"THE THIRD WAY: THE OPENING MOVE"

Harold Zellner

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After pointing out a meaning difference between "that which is possible not to be at some time is not" and "that which is possible not to be exists for only a finite time", we consider the assumptions necessary in a Thomistic context to derive the conclusion that if everything is contingent then at one time nothing was in existence. The needed key is in limiting the amount of matter which has ever existed, or, since "matter" is not a count-noun, that some 'basic' particulars are finite in number; i.e., particulars which must exist if any physical particulars are to exist. (Though it is not essential to the argument, it is convenient and probably not far off historically to regard "things which are possible not to be" as physical objects.) Given some other assumptions it is then shown the desired conclusion will follow in both a "Genesis" and a Doomsday" version. We then try to match the argument developed with the Thomistic corpus.
Section I

The descriptive name "Third Way" is traditionally applied to a familiar section of Q.2.Art.3, of the Summa Theologica. However, commentators have generally recognized that the section in question is a summary of an argument rather than the argument itself, and the correct reconstruction of the latter has been a problem both inside and outside of Thomistic circles. The opening inference of the argument, especially, is rapidly on its way to becoming a minor unsolvable historical mystery, rather like the issue of whether there was more than one Homer. In these circumstances it would be rash to claim one's interpretation of the Third Way was the correct one. I have tried here to make the argument "work" using assumptions available in a Thomistic-Aristotelian context, and then looked round to see if there was anything in the Thomistic corpus which fit; as it turned out, there was. Whether the result is an accurate portrayal of Thomas' intention is, of course, another question.

Section II

Our subject is the move from

S1: ... that which cannot-be at some time is not to
S2: ... If everything cannot-be, then at one time nothing was in existence.

via

S3: It is impossible for these("things which are possible to be and not-be) always to exist...


2The third way is taken from possibility and necessity, and runs thus. We find in nature things that are possible to be and not to
The nature of the modal notions employed in this move is obscure. It is tempting to try to eliminate Thomas' de re modal ascriptions in favor of more conventional assertions of de dicto necessity or possibility, but the difficulties of such a project are formidable. It is reasonably clear that it is not logical necessity which is involved (in the sense of truth or at least non-falsehood in all self-consistent worlds). Alternatively, one might try Aristotelian or Diodorean chronologized modalities. The former would, of course, seem especially attractive in an exigesis of Aquinas, but it is doubtful this approach can be implemented. The proposal would be that

S4; ... Gabriel is a necessary being can be explicated along the lines of

'Gabriel exists' is true at all times.

Unfortunately, necessary beings are not for Thomas, as they apparently were for Aristotle, beings which exist at all times. Some necessary beings -- rational human souls, for example -- do not exist at all times; even if my soul, once created, exists forever after, still there were times before my birth at which it did not exist. Hence the necessary being of human souls cannot be explained on the lines suggested.

be, since they are found to be generated, and to be corrupted, and consequently it is possible for them to be and not to be. But it is impossible for these always to exist, for that which can not-be at some time is not. Therefore, if everything can not-be, then at one time there was nothing in existence. Introduction to St. Thomas Aquinas, Anton. C. Pegis, editor, Modern Library College Editions, New York, 1948, p. 26. Anthony Kenny comments on the translation of this passage in his The Five Ways, p. 57; see also Thomas Mautner, p. 299. The vagueness of the English appears to accord with the original Latin.

3 See Patterson Brown; "St. Thomas' Doctrine of Necessary Being", for about as conclusive a discussion of this issue as one could wish.


5 For the incorruptibility of intellectual substances (i.e., their status as necessary beings) see The Summa Contra Gentiles, Vol. II, translation by the English Dominican Fathers, Burns, Oates, and Washbourne, Ltd., London, 1923, Chapter LV, pp. 128-134; for the creation of human souls with the body (and hence in time) see chapter
On the other hand, there are also stumbling blocks in the way of an account in terms of Diodorean modalities. On the latter, necessity is relativized to a present; to say, 'p is necessary' is to say

p is true now and at all future times.

Thus the Diodorean rendering of S4 would presumably be

S5: 'Gabriel exists' is true now and at all future times.

This leaves it open, of course, that 'Gabriel exists' may not have been true at all times in the past. Necessary beings would thus be those which, after coming into existence, exist forever after. In view of the fact that there are places where Thomas seems to be claiming that, once created, necessary beings will never go out of existence, the Diodorean interpretation appears to avoid the sort of difficulty mentioned above in connection with Aristotelian modalities. However, at this point a problem arises of a sort which may well defeat any de dicto translation of Thomas' de re modal ascriptions. If we assume a reasonably consistent and uniform use of modal notions in the Thomistic corpus we are faced with a theological commitment which is not compatible with a Diodorean logical commitment. As is well-known, Thomas holds that creatures are utterly dependent on God for their existence, not only at the time of their creation but afterwards; and it is possible for God to destroy any creature as he wills by withdrawing his sustaining power. Necessary beings are not excepted, That is, even if (S4) above is true, (S6) will still be counted as possible.

S6: God destroys Gabriel

Now the truth of (S6) at some time entails the truth of (S7) at some time.

S7: Gabriel does not exist

But if (S5) is true, then (S7) will be true at no future time,

LXXXIII of the same source, pp.237-249. I am assuring here that necessary being=naturally incorruptible for which see Patterson Brown.


and hence will be impossible in the Diodorean sense. This is only to be expected, given that 'Gabriel exists' is necessary, since on Diodorean modalities the standard move can be made from "p is necessary" to "not-p is not possible". As a result, on the proposed interpretation of (S4), (S6) will be impossible. The required inference rule -- "From the impossibility of the consequent derive the impossibility of the antecedent" -- is of course beyond reproach both inside and outside of Diodorean contexts: it is also frequently employed by Thomas. Since Thomas would not regard sentences like (S6) as impossible, even when necessary beings are in question, we must conclude that either he was not consistent or not uniform in his modal usages, or else that the necessity-contingency distinction should not be given a Diodorean interpretation. In any case the prospects are dim for using Diodorean modalities as an easy key to the Third Way modalities or to the argument's reconstruction. Moreover, it is difficult to see what other de dicto interpretations are available given the historical context: it is perhaps more promising to try to explicate the material criteria Thomas gives us for distinguishing necessary beings from contingent ones. Unfortunately, the latter can be articulated only within the framework of the Thomistic-Aristotelian philosophy of nature, and the extensive excursion indicated is beyond the scope of the present paper. In any event, the exact nature of the Third Way modalities is irrelevant to the formal validity of the opening move. For our purposes it is sufficient to sketch one implication of the antecedent of (S2), which will become important below.

It is reasonably clear that there is a close connection between being contingent or corruptible and being a composite of matter and form. Though not all such composites are corruptible (the celestial bodies are necessary but material), the converse does hold; all corruptible beings are material. Thomas explicitly tells us that... where there is not composition of form and matter, there can be no separation of the same: wherefore neither can there be corruption. Thus, where there can be corruption, there is composition of form and matter. As a result, the supposition that all beings can not-be implies that everything which exists is such a composite; that is, that everything which exists is material. Though admittedly the term "matter" is ambiguous in Thomas' Aristotelianism, it is clearly

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9 See Patterson Brown, "St. Thomas' Doctrine of Necessary Being",

10 The Summa Contra Gentiles, translated by the English Dominican Fathers; p. 128.
matter in the physical sense which is at issue here. The antecedent of (S2) is thus in part the supposition that the only real objects are bodies.

Section 3

The familiar comment on (S1) - (S3) is that Aquinas is supposing that contingent beings have only a finite duration, and I shall be following this interpretation here. It is worth pointing out, however, that this is not what (S3) says, and even if it was it would not follow from (S1). From the mere fact that there was a time at which a particular did not exist, nothing would follow about the finitude of its duration, if there ever was a time at which it existed. Prima facie, it would appear to be possible that a particular without a finite age might go out of existence at some time, and that a particular not now in existence might come into existence and last forever after. And indeed, Thomas is committed to the possibility of each of these in the case of necessary beings. So if matters were left there it would still seem to be open that contingent beings also might not exist at some time, and yet still endure infinitely when they did exist. Perhaps the key is a tie between contingency and the natural processes of generation and destruction, in which matter acquires or loses form, and to which necessary beings are not subject. For we know that Aristotle held it to be impossible...either for a thing which is generated to be thenceforward indestructible, or for a thing which is ungenerated and has always hitherto existed to be destroyed."

11 In fact he seems to think that human souls, for example, once in existence, will endure infinitely; see the references for notes 5 and 6. Aquinas' dicta on the power of God over necessary beings is not qualified by considerations of their eternity, or lack of it. As is well known, he regarded the eternality of the world as possible, and the duration of the celestial bodies as coextensive with the duration of the world. (See Summa Theologica Q. 46, Art. 2, and Q. 5, Art. 9 of the Disputed Questions of Truth, Vol. I., Robert W. Mulligan, trans., Henry Regnery Company, Chicago, 1952, p. 241.) But this is apparently not supposed to limit in any way the dependence of any creatures on God for their existence.

12 Cf. the discussion of the corruptibility of the angels in Q. 50, Art. 5, of the Summa Theologica, p. 274.

What Aristotle is claiming here is that a thing which is either generated or destroyed in the technical Aristotelian senses, can endure for only a finite time. Now Thomas may have thought it a necessary truth that contingent beings, since they are composite of matter and form, can come into and go out of existence only through generation and destruction. If so, then suppose a time 't' at which a contingent being, call it "Sam", does not exist, though there is some time at which Sam does exist. At t Sam is either yet to come into existence, or it has already gone out of existence. If the former, then Sam, when it comes into existence will do so by generation, and hence will endure only a finite time. If the latter, then Sam underwent destruction and again had only a finite duration. So Sam will last for only a finite time.

Such at least is one way in which (S1) can be taken strictly and still supply the implication needed for the standard interpretation. Admittedly, however, (S3) is not yet satisfactory, since what it seems to be saying is that

It is not the case that some contingent beings exist at all times

which is equivalent to (S1) and, as has already been pointed out, is not equivalent to the claim contingent beings have a finite duration.

Section 4

For the sake of the argument let us try to cut around this muddle by substituting (P1) for (S3):

P1: that which can not-be has a finite duration.

Note that (P1) should not be construed as saying merely that contingent things are doomed; that their demise is always only a finite time away. Since the temporal distance between any two times is presumably finite, the last would be true even of a particular which did not have a finite age. Rather, what must

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14 Cf. Thomas's use of "...if that which at one time is and at another is not is a composite, it is generated and corrupted." in The Commentary on the Physics, p. 532.

15 Cf. Thomas's remarks in chapter XXXVIII of the Summa Contra Gentiles, Volume II, p. 84.
be wanted is the claim that every contingent particular has a beginning and an end, the duration between which is finite. It will be noted that this is in line with the Aristotelian doctrine seen above that generation and destruction imply one another.

Section 6

What, then, about (S2)? The standard picture is one of a doomsday that must have come in the past, if past time is infinite; one of particulars dwindling out of existence until nothing is left. Oddly enough, the closest explicit historical parallel to this sort of argument is Lucretius' for the necessary being of atoms\(^{16}\), and it is notorious that Thomas did not in fact believe in an infinite past. But in spite of this I do not think the Doomsday portrayal of the argument is inherently un-Thomistic or historically unlikely. Aquinas explicitly sanctions the use of theistic arguments with an infinite past assumption in the Summa Contra Gentiles\(^{17}\) and there is at least one Aristotelian source which is suggestive-ly similar to the hypothetical progression towards Doomsday. In the course of a discussion which is supposed to show that there is neither generation ex nihilo nor destruction without a material residue, we find Aristotle saying:

> Our new question too--viz.'what is the cause of unbroken continuity of coming to be?' is sufficiently perplexing if in fact what passes-away vanishes into 'what is not' and 'what is not' is nothing...

\(^{16}\)For whatso'er could into nothing waste.  
That infinite space of time already passed  
Had quite consumed.  
But if those bodies which compose this all  
Could for so many ages past endure,  
They are immortal and from death secure,  
And therefore cannot into nothing fall.  


\(^{17}\)Now two things would seem to weaken the above arguments.  
The first of these is that they proceed from the eternity of movement, and among Catholics this is supposed to be false. To this we reply that the most effective way to prove God's existence is from the supposition of the eternity of the world, which being supposed it seems less manifest that God exists.  

If, then some one of the things 'which are' is con-
stantly disappearing, why has not the whole of 'what is'
been used up long ago and vanished away -- assuming, of
course, that the material of all the several comings-
to-be was finite: For presumably, the unfailing
continuity of coming-to-be cannot be attributed to
the infinity of the material. That is impossible, for
nothing is actually infinite...18

The context of Aristotle's remarks is all wrong, of course, having
nothing to do with a theistic proof, but it must be admitted that
it sounds remarkably like what many people have taken the opening
move of the Third Way to be. Now, Thomas' commentary on De
Generatione et Corruptione covers the section in which this
passage appears, so we know that he was familiar with it.19
The sort of picture involved can thus not have been altogether
alien to Thomas' thought, though whether it is what is behind
the Third Way is of course a further question.

What is especially interesting about Aristotle's remarks is that
they point up an assumption which must be made on the current
sort of reconstruction of the Third Way, and which Thomas,
thanks to Aristotle, must have been aware of as well, given that
he was thinking along present lines. Suppose for a moment
that the number of particulars which have ever existed is infinite,
and that, contrary to fact, the existence of each particular is
logically and causally independent of the existence of any
other. Now, even if each of these particulars endures for only a
finite time, still, since the temporal distance between any
two times is finite, some of these infinite particulars can
endure from one to the other. For every interval t-t' there can
be a corresponding life span of a particular, d-d', since the number
of the latter is unlimited. There thus need be no time at which
nothing exists, even though every particular endures for only a
finite time.20 There must be, then, some restriction on the
number of particulars "to be gotten rid of." As we shall see, a
limitation on the number of particulars which have ever existed
would do, but a much more historically plausible version of the
argument is forthcoming if, in accord with Aristotle's remarks,

18"On Generation and Corruption", 318a 13-21, H.H.Joachim,
trans., The Basic Works of Aristotle, P. 480.

19See De Caelo et Mundo, De Generatione et Corruptione,
Meteorologicorum, p. Fr. Raymundi M. Spiazzi, ed., Marietti, Rome,

20I have been compelled to leave matters at this intuitive
level. I gather, however, that this thesis is demonstrable in
transfinite mathematics.
we place the limitation on the amount of matter. "Matter" is not a count-noun, and hence there is some latitude as to how this suggestion is to be implemented. Our treatment will be as neutral as possible vis-a-vis physical theories, leaving it open as to what countable kind is involved. To do this let us invoke the notion of a basic physical particular, a kind of physical particular in the absence of which no other physical particulars would exist. That is, by definition a kind K will be a kind comprised by basic physical particulars if...

If any physical particulars exist at a time t, some instances of K exist at t, and all instances of K are physical particulars.

Presumably, suitable delineated "chunks" of Aristotelian matter would be, or be composed of, basic physical particulars in this sense; so would, I should suppose, sub-atomic particles, when taken against the background of what contemporary physics tells us of their relation to the macroscopic objects of everyday life. What we then need is the truth of

(P2) If any physical particulars exist at a time t, then there is a kind K such that K is comprised by basic physical particulars, and K's exist at t.

and

(P3) If a kind K is comprised by basic physical particulars, then K has only a finite number of instances.

There are places where Thomas does hold that the amount of matter in the universe at any given time is finite, though of course that is a weaker claim than the consequent of (P3). The above passage from Aristotle would seem, however, to contain a commitment to something like (P2) and (P3). Clearly, it is being ruled out that the amount of matter which has ever existed is finite, not just what exists at any given time. (P2) and (P3) thus do not appear to be unavailable on historical grounds, and in any case something of the sort is needed for the sake of the argument.

Section 7

The assumption of an infinite past has already been mentioned; its role is obviously crucial, since it is hard to see how else the past tense of (S2) can be justified, if at all. But here a

21 Cf. The Commentary on the Physics, p. 166,
problem arises. According to the Thomistic-Aristotelian account of time the claim that time extends infinitely into the past entails that the world has always existed. As is well-known, Aristotle had defined time in terms of motion, and it is because of this that Thomas can speak of the creation of time with the creation of a world in motion.\footnote{Q.46, Art. 3, \textit{Summa Theologica}, p. 255.} Indeed, the unwillingness of the Aristotelians to admit the possibility of an "empty" time means that a time of universal non-existence (as in (S2)) must be taken metaphorically, as Thomas explicitly does when speaking of a time before the genesis of the world.\footnote{Q.26, Art. 1, Reply Obj. 8 \textit{Summa Theologica}, p. 252.} On the other hand, we do not want to frame our premises in such a way that they entail the existence of something at every past time; for then, if (S2) is derivable, there is no need to continue the argument in the way that Thomas in fact does. (The premise set taken by itself would in that case entail that not everything can not-be.) This gives some reason for thinking that Thomas is not presupposing Aristotelian doctrines about time, and I shall not supplement the infinite past assumption with the supposition of an eternal world. Presumably (P4) will serve our purpose, where T corresponds with the present at which the argument is put forward.

\begin{itemize}
\item [(P4)] for any time $t$, if $t$ is prior to $T$ then there is a time $t'$, such that $t'$ is earlier than $t$, and the duration of $t'$ is the duration of $t$.
\end{itemize}

The second conjunct in the existentially quantified consequent is, of course, intended to rule out infinite series of constantly diminishing lengths of time, which would be present in even finite temporal periods.

Section 8

There may be a need for two more assumptions, but as they appear to me to be necessary truths I shall not explicitly include them in the set of premises; certainly, they would have been regarded as necessary by both Thomas and Aristotle. The first is that if no particulars exists, then nothing exists, at least in the sense of "exists" relevant to the argument. Slightly more controversial is the claim that particulars do not undergo a discontinuous existence in time; that if a particular exists at a time $t$ and a later time $t'$, it must have existed at every time between $t$ and $t'$. This is in part the claim that time travel, in the science fiction use of the term, does not occur, but it also covers more pedestrian sorts of cases as well. I could imagine someone arguing against it, for example, that a demolished building later reconstructed on another site had gone out of existence at one time but

\footnote{Interestingly enough Thomas notices the same point in a gloss on Aristotle in \textit{The Commentary on the Physics}, p. 174.}
come into existence again at another. It will be seen that the possibility that particulars might bound out of their own time and into another would cause difficulties here and later in the Third Way, where Thomas argues that an empty time in the past would mean that nothing was in existence now; that period might merely have been "skipped".

Section 9

Where, then are we? As a starter, let us add the antecedent of (S2) to the premise set (the numbered lines above prefixed by "P") in a somewhat more perspicuous form:

(P5) If any particulars exist at any time, then they can not-be

As we have seen above, "corruptibility" is to be understood in such a way that possessors of it are "material" or physical objects. Thus (S8) is derivable.

(S8) If any particulars exists at any time, then they are physical particulars.

Let us now take a time t corresponding to T in (S6), a present at which the argument is advanced, and assume the existence of particulars at that time. From (P5), via (S8), it will follow that these are all physical particulars. From (P5) and (P1) it will follow that these will last for only a finite time. From (P2) we can derive that there will be a kind K of basic physical particulars, some instances of which must exist at any time which physical particulars exist, and from (P3) that the number of instances of K is finite. As K's are "corruptible" particulars, they will exist for only a finite amount of time; there will be a date at which they come into existence, a date at which they go out of existence, and the temporal distance between the two times will be finite. Now, viewed from T, the recession of "birthdates" of K's cannot roll infinitely into the past. As the number of K's is finite, some of these birthdates will be earlier than any of the others, and before that no K's will have existed. (That there will be such an earlier time is guaranteed by (P4).) However, by (P2) these earlier times at which no K's exist will be times at which no physical particulars exist. But on present assumptions, as we have seen, the only particulars which have ever existed are physical particulars. As a result, the times before the existence of the oldest K's will be times at which no particulars exist at all, and given the ontological primacy of particulars these will be times at which nothing exists. The finite number of basic physical particulars set a limit to the duration of a wholly physical universe. Given
the assumption of present existence, then, it follows that
if \((P5)\) is true, then there was a time in the past when
nothing was in existence; that is, \((S2)\) does follow.

This is a sort of "Genesis" version of the argument, for the
time of universal non-existence is one before the beginning of
the world, and not one after everything had passed out of existence.
And for anything said so far the universe might have just
come into existence \textit{ex nihilo} a finite amount of time ago;
I do not see how a "Doomsday" version of the argument can
be gotten with the premises at our disposal. This situation
can be changed by adding \((P6)\)

\[(P6)\] If something exists at a time \(t\), then at every time
earlier than \(t\) there exists something.

Something which sounds suspiciously close to \((P6)\) occurs later
in the Third Way, of course, but in any case Thomas should have
accepted \((P6)\) because of his Aristotelian theory of time. As
noted above, on the latter at every time something exists; hence,
trivially, something exists at every time earlier than any time,
and again, trivially, if something exists at a time, something
exists at every time earlier than that time. So I do not think
there are any problems about the historical accessibility of \((P6)\).
As before we let \(T\) be the present at which the argument is advanced,
but this time without assuming existence at \(T\). Rather, we ask the
question: Assuming anything ever has existed in the past, can it
still be in existence at \(T\)? If it is, then by \((P6)\) every time
before \(T\) is a time at which there exists something. But as we
have already seen, the premises also yield that there will be a
time in the past of \(T\) at which nothing exists -- the time before
Genesis. Nothing exists at \(T\), therefore; if anything ever did
exist, it must have done so and gone out of existence before
the present in question. Admittedly, this argument will apply
to any time, and thus the stronger conclusion is warranted that
nothing ever did exist. But this is as it should be. Clearly
it should not be crucial to the argument that it be put forward
within a specific range of dates. (As though it became available
for theistic defense only after, say, 1200 A.D.)

Remember the familiar pictures (even though they tend to obscure,
rather than clarify, the logic of the situation). We are presented
with a world which must already have perished, because of the
mortality of its constituents. The motive force behind the move
seems to be that otherwise, some of these mortal things would
not have a finite age at the time of their extinction. (That
is, they would have had no beginning.) So, we are told, they
must have come to an end before the present. Putting matters in
this way tends to obscure the role of what we might call the
"Genesis" form of the argument in this "Doomsday" version; the
latter is valid only if the former is. The premises rule out a beginning of things. Then one has an image of trying to stretch a finite number of finite durations over a beginningless past. One pictures oneself falling short, before the present is reached. And it is this latter picture which has been stressed, and this latter picture which confuses, for it so looks as though it treats infinite time as some very large, but definite amount which must have "passed" before the present date. But this is to ignore how one "falls short" at the other "end", in the past. If one wants a "picture", it should be one of a beginning receding infinitely into the past, "pulling" the date of extinction—and the whole duration of the universe—with it. But this is little more than metaphor. Such is an account one could give of the opening move of the Third Way, without introducing assumptions inaccessible from a Thomistic-Aristotelian point of view.

Section 10

To recapitulate the proposed argument is this:

**Genesis Version**

(P1) That which can not-be (i.e., physical particulars) has a finite duration

(P2) If any physical particulars exist at a time $t$, then there is a kind $K$ such that $K$ is comprised by basic physical particulars, and $K$'s exist at $t$.

(P3) If a kind $K$ is comprised by basic physical particulars, then $K$ has out a finite number of instances.

(P4) For anytime $t$, if $t$ is prior to the present then there is a time $t'$ such that $t'$ is earlier than $t$, and the duration of $t'$ is the duration of $t$.

(P5) If any particulars exist at any time, then they can not-be.

therefore

(c) If something exists at present (i.e., P5) then there was a time in the past at which nothing existed.

**Doomsday Version**

(P1) through (P4) above, with addition that

(P6) If something exists at a time $t$, then at every time earlier than $t$ there exists something

therefore

(c*) If any particulars have ever existed they have gone out of existence before the present.
Section 11

Textually, however, the situation is much more dubious. There simply isn't anything in the Thomistic corpus which looks very much like the original of such an argument. And this is suspicious.

What we can find, at a number of places, are arguments which fit the following schema:

(S9) Generation and destruction (in some places, "motion") is "eternal"

\[ S: \{P_a, P_b, P_n\} \]

therefore

C: Something is eternal

Now, note that the conclusion of these arguments is inconsistent with the truth of (P1) and the assumption

(P5) everything can not-be

For it follows from these last that every particular endures for only a finite time, and presumably this is ruled out by the claim that there is something which is "eternal". Thus someone who accepted an argument fitting the above schema would have to accept the argument from

(P1)

\[ S: \{P_a, P_b, P_n\} \]

(P5)

to the denial of (S9), and hence the argument from

(P1)

\[ S: \{P_a, P_b, P_n\} \]

to

If everything can not-be, then it is not the case that generation and destruction are eternal.

\[ ^{25} \text{In addition to the citations below, Cf., for example, The Disputed Questions on Truth, Q.5, Art. 9, p. 241, and The Commentary on the Physics, pp. 532-33.} \]
Moreover, as we shall see, there are grounds for thinking Thomas would have assented to

(S10) If every time in the past is one at which there has existed something then generation and destruction are eternal

assuming that past-time is infinite, as is done in these arguments. With this, of course, and the last schematized argument above, we could derive (S2). In the absence of more promising textual resources, then, there is some justification for tying the opening move of the Third Way to the passage indicated.

Section 12

When we turn to the latter the most striking thing is their relationship to the First and Second Ways. The following is a concise and fairly intelligible, but otherwise reasonably representative sample:

....none of the things which are generated and destroyed can be the cause of the eternality which is found in generation and destruction, because no one of them always exists, nor even all of them, since they do not exist at the same time, as has been shown in Book VIII of the Physics. It follows, then, that there must be some external agent which always acts in a uniform way so as to cause the eternal motion of things. This is the first heaven, which is moved and causes all things to be changed by its daily motion.26

As is notorious, the Aristotelians, perhaps because of a doctrine of simultaneous causation, traced all causal chains through a "hierarchy" in the present, at the top of which were the motions of the celestial bodies.27 These penultimate "first" movers were, inter alia, responsible for generation and destruction. The hand that turns the sphere rocks the cradle, as it were. And there are passages, in the Commentary on the Physics, for example, where


27 See, for example, Anthony Kenny, The Five Ways, Schocken Books, New York, 1969, Ch. II, pp. 6-33; for the physical background see The Science of Mechanics on the Middle Ages, Marshall Clagett, University of Wisconsin.
we are told that the number of penultimate movers of the world
which have ever existed must be finite, though this for the odd
reason that,"...it is impossible for one effect to depend on
infinite causes."^28

I would suggest that Thomas is treating the celestial movers
as basic physical particulars in something like the sense above.
Our guiding picture was one of the basic particulars as constitutive
of others, but this was not built into our premises and the natures
of the kind K and the relationship of existential dependence
involved is logically irrelevant.

As a limited biological analogy consider an aquarium of
rather delicate creatures, the survival conditions for which are
maintained -- and can only be maintained -- by the working of a
motor. If the motor fails, the animals in the tank will all be
dead within a finite amount of time thereafter, and the cycle of
birth and death will end.29 If only a finite number of motors
could have ever been installed, the surprising information
that life of types dependent on the motor had endured infinitely
in the tanks, would warrant the inference that some motor was
"eternal". And, of course, if there were a property the possession
of which resulted in doom within a finite time, the inference
would go through that not everything possessed that property.
Thus the assumption that everything had the property in question
would imply, via a limitation on the quantity of motors, that
there was a time in the past when nothing was in the tank the
survival of which required the functioning of a motor. The
belief of the pet store owner that the existence of any life at
all in the aquarium was dependent on a functioning motor would
then support the conclusion that this was a time at which there
was no life in the tank at all. (Whether this was thought of as
a time before or after the existence of life in the tank is un-
important.) It is of interest that some Thomistic arguments
look like inter alia applications of the schematized argument
above to the biological case, and thus the aquarium example is
quite close to being a model for them.

...in those things which among us move themselves,
namely animals, since they are corruptible, the part
which moves is moved accidentally. Now those cor-

28 The Commentary on the Physics , p. 533.

29 The survival of things for a finite amount of time after the
disappearance of the last basic physical particulars would
complicate, without invalidating, the argument above.
ruptible things which move themselves must needs be reducible to some first self-mover that is everlasting ..., for if, as he (Aristotle) supposes, movement is everlasting, the production of these self-movers that are subject to generation and corruption must be everlasting. But no one of these self-movers, since it does not always exists, can be the cause of this everlastingness. Nor can all of them together, both because they would be infinite, and because they do not exist all together. It follows, therefore, that there must be an everlasting self-mover that causes the everlastingness of generation in these lower self-movers. 30

As emerges in this passage, the self-movers in question include animal life. 31 Here (S9) is to be interpreted as referring, at least in part, to the life cycle; it is, in part, the eternality of the round of birth, death, and decay in the animal kingdom which is felt to need accounting for. The need for something to "cause" the "eternality of generation and destruction" is at least intelligible against the background of a universe all change in which must be traced to the continuous action of a single (self-moving) agency; whether the side of this tied to medieval science is dispensable or not is a question we cannot take up here. 32 It will be seen that when so interpreted the Summa Contra Gentiles passage is strikingly reminiscent of the aquarium example sketched above, even down to the explicit finitude limitation on the class of particulars which is to play the crucial role of an ontological base. The other dimension of this argument is that it is supposedly shown that some self-movers which are responsible for the continuity of motion -- the turner(s) of the celestial spheres -- cannot, like "those things which among us move themselves" have a finite age, given the

30 The Summa Contra Gentiles, p. 30.
31 Cf. The Commentary on De Anima, Kenelm Foster and Silvester Humphries. trans., Yale University Press, New Haven, 1951, pp.479-81 for a picture of animals on the one hand, and the celestial bodies on the other, as different but related types of self-movers.
32 Some Thomists claim that Thomistic references to medieval science provide only illustrations of Thomas' thought, the "deeper" meaning of which is "metaphysical" rather than "physical", and which is hence unaffected by the progress of the physical sciences. Cf. Michael J. Buckley, Motion and Motion's God, Princeton University, 1971, p.269. Oddly, except for this matter the view of the Third Way I have come to is, I think, remarkably similar to his when terminological differences are removed. See pp.65-71.
infinite past assumption employed.

Section 13

We are told in the course of the above argument that

(S11) if motion is everlasting then generation and destruction is everlasting.

Now we know that Aristotle had rejected the cyclical theory of the universe held by Empedocles and Anaxogoras, a view which was understood to mean that there were times in the past when nothing was in motion. Thomas quoted these Aristotelian arguments with approval in the Commentary on the Physics: "...arguments of this kind are effective in proving that motion did not begin by way of nature, as some have held. But it cannot be proven with these arguments that motion did not begin in the sense that things were produced anew by the first principle of things, as our faith holds. So his attitude is ambivalent in a way which could have been expected; but the important point is that Thomas seems to accept the Aristotelian claim that if the world is eternal, then motion is eternal as well. That is, though he rejects the antecedent, he assents to the conditional

(S12) If every time in the past is one at which something exists, then "motion is ever lasting."

on the assumption that past time is infinite. It will be seen that (S11) and (S12) together yield (S10). Now, (S10) will, given (Pl), permit the derivation of (S2) from a premise set which validly yields

something is eternal

and which utilizes as a premise

generation and destruction are eternal.

Thus someone who regarded the above first Summa argument as valid would be logically committed to the validity of the argument to (S2) resulting when the former argument is supplemented with (S12) and (Pl).

33 See The Commentary on the Physics, p. 472.
34 See The Commentary on the Physics, p. 484.
I take this result to be especially significant because Chapter XIII of the *Summa Contra Gentiles*, from which the above argument was taken, contains versions of all the other four ways, and looks very much like the origin of the *Summa Theologica* five ways sequence. So a connection between it and the Third way would hardly be surprising. (There is a famous passage in Chapter XV of the same work which is often linked to the Third Way, but containing no temporal references. It is singularly unhelpful so far as the machinery of the opening move is concerned, even though the same basic ideas may underlie it.)

Section 14

Roughly, then, the interpretation developed here is this: if everything is contingent, then there could not have been an unmoved mover to keep the Universe going through an infinite past, so that at some time in the past, nothing was in existence. If this is right, then the Third Way was really a variation of the First, but I see nothing inherently wrong with that.

Harold Zellner
Kent State University
Trumbull Campus
Warren, Ohio