never Happened: A Startling Refutation of the Dominant Theory of the Universe* (New York: Random House).
Long, S. (2005) 'Aquinas on being and logicism', *New Blackfriars*, **86**, 323–347.
Quine, W. V. O. (1961) 'On what there is', in *From a Logical Point of View* (New York: Harper & Row), 1–20.
Stump, E., & N. Kretzmann (1981) 'Eternity', *The Journal of Philosophy*, **78**, 429–458.
Taylor, R. (1975) 'The metaphysics of causation', in E. Sosa (ed.) *Causation and Conditionals* (Oxford: Oxford University Press), 39–44.
Te Velde, R. (1995) *Participation and Substantiality in Thomas Aquinas* (Leiden, New York, and Cologne: E. J. Brill).
Williams, C. (1981) *What is Existence?* (Oxford: Clarendon Press).
Wippel, J. (1984) 'Thomas Aquinas on the possibility of eternal creation', in *Metaphysical Themes in Thomas Aquinas* (Washington: The Catholic University of America Press), 191–215.
(2000) *The Metaphysical Thought of Thomas Aquinas: From Finite Being to Uncreated Being* (Washington: Catholic University of America Press).

Notes

1. Though, for a dissenting voice, see Lerner (1991). Being a metaphysician, I am not qualified to adjudicate on the scientific integrity of Lerner's work; I merely bring it to the attention of the reader as a divergent viewpoint.
2. Hawking (1998).
3. *Ibid.*, 154.
4. *Ibid.*, 155.
5. *Ibid.*, 160–161.
6. For instance: 'It was generally accepted either that the universe had existed forever in an unchanging state, or that it had been created at a finite time in the past' (7); 'The beginning of the universe, had, of

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

course, been discussed long before this. According to a number of early cosmologies of the Jewish/Christian/Muslim tradition, the universe started at a finite, and not very distant, time in the past. One argument for such a beginning was the feeling that it was necessary to have a "First Cause" to explain the existence of the universe' (8); 'The possibility that space–time [is] finite but [has] no boundary, which means that it had no beginning, no moment of Creation' (131).

7. This is not to say that the metaphysician must not seek to form conclusions consistent with modern physics; rather, that the physicist cannot simply enter metaphysics and, with no background in the field, attempt to offer positive conclusions for problems associated exclusively with that field.
8. The example is from Taylor (1975), 39–44; the analogy in question appears on p. 44. It is precisely the intuition at the heart of Taylor's example, that one can have non-temporal causal dependency, that feeds into Aquinas's metaphysics of creation: dependence on God for existence does not necessarily entail a beginning of existence, even though Thomas knew that the universe began to exist, and this through God's revelation in scripture.
9. See n. 23 below for references. The reasons urged for the beginning of the universe take a number of different forms, and Aquinas finds all of them to be lacking in some way. The following are some of the reasons pertinent to the theme of this particular article; they can be found, to varying degrees, in the references in n. 23: (1) If the world was made it had a beginning (this is in fact a form of the popular assumption outlined above). Now, it can be shown that the world was made by God. Hence the world had to have a beginning. In response Aquinas distinguishes between (i) an event that is caused successively and (ii) an event that is caused instantaneously, and he argues that in (i) a cause must temporally precede its effect, whereas in (ii) it need not, yet the effect still depends on the cause; in other words, an instantaneous cause is analytically though not temporally prior to its effect. Consequently, the fact of something's having an origin (being made) is not enough to establish that it had a beginning. (2) If we hold that the world comes from nothing, then we are committed to the fact that the world becomes something after it was nothing. But if the latter is the case, then the world came into being at a particular time. In response Aquinas clarifies the notion of *creatio ex nihilo* and claims that when we hold that the world came from nothing, we do not hold that it came *after* nothing, but that it is not made from anything. Consequently, the world can be *ex nihilo* and yet not come into existence *after* nothing. (3) If the world were eternal, then it would be equal to God; but the latter consequence is impossible, at least for Aquinas and his contemporaries; hence, the world could not be eternal and must have begun to be. In response Aquinas claims that even if the universe were eternal, it would not be equal to God, since God's eternity is all at once, whereas the universe's eternity would be successive. God is thus a fundamentally different kind of being than created beings, and His mode of being is wholly different for that of created beings. In relation to the theme of this article, the foregoing are what I take to be the most interesting reasons offered for the beginning of the world. However, there are other noteworthy reasons that focus on the notion of infinity and whether or not there can be an actual infinity; and indeed Thomas has some interesting things to say in response to these, but for the purposes of this article, I shall not consider them here.
10. In Kerr (forthcoming 2012), I defend one of Aquinas's arguments for the existence of God.
11. Quine (1961), 13. The most in-depth defence of the quantificational interpretation of existence is Williams (1981).
12. For criticisms of thinking of existence purely in quantificational terms and the concomitant suppression of an analogical interpretation of being, especially in the evaluation of Thomistic metaphysics, see the references below (n. 14) to the Thomist reaction to Anthony Kenny's critique of Aquinas's metaphysics.
13. In my opinion, the best study of Aquinas's metaphysics is Wippel (2000).
14. A good example of this is the Thomist reaction to Anthony Kenny's treatment of Aquinas's metaphysics in Kenny (2002), wherein he outlines Aquinas's thought and attempts to fit it into a Fregean straitjacket and proceeds to blame Aquinas when such a straitjacket does not fit; see for instance Klima (2004) and Long (2005). Boehner (2007), 96, makes the same point about scholasticism more generally:

> We are witnessing an enormous research activity in the field of ancient scholasticism and a surprising revival of scholastic metaphysics in our times. But scholastic logic, the tool that the masters so ably handled in constructing their systems, is up to now utterly neglected. There is the very acute danger that the scholastic of our day leaves the solid and sound path of his ancestors and indulges in intuition and certain 'isms' of which his masters were or would be extremely suspicious.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

For a reconstruction of Aquinas's actual logical and metaphysical framework pertinent to the metaphysics laid out in this section, see Klima (1996).

15. Aquinas (1929), lib. 2, dist. 1, qu. 1, art. 2, 18: 'This is what it means to create: to produce a thing in existence according to its total substance'. All translations will be my own.
16. Aquinas (1927b), lib. 2, cap. 17, 101: 'Wherever the total substance of a thing is produced in existence, it is not the case that something the same is related to one thing and another; for that [which remains the same] would not be produced but presupposed by the production. Therefore, creation is not change'; Aquinas (1927a), qu. 3, art. 1, 38: 'Through His own action and without presupposing anything, God produces the total subsisting being'; Aquinas (1926), Ia, qu. 45, art. 1, 304: 'It is not just that one must consider the emanation of some particular being from some particular agent; one must also consider the emanation of the whole being from the universal cause, which is God'; Aquinas (1962), cap. 10, n. 57, 96: 'No agent after the first produces a total thing in being; to create is in a sense to produce the being pure and simple and not accidentally'.
17. See the discussions in Aquinas (1927a), qu. 3, art. 3; Aquinas (1927b), lib. 2, cap. 17; Aquinas (1962), cap. 9, n. 49, and cap. 10, n. 56 for why creation is not change or motion, since change or motion presupposes some subject, but creation presupposes nothing.
18. Aquinas (1927b), lib. 2, cap. 21, 103: 'Creation is the primary action, since it presupposes nothing and all things presuppose it'.
19. Aquinas (1929), lib. 2, dist. 1, qu. 1, art. 2, 18: 'Firstly, creation presupposes nothing of the thing that is created, in which case it differs from change'. Given this point, Plato's Demiurge does not engage in any creative activity.
20. *Ibid.*: 'Secondly, non-being precedes being in the thing created, but not on the basis of a priority of time or duration, as if beforehand it didn't exist and then it did; rather, non-being precedes being in the thing created through a priority in nature, such that the thing created would cease to exist if it no longer depended on a superior cause for its existence'.
21. *Ibid.*
22. *Ibid.*, note in particular the following: 'If these two [theses] suffice for the nature of creation, then creation can be demonstrated, and it is as such that philosophers have defended it'. However, it should be emphasized that even though he believed creation *ex nihilo* to be demonstrable, since the two theses on which it is based are demonstrable, Thomas did not believe creation *ex nihilo* in time to be demonstrable; for he did not think that any of the reasons offered for accepting that the universe had a beginning in time were compelling.
23. Thomas adds a third aspect, one that he believes the philosopher cannot establish, and this is to the effect that creation has a beginning in time, see Aquinas (1929), lib. 2, dist. 1, qu. 1, art. 2, 18: 'We may furthermore take a third aspect of creation, namely that temporally speaking a created thing does not exist prior to its having existence, and thus it may be said to be *ex nihilo* because, temporally speaking, it comes after it was nothing; and *in this respect creation cannot be demonstrated by the philosophers* [my emphasis] but is supposed through faith'. The latter conclusion is one that Thomas retained his entire career; for some of his characteristic discussions of this issue see Aquinas (1929), lib. 2, dist. 1, qu. 1, art. 5; Aquinas (1927b), lib. 2, cap. 32–38; Aquinas (1927a), qu. 3, art. 17; Aquinas (1926), Ia, qu. 46; and Aquinas (1976a). For commentary see Wippel (1984). Wippel argues that throughout most of his career Thomas defended the views that: (i) the non-eternity of the world has not been established and (ii) cannot be established, but it was not until very late in his career, with the *De Aeternitate Mundi*, that he defended the view that an eternally created universe is possible. Despite this fact, I am arguing that the possibility of an eternally created universe is consistent with Thomas's overall metaphysical position, even though he only came to articulate this possibility towards the end of his career.
24. See the references in n. 17 above.
25. For the argumentation for the real distinction see Aquinas (1976b), cap. 4, 376:90–377:126. For commentary on this theme in Aquinas's metaphysical thought see Wippel (2000), ch. 5. For the argument for God's existence in the *De Ente* see Aquinas (1976b), cap. 4, 377:127–146. For commentary on this argument see Wippel, (2000), 404–410, and for an in depth defence of the argument, see Kerr (forthcoming 2012).
26. The fact that creatures participate in the being given to them by the creator is a central theme in Aquinas's metaphysics, the following are some standard texts: Aquinas (1927b), lib. 2, cap. 15, 98: 'What is said to be essentially is the cause of all that is said to be through participation . . . God is a being that

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

exists through its own essence, and this because He is being itself. Every other being then exists through participation because the being that is being itself can only be one . . . God therefore is the cause of being for all other things'; Aquinas (1996), *Quodlibet* 2, qu. 2, art. 1, 214:28–38: 'Something is predicated of something else in either of two ways: [i] essentially or [ii] through participation . . . Accordingly, being is predicated essentially of God alone, since divine being is subsistent and absolute . . . On the other hand, being is predicated of creatures through participation, and this because no creature is its own being, but merely has being'; Aquinas (1926), Ia, qu. 61, art. 1, 393: 'Only God is His own being, in all other things the essence of the thing differs from its being . . . And from this it is manifest that only God exists essentially, whereas all other beings exist through participation. Whatever exists through participation is caused to exist by that which exists essentially'. The following are the standard studies of the theme of participation in Aquinas's metaphysics: Clarke (1994); Fabro (1950), (1961), (1974); Geiger (1953); te Velde (1995); Wippel (2000) ch. 4.

27. Aquinas (1926), Ia, qu. 8, art. 1: 'Since God is being itself through His own essence, it must be that created being is His proper effect . . . God causes this effect in things, not only when they first begin to be, but for as long as they are conserved in being'.
28. See Stump and Kretzmann (1981) for what is now taken to be a classic defence of this notion of divine eternity. Note in particular the discussion of ET-simultaneity (*ibid.*, §. II). Within the context of the metaphysics outlined above, one could say that God is ET-simultaneous with creatures insofar as (i) God is eternal and creatures are temporal, (ii) from the eternal reference frame, God is present to creatures as granting them existence, (iii) from the temporal reference frame, creatures are present to God as receiving existence. As noted by Stump and Kretzmann (*ibid.*, 439), on this account, God is neither earlier than nor later than, neither past nor future, with respect to creatures. Furthermore, God and creatures do not exist at one and the same time when considered within any reference frame, in which case they are not temporally simultaneous. And given that God and creatures are not temporally simultaneous, it follows that a single act of creation *ex nihilo* is capable of (i) bringing things into being and (ii) sustaining things in being.
29. There is an issue here for Thomas as to what exactly God is granting existence. If we say that He is granting existence to the universe, then surely the universe precedes its own existence, which is absurd and must be denied. But if we deny that God grants existence to the universe, then we deny creation *ex nihilo*. I do not intend to solve this tricky problem here, suffice to say that it is one that is well recognized by Thomists, and the solution of which divided the opinion of the foremost scholars on participation in Aquinas: Cornelio Fabro and Louis-Bertrand Geiger. For some of the details, Wippel (2000), 124–132. The issue primarily centres upon how something can be possible for God whilst not being distinct from God, and those who see a definite strand of Platonism in Thomas's metaphysics hold that possibility in God is relevant to the divine ideas, such that something is possible insofar as it is a conceivable state of affairs for God to bring into existence, and the present universe is one such state of affairs. This topic merits an article in itself, and I thus bring it up only in passing.
30. If the foregoing reasoning smacks of the fallacy of composition, the discussion can be conducted along the lines of the existence of things rather than the existence of the universe, and Thomas's reasoning still follows; for the existence of things, unless they are self-existing, demands a cause of their existence.
31. Of course, Hawking can deny the validity of metaphysics in favour of physical science in discussing such issues, and he has very publicly done just this in recent years. For my part, I find it difficult to entertain such a rejection of metaphysics, since it is often based upon implicit metaphysical reasoning canvassed in support of the all-embracing validity of contemporary physical science. Such a position no doubt will look down upon most if not all branches of philosophy, but it is hard to see how anyone could be reasonably motivated to adopt this position since it seems prima facie to be a philosophical position.
32. The analogy is not my own and is adapted almost *verbatim* from Kelly (1997), §. II.C, though the analogy to song can be found in St Augustine's reflections on creation *ex nihilo* in Augustine (1991), bk. 12, n. 29, 269. It should be noted that this analogy concerns solely the relationship between singer and song and abstracts from a consideration of the conditions for the possibility of the singer's existence, such as a suitable environment or the physical laws governing that environment.
33. See Kerr (forthcoming 2012). It is no surprise that this argument for God turns out to be the one best suited to return a creator God, since, as we have seen when outlining Aquinas's metaphysics in the

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press

second section, the metaphysical thought that Thomas elucidates in *De Ente*, cap. 4 – distinction and composition of essence and existence – plays a significant explanatory role in Thomas's metaphysics of creation.

34. I wish to take this opportunity to thank Robin Le Poidevin and an anonymous reviewer for *Religious Studies*. Also, I would like to give thanks to God, the unique subsisting act of being who makes all things possible.

https://doi.org/10.1017/S0034412511000291 Published online by Cambridge University Press