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Among the many things that we owe to Sten Ebbesen are the hundreds of manuscripts he has made available to us. A good way to honour him is, perhaps, to show the interest of some of these pieces of work. Partly because Sten has a particular affection for sophisms (and something close to an obsession with Peter of Auvergne), but also because my own interests coincide with the metaphysical and logical problems connected with the verbs 'incipit' and 'desinit', for this celebration I have chosen a sophism in which Peter of Auvergne deals with the metaphysics and the logic of ceasing. In addition to Sten’s careful edition of the sophism in the so valued Cahiers de l’Institut du Moyen Âge Grec et Latin, the comprehensive catalogue of thirteenth-century sophisms co-edited by Ebbesen and Goubier was also a source of invaluable help in locating other versions of the same sophism: when compared with other (generally shorter) accounts, the originality and value of Peter’s text becomes apparent.

In the following pages I wish to highlight some interesting features of Peter’s account of limit-decision problems: a non-standard interpretation of the verbs with a non-standard treatment of their rules of exposition; a characteristic solution to the problem of the instant of transition; and, above all, a clear distinction between different levels of discourse that sometimes get confused in standard accounts of limit-decision problems.


The Sophism ‘Socrates desinit esse non desinendo esse’

This long text combines discussions along three main lines. On the one hand, Peter has received the ‘old tradition’ that interprets the sophisms on ‘incipit’ and ‘desinit’ in connection with Aristotle’s *Sophistical Refutations*, concentrating on questions of ambiguity and scope. On the other hand, he already belongs to the ‘new tradition’ that interprets the sophisms on ‘incipit’ and ‘desinit’ in the light of Aristotle’s *Physics*. A ‘hybrid approach’ is said to be characteristic of this new development, which combines a metaphysical analysis of the temporal limits involved in beginning and ceasing (this has been called ‘the physical strand’) with a logical analysis of propositions containing the terms ‘incipit’ and ‘desinit’ (called ‘the logical strand’).

In accordance with this tripartite division of labour, Peter’s text contains, on the one hand, a logical analysis of the sophism from the point of view of its ambiguous reading; on the other hand, a metaphysical discussion of the nature of the instant and the possibility of designating a last instant and a second-to-last instant in a situation of ceasing; and finally a logical discussion of the meaning of the verbs ‘incipit’ and ‘desinit’ and the pattern of exposition that corresponds to ‘incipit’/’desinit’ propositions.

**The Primitive Logical Analysis: Ambiguity and Distinction**

The first paragraphs contain the standard elements that make up a sophism. First, the sophismatic proposition is presented, ‘Socrates desinit esse non desinendo esse’, followed by the statement of the particular situation that makes it sophismatic (*positio*): that Socrates is in the second-to-last instant of his life. Then, as usual, a proof and a disproof are offered, and finally a solution is proposed, which involves a distinction between two senses of the sophismatic proposition.

This is a common analysis of the sophism, but in his final answer Peter shows himself to be dissatisfied with it. Although he accepts the

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distinction, he does not find it useful: the sophismatic proposition is in any case false. The reason is that the situation stipulated in the positio cannot obtain: it is impossible for Socrates to be in the second-to-last instant of his life.8

This dissatisfaction with the traditional approach to the sophism leads him to engage in no further discussion about the ambiguity of the sophismatic proposition or about the distinctions that can be made. Instead, he goes directly to the questions that he takes an interest in: on the one hand, the metaphysical issue of the nature of the instant and the questions whether or not a last instant and a second-to-last instant can be distinguished in the ceasing of something; on the other hand, the logical questions about the meaning of ‘incipit’ and ‘desinit’ and about the exposition of propositions that contain them. Peter’s discussion takes the form of a set of four elaborate quaestiones, before his brief determinatio about the distinction and about the sophism itself.

The New Hybrid Analysis: Limits and Exposition

Peter’s approach to the sophism is an instance of the so-called ‘hybrid approach’, and it is indeed a good example of the mixture of logic and metaphysics that is characteristic of this tradition.9 But there is something distinctive about this sophism if we compare it with the most typical sophisms of the hybrid approach, with familiar examples such as ‘desinit esse albus’, ‘desinit esse albissimus hominum’ or ‘incipit esse albior quam’. In Peter’s sophism the verb ‘desinit’ is not determined by any such categorematic term, and therefore the doctrine of supposition (which is usually the focus of the logical strand) does not play any role in Peter’s discussion. The logical side of his analyses is only devoted to the meaning of the verbs and to the exposition of the propositions, connecting them only with the metaphysical problems raised by Aristotle’s doctrine about motion and time (and its medieval sequels).

8 Peter of Auvergne, Sophisma 7, 180.

These metaphysical problems have been generically referred to as ‘limit-decision problems’. In my opinion, a finer distinction is useful between two different kinds of limit-decision problems. On the one hand, there is the problem of designating the temporal limits of a thing or state: its beginning and end, when this state is considered as detached from anything else (thus, regardless of what comes before or after these limits). The problem is simply that of determining and describing the temporal ‘end points’ of the state. But on the other hand, a different problem arises when one considers two consecutive states, and the focus is then put on the end of the first one and the beginning of the second one. Here, what has to be located and described is not the ‘end points’ of a state, but the ‘border’ between two consecutive states, one that ends and one that begins.

I want to insist on the interest of distinguishing two different kinds of problem, instead of just seeing two approaches to ‘the’ limit-decision problem. First, concerning the temporal limits of one being, the problem is that of determining in which way the beginning and the end of a thing involve respectively a ‘first’ and a ‘last’. The fact that this is a problem is connected with Aristotle’s discussions about the nature of motion (which has a peculiar kind of being), but the logical correlate is a problem in itself, namely, the problem of determining the rules of exposition for the verbs ‘incipit’ and ‘desinit’. Second, concerning the boundaries between two beings, the problem is that of diagnosing possible failures of basic metaphysical principles and of designing the strategy that has to be adopted when faced with this possibility. This has, of course, its own logical correlate, concerning the compatibility between the logical analysis of ‘desinit’ and the logical analysis of ‘incipit’.

I will call the first kind of questions ‘incipit-desinit’ questions, and the second ones will be named ‘desinit-incipit’ questions. Both have a logical and a metaphysical side. In principle, the logician who is searching for the rules of exposition that have to be applied to propositions with ‘incipit’ and ‘desinit’ does not need to take into account the second, but only the first kind of limit-decision problem. But some authors actually formulate their rules with the second perspective in mind, designing the answer to the ‘incipit-desinit’ question not to clash with the ‘desinit-incipit’ constraints. As for Peter, although he formulates his rules of exposition from the perspective of the ‘incipit-desinit’ problem, a metaphysical interest

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10 I take L. O. Nielsen to call the ‘one-state approach’ the approach that focuses on the first kind of problems, and the ‘two-states approach’ the approach that takes into account the second kind of problems in order to deal with the first one; see L. O. Nielsen, Thomas Bradwardine’s Treatise on “Incipit” and “Desinit”, CIMAGL 42 (1982), 19–20. Trifogli calls...
takes him well into the ‘desinit-incipit’ problem. I will summarise the main points of both analyses. But before I go into Peter’s answer to the limit-decision problems, I will briefly present some assumptions underlying his approach.

**Peter’s Assumptions**

**Metaphysical Assumptions: Kinds of Limits, Kinds of Things**

Peter devotes a large part of his text to analysing the *positio*, the statement of the particular situation in which the sophistic proposition is evaluated as true or false: that Socrates is in the second-to-last instant of his life. Concerning this *positio*, Peter deals with two *quaestiones* about the last and the second-to-last instant of Socrates’s life. Before offering his *determinatio*, Peter develops, in a long preamble, his view ‘about the nature of the instant and about its connection with time and with the thing that undergoes motion’.

A peculiar feature of this preface is that the reference to two different kinds of limits adds a new perspective to the limit-decision discussion. In addition to the Aristotelian notion of the instant as the indivisible limit of time, equal attention is also paid to the notion of ‘mutatum esse’ or ‘mutatio’ as the indivisible limit of motion.

On the nature of the instant, Peter assumes the common analogy of the instants of time as the points on a line. In contrast with the infinitely divisible time, an instant is (like a point is with respect to the infinitely divisible line) the indivisible limit of a continuum. Instants are not parts of time, but cuts in its continuous flow. This is the reason why Peter rejects the *positio*: a second-to-last instant of Socrates’s life can neither

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be given (*dare*) nor designated (*signare*), because of the very nature of infinitely divisible things and their indivisible limits.

With respect to the second kind of indivisible limit, Peter uses a less known analogy with line and points, by which he contrasts motion (*motus*) as a line with mutation (*mutatio*) as a point. Mutation is thus understood as an indivisible state, which acts as the limit of a continuous motion. These two indivisibles are, however, connected in the following way: just as time is for Aristotle ‘the measure’ of motion, so the instant is said to be ‘the measure’ of mutation.\(^{15}\)

This distinction is very interesting, since it allows a separation of two different levels at which the discussion of limit-decision problems can be carried out: the strictly temporal level and the ontic level. On the one hand, one can ask about the limit of the time that measures a state (the first and last instants of a temporal segment in the case of the ‘incipit-desinit’ problem, or the dividing instant between two temporal segments, in the case of the ‘desinit-incipit’ problem). On the other hand, one can ask about the limit of the state itself (the ‘end points’ of the state in the case of the ‘incipit-desinit’ problem, or the ‘border’ between two subsequent states in the case of the ‘desinit-incipit’ problem). As we shall see, the ontic perspective has priority in Peter’s account.

But in order to understand the kind of states whose limits Peter is trying to determine (and whose measuring times he will be able to delimit), we need to have a look at the distinction between two kinds of entities. In addition to the notions of instant and mutation as indivisible limits, the metaphysics underlying Peter’s analysis also contains the common medieval distinction between permanent and successive beings, which is one of the core elements in the ‘physical’ strand of the hybrid approach:\(^{16}\) typically, the distinction is used to determine two sets of exposition rules for ‘incipit’ and ‘desinit’. We will see how, although Peter accepts the distinction, its effect on exposition is neutralised.

\(^{15}\) On this use of ‘measure’ in connection with unextended things, see R. Fox, *Time and Eternity in Mid-Thirteenth-Century Thought* (Oxford: Oxford University Press, 2006), p. 195. Peter tells us about ‘certain authors’ who identify the two kinds of limits. C. Trifogli reports that a position close to this is present in Giles of Rome; see ‘Giles of Rome on the Instant of Change’, *Synthese* 96 (1993), 96.

\(^{16}\) Kretzmann, ‘Incipit/Desinit’, p. 110. According to Knuuttila, ‘Remarks on the Background’, p. 257, the distinction is influenced by Averroes’ comment on the *Physics*. According to de Libera, ‘La problématique’, p. 63, it might also have Augustinian origins, and its use in the thirteenth century was first connected with the semantic distinction between *esse actu* and *esse actu sub termino*. 

Successive beings are those that can be divided into non-simultaneous parts: their being is extended, in a non-spatial sense. Motion is the paradigm of a successive thing, but time and rest are also considered by Peter to be successive, insofar as they are related to motion. Following Aristotle, Peter states and proves that successive things (in particular, motion) do not have being at the beginning of the time that measures them, which will be the main ground for Peter’s limit-decisions. Permanent things, in contrast, can be divided into simultaneous parts, but they are indivisible with respect to succession: their being is all at once. They are ‘measured’ by the instant (not by time), and thus they can be said to have being at an instant.¹⁷

The common analysis of the verbs ‘incipit’ and ‘desinit’ gives them different patterns of exposition depending on whether they are applied to permanent or successive things. But Peter’s solution to the sophism is based on some unorthodox logical assumptions.

Logical Assumptions: Meaning and Range of Application of ‘incipit’ and ‘desinit’

In the literature on ‘incipit’ and ‘desinit’, it is usual to see them being treated as syncategorematic terms, which involve an implicit negation and a covert reference to times different from the present. The opinion is also usual that the meaning of ‘incipit’ and ‘desinit’ varies depending on the kind of things they are applied to. Peter, in contrast, treats these verbs as categorematic terms, having a significatum, and as having only one, no matter what kind of things they are applied to.¹⁸

Peter devotes a whole quaestio to the significatum of ‘incipit’ and ‘desinit’.¹⁹ Against an alternative categorematic interpretation (the opinion that these verbs signify motion), he assumes a different meaning (although these verbs of course signify per modum motus, that is, as verbs). ‘Incipit’ and ‘desinit’ signify, respectively, ‘the first’ and ‘the last’ of a divisible thing: that is, its beginning (inceptio) and its end (desitio), with respect to the dimension in which the thing is divisible. Peter emphasises that a ‘first’ and a ‘last’ only belong to quantitative and continuous things, which are always divisible things.

¹⁷ Peter of Auvergne, Sophisma 7, 176–77.
¹⁸ According to Knuuttila, ‘Remarks on the Background’, p. 256, this categorematic sense of ‘incipit’ and ‘desinit’ is typical of Averroes’s approach.
¹⁹ Peter of Auvergne, Sophisma 7, 173–75.
More specifically, when the divisible thing that is being considered is a successive state (divisible with respect to before and after), the verbs ‘incipit’ and ‘desinit’ signify the temporal limits of this state. This temporal sense of beginning and ending is the only relevant sense for Peter’s discussion of the sophismatic proposition. A crucial point is that, in Peter’s account, only successive beings can properly be said to have a ‘first’ and a ‘last’ in this temporal sense. Permanent things, since they are indivisible with respect to before and after (they are all at once), do not properly have a beginning or an end in the temporal sense. They can only improperly be said to have a temporal beginning or a temporal end, always in connection with a related motion or rest: insofar as they are the terminus of a motion or the form under which a thing is resting.20

This has the important consequence that the verbs ‘incipit’ and ‘desinit’, when taken in the temporal sense, should be applied only to successive beings, and therefore that a question about the exposition of these verbs will only make sense in connection with such beings. This means that the common accounts of the exposition of ‘incipit’ and ‘desinit’ are mistaken in Peter’s opinion. The problem with the traditional accounts is that a time line is always assumed (for both permanent and successive things): they neglect the fact that the being of a permanent thing is not extended along time, and so they keep asking about a temporal first and a temporal last, just as they correctly do in the case of temporally extended things.21

This is how Peter restricts to successive beings both the metaphysical question about the limits and the logical question about the exposition of the verbs. Since the being of permanent things is not measured by time, in the case of permanent things no limit-decision problems arise.

In the following sections I will present Peter’s proposal for two of the limit-decision problems I have distinguished: one, I will offer his solution to the logical side of the ‘incipit-desinit’ problem (whose metaphysical side was satisfactorily solved by Aristotle); second, I will summarise his position about the metaphysical side of the ‘desinit-incipit’ problem. In addition, I will try to justify Peter’s neglect of the logical side of the ‘desinit-incipit’ problem.

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21 The reader is surely familiar with the drawings used by contemporary scholars to visually reproduce the medieval analyses of limit decision: they show the time line that is assumed in both cases, and they use a visual device to represent the limiting instants and whether they are intrinsic or extrinsic to the delimited segment.
I will first deal with what I called the ‘incipit-desinit’ problem, that is, the problem concerning the temporal limits of a single being. The metaphysical side of the problem (for successive beings) has been satisfactorily solved by Aristotle, so Peter can concentrate on the logical side: he deals with a quaestio about the correct way of expounding propositions in which ‘incipit’ or ‘desinit’ occur. As has been said, the peculiarity of Peter’s account is that the distinction between permanent and successive things is not used to further distinguish between two patterns of exposition for the verbs ‘incipit’ and ‘desinit’. It is used instead to demarcate in the first place the kind of propositions to which the logical analysis can be properly applied: propositions about successive states.

Given this constraint, and with the meaning set out above, the rules of exposition for the verbs ‘incipit’ and ‘desinit’ will be straightforward, once Peter has added a last clarification: he explicitly rejects the typical formulae ‘positio de preterito’, ‘remotio de futuro’, etc. He reminds us that the significatum of ‘incipit’ and ‘desinit’ does not involve time, but only the ontic limits (first and last) of the successive being. The exponent propositions, thus, will not make explicit the limits of the time measuring the successive state, but the (temporal) limits of the being of the successive state itself. I call these limits ‘temporal’ because they are the first and the last of a being insofar as it is measured by time (in contrast, for example, with the limits of a being insofar as it is spatially extended), not because they are the first and the last of the measuring time. In other words, Peter is explicitly adopting the ontic perspective in his approach to the limit-decision problem. Accordingly, the rules of exposition must not contain in principle any positing or removing of time. Peter’s rules of exposition only make use of the expressions ‘to be at the beginning’ and ‘to be at the end’ of the corresponding successive state:

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22 Peter of Auvergne, Sophisma 7, 176–80.
23 This type of unorthodox account is reported by Nicholas of Paris; see de Libera, ‘La problématique’, p. 66.
24 Contrast with the synecocategorical reading of the verbs and the explicit mention of positio and privatio temporis in the early thirteenth-century treatments of ‘incipit’ and ‘desinit’ reported by A. Tabarroni, “‘Incipit’ and ‘Desinit’ in a Thirteenth-Century Sophismata-Collection”, CIMAGL 59 (1989), 74–77.
As for permanent states (for example, being human), although they do not properly have a temporal beginning or a temporal end, Peter admits that they can be said to ‘begin’ in a derived sense, insofar as they are related to a motion or a rest: a permanent thing can be either considered as the *terminus* of a motion or as simultaneous with a rest. Thus, the same pattern of exposition can be applied, for example, to ‘incipit esse homo’ in an improper way. Peter remains silent as to whether the same can be done with ‘desinit esse homo’, but there seems to be no problem in applying the corresponding pattern. Eventually, a single pattern of exposition is proposed for ‘incipit’ and a single pattern for ‘desinit’, whatever the kind of things these verbs are applied to.

This is Peter’s solution to the first limit-decision problem (in its logical side), the problem of determining the rules of exposition for propositions containing ‘incipit’ and ‘desinit’. But, since these exponent propositions do not offer a sufficiently explicit set of truth conditions, at this point Peter turns to the metaphysical side of the ‘incipit-desinit’ problem, already solved by Aristotle. The fact is that successive things relate peculiarly to their limits: the boundaries of a successive condition do not belong to the condition itself, they are ‘extrinsic’ limits.

Thus, Peter reformulates the truth conditions of ‘incipit’ and ‘desinit’ propositions by constructing more complex propositions that make explicit the extrinsic character of the limits. Since the limits of a successive being are temporal limits, this extrinsic character can be explicated by affirming or denying the being of the successive state with respect to the time line that measures this being. This is how, indirectly, the time line comes into play. More specifically, paralleling the being of the successive thing and its extrinsic boundaries, the relevant elements are a segment of this time line and the instants extrinsically limiting it. For example, at the beginning-instant of the time which measures his motion Socrates is not yet in motion, and similarly, at the ending-instant of the time that measures his motion Socrates is not in motion any more, although, of course, he was in motion during the whole measuring time.

Consequently, as far as ‘incipit’ is concerned, ‘est in principio’ implies a removing (not of time but) of the *being* of the successive state at the

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25 A question remains as to in what sense a permanent thing can be ‘simultaneous’ with a successive one, since the being of a permanent thing is not measured by time.
present moment, and a positing of *the being* of the successive state during the subsequent time. For example, from ‘Socrates incipit moveri’ one can infer ‘Socrates non movetur sed post hoc movebitur’. That is, a copulative statement can be made about the state, involving two different temporal determinations: on the one hand, the being of the successive state is affirmed during the time which measures the motion that begins, and, on the other hand, the being of the successive state is denied at the beginning-instant of this time.

Similarly for ‘desinit’, ‘est in fine’ implies a removing of the being of the successive state at the present moment, and a positing of the being of the successive state during the previous time. For example, from ‘Socrates desinit moveri’ one can infer ‘Socrates non movetur sed prius movebatur’. That is, a copulative statement can be made about the state, involving two different temporal determinations: on the one hand, the being of the successive state is affirmed during the time that measures the motion that ends, and, on the other hand, the being of the successive state is denied at the ending-instant of this time.

This is how time and instants eventually get involved in the exposition of ‘incipit’ and ‘desinit’: because successive states are measured by time, and their limits are ‘measured’ by instants. By virtue of this connection between the ontic succession and the time line, the technical result for the ‘incipit-desinit’ problem seems to be identical to the standard account for successive states. But, to my mind, Peter’s solution is more faithful to Aristotle, since he takes into account the fact that Aristotelian time is ontologically secondary with respect to motion: time is just ‘the measure’ of motion. The modern eye tends to see first the temporal line ‘along which’ the successive being seems to develop. Peter, with Aristotle, is able to see the development of the successive state without the temporal line, and this is why he can speak about the ontic ‘first’ and ‘last’, independently of the first and last instants in the time line. Only at a second moment does the time line appear.

In sum, the non-standard assumptions from which Peter’s account is derived are highly significant. His option for a categorematic treatment of the verbs and his acceptance of a single *significatum* (which gives priority to the ontic sense of ‘temporal limit’ over the time-line one) lead him to a natural understanding of ‘the first’ and ‘the last’, in which the ‘desinit-incipit’ problem does not interfere. Peter’s solution to the first limit-decision problem, that of assigning temporal limits to the being of one state (and of giving rules for the exposition of propositions about these temporal limits), is, naturally (on Aristotelian grounds), that the limits of
any successive thing are extrinsic at both ends (‘not yet’, ‘not any more’),
and the rules of exposition simply reflect this fact.

So far I have concentrated on the ‘incipit-desinit’ problem, the only one
that Peter takes into account when he tries to set the rules of exposition
for ‘incipit’ and ‘desinit’. But what about the ‘desinit-incipit’ problem, the
one which arises when a chain of two consecutive states (one state A
that ends and a different state B that subsequently begins) is considered?
Peter does not pay attention to the logical question about the compatibil-
ity between the exposition rules for ‘A desinit’ and the exposition rules
for ‘B incipit’. He deals, instead, with the metaphysical question about the
transition between A and B.

The Logic of Ending-and-Beginning: The Compatibility Problem

As I said, some authors formulate the rules of exposition with a concern
about the compatibility between the assignment of a temporal end-limit
and the assignment of a temporal beginning-limit when two consecutive
processes are considered. Since Peter does not pay attention to this com-
patibility problem, it might be asked whether this is due to negligence on
his part.

Taking into account the fact that successive things are for Peter the
only things for which the question about temporal limits makes sense, and
that he considers that both ‘the first’ and ‘the last’ of any successive being
are extrinsic limits, the compatibility question takes the following form:
is the assignment of an extrinsic end-limit to an initial successive state
compatible with the assignment of an extrinsic beginning-limit to the
subsequent successive state?

The orthodox position is that an extrinsic end-limit would imply an
intrinsic beginning-limit (or vice versa, that an extrinsic beginning-limit
would imply an intrinsic end-limit), and therefore Peter’s rules of expo-
sition, which assign extrinsic limits both in the case of ‘incipit’ and in the
case of ‘desinit’, seem to be inconsistent. Although two different senses
of ‘temporal limit’ have been distinguished in Peter’s text (the time line
and the ontic), the discussion is usually carried out at the time line level.
Let us, then, rewrite the orthodox claim in the following way: If a given
instant extrinsically marks the end of the first temporal segment, this
implies (given that two consecutive instants are not allowed within the
Aristotelian conception of time) that the same instant will intrinsically

mark the beginning of the second temporal segment. If the instant does not belong to the first segment, it has to belong to the second one.

From the point of view of the Aristotelian account of time which Peter assumes, this implication is not necessary. Strictly speaking, for Aristotle, the actual existence of a point is only that of a ‘cut’, but a point is not a ‘part’; therefore, when a line is divided into two segments, the limiting point ‘belongs’ to neither of them (it is the limit of both, but it is part of none). Analogously, when Socrates changes from motion to rest, the time during which Socrates is in motion is separated from the time during which Socrates is at rest, but the cut between them neither belongs to the time of motion nor to the time of rest. Peter’s rules of exposition are not inconsistent if the limit is not made salient as a distinct part of the line.26

In the following diagram a time line $t$ is represented, in which two temporal segments can be distinguished (the time measuring the being of the ending state A and the time measuring the being of the beginning state B), but no point along the line $t$ is made salient:27

The exposition of the verbs is not affected by the compatibility problem when the two extrinsic limits are understood as a mere separating cut. A problem only arises when an ‘instant of transition’ appears as a distinct part of the time line. This actually happens in Peter’s text, when he moves from asking whether a last instant of Socrates’ life can be given to asking whether Socrates is living at this last instant. But this discussion belongs to the metaphysical side of the ‘desinit-incipit’ problem.

26 According to Nielsen, ‘Thomas Bradwardine’s Treatise’, 15 n. 25, the perception of an inconsistency arises from ‘a faulty understanding of Aristotle’s teaching on time’.
27 The reader might be biased towards the Cantorean notion of continuity. I take this diagram, showing ‘a cut without a point’, to be closer to a Peircean notion of continuity. See M. Annonni, ‘Implications of Synechism: Continuity and second-order vagueness’, Cognitio-Estudos: Revista Eletrônica de Filosofia 3 (2006), 96–108.
In fact, Peter starts by asking ‘utrum sit dare ultimum instans vitae Socrates’ but ends up replying to the question ‘utrum sit dare ultimum instans in quo Socrates vivit’. When the cut between the time measuring an initial state A and the time measuring the subsequent state B is seen as the instant at which some or other thing is happening, the instant ceases to be a mere cut, and acquires some ontological weight.

In the following diagram a time line t is represented, in which two temporal segments are distinguished (the time measuring the being of the ending state A and the time measuring the being of the beginning state B), but also a particular point is made salient, the instant of transition:

![Diagram](A B t)

It is only when the cut is considered as a separate ‘instant of transition’ that a metaphysical issue can be raised: once the question about how things are at this particular instant arises, the possibility of a clash between the metaphysics of desitio and the metaphysics of inceptio appears. Perhaps, it could be argued, at this limiting instant the ending state A and the beginning state B coexisted. Aristotle had considered (and rejected) this possibility in *Physics* 8.8, and he had stipulated a solution (for permanent states). Or perhaps at this instant neither A nor B obtain, as seems to follow from Peter’s rules of exposition (for successive states). The problem of the instant of transition is that the question about how things are at this particular instant can put some basic metaphysical principles at risk: when A and B are contradictory states, either the principle of non-contradiction or the principle of excluded middle might be in danger.

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29 A non-Aristotelian alternative was first examined in S. Knuuttila and A. I. Lehtinen, ‘Change and Contradiction: A fourteenth-century controversy’, *Synthese* 40 (1979), 189–207. A different non-Aristotelian alternative is discussed in S. Brower-Toland, ‘Instantaneous Change’. 
Peter’s *determinatio* to the *quaestio* ‘utrum sit dare ultimum instans vitae Socratis in quo Socrates vivit’ starts from a distinction between the question about the cut in the time line on the one hand, and the question about what happens *at* the instant of transition on the other hand: he clearly distinguishes between ‘the last instant of’ and ‘the last instant at which’. This is no doubt a response to the defective way in which the limit-decision problems are usually treated, with a complete confusion about the subject matter of the discussion. The extrinsic character of the limits of successive things is often translated as a denial of ‘a first instant of being’ and ‘a last instant of being’. This involves a confusion between the discourse about the limits of a thing and the discourse about the limited thing itself.

In contrast, two different questions are carefully distinguished in Peter’s *determinatio*: the question about the end-limit in the time line of the motion *vivere*, on the one hand, and the question about the being of this motion *at* the end-limit, on the other. It is for this second limit-problem that Peter has to make a decision. For him there are in fact (and unproblematically) a first instant and a last instant of the time measuring any non-everlasting successive being (as there are in fact two ontic end points of the being, its *incipit* and its *desinit*). What would be problematic indeed (and will be denied) is that *at* these instants the successive being was actual.

In Peter’s text the metaphysical side of the ‘desinit-incipit’ problem takes the following form: at the moment of transition between Socrates’ life and Socrates’ not-life (which is both the last instant of Socrates’ life and the first instant of Socrates’ not-life), is Socrates still living or already not-living?

Peter seems to give two different solutions to this problem. On the one hand, he simply adopts the solution of *Physics* 8.8 as also valid for the domain of successive things: at the instant of transition between *vivere* and *non vivere*, Socrates does not live, because the dividing instant should be assigned, according to Aristotle, to the latter state. This solution, nevertheless, is in fact a response to the ‘incipit-desinit’ problem, since Peter is not considering the successive state that begins after Socrates’ life, but only the successive state that ends: the motion *vivere*. Thus, he can simply appeal to the Aristotelian orthodoxy according to which ‘in instanti non contingit moveri’, to conclude that at the last instant of Socrates’ *vivere*, Socrates does not live.

But, on the other hand, a peculiarity of Peter’s solution to the problem of the instant of transition is that, after having taken permanent things off
the scene with respect to limit-decision problems, he lets them reappear as problem solvers in the case of the metaphysical side of the ‘desinit-incipit’ problem. Since every successive state is connected with a permanent being, Peter brings into play the permanent entities associated with the successive states that end and begin. In particular, he speaks in terms of the forms which are acquired or left behind in the transition from one successive state to another. The limit-decision problem is accordingly formulated in terms of a transition between motion and rest: motion-towards-a-form, motion-out-of-a-form, rest-under-a-form.\textsuperscript{30}

The metaphysical side of the ‘desinit-incipit’ problem takes, then, the following alternative form: at the moment of transition between Socrates’ rest-under-life and Socrates’ motion-out-of-life, is Socrates at rest or in motion? This new formulation allows Peter on the one hand to depart from the Aristotelian doctrine (by stating that at the moment of transition Socrates is neither at rest nor in motion), and on the other hand to avoid a metaphysical ‘gap’ (by stating that nevertheless at this very instant Socrates \textit{is} under the permanent form).\textsuperscript{31} The search for a solution to the metaphysical side of the ‘desinit-incipit’ problem, given Peter’s assumptions about \textit{inceptio} and \textit{desitio}, has brought him very far from the initial simple question in terms of ‘ceasing to be’.

\textit{Conclusion}

I would like to briefly summarise three peculiarities of the treatment of limit-decision problems in the text examined. First, the restriction of the scope of the verbs ‘incipit’ and ‘desinit’ to successive states, which allows Peter to offer an analysis of beginning and ending that is as faithful to Aristotle as possible. Second, the distinction between the different levels of discourse involved in the limit-decision discussions (the discourse about the limits of the time line that measures a successive state, the discourse about the ontic edges of the state, the discourse about the limited state itself), which allow Peter a clear understanding of the different problems involved. Finally, and as a consequence, the separate treatment

\textsuperscript{30} Peter of Auvergne, \textit{Sophisma 7}, 167, 170. Under this new perspective, transitions between permanent states are seen as processes that take some time.

\textsuperscript{31} The same appeal to the permanent form operates in the case of the beginning-limit of Socrates’ life. The distinction between \textit{being} under a form and \textit{resting} under a form is of great importance.
of the logical side of the ‘incipit-desinit’ problem on the one hand, and of
the metaphysical side of the ‘desinit-incipit’ problem on the other, which
allows Peter to solve the first problem by exclusive appeal to the Aristote-
lian doctrine about motion and instants, whereas the second one requires
a more complicated appeal to permanent things.32

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