Descartes on God's relation to time

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Abstract: God and time play crucial, intricately related roles in Descartes' project of grounding mathematical physics on metaphysical first principles. This naturally raises the perennial theological question of God's precise relation to time. I argue, against the strong current of recent commentary, that Descartes' God is fully temporal. This means that God's duration is *successive*, with parts ordered 'before and after', rather than *permanent* or 'all at once'. My argument will underscore the seamless connection between Descartes' theology and his physics, and the degree to which he was prepared to depart from orthodoxy in the former in order to secure an a priori foundation for the latter. As Newton would later do, Descartes freed time from its traditional dependence on bodily motion and so removed an important barrier to making God temporal. Acting in time, God makes the physical world intelligible in a way He could not were He timeless.

Introduction

God and time play crucial, intricately related roles in Descartes' project of grounding mathematical physics on metaphysical first principles. It is due to a certain fact about the 'nature of time', namely that it is divisible into 'countless parts, each completely independent of the others' (AT, 7, 49; CSM, 2, 33),¹ that God must continuously create matter and motion:

The separate divisions of time do not depend on one another. Hence the fact that a body is supposed to have existed up until now 'from itself', that is, without a cause, is not sufficient to make it continue to exist in the future, unless there is some power in it that recreates it continuously as it were. (AT, 7, 110; CSM, 2, 79)

Since there clearly is no such power in finite things, whether bodies or minds, 'the fact that our existence has duration is sufficient to demonstrate the existence of God' (AT, 8A, 13; CSM, 1, 200).² And it is due to a certain fact about the nature of God, namely that He is immutable, that continuous creation generates natural laws of a particular form. Since God is the 'universal and primary' cause of matter and motion, it follows from His immutable nature that the total quantity of

motion (size × speed) he produces over time will be constant: 'In the beginning he created matter and rest and now, mere by his regular concurrence he conserves the same amount of motion and rest in the material universe as he put there in the beginning' (AT, 8A, 61; CSM, 1, 240). In addition to this general principle of conservation, Descartes' three laws of motion are also derived from the immutable creation: 'from God's immutability we can also know certain rules or laws of nature' (AT, 8A, 62; CSM, 1, 240).³ In these ways, the natures of time and God conspire to deliver a material world governed by regular and intelligible laws.

This naturally raises the perennial theological issue of God's precise relation to time. Does Descartes' God endure through time, like the finite world He produces, with a life composed of earlier and later stages? That is, does His eternity consist simply in living from the infinite past into the infinite future, like Newton's God: 'He was, and is, and is to come'?⁴ Or does His eternity involve absolute removal from the divisibility that Descartes associates with '*temporis naturam*'? That is, does Descartes' God abide, like Spinoza's, in a way that 'cannot be explained by duration or time, even if the duration is conceived to be without beginning or end'?⁵

The traditional 'timeless' conception of God's duration, inspired by Boethius' famous definition of eternity as 'the complete, simultaneous and perfect possession of everlasting life', was defended by most scholastics, from Anselm and Thomas Aquinas through contemporaries of Descartes like Francisco Suarez.⁶ Likewise, Renaissance natural philosophers such as Giordano Bruno and Tommaso Campanella, although hostile to scholasticism on numerous counts, nevertheless concurred with tradition in putting God beyond time.⁷ The issue became more controversial in Descartes' time, and the consensus seemed to be shifting.⁸ Descartes' own peers were split: Antoine Arnauld and Marin Mersenne place God out of time, Pierre Gassendi and Thomas Hobbes within.⁹ But in the next generation there was a growing tendency to conceive of God as temporal, especially among those influential in the rise of the Newtonian system. Thus, Henry More, Walter Charleton, Isaac Barrow, John Locke, Samuel Clarke, and Isaac Newton himself – but not Baruch Spinoza, G. W. Leibniz, or Nicholas Malebranche – all have God in time.¹⁰

In what follows I will argue, against the strong current of recent commentary, that Descartes' God is fully temporal.¹¹ My argument will underscore the seamless connection between Descartes' theology and his physics, and the extent to which he was prepared to depart from orthodoxy in the former in order to secure an a priori foundation for the latter.

Cartesian time

In standard late scholastic treatments of time familiar to Descartes, such as Suarez's *Metaphysical Disputations*, there is a crucial distinction between two

species of duration. Duration as such is simply persistence in being. As Suarez puts it, there is 'merely a conceptual distinction between duration and existence'.¹² But different things endure in different ways. Time is the duration of things which exist 'successively', i.e. with the parts of their existence arranged 'before and after'. For example, a human life is temporal because adolescence is before adulthood and after infancy. Eternity is the duration of things which exist 'permanently' or 'all at once' [*tota simul*].¹³ For eternal things, God being the paradigm case, there is no past or future but only a 'standing now' [*nunc stans*].¹⁴

Descartes develops his own account of time against this conceptual backdrop. But it is important to note that he uses 'time' in a slightly idiosyncratic manner to denote, not successive duration *per se*, but its *measure* or *number*: 'when time [*tempus*] is distinguished from duration taken in the general sense [*duratione generaliter*] and called the number of movement [*numerum motus*], it is simply a mode of thought [*modus cogitandi*]' (AT, 8A, 27; CSM, 1, 212). Although Descartes here echoes Aristotle's famous definition of time as 'the number of motion in respect of before and after',¹⁵ he does not mean to imply that successive duration exists only in things whose duration is measured or numbered. Rather, relying on the scholastic distinction between generic duration and its species time, Descartes claims that time is indeed a mere 'mode of thought', but only considered as a conventional measure abstracted from the intrinsic duration of successive things:

... in order to measure the duration of all things [*omnium durationem*], we compare their duration with the greatest and most regular motions, which give rise to years and days, and we call this duration 'time' [*hancque durationem tempus vocamus*]. Yet nothing is thereby added to duration, taken in its generic sense, except a mode of thought. (AT, 8A, 27; CSM, 1, 212)

Tempus in this sense depends on some regular motion. But the successive duration measured by *tempus* is common to moving and unmoving things: 'the duration which we find to be involved in movement is certainly no different from the duration involved in things which do not move' (AT, 8A, 27; CSM, 1, 212).¹⁶ So, in strictly Cartesian terms, to ask whether a thing is 'in time' is to ask the rather trivial question whether its intrinsic duration is actually measured by some regular motion.¹⁷ But this obviously leaves open the more significant question whether the intrinsic duration of a given thing is successive or permanent. It is this question we are asking when we ask whether Descartes' God is in time.

Textual evidence

As far as we know, Descartes comments only twice on God's relation to time. Neither comment is in a work intended for publication and, what's worse, they seem to express directly opposite views of the matter even though they are made in the same year. In June 1648, Descartes received a letter from Antoine Arnauld containing the following objection to the Third Meditation doctrine of the 'complete independence' of the parts of my duration: 'the duration of a permanent and highly spiritual thing, such as the human mind, is not successive but rather all at once (and this is certainly true of the duration of God)' (AT, 5, 188). Descartes replied that 'even if no bodies existed, it could still not be said that that the duration of the human mind was all at once [*tota simul*] in the manner of God's duration [*quemadmodum duration Dei*]; for our thoughts manifest a succession which cannot be found in the divine thoughts' (AT, 5, 193; CSMK, 355).

Descartes seems to agree with Arnauld that God's duration is non-successive, even if ours is not. However, apart from Descartes' actual view on the matter, it is perhaps not surprising that he would decline to contradict the Sorbonne theologian on this standard doctrine, which Arnauld declares 'certain' (AT, 5, 188), and for which he elsewhere invokes no less an authority than St Augustine (AT, 7, 211; CSM, 2, 148–149).¹⁸ Indeed, since the Third Meditation proof concerns only the succession of finite minds, there is no need to involve the manner of God's duration in the dispute. Nevertheless, Descartes' clear implication is that God's duration is in fact all at once.

Yet only a few months earlier, in the recorded interview with the young scholar, Frans Burman, Descartes bluntly rejects the orthodox conception of eternity and attributes succession to the life of God. After reiterating the doctrine that in finite minds 'thought is extended and divisible with respect to its duration', Descartes adds, '[i]t is just the same with God: we can divide his duration into an infinite number of parts, even though God himself is not therefore divisible' (AT, 5, 148; CSMK, 335). When Burman presents the predictable objection that 'eternity is all at once and once and for all [*simul et semel*]', Descartes replies dismissively: '[t]hat is inconceivable [*hoc concipi non potest*]' (AT, 5, 148). He then explains the sort of eternity that in his view God *does* possess:

It is true that it is all at once and once and for all insomuch as nothing can be added to or subtracted from God's nature. But it is not all at once in the sense of existing simultaneously [*simul existit*]. Since we can divide it into parts after the creation of the world, why shouldn't it have been possible to do the same before creation, given duration remains the same [*cum eadem duratio sit*]? (AT, 5, 149)

In this passage, Descartes explicitly repudiates the traditional model of God's eternity and substitutes for it a model compatible with successive duration: the absolute immutability of God's nature. His reason for dismissing the traditional model of eternity is based on a claim about duration first made in the *Principles* (AT, 8A, 27; CSM, 1, 212) and repeated in the exchange with Arnauld (AT, 5, 223; CSMK, 358): duration 'remains the same' whether or not it is related to something movable like the created world. Since God's duration is clearly successive now, post-creation, it is successive always.¹⁹ This alternative conception of eternity as essential immutability is invoked elsewhere by Descartes in connection

with geometrical essences: 'since they remain always the same [*eadem semper*], it is right to call them immutable and eternal [*immutabiles & aeternae*]' (AT, 7, 381; CSM, 2, 262).

There is a way to reconcile the apparently contradictory comments made to Burman and Arnauld. We can read Descartes' later remark to Arnauld in terms of the alternative conception of 'all at once' eternity presented to Burman. From this point of view, Descartes is insisting, in the letter to Arnauld, that the duration of the human mind is not all at once 'in the manner of the duration of God', precisely because God's thought is absolutely unchanging. But God's duration is not 'all at once' in the sense of 'existing all at once' since, as Descartes says, that is inconceivable. Giving primacy to the more direct and detailed exchange with Burman is, I think, supported by the fact that this discussion brings together and reinforces a number of themes that run throughout Descartes' scattered discussions of time: the distinction between duration and its measure, the identity of duration in the moved and unmoved, the divisibility of created endurance into parts, and the alternative model of 'all at once' eternity. Of course, I would not want to rest the case for the temporality of Descartes' God on the Burman interview since its transcription was not checked by Descartes himself.²⁰ Rather, we need to examine the matter in relation to more fully settled and elaborated elements of Cartesian metaphysics.

Still, there is one other text which deserves to be mentioned. In a 1649 letter to Henry More, Descartes says that 'it involves a contradiction to conceive of any duration intervening between the destruction of an earlier world and the creation of a new one'. He goes on to remark that it would be an 'intellectual error' to attempt to relate this duration to a 'succession of divine thoughts' (AT, 5, 343; CSMK, 373). This might seem to indicate that God's duration cannot supply the temporal interval between worlds, and is therefore not intrinsically successive. But what Descartes actually says is that it would be a 'contradiction' for 'any duration' to intervene between worlds. He cannot be claiming that it would be a contradiction for God to endure (even permanently) if the world does not. For 'since a substance cannot cease to endure without ceasing to be' (AT, 8A, 30; CSM, 1, 214), God would, in that case, not exist before, after, or between worlds. So what exactly is the 'contradiction' in supposing duration to intervene between worlds?

To answer this question, we need to consider that the issue in the exchange with More is first and foremost the possibility of a vacuum. Against Descartes' doctrine that extension implies body, More presents the rather curious argument that God could make a different 'kind of extension' without a body: 'If God annihilated the universe and created another one out of nothing much later, this "between-world" or "world-absence" would have its own duration whose measure would be days, years and centuries. There is therefore a duration of something that does not exist, which is a kind of extension' (AT, 5, 302).²¹ It

is specifically this suggestion that an intra-world 'non-existence' would have extension in the sense of 'its own' duration, contrary to Descartes' doctrine of the vacuum, to which Descartes is addressing himself – not whether *God* would have duration.

Now, for Descartes, 'the distinction between a substance and its duration is merely a conceptual one' (AT, 8A, 30; CSM, 1, 214). So, duration is an attribute common to all things (AT, 8A, 23; CSM, 1, 208), and not a substance in its own right (AT, 8A, 26; CSM, 1, 211). This explains why Descartes says to More that it would be an outright 'contradiction' for the intra-world 'non-existence' to have its own duration, since this would require an attribute of a mere nothing. He rejects extension without body as contradictory for precisely the same reason: 'it is a complete contradiction that a particular extension should belong to nothing' (AT, 8A, 49; CSM, 1, 230). And to attempt to avoid the contradiction by relating the duration or extension of 'non-existence' to God is an 'intellectual error, not a genuine perception of anything' (AT, 5, 343; CSMK, 373) because such duration (whether permanent or successive) is not relevant to the issue at hand - whether extension or duration can lack a subject. Indeed, in the interview with Burman, Descartes strongly implies that, far from being a 'contradiction', God's duration is in fact intrinsically successive apart from the world: 'Eternity has now coexisted with created things for, say, five thousand years, and has endured with them; so it could possibly have done so before creation of the world had we some way to measure it' (AT, 5, 149).

Time and motion

Before presenting the strongest evidence for the temporality of Descartes' God, I should dispatch a common rationale for divine timelessness. This is that God's duration cannot be successive because succession presupposes motion. Thus, Aquinas maintains that 'in a thing bereft of movement, which is always the same, there is no before or after'.22 But, as noted above, this assumption is explicitly and repeatedly rejected by Descartes. In the reply to Arnauld's initial 1648 letter, for example, Descartes dismisses his objections as based on 'the scholastic opinion with which I strongly disagree, that the duration of motion is of a different kind from that of things which are motionless' (AT, 5, 193; CSMK 355). In his reply to the follow-up letter from Arnauld he is even clearer that motion is not required for succession: 'I do not understand the successive duration [durationem successivam] of things that move, or even of motion itself, differently from things that do not move' (AT, 5, 223; CSMK, 358).²³ In making successive duration a universal attribute of all things, movable or not, Descartes is decisively breaking with a tradition going back to Aristotle.²⁴ This allows him to bring God into the temporal order as the foundation for the laws of nature, as I will next explain.

Continuous creation and the laws of nature

God is so intimately involved with the unfolding of the Cartesian world, it is hard to see how He could be removed from time. Consider, to begin, God's creation of finite souls. Since the parts of my duration are 'completely independent', I will not continue to exist 'unless there is some cause which as it were creates me afresh at this moment – that is conserves me' (AT, 7, 49; CSM, 2, 33). In creating afresh the successive parts of my duration, God's action is always characterized as an ongoing and temporally extended process rather than a 'once and for all' decree.

For example, in the French version of the *Principles*, God must '*continue a nous produire*' (AT, 9B, 34). Perhaps Descartes' way of speaking is misleading, or metaphorical, and only the duration of the thing produced is strictly successive rather than the duration of the thing producing. But note that Descartes thinks God is also the cause of *his own* continuing to exist. Thus, after explaining how the divisibility of time makes finite things dependent, he observes 'by the same token' that 'God has always existed since it is he who in fact conserves himself' (AT, 7, 109; CSM, 2, 79). Descartes goes on to explain that God conserves Himself by the same process as He conserves finite things:

Each one of us may ask whether he derives his existence from himself in this same sense [as God]. Since he finds no power in himself which will suffice to conserve him for even one moment of time, he will be right to conclude that he derives his existence from another being, and indeed that this other being derives its existence from itself. (AT, 7, 80; CSM, 2, 111)

What God preserves in our case is successive existence. Since God preserves His own existence in the same way, it seems to follow that divine existence is successive as well.²⁵

The successiveness of God's operation is even more apparent in His conservation of matter and motion. As the primary and immutable cause of motion God continues to do now what He did at the start. And this explains why the total quantity of motion is conserved: 'he now conserves all this matter in the same way and by the same process by which he originally created it' (AT, 8A, 62; CSM, 1, 240).²⁶ Descartes emphasizes that the relevant sense of immutability is not merely in God's nature but in His action *over time*: 'God's perfection involves not only his being immutable in himself, but also in his operating in a manner that is always utterly constant and immutable' (AT, 8A, 61: CSM, 1, 240).

With respect to the laws of nature, or 'secondary' causes of motion, the second law in particular seems to require a 'before and after' in God's action. Motion must tend to be rectilinear, Descartes explains, because God 'always conserves the motion in the precise form in which it is occurring at the very moment when he conserves it, without taking account of the motion which was occurring a little while earlier' (AT, 8A, 63–64; CSM, 1, 242).²⁷ While it is far from clear why God's

exclusive focus on the motion He is presently conserving would generate rectilinear motion over time,²⁸ it is clear that the proof assumes that God's action is localized at different times and ordered as the times are. This amounts to saying that God acts successively – it makes no sense to distinguish between God's conservation of motion now versus the motion He conserved 'a little while earlier' if his act of conservation is 'all at once'.

Perhaps one can have God act over time, without thereby making Him temporal, by distinguishing between the effect of God's action, which is successive, and the action itself, which is permanent. Just as Aquinas differentiates between 'willing change' and 'changing will' to explain how it is possible 'to will a thing to be done now, and its contrary afterwards; and yet for the will to remain permanently the same',²⁹ one could hold that Descartes' God acts all at once to bring about a course of events realized successively. He produces succession without successively producing. In fact, Descartes proposes something analogous to this in explaining how God can act on extended things without being extended.

In response to Henry More's suggestion that God and angels are really extended (AT, 5, 301), Descartes answered, 'in God and angels, and in our mind, I understand there to be no extension of substance but only extension of power. An angel can exercise power now on a greater and now on a lesser part of corporeal substance' (AT. 5, 342; CSMK, 372).³⁰ Incorporeal things, Descartes explains, cannot be extended in substance since they cannot be 'distinguished into parts; certainly not parts that have determinate size and shapes' (AT, 5, 270; CSMK, 361). Consequently, Descartes stresses that extension of power 'being only a mode of the thing to which it is applied, could not be understood to be extended once the extended thing corresponding to it is taken away' (AT, 5, 343; CSMK, 373).³¹ Analogously, even though 'health' properly pertains only to humans, in a loose sense 'medicine and a temperate climate, and many other things, are called ''healthy''' (AT, 5, 271; CSMK, 362). So God is located at various places, without occupying space, but only in the sense that His power is exercised there.³²

If God can act at various places without being extended (extended in power) why couldn't He also act at various times without being successive (successive in power)?³³ On this view God's action is 'continuing' in relation to the successive being created but 'all at once' in itself.³⁴ The problem is that making God's action merely successive in power would undermine the crucial role played by divine immutability in determining the Cartesian laws of nature. Total quantity of motion is conserved because 'supposing that God first places a certain quantity of motion in all matter in general in the first instant he created it, we must admit that he preserves the same amount of motion in it, or not believe that he always acts in the same way' (AT, 11, 43; CSM, 1, 96). But this derivation of conservation from immutability would fail if God's action were 'all at once'. For since there is

no question of change in an action that takes no time, He could produce any sort of temporal process He liked without risk of inconstancy.

This is precisely the point Aquinas makes when he says that it is possible for a permanent will to 'remain the same' even though it wills contrary things at different times.³⁵ So from a timeless perspective an immutable God could produce a world with an increasing or diminishing total quantity of motion over time, contrary to Descartes' conservation principle. If undertaken 'all at once' this would involve no change in God, any more than if He produced at a stroke an uneven distribution of motion over space.³⁶ The same point applies to the laws of nature. For example, if God's operations were timeless it would not involve a change in Him to produce motion with a zigzag, rather than rectilinear, tendency over time. The traditional theological doctrines of divine immutability and continuous creation simply will not deliver the Cartesian laws of nature unless God's operation is intrinsically successive and hence temporal.³⁷

The simplicity of God's action

I will next briefly address four possible difficulties, in order of increasing seriousness, with the thesis that Descartes' God is in time. First, one might suggest that this cannot be right since Descartes explicitly declares that in God 'there is only a unique, always identical, and simple act [unicam, semperque eandem and simplicissimam acitonem] by means of which he simultaneously understands, wills and accomplishes everything' (AT, 8A, 14; CSM, 1, 201).³⁸ However, when Descartes asserts this, he is emphasizing the unity and simultaneity of will and intellect in God's operation, not the unity and simultaneity of everything God does: 'his understanding and willing does not happen, as in our case, by operations which are in a certain sense distinct from one another' (ibid.). In other words, God's volition and thought are the same *at any time*, or as Descartes says 'always'.³⁹ Nevertheless, when asked to comment on this passage in the interview with Burman, Descartes seems to endorse the stronger claim: 'if we attend closely to the nature of God we shall see that we can only understand him as accomplishing all things by means of a single act' (AT, 5, 165; CSMK, 347). But even if Descartes believes that God only ever undertakes a single action, this does not prevent that action from having successive duration. Just as I can sustain through a short time the single act of raising my arm, God can sustain through all successive duration the single act of conserving a fixed quantity of motion in the universe.⁴⁰ The action is divisible in time, but not in number.⁴¹ My claim is not that God's operation involves multiple actions but that His operation has a successive duration.

Descartes sometimes says that God wills 'from all eternity' (AT, 1, 152; CSMK, 25; AT, 4, 314; CSMK, 272). And this is true even of non-eternal things: 'the slightest thought could not enter into a person's mind without God's willing and

having willed from all eternity that it should so enter' (AT, 4, 314; CSMK, 272). This might seem to support creation 'all at once'. For if God wills things eternally in the temporal sense then He wills them at all times and so they should exist all times. But although it is certain that God wills at all times a certain fixed order of events – and for this reason we should not attempt by prayer to 'change anything in the order established from all eternity by his providence' (AT, 4, 316; CSMK, 273) – this does not mean He produces them at all times. For Descartes clearly respects the distinction between *willing that A should happen before B* and *will-ing A before B*. God may will at all times the temporal fact that A obtains earlier than B though He accomplishes A and B only successively, over time. Thus, Descartes' God has 'decreed from eternity either to grant me a particular prayer or not to grant it' (AT, 5, 166; CSMK, 348).

Similarly, 'the merit of saints' is the cause of their reward because it is 'the cause of an effect which God willed from eternity that it should be the cause' (AT, 7, 432; CSM, 2, 292).⁴² Furthermore, it should be noted that sometimes when Descartes speaks of divine action 'from eternity', he very clearly does not mean 'all-at-once' action. For example, referring to the familiar theological dispute whether God might have created the world eternally, he says 'it is because he willed to create the world in time that it is better this way than if he had created it from eternity' (AT, 7, 432; CSM, 2, 291). The familiar dispute does not concern the nature of time per se, nor God's eternity, but rather whether the creation of something requires that the thing begin to exist. (See, for example, ST, 1, 46, 2.) So in plumping for creation 'in time' rather than 'from eternity', Descartes is not implying that prior to creation God is not temporal. Rather he is simply saying the world has in fact a beginning, even though God might have created it without one. Indeed, when the same topic comes up in the interview with Burman, Descartes says it would have been possible to divide the duration of God's eternity before the creation of the world, just as we can do so since creation, 'given that duration remains the same' (AT, 5, 149).

God's necessary existence

Descartes holds that 'in the case of God there is no distinction between existence and essence' (AT, 7, 243; CSM, 2, 170). Perhaps this implies that God is timeless.⁴³ In his various discussions of modal issues, Descartes never explicitly links timelessness and necessity.⁴⁴ Indeed, as we will see in the next section, he seems to think mathematical and logical truths are created in time. However, Spinoza did infer divine timelessness from necessary existence: 'whoever predicates duration as one of God's attributes differentiates between his existence and his essence'.⁴⁵ Spinoza's concern is that since duration – and here he means successive duration rather than timeless eternity – is 'constantly conceived as greater or less, or as consisting of parts, it cannot be attributed to God'.⁴⁶ I will

address the concern about temporal parts below. As for duration involving 'greater or less' existence, it is unclear why Spinoza considers this incompatible with the identity of God's essence and existence. Power and knowledge are conceived as greater or less, but this presumably does not prevent them from pertaining to God's essence. In any case, Descartes does not himself seem to think the essential existence of God must be timeless. On the contrary, immediately after proving God's necessary existence from his essence in the Fifth Meditation he remarks: 'I see plainly that he has existed from eternity and will abide for eternity' (AT, 7, 68; CSM, 2, 47).⁴⁷ To exist from the infinite past into the infinite future is to exist successively, and perpetually, rather than all at once.

Creation of the eternal truths

Notoriously, Descartes' God creates not only minds and bodies but also the so-called 'eternal truths' of mathematics, logic and metaphysics.⁴⁸ If these truths are eternal in the timeless sense, this provides some reason for supposing their cause is eternal in the same sense.⁴⁹ Certainly Descartes says: 'from all eternity he willed and understood them to be' (AT, 1, 152; CSMK, 25). But it turns out that these truths are eternal only because the one who decrees them is reliably immutable, not because they are timeless. In response to the self-posed question whether God can change these truths like a king can change the law, Descartes answers: 'Yes, he can, if his will can change'. But if I understand them to be eternal and unchangeable, 'I make the same judgement about God' (AT, 1, 145–146; CSMK, 23).

So the eternal truths are not unchangeable in themselves, as they would be if they were timeless, but rather because they derive from a will that is certain not to change once they are established. Thus, Descartes explains to Gassendi that God is to the eternal truths as Jupiter is to the Fates: 'after they were established he bound himself to abide by them' (AT, 7, 380; CSM, 2, 261). Eternal truth amounts to being valid at all times, as Descartes says explicitly on one occasion: 'since they are always the same [*eadem semper*], it is right to call them immutable and eternal' (AT, 7, 381; CSM, 2, 262).⁵⁰ So if the eternal truths tell us anything about God's relation to time, it is that He is everlasting rather than timeless.

Edwin Curley has raised a concern about this view of the eternal truths. Curley says the eternal truths must be essentially unrelated to time since 'it does not make sense to ask: "At what time did that eternal truth come into existence or come to be true?" If it's really eternal then the question is improper; there can be no time at which it came to be true.⁵¹ Curley acknowledges that Descartes often characterizes the creation of the eternal truths in temporal terms, but suggests that 'Descartes can't mean this temporal language to be taken at face value' since, unlike the facts about the material world, 'there is no time at which they

came to be true, no time prior to which they were not true'.⁵² However, it does not follow from the eternal truths being created in time that they began to exist at some time. Descartes, like Aquinas and Suarez, has no scruples about beginning-less temporal creation. Indeed, the Third Meditation proof of God's existence is specifically intended to show that I must be continually created even 'supposing I have always existed as I do now' (AT, 7, 48; CSM, 2, 33). Commenting on this implication of the continuous-creation argument in the interview with Burman, Descartes says bluntly: 'I do not see why God should not have been able to have created something from eternity' (AT, 5, 155).⁵³

Temporal parts

One of Anselm's major worries about making God temporal is that this would seem to divide Him into temporal parts: 'if it [the supreme Nature] exists by parts in individual places or times, it is not exempt from composition and division of parts; which has been found to be in a high degree alien to the supreme Nature'.⁵⁴ How serious a problem is this for Descartes' God? As noted above, Descartes says it follows simply from the fact that my lifespan can be divided into countless independent parts that 'there is some cause which as it were creates me afresh at this moment – that is, conserves me' (AT, 7, 49; CSM, 2, 33).⁵⁵ Given two other basic assumptions of Cartesian metaphysics it follows further that each of these parts are really distinct things.

The first assumption is that 'since a substance cannot cease to endure without ceasing to be, the distinction between a substance and its duration is merely a conceptual one' (AT, 8A, 30; CSM, 1, 214).⁵⁶ So a soul is a certain duration.⁵⁷ The second assumption is that, according to Descartes' theory of distinctions, two things are really distinct 'when each of them can exist apart from the other' (AT, 7, 162; CSM, 2, 114). That the parts of my duration are distinct in this way is precisely what Descartes indicates: 'the individual moments can be separated from those immediately preceding and succeeding them [*posse a vicinis separari*]' (AT, 7, 370; CSM, 2, 255).⁵⁸ So a Cartesian soul is nothing but the duration of a thinking substance comprising countless temporal stages each of which qualifies as a substance in its own right.⁵⁹

By the same token, if God's duration is successive then His life is divided into countless distinct temporal parts. But this seems inconsistent with His perfection: 'since being divisible is an imperfection it is certain that God is not a body' (AT, 8A, 14; CSM, 1, 201).⁶⁰ But perhaps temporal divisibility does not pose as serious a threat to perfection as spatial divisibility. There are two sorts of divine simplicity emphasized by Descartes, the first in contrast with bodies and the second in contrast with finite minds.⁶¹ First, divisibility pertains to the essence of bodies (extension) but not to the essence of God and minds (thought). Thus, in the Sixth Meditation, and in the passage just cited from the *Principles*, Descartes

emphasizes that body is 'by its very nature divisible while the mind is utterly indivisible' (AT, 7, 86; CSM, 2, 59).⁶² Second, unlike finite minds, God is simple or undivided in virtue of the real identity among all His attributes and operations: 'the unity, the simplicity, or the inseparability, of all the attributes of God is one of the most important of the perfections I understand him to have' (AT, 7, 50; CSM, 2, 34).⁶³ For example, as we discussed above: 'his understanding and willing does not happen, as in our case, by means of operations that are in a certain sense distinct' (AT, 8A, 14; CSM, 1, 201).

But temporal parts do not undermine divine simplicity in either of these two senses. First, duration does not constitute the nature or essence of anything in the sense of distinguishing it from other kinds of things. Descartes says there are only two principle attributes or essences: 'in the case of mind it is thought, and in the case of body it is extension' (AT, 8A, 25; CSM, 1, 210). Rather duration is what Chappell calls an 'omni-generic attribute of everything'⁶⁴: '*substance, duration, order, number,* and any other items of this kind which extend to all classes of things' (AT, 8A, 23–24; CSM, 1, 208). So to be divisible in duration is not to be divisible in nature or essence, whether we are talking of bodies or minds. Descartes makes this clear in the Conversation with Burman:

Thought will indeed be extended and divisible with respect to its duration, since its duration can be divided into parts. But it is not extended and divisible with respect to its nature, since its nature remains unextended. It is just the same with God: we can divide his duration into an infinite number of parts, even though God himself is not therefore divisible. (AT, 5, 148; CSM, 3, 335)

Second, temporal parts do not affect the unity of God's understanding, willing and accomplishing. For not only are these operations identical at any given time, furthermore since they correspond to *attributes* which are not really distinct from one another or from God Himself (AT, 8A, 30; CSM, 1, 214), they are not subject to change in the ways modes are: 'We do not, strictly speaking, say there are modes or qualities in God, but only attributes, since in the case of God any variation is unintelligible' (AT, 8A, 26; CSM, 1, 211). So the ontological unity of God's attributes rules out any change over time.

Nevertheless, despite God's essential indivisibility and immutable duration, He cannot escape being divided into temporal parts. Does this mean God is not perfect? In the *Discourse*, Descartes indicates why having parts is an imperfection: 'I observed that all composition is evidence of dependence and that dependence is manifestly a defect' (AT, 6, 35; CSM, 1, 128). But although temporal parts imply dependence in the case of finite minds, this is not so for a being like God, who 'possesses such great and inexhaustible power that it never required the existence of anything else in order to exist in the first place, and does not now require any assistance for its conservation, so it is in a sense its own cause ' (AT, 7, 109; CSM, 2, 78). Though having temporal parts, and needing as a result to be continuously created, God is completely self-sufficient and independent.

Conclusion

In the preface to the French translation of his major scientific treatise, the *Principles of Philosophy*, Descartes declares that in all ages great men have recognized that the surest path to wisdom is 'the search for the first causes and the true principles which enable us to deduce the reasons for everything we are capable of knowing' (AT, 9B, 5; CSM, 1, 181). The most important of these principles concern God's nature: 'since God is the true cause of everything which is or can be, it is very clear that the best path to follow when we philosophize will be to start from the knowledge of God himself, and try to deduce an explanation of the things created by him' (AT, 8A, 14; CSM, 1, 201).

In the course of this deduction, Descartes relied on a number of very orthodox theological doctrines, especially continuous creation and divine immutability. But in order to deduce his laws of nature in their peculiar form, he was forced to abandon another orthodox doctrine: divine timelessness. This is not something he was eager to expound at length since he knew well that divine temporality was, as Arnauld reminded him, 'commonly denied by Theologians and Philosophers' (AT, 5, 188). Nevertheless God's temporality is essential to his programme of 'metaphysical physics',⁶⁵ and implicit in other components of his system, such as the creation of the eternal-truths doctrine. This indicates the extent to which Descartes' theology was tailored to his scientific agenda. It is also suggests an important affinity with Newton. As Newton would later do, Descartes freed time from its traditional dependence on bodily motion and thereby removed one of the barriers to making God temporal. Acting in time, God makes the physical world intelligible in a way He could not were He timeless.⁶⁶

Notes

- AT refers to Rene Descartes *Oeuvres de Descartes*, Charles Adam and Paul Tannery (eds), 11 vols (Paris: Vrin, 1996) [8A = vol. VIII, part A, 61 = p. 61]; CSM refers to John Cottingham, Robert Stoothoff, and Dugald Murdoch (eds) *The Philosophical Writings of Descartes*, 2 vols (Cambridge: Cambridge University Press, 1984–1985); CSMK refers to John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny (eds) *The Philosophical Writings of Descartes: The Correspondence* (Cambridge: Cambridge University Press, 1991); *MD* refers to Francisco Suarez *Disputationes Metaphysicae* (*Metaphysical Disputations*) in Carolo Berton (ed.) *Opera Omnia* (Paris: Vives, 1866); *ST* refers to Thomas Aquinas *Summa Theologica*, Fathers of the English Dominican Province (ed. and trans.) (Notre Dame IN: Christian Classics, 1981).
- See also AT, 7, 49; CSM, 2, 33; AT, 7, 165; CSM, 2, 116. For detailed discussion of Descartes' doctrine of continuous creation see Geoffrey Gorham 'Cartesian causation: continuous, instantaneous, overdetermined', *Journal of the History of Philosophy*, 42 (2004), 389–423.
- 3. The most detailed formulations and proofs of the laws are presented in the *Principles of Philosophy*, Part 2, sections 36–42 (AT, 8A, 61–66; CSM, 1, 240–243). Similar presentations are found earlier in *Le Monde*, ch. 7 (AT, 11, 37–47; CSM, 1, 92–97). For discussion, see Richard J. Blackwell 'Descartes' laws of motion', *Isis*, **57** (1966), 220–234; Daniel Garber *Descartes' Metaphysical Physics* (Chicago IL: University of Chicago Press, 1992), and Dennis Des Chene *Physiologia: Natural Philosophy in Late Aristotelianism and Cartesian Thought* (Ithaca NY: Cornell University Press, 1996), 283–286.

- 4. Isaac Newton 'Locus et tempus', in J. E. McGuire 'Newton on place, time and God: an unpublished source', *British Journal for the History of Science*, 11 (1978), 114–129. For detailed discussion see further, *idem* 'Predicates of pure existence: Newton on God's space and time', in Phillip Bricker and R. I. G. Hughes (eds) *Philosophical Perspectives on Neutonian Science* (Cambridge MA: MIT Press, 1990).
- 5. Baruch Spinoza Ethics, I, def. 8 in Edwin Curley (ed. and tr.) The Ethics and Other Works (Princeton NJ: Princeton University Press, 1994), 86. This is Spinoza's explanation for his definition of 'eternity'. In def. 6, 'God' is defined as a being of infinite attributes, each of which expresses an 'eternal and infinite essence' (Ethics, 85), and in V, P30, Dem., he says 'Eternity is the very essence of God' (Ethics, 258). See also Ethics, I, P33, Schol. 2 (Ethics, 107) and V, P32, Schol. (Ethics, 259). I should note that, as with everything else in Spinoza, there is some dispute whether the 'Deus sive natura' of the Ethics is timeless. While this is the majority view (see for example C. L. Hardin 'Spinoza on immortality and time', in R. W. Shahan and J. I. Biro (eds) Spinoza: New Perspectives (Norman OK: University of Oklahoma Press, 1978)). some argue that Spinoza's God must be related to time (see, for example, Martha Kneale 'Eternity and sempiternity', in Marjorie Grene (ed.) Spinoza: A Collection of Critical Essays (Notre Dame IN: University of Notre Dame Press, 1973)). This is not the place to enter into this dispute. It is clear, however, that Spinoza's early view is that God is absolutely timeless: 'For as his being is eternal, i.e. there is no past or future to his nature, when we find that we cannot attribute duration to him we have shown that our concept of God is true'; Cogitata Metaphysica, II, 1, in H. H. Britan (ed.) The Principles of Descartes' Philosophy (La Salle IL: Open Court Press, 1905), 140. See also Cogitata Metaphysica, II, 10, 4.
- Boethius Consolations of Philosophy, V, vi, V. E. Watts (ed. and tr.) (London: Penguin Books, 1969); Anselm Proslogium, 19–20, in Proslogium, Monologium, etc. S. N. Deane (ed. and tr.) (Chicago IL: Open Court, 1926); ST, I, 10, 1; MD, 50, 3–4.
- 7. Giordano Bruno Cause, Principle and Unity, Third Dialogue, Richard Blackwell, Robert de Luca, and Alfonso Ingegno (eds) (Cambridge: Cambridge University Press, 1998); Campanella, Teologia, I, 7, 1–2, (Milan: Società, 1936).
- 8. And the issue remains controversial. Recent defences of divine timelessness include: Eleonore Stump and Norman Kretzmann 'Eternity', *Journal of Philosophy*, **78** (1981), 429–58; Paul Helm *Eternal God* (Oxford: Oxford University Press, 1988); and Brian Leftow *Time and Eternity* (Ithaca NY: Cornell University Press, 1991). Recent critiques of timelessness include Nelson Pike *Divine Timelessness* (New York NY: Schocken Books, 1970); Nicholas Wolterstorff, 'God everlasting', in C. Orlebeke and L. B. Smedes (eds) *God and the Good* (Grand Rapids MI: Eerdmans, 1975); William Hasker *God, Time and Knowledge* (Ithaca NY: Cornell University Press, 1989). Theories that combine elements of temporality and timelessness include: Alan Padgett *God, Eternity and the Nature of Time* (New York NY: Macmillan, 1992), and William Lane Craig *God, Time, and Eternity* (Dordrecht: Kluwer, 2001).
- 9. Antoine Arnauld Fourth Set of Objections (AT, 7, 211; CSM, 2, 148) and in the 1648 letters to Descartes discussed below (AT, 5, 188, 215); Marin Mersenne L'Impiété de Diestes, ch. 16 (Paris, 1624); Pierre Gassendi; Syntagma Philosophicum, Physicae, I, ii, 7 in Opera Omnia, I, Tullio Gregory (ed.) (Stuttgart-Bad Constatt: Verlag, 1964); Thomas Hobbes, English Works, I, 413 (London: J. Bohn, 1839–1845), and Leviathan, IV, Section 46, C. B. MacPherson (ed.) (New York NY: Penguin Classics, 1982).
- 10. Henry More Divine Dialogues, XV (London: 1658); Walter Charleton Physiologia Epicuro-Gassendo-Charltoniana, I, 7, 2–3, R. H. Kargon (ed.) (New York NY: Johns Reprint Co., 1966); Isaac Barrow Geometrical Lectures, Lecture 1, Edmund Stone (tr.) (London, 1735); John Locke Essay, II, xv, 12, P. H. Nidditch (ed.) (Oxford: Oxford University Press, 1975); Samuel Clarke Fourth Reply to Leibniz, §16, Roger Ariew (ed.) G. W. Leibniz and Samuel Clarke: Correspondence (Indianapolis IN: Hackett, 2000). Isaac Newton 'Locus et tempus' and Principia Mathematica, General Scholium, I. B. Cohen and A. Whitman (ed. and tr.) (Berkeley CA: University of California Press, 1999); Baruch Spinoza Cogitata Metaphysica, II, 1, and II, 10, 4; G. W. Leibniz New Essays, Bk ii, ch. 17, and Letter 5 to Clarke in G. W. Leibniz and Samuel Clarke: Correspondence; Nicholas Malebranche Dialogue on Metaphysics, Dialogues 7 and 8, Willis Doney (ed. and tr.) (New York NY: Albaris Books, 1980).
- 11. The standard, though rarely argued, view among twentieth-century commentators is that the Descartes' God is timeless. See Norman Kemp Smith *Studies in the Cartesian Philosophy*, (New York NY: Russell and Russell, 1902/1962), 128; Alexander Boyce Gibson *Philosophy of Descartes* (London: Methuen

1932), 243; Alexandre Kovré From the Closed World to the Infinite Universe (New York NY: Harper, 1958), 122; Garber Descartes' Metaphysical Physics, 328, n. 11; John Cottingham Descartes Dictionary (Oxford: Blackwell, 1993), 43; Tad Schmaltz Radical Cartesianism (Cambridge: Cambridge University Press, 2002), 187-188, 200-201; Vere Chappell 'Descartes' Ontology', Topoi, 16 (1997), 111-127, 114; J.-M. Beyssade La Philosophie Premiere de Descartes (Paris: Flammarion, 1979), 288-317; J.-L. Marion Sur la Théologie Blanche de Descartes (Paris: Presses Universitaires de France, 1981), 28: 'structure permanente de l'acte divin'; Martial Gueroult Descartes Philosophy Interpreted According to the Order of Reason, Roger Ariew (tr.) (Minneapolis MN: University of Minnesota Press, 1982), I, 198: 'When we locate ourselves on this plane, we refer it [duration] to God's eternity itself, and we are led to consider this eternity also as continuous and infinitely divisible, even though it is absolutely indivisible in itself'; Mikio Kamiya La Théorie Cartésienne du Temps (Tokyo: Libraire-Éditions France, 1982): 'Voici est une tres grand difference, entre les pensées divin et les notres, que nous connaissons manifestement par la portée de la durée: on ne peut pas admettre la succession dans la pensées de Dieu.' (59 - referring to Descartes' letter to More, 15 April 1649). J.-R. Armogathe compares the successive duration of finite minds to the partially successive *aevum* of angels, and contrasts this in turn with God's duration: 'Cette durée n'est pas le temps humain; elle n'est pas plus l'aeternitas divine; elle est un cocept connu des philosophes scolastiques: elle est l'aeveternitas, le temps de creatures spirituelles'; J.-R. Armogathe 'Les source scolastiques de temps cartesien: elements d'un débat', Revue Internationale de Philosophie, 37 (1983), 326-336, 329.

- See MD, 50, 1, 5 (= Disputation 50, section 1, sub-section 5). For an acute analysis of the relation between the philosophies of time of Suarez and Descartes, see J.-L. Solère, 'Descartes et les distinctions médiévales sur le temps', in J. Biard and R Rashed (eds) *Descartes et le Moyen Age* (Paris: Vrin, 1997), 329–348.
- 13. See Aquinas ST, I, 10; MD, 50, 5, 1. For detailed discussion of Suarez's philosophy of time, see Piero Ariotti 'Toward absolute time: the undermining and refutation of the Aristotelian conception of time in the sixteenth and seventeenth centuries', Annals of Science, 30 (1973), 31–50, and Stephen Daniel 'Seventeenth century scholastic treatments of time', The Journal of the History of Ideas, 42 (1981), 587–606.
- 14. As mentioned in n. 11, there is also a hybrid, *aeviternity* or *aevum*, which characterizes the duration of beings, like angels and separated souls, which exist successively in accident but not in substance. For example, Aquinas says angels are permanent in their substantial being but successive in their affections and choices; *ST*, I, 10, 5. As Pasquale Porro documents, the concept of aeveternity itself undergoes significant development in the medieval period; Pasquale Porro 'Angelic measures: *aevum* and discrete time', in *idem* (ed.) *The Medieval Concept of Time: Studies on the Scholastic Debate and its Reception in Early Modern Philosophy* (Leiden: Brill, 2001), 131–160.
- 15. Aristotle *Physics*, IV, 11 (220a, 25), in Richard McKeon (ed.) *Basic Works of Aristotle* (New York NY: Random House, 1941).
- 16. See also AT, 5, 193; CSMK, 355.
- 17. Spinoza, at least in his early work, characterizes *tempus* and *duratio* in the same way. See *Cogitata Metaphysica*, I, 4. For detailed treatment of Cartesian time in historical context, see Geoffrey Gorham 'Descartes on time and duration', *Early Science and Medicine*, 12 (2007), 28–54, and Solère 'Descartes et les distinctions médiévales sur le temps'.
- 18. In an earlier letter to Marin Mersenne, discussing a related objection from Antoine Arnauld, Descartes speaks frankly of his desire that Arnauld know that 'I have deferred to his judgement'; AT, 3, 334; CSMK, 175.
- 19. Descartes dismisses 'simultaneous existence' again a little later in the conversation, when Frans Burman attempts to draw the following distinction between past and future eternity: 'in the case of past eternity the parts [in duration] are actual and all at once [*simul*]. But in the future eternity they are only potential, and are never all at once and actual'. Descartes replies that 'there is only one part which is all at once [*simul sit*], namely the present'; AT, 5, 155.
- 20. For an opposing reading of these texts see Schmaltz *Radical Cartesianism*, 200–201. As Schmaltz notes, at least one of Descartes' French followers, Robert Desgabets, understood Descartes' position as attributing successive duration to God; *ibid.*, 187–188. Along with Desgabets, Schmaltz's book also includes valuable discussion of the views of Pierre-Sylvain Régis on the relations among time, motion, and the mind.

21. See also Henry More 'Epistola secunda ad Renato Descartes', in *A Collection of Philosophical Writings*, I (New York NY: Garland Publishing Co., 1978), 73–74.

- 23. In his systematic defence of divine timelessness, Nelson Pike suggests how immovability or immutability might entail timelessness. Such an entailment would be trouble for my thesis, since Descartes certainly thinks that God is immutable. However, as Pike notes, his argument depends on certain assumptions, most importantly that 'the possibility of persistence is a sufficient condition for the possibility of change'; Pike *God and Timelessness*, 43. The argument seems to be endorsed by Helm in *Eternal God*, 88–89. Pike finds this assumption 'plausible', though he declines to argue for it. But I don't see why Descartes should find it plausible. Descartes says 'God's perfection' involves Him being 'immutable in himself'; AT, 8A, 61; CSM, 1, 240. But granted temporality is a *necessary* condition for the possibility of change, why should it be *sufficient*? Perhaps God's perfection allows, or even requires, Him to persist but not to change. Compare: God's perfection involves inerrancy. Having an intellect is necessary for the possibility of error. But from this it certainly does not follow that God could have no intellect; rather having an intellect seems itself necessary for His perfection. Richard Swinburne criticizes Aquinas's view that immutability entails timelessness in his *The Coherence of Theism* (Oxford: Oxford University Press, 1993), 226.
- 24. See further, Gorham 'Descartes on time and duration'.
- 25. One of the reasons Arnauld rejected Descartes' model of divine self-conservation was precisely because he considered it inconsistent with the standard notion of an infinite being, as he says in the Fourth Set of Replies: 'indivisible, permanent and existing "all at once", so that the concepts of "before" and "after" cannot be applied'; AT, 7, 211; CSM, 2, 148. Descartes seems to relent somewhat in his reply: 'God does not really preserve himself if "preservation" is taken to mean the continuous creation of a thing. All of this I gladly admit'; AT, 7, 243; CSM, 2, 169. But it should be noted that his reasons for conceding this point derive from inherent conceptual and theological difficulties with divine selfcausation, rather than from fear of making God's duration successive.
- 26. Again: 'he preserves the same amount of motion and rest in the material universe as he put there in the beginning'; AT, 8A, 61: CSM 1 240. See also *Le Monde*: Descartes says 'with God always (*toujours*) acting in the same way and consequently always producing the same effect there are, as if by accident, many differences in the effect'; AT, 11, 37–38; CSM, 1, 93.
- 27. See also the version of the proof in *Le Monde*: God conserves each thing by a 'continuous action', and consequently He conserves it 'not as it might have been at some earlier time but precisely as it is at the very instant he conserves it'; AT, 11, 45; CSM, 1, 96–97.
- 28. For recent reconstructions of the proof, see Garber Descartes' Metaphysical Physics, 285–288; Dennis Des Chene Physiologia: Natural Philosophy in Late Aristotelian and Cartesian Thought (Ithaca NY: Cornell University Press, 1996), 279–286; and Geoffrey Gorham 'The metaphysical roots of Cartesian physics: the law of rectilinear motion', Perspectives on Science, 13 (2005), 431–451.
- 29. ST, I, 19, 7. See also Summa Contra Gentiles, II, 35, Joseph Rickaby (trans.) (London: Burns and Oates, 1905) and MD, 21, 2, 4.
- 30. See also AT, 5, 343; CSMK, 373; AT, 5, 347; CSMK, 375. Descartes may have in mind Aquinas's explanation of divine omnipresence in ST: 'Incorporeal things are in place not by contact of dimensive quantity, as bodies are, but by contact of power'; ST, I, 8, 2. See also MD, 51, 3, 8.
- 31. In the final analysis, it is simply a confusion to attribute extension of power to incorporeal things: 'to attribute to a substance an extension which is only an extension of power is an effect of the preconceived opinion which regards every substance, including God himself, as imaginable'; AT, 5, 342; CSMK, 372–373.
- 32. For further discussion of this as aspect of the More–Descartes exchange, in the scholastic context, see Des Chene *Physiologia*, 387–390.
- 33. For a recent version of this sort of argument for the coherence of timeless action, see William Hasker *God, Time and Knowledge*: 'Just as the nonspatial God can act outside of space to produce effects at every point in space, so the timeless God can act outside of time, that is, in eternity, so as to produce effects at every point in space' (154).
- 34. For examples of such a model, see *MD*, 21, 2, 4 and Malebranche *Dialogues on Metaphysics*, Dialogue 8. For discussion of Malebranche on this point see Steven Nadler 'Occasionalism and general will in Malebranche', *Journal of the History of Philosophy*, **31** (1993), 31–47.

^{22.} ST, I, 10, 1.

- 35. ST, I, 19, 7.
- 36. Descartes' God does in fact originally produce an uneven spatial distribution of motion: 'Suppose, in addition, that from the first instant the various parts of matter, in which these motions are unequally dispersed, began to retain or transfer them from one to another, according as they had the force to do so'; AT, 11, 43; CSM, 1, 96.
- 37. This problem should be distinguished from the problem why, if God wills eternally a certain order of events, those events do not all exist co-eternally with God. See n. 42.
- 38. See also AT, 4, 119; CSMK, 235. Schmaltz (*Radical Cartesianism*, 200) and Cottingham (*Descartes Dictionary*, 43) both claim that Descartes is here is asserting that the act is timeless. See also Edwin Curley 'Descartes on the creation of the eternal truths', *Philosophical Review*, 93 (1984), 569–597, 579, and Tad Schmaltz *Descartes on Causation* (Oxford: Oxford University Press, 2008), ch. 2.
- 39. This seems to be how David Cunning reads the passage. See Cunning 'Descartes on the immutability of the divine will', *Religious Studies*, **39** (2003), 79–92, 81.
- 40. So I do not think that Descartes must accept Paul Helm's claim that 'while an immutable thing might go on existing forever, such a thing could not be God because God has in fact acted in the creation of the universe and presumably still acts to sustain it moment by moment'; *Eternal God*, 90. Descartes does not think that God's conservation of a changing world requires God to change. On the contrary: 'the very fact that creation is in a continual state of change is thus evidence of the immutability of God'; AT, 8A, 66; CSM, 1, 243. See also AT, 11, 38; CSM, 1, 93.
- 41. Since Descartes says that God is divisible in time but not in nature (AT, 5, 148; CSMK, 335), we might follow Richard Arthur in holding that God's creative action 'while unextended and divisible with respect to its nature, is nonetheless extended and divisible with respect to its duration'; see Richard Arthur 'Continuous creation, continuous time: a refutation of the alleged discontinuity of Cartesian time', *Journal of the History of Philosophy*, **26** (1988), 349–375, 359. I will return to the distinction between divisibility in nature vs divisibility in duration below.
- 42. Cf. Cunning 'Descartes on the immutability of the divine will', 86.
- 43. Among current authors, some argue that necessity precludes time (e.g. Brian Leftow *Time and Eternity*, 40–49); others argue that necessity requires time (e.g. Martha Kneale 'Eternity and sempiternity'). J. E. McGuire provides an interesting account of the relation between God's temporality and his necessary existence according to Newton, in 'Existence, actuality and necessity: Newton on space and time', in J. E. McGuire *Tradition and Innovation: Newton's Metaphysics of Nature* (Dordrecht: Kluwer, 1995), 1–51.
- 44. For an overview of Descartes' views on modality, see David Cunning 'Descartes' modal metaphysics', in Edward N. Zalta (ed.) Stanford Encyclopedia of Philosophy. URL = < http://plato.stanford.edu/entries/ descartes-modal/>
- 45. Cogitata Metaphysica, 139-140.
- 46. Ibid., 140.
- 47. See also AT, 7, 119; CSM, 2, 85: 'this being really does exist and has existed from eternity, since it is quite evident that what can exist by its own power always exists', and AT, 7, 110; CSM, 2, 79: 'this power is so exceedingly great that it is plainly the cause of his continuing existence'.
- 48. The doctrine is developed in a series of letters to Marin Mersenne in 1630: 15 April (AT, 1, 145–146; CSMK, 1, 23); 6 May (AT, 1, 149–150; CSMK, 24–25); 27 May (AT, 1, 151–152; CSMK, 25).
- 49. Though this would not be a decisive reason since once can conceive of a temporal being creating a timeless object. According to constructivism, mathematical objects are both created but also presumably atemporal. Fictional characters are created, but they don't seem to endure successively.
- 50. This point is emphasized by Jonathan Bennett in 'Descartes' theory of modality', *Philosophical Review*, **103** (1994), 639–667, 665.
- 51. Curley, 'Descartes on the creation of the eternal truths', 578. Spinoza raises a similar concern about allowing God's existence, considered as his essence, to be temporal: 'No one would say that the essence of a circle, or of a triangle, so far as it is an eternal truth, has endured for a longer time than the creation of Adam'; *Cogitata Metaphysica*, 140.
- 52. Ibid., 578-579.
- 53. See also AT, 5, 52-53; CSMK, 320; AT, 7, 432: CSM, 2, 291.
- 54. Anselm Monologium, 21, in Proslogium, Monologium, etc.
- 55. Versions of the argument and doctrine are repeated frequently. See, for example, AT, 8A, 13; CSM, 1, 200; AT, 7, 109; CSM, 2, 78–79; AT, 7, 369–370; CSM, 2, 254–255.

- 56. For Descartes, a substance and an attribute are merely conceptually distinct when 'we are unable to form a clear and distinct idea of the substance if we exclude from it the attribute in question'; AT, 8A, 30; CSM, 1, 214.
- 57. So Descartes cannot avoid dividing his temporal God into parts in the way Brian Leftow has suggested: 'A thing's temporal parts compose not the thing itself, but its duration or its life. Hence a thing with temporal or atemporal duration is not ipso facto composite or complex'; Leftow *Time and Eternity*, 135–136.
- 58. 'I regard the divisions of time as being separable from one another [*mutuo sejungi posse*] so that the fact that I exist now does not imply that I shall continue to exist in a little while'; AT, 7, 109; CSM, 2, 78–79. See also AT, 5, 53; CSMK, 320. Similar points have been made by Jonathan Bennett *Learning from Six Philosophers* (Oxford: Oxford University Press, 2001), I, 97–98, and Clarence Bonnen and Daniel Flage 'Descartes: the matter of time', *International Studies in Philosophy*, **32** (2001), 1–11, 9.
- 59. Once might suggest that the parts of my duration are merely *modally*, rather than really distinct, like the size and motion of an object. The problem is that the parts of my duration are not even modally distinct, in Descartes' sense, from me. I can conceive of an object not having its size or motion, so these are mere modes of the object (AT, 8A, 29–30: CSM, 1, 214); but the parts of my duration are not modally distinct from me since I cannot conceive of myself continuing to be (as a complete thing) while excluding my continuing duration: 'a substance cannot cease to endure without also ceasing to be'; AT, 8A, 30; CSM, 1, 214.
- 60. See also AT, 7, 138; CSM, 2, 99; AT, 7, 35; CSM, 1, 128-129.
- 61. Actually, there is a third notion of simplicity in Descartes which I will not discuss since it is clearly not threatened by temporal parts, namely simplicity in the sense of not being composed of more than one nature: 'it could not be a perfection of God to be composed of these two [intellectual and corporeal] natures'; AT, 6, 35; CSM, 1, 129. For a recent discussion of this and other notions of divine simplicity in Descartes, see Dan Kaufman 'Divine simplicity and the eternal truths in Descartes', *British Journal for the History of Philosophy*, **11** (2003), 553–579. For an overview of Descartes' eternal-truths doctrine in relation to the foundations of his laws of nature, see Margaret Osler 'Eternal truths and the laws of nature: theological foundations of Descartes' philosophy of nature', *Journal of the History of Ideas*, **46** (1985), 349–362.
- 62. See also AT, 8A, 13; CSM, 1, 201.
- 63. See also AT, 7, 137; CSM, 2, 98; AT, 7, 151; CSM, 2 107.
- 64. Chappell 'Descartes' ontology', 114.
- 65. To borrow a term from Garber, Descartes' Metaphysical Physics.
- 66. For discussion and criticism I would like to thank Janet Folina, Andy Hryhorowych, Tad Schmaltz, Jorge Secada, Ed Slowik, an anonymous referee for this journal, and audiences in Chicago (March 2007) and Saskatoon (May 2007).