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On the Necessity of Distinguishing between (Un)Boundedness and (A)Telicity

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ON THE NECESSITY OF DISTINGUISHING BETWEEN (UN)BOUNDEDNESS AND (A)TELICITY¹

ABSTRACT. It is argued that two different types of concept are often intermingled in discussions of Aktionsart. The most common type of classification is one of situation types, relating to the potential actualisation of a situation, although some of the definitions have to do with the actual realization of the situation. This distinction, adequately captured by the notions (*a*)telicity and (*un*)boundedness (Declerck 1989), is explored and it is shown how NPs, PPs and tense influence a sentence's classification as (un)bounded.

1. THE PROBLEM EXPOSED

In an attempt to clarify and specify Vendler's distinction between *states*, *activities*, *accomplishments* and *achievements*, linguists have introduced further subdivisions and new labels to refer to the different subclasses.² This divergence of labels leads to terminological confusion in many cases. Moreover, a closer examination of the discussions reveals that two different types of concepts are often intermingled in the classifications.³ This conceptual difference is apparent from Dowty's (1977) 'imperfective paradox': the use of a progressive form seemingly has the effect of taking away the built-in endpoint in sentences such as *John was drawing a circle*. Accordingly, this raises the question whether there is still reference to an accomplishment. Sentences like these clearly demonstrate the need for two different types of distinction (cf. Declerck 1989, pp. 277–278; 1991a, p. 121): a classification based on potential endpoints, which is labelled

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² The following labels have been used to refer to situation types: Allen (1966): bounded vs. nonbounded; Heinämäki (1978): durative, non-durative, accomplishment; Zydatis (1976), Mourelatos (1981): process, event, state; Gabbay and Moravcsik (1980): state vs. event; Dahl (1981): telic (bounded) vs. atelic (unbounded); Partee (1984): process, state, achievement, accomplishment; Schopf (1984): initial-determinierte Prozesse, initial und final determinierte Prozesse, punktuelle Ereignisse, punktuelle Veränderungen, unquantifizierte gerichtete Prozesse, initial-determinierte Prozesse, accomplishment and achievement Prädikate.

³ Verkuyl (1989, p. 42) similarly points out that 'the use of the name of a Vendler-class does not warrant the conclusion that the concept related to this name is a Vendler-concept'. In her survey of taxonomies of situation types, Mommer (1986, pp. 12–59) also points out that there are (slight) differences in the nature of classifications.

(a)telicity, and one based on actual temporal boundaries, captured by the label (un)boundedness.

2. (A)TELICITY AND (UN)BOUNDEDNESS DEFINED

The definitions of (a)telicity and (un)boundedness hinge on the notions of *endpoint* or *terminal point* and *temporal boundary*. A situation may be limited in time: for instance, a situation of sunbathing may last for half an hour; it reaches a temporal boundary once the person in question leaves the beach. If someone runs a marathon, the endpoint to this particular situation is when the runner reaches the finish. A deliberate attempt to stay five minutes under a cold shower reaches its endpoint once the five minutes are over. Although endpoints of some kind are involved in each of the situations described, they are not completely similar. In the second case, unlike in the first, there is an endpoint inherent in the situation: no matter whether the runner manages to run 40 kilometres or not, the situation of running a marathon as such potentially implies a terminal point. The kind of endpoint which characterizes the third example is similar: after five minutes, the situation of staying under the water for five minutes is over. However, this does not necessarily mean that the terminal point is always actually reached. If someone says *He is running a marathon* or *John is always boasting he can remain in ice-cold water. At the moment, he is staying under the cold water for five minutes* the situations are not described as having reached their inherent/intended endpoint respectively and hence there are not represented as having temporal boundaries. That is, even though the actual world situations must have a beginning and an end, there is no linguistic reference to these temporal boundaries. In the case of sunbathing, there is no inherent or intended endpoint similar to the one there is in the other two situations. Although it is over the moment the person in question leaves, the terminal point is not part of the semantics of *sunbathing*. The examples just given already show that a twofold distinction can be made:

- (I) + inherent/intended endpoint
 - (a) + endpoint reached: + temporal boundary
 - (b) – endpoint reached: – temporal boundary
- (II) – inherent/intended endpoint
 - (a) + temporal boundary
 - (b) – temporal boundary

(A)telicity has to do with whether or not a situation is described as having an inherent or intended endpoint; (un)boundedness relates to whether or

not a situation is described as having reached a temporal boundary (cf. Declerck 1989, p. 277; 1991a, p. 121).

So far, the focus has been on right-hand boundaries. It will be clear though that a particular sentence may represent a situation as (not) having a left-hand boundary as well: in *I waited for her from five to eleven*, unlike in *At six o'clock, I was still waiting for her*, the adverbial indicates the starting point of the situation. In the former case, the situation is represented as having a left-hand boundary, in the latter, it is not. In the case of (a)telicity, the focus is on endpoints; as far as (un)boundedness is concerned, however, a distinction can be made between situations that are bounded to the left and unbounded to the right (*Suddenly, he was fast asleep*), situations bounded to the right and unbounded to the left (*I appreciated his presence until he told me he hated Jews*) and those bounded on both sides (*I worked in the garden from 2 till 5 o'clock*).

A clause is telic if the situation is described as having a natural (cf. (1a) and (1b)) or an intended endpoint (cf. (1c)) which has to be reached for the situation as it is described in the sentence to be complete and beyond which it cannot continue. Otherwise it is atelic. Examples (1a), (1b) and (1c) are telic, (1d) and (1e) are atelic:

- (1)a. The bullet hit the target.
- b. Sheila collapsed.
- c. Sheila deliberately swam for 2 hours.
- d. Sheila is working in the garden.
- e. Sheila lives in Vienna.

A sentence is bounded if it represents a situation as having reached a temporal boundary, irrespective of whether the situation has an intended or inherent endpoint or not. It is unbounded if it does not represent a situation as having reached a temporal boundary. The examples in (2a) to (2d) are bounded sentences, those in (2e) and (2f) are unbounded:

- (2)a. I met John at 5 o'clock.
- b. Judith played in the garden for an hour.
- c. Julian lived in Paris from 1979 until May 1980.
- d. I have lived in Paris.
- e. She lives on the corner of Russell Square.
- f. She is writing a nursery rhyme.

In (2a), the nature of the situation is such that we know it takes up a limited amount of time. This example shows that there need not be an explicit indication that the situation has ended in order for a sentence to be bounded: the punctual character of the clause, together with the use

of a non-progressive form, determines the boundedness of the sentence. In (2b) and (2c), the adverbials impose temporal boundaries. In (2d), the tense used indicates that there are temporal boundaries to the situation; the bounded character of (2d) is the result of the use of a perfect tense.⁴

It is a matter of debate whether (a)telicity is a characteristic of a sentence, a predication or a situation. Strictly speaking, it is a situation as it is represented in a sentence rather than the clause or the situation as such that is telic or atelic, i.e., the speaker is free to decide how he will refer to a particular situation he observes (cf. e.g., Dahl 1981, p. 83; Declerck 1979, p. 764; Hatav 1989, p. 498; Moens 1987, p. 59; Smith 1982, p. 169). For instance, if a child is painting, this situation may be referred to by means of the sentence *Susan is painting a picture* (telic) as well as *Susan is painting* (atelic). From that point of view, (a)telicity characterizes a description of a situation. As the subject of the clause also affects (a)telicity (e.g., changing a singular NP into a plural NP may coincide with a change in (a)telicity), I consider (a)telicity to be a property of a sentence. The same comment applies to boundedness; it is a matter of choice on the part of the hearer how he will represent a particular situation:

- (3)a. Judith played in the garden for an hour. (bounded)
- b. Julian lived in Paris from February 1989 until May 1989. (bounded)
- (4)a. Judith was playing in the garden in the course of the afternoon. (unbounded)
- b. Julian lived in Paris at the time. (unbounded)

The sentences in (3) may refer to the same situations as the corresponding sentences in (4): in the latter case they are not represented as having ended, whereas in the former case they are. However, as Smith (1991, p. 126–127) correctly points out, contextual information and mutual knowledge may impose restrictions on how a particular situation is referred to. For reasons of simplicity, I will sometimes use the phrase *the situation is (un)bounded/(a)telic* instead of the more accurate phrase *the situation as it is represented in a particular sentence is (un)bounded/(a)telic*. (Un)boundedness and (a)telicity differ in the following respects:

a. The (a)telic character of a sentence, unlike (un)boundedness, is not affected by the progressive. The following examples are telic, irrespective of whether or not a progressive verb form is used:

⁴ As will be pointed out below, it is a matter of debate whether or not a sentence with a perfect referring to a situation that starts in the past and leads up to the present is bounded to the right.

- (5)a. John opened the parcel. (telic bounded)
- b. John was opening the parcel. (telic unbounded)
- (6)a. Ten firecrackers exploded (telic bounded)
- b. Ten firecrackers were exploding. (telic unbounded)

However, a change from bounded to unbounded brought about by a factor other than the progressive may coincide with a change from telic to atelic (cf. (7b) and (8b)):

- (7)a. John left at eight o'clock. (telic bounded)
- b. John leaves at eight o'clock. (atelic unbounded)
- (8)a. John read a book. (telic bounded)
- b. John read books. (atelic unbounded)

The use of a present tense in (7b) induces a repetitive reading; although the separate cases when John leaves are in themselves telic, the habit as such is not. In (8b), the use of a plural NP establishes an unbounded, atelic reading.

b. (Un)boundedness is not to be equated with the aspectual opposition progressive vs. non-progressive. The progressive form indeed establishes an unbounded reading in most cases (cf. (9b), (10b)) (cf. Declerck 1991a, pp. 121–122), but this is not the only way in which an unbounded reading can be arrived at (cf. (9c), (10c)):

- (9)a. I ate an apple. (bounded)
- b. I was eating an apple (unbounded)
- c. John eats an apple every day. (unbounded)
- (10)a. John lived in London for a year. (bounded)
- b. John is living in London. (unbounded)
- c. John lives in London. (unbounded)

Moreover, not all progressive sentences are unbounded:

- (11)a. A: Why are your hands so dirty?
 B: I've been playing in the mud. (bounded)
- b. A: Her eyes are red.
 B: She's been crying. (bounded)

In sentences like these, the effect of the progressive is overruled by the bounded reading established by the present perfect. Most discussions about taxonomies of the type under discussion centre around the question of (a)telicity (Aktionsart). (Un)boundedness as we have defined it has not received much attention in English linguistics. The following factors often make it difficult to determine which concept is being discussed:

- a. The examples given to illustrate the different classes are usually bounded telic or unbounded atelic.
- b. The factors that determine the classification (NPs, PPs, . . .) very often affect (un)boundedness as well as (a)telicity.
- c. There is a divergence in the nature of the tests used to distinguish between, for instance, states, activities, accomplishments and achievements: some tests enable us to classify a sentence as telic or atelic, others enable us to classify a sentence as bounded or unbounded, while still others apply to (a)telicity as well as (un)boundedness.⁵

As is clear from the examples given so far, (un)boundedness and (a)telicity indeed coincide very often. Before going into the necessity of a double distinction, we will compare our approach with that of Dahl (1981) and Moens (1987).

3. (UN)BOUNDEDNESS AND (A)TELICITY IN SOME OTHER WORKS

The number of linguists who have argued in favour of a double distinction is limited. Still, it may be interesting to see to what extent the double distinction Dahl (1981) and Moens (1987) make corresponds to what is here called (un)boundedness and (a)telicity.

3.1. *Dahl (1981)*

At first sight, Dahl's (1981) distinction between sentences having the P property and those having the T property appears to be related to the distinction between (un)boundedness and (a)telicity made here. 'A situation, process, action, etc. or the verb, verb phrase, sentence, etc. expressing this situation, etc. has the T property iff (. . .) it is directed toward attaining a goal or limit at which the action exhausts itself and passes into something else' (1982, p. 81). 'A situation, process, action, etc.' has the P property iff it has the T property and the goal, limit, or terminal point

⁵ A test often used to capture the difference between situation types is the following: if a sentence can be used in answer to the question 'How long does it take X to X?' it is an accomplishment or achievement. Activities and states can be used in answer to the question 'For how long?'. However, one runs into problems with telic sentences with a progressive form, as they do not collocate with an *in*-adverbial:

- (i) ?? He was pushing the cart into the barn in 15 minutes.

In other words, this test reveals something about the (un)boundedness rather than the (a)telicity of a sentence, unless one explicitly points out that the test should only be applied to non-progressive sentences.

in question is or is claimed to be actually reached' (1981, p. 82). Dahl summarizes the possible combinations of the P property and the T property as follows (1981, p. 82):

	not-T	T
not-P	<i>I was writing</i>	<i>I was writing a letter</i>
P	(does not occur)	<i>I wrote a letter</i>

However, some of Dahl's claims are not compatible with our approach:

a. 'The P property entails the T property' (1981, p.82). If the P property corresponded to (un)boundedness and the T property to (a)telicity, this would imply that all bounded sentences are telic, which is definitely not the case (cf. (10a) and (11)).⁶ The line of reasoning behind this claim seems to be that if a situation does not have an inherent endpoint, no endpoint can be reached. We have argued, however, that a particular situation may have actual temporal boundaries even if there is no inherent or intended endpoint to the situation.

b. 'Verb phrases that do not have the T property are always imperfective, whereas verb phrases that have the T property are perfective or imperfective according to whether they have the P property or not' (1981, p. 82). This observation suggests that the P property stands for (im)perfectiveness. As perfectiveness/imperfectiveness applied to a language such as English corresponds to the non-progressive/progressive distinction, it follows that the P property is not synonymous with (un)boundedness: as pointed out before, (un)boundedness should not be equated with the progressive/non-progressive opposition.

These two observations make it sufficiently clear that our (un)-boundedness is not synonymous with Dahl's P property.

3.2. Moens (1987)

Moens proposes the following taxonomy:

⁶ (10a) will be classified as telic if it was John's aim to stay in London for a year, for instance, in order to qualify for a permanent residence permit.

		EVENTS		STATES
		atomic	extended	
+conseq	CULMINATION recognize, spot win the race	CULMINATED PROCESS build a house eat a sandwich	understand, love, know resemble	
-conseq	POINT hiccough, tap, wink	PROCESS run, swim, walk play the piano		

He writes: 'Events will be referred to as "bounded" in that they are supposed to start and end at relatively precise points in time' (1987, pp. 57–58); if they have consequences they are telic (1987, p. 58). 'States are "unbounded" since (...) no reference is made to their start and end points' (1987, p. 58).

The following are certain respects in which our approaches differ:

- a. As bounded situations are 'supposed to start and end at relatively precise points in time' (i.e., there is no reference to the actual reaching of a terminal point), Moens' definition of boundedness seems to correspond with what we call telicity. However, in our approach, not all of Moens' classes subsumed under the category of events (i.e., culmination, culminated process, point, process) are inherently telic (in our sense), which they are in Moens' opinion.⁷
- b. Even if Moens' boundedness corresponds with what we understand by the concept boundedness, our approaches are still incompatible as not all of Moens' classes subsumed under the category of events are inherently bounded (in our sense), which they are in Moens' opinion.
- c. As pointed out above, Moens subdivides the event-categories into those that have consequences and those that do not. The former are telic, the latter atelic. The consequences can be referred to by means of a perfect tense. Moens then draws the conclusion that what he calls atelic events

⁷ This comparison exemplifies the terminological confusion which characterizes the Aktion-sart discussions: Moens' use of the term *bounded* could either correspond to what we call *bounded* or *telic*. His use of the term *telic* diverges from ours in that he reserves it for situations that have consequences, i.e., it indicates a subclass of what we call telic situations. On our approach, situations need not necessarily bring about a change of state (e.g., *The light flashed*) in order to be called telic situations.

cannot be used in a perfect tense sentence: 'Atelic extended events extend in time without such a final point. Because of this, they do not allow reference to consequences, as can be seen from the infelicity of *I have just worked in the garden*. Of course, *I have worked in the garden* can be used felicitously, for example in the case where *work in the garden* describes a particular job that had to be carried out. In this context, *work in the garden* has a particular terminal point associated with it; the perfect can then be used to refer to the consequences associated with this telic event' (1987, p. 58). If one adopts such an approach, it means that sentences such as *I have lived in London*, *The guests have complained about the bad service* should all be unacceptable, as they combine a perfect tense with a non-culminated process.

4. EFFECT OF NPs, PPs AND TENSE ON (UN)BOUNDEDNESS AND (A)TELICITY

Every effort has been made to list the factors which influence the classification of a sentence as an accomplishment, achievement, activity or state. As most discussions concentrate on the effect of particular constituents on the Aktionsart of a sentence, it is interesting to check whether they also influence the (un)boundedness of the sentence. Ever since Verkuyl (1972), linguists have been eager to point out that NPs affect a sentence's classification as telic or atelic (cf. e.g., Binnick 1991, p. 191; Brinton 1988, pp. 26, 45–50; Dowty 1986, p. 39; Heinämäki 1978, pp. 9–10; Mittwoch 1980, pp. 206, 211; Moens 1987, pp. 150–151; Mommer 1986, pp. 61–62, 80–83; Shi 1990, pp. 48–50; Zydatiss 1976, pp. 67–69, 95–96, 131). NPs affect (un)boundedness indirectly: if a NP has the effect of turning an atelic proposition into a telic one, and if the telic proposition is used in a non-progressive sentence, the latter will be bounded:

- (12)a. Petrol was leaking out of the tank. (atelic unbounded)
- b. The petrol was leaking out of the tank. (telic unbounded)
- c. The petrol leaked out of the tank. (telic bounded)

The use of a mass noun in an indefinite NP in (12a) makes the sentence atelic. The following examples also illustrate the effect of the NP:

- (13)a. I ate several apples. (bounded telic)
- b. I ate an apple. (bounded telic)
- c. I ate apples. (unbounded atelic)

The sentence in (13a) raises the question of how explicit the indication of a boundary should be in order for a sentence to be classified as bounded.

The NP *several apples* implies, but does not necessarily indicate a limited number. However, as there is an implication of limitation, sentence (13a) may be classified as bounded. The following sentence from Shi (1990) is an interesting one:

(14) Tourists drank the milk in an hour. (1990, p.49)

This sentence can be interpreted in several ways:

- a. There may be reference to a number of subsituations following each other. Tourists drank milk one after the other and it took each tourist an hour to drink the milk. Once one tourist had drunk his milk, the next tourist started drinking. The subsituations are bounded (and telic), the whole situation is unbounded (and atelic), as the subject NP does not indicate a limited number of tourists.
- b. Another possible interpretation is that it took each tourist an hour to drink the milk but the subsituations occurred at the same time, for instance, the tourists all started drinking at 9 o'clock and finished drinking at 10 o'clock. A limited number of tourists is implied. The situation is represented as bounded and telic.
- c. A third possibility is that the different tourists drank milk for e.g., five minutes. Once one tourist had finished drinking, the next one started drinking and the whole process took one hour of time. Again, there is an implicit limit on the number of tourists. The situation is represented as bounded and telic.

It has already been pointed out that (a)telicity and (un)boundedness characterize descriptions of situations and that from that point of view a particular situation is not inherently (a)telic or (un)bounded. Conversely, the sentence in (14) shows that one sentence may be ambiguous, it may be used to represent several situations. Another point which needs to be added in this respect is that the changes effected by a particular feature often result in the sentence referring to a different extra-linguistic reality. When discussing the factors that influence the categorization, linguists indeed seem to lose sight of this non-trivial proviso: although changing a singular NP into a plural NP, for instance, is likely to change a sentence's classification as bounded/unbounded or telic/atelic, it may also result in the sentence no longer capturing a particular situation. Although theoretically, the speaker can choose freely how a particular situation will be represented, the freedom is not complete because the situation imposes constraints on the linguistic material by which it can be represented (cf. *supra*). This observation applies to all the features possibly influencing (un)boundedness and (a)telicity. The following example may clarify the point made: if someone is reading a book, one might refer to that parti-

cular situation by means of either *John is reading* (atelic unbounded) or *John is reading a book* (telic unbounded): the addition of the direct object coincides with a change from atelic to telic. Changing the singular NP into a plural NP turns the sentence into an atelic unbounded statement: *John reads books*. However, if John is not in the habit of reading books, this statement is no longer a truthful presentation of the situation, although it does illustrate that NPs affect (a)telicity and (un)boundedness.

As is well-known, the influence of directional PPs on (un)boundedness is similar to that of NPs. A change from atelic to telic brought about by the addition of a directional PP will coincide with a change from unbounded to bounded provided the sentence is non-progressive:

- (15)a. John pushed the cart. (–directional PP) (unbounded atelic)
- b. John pushed the cart into the barn. (+directional PP) (bounded telic)
- c. John was pushing the cart into the barn. (+directional PP) (unbounded telic)

The following example shows that the use of plural NP may override the bounding effect of the directional PP:

- (15)d. John pushed carts into the barn. (+ directional PP) (atelic unbounded)

If the tense-Aktionsart interaction has been touched upon at all, it relates to the effect of the present tense. The following examples have been given to illustrate how this particular tense may change the Aktionsart of a sentence:

- (16)a. John wrote a good book.
- b. John writes a good book. (Moens 1987, p. 54)

Moens comments: ‘The example in [16b] will be interpreted as expressing a dispositional or habitual state of affairs, whereas [16a] will normally be interpreted as a description of a one-off event. It is clearly the difference in tense which accomplishes this aspectual distinction’ (Moens 1987, p. 54). Mommer (1986, p. 88) and Vasudeva (1971, p. 128) give similar examples showing that the use of a present tense instead of a past tense may coincide with a change from a single event reading to a series reading:

- (17)a. Nick crossed the Graffiti Bridge. (Mommer 1986, p. 88) (telic bounded)⁸

- b. Nick crosses the Graffiti Bridge. (atelic unbounded)
- (18)a. He arrived late. (telic bounded) (Vasudeva 1971, p. 128)
- b. He arrives late. (atelic unbounded)

The use of a non-progressive present tense to refer to present time events is restricted to 'instantaneous' situations (cf. Leech 1971, pp. 6–7). The present tense is usually reserved to refer to habits or states. As an event interpretation of a present tense is marked, sentences of the type given in (16b) to (18b) are likely to be given a habitual interpretation. In other words, it is because the present tense triggers a habitual reading that the sentence is classified as atelic and unbounded: although the separate occasions on which, for instance, Nick crosses the Graffiti Bridge are telic and bounded, the habit or series of instances as such is not. From this it follows that any factor which induces a habitual reading will affect a sentence's classification in terms of (un)boundedness and (a)telicity. This line of reasoning also implies that if a habitual reading is given to the sentences in (16a) to (18a), they will not be considered as bounded and telic either, but rather as unbounded and atelic. It still needs to be added that a habit or repetitive situation is not inherently atelic and unbounded. A repetitive situation can also be telic, i.e., if the number of times the situation holds is predetermined. *John went to London five times* is telic if it was John's aim to go there five times. *John went to London five times a year* will be classified as atelic and unbounded unless the period during which he had this habit is given in the context.

Bauer has pointed out that the use of a perfect tense results in a situation being represented as 'an accomplished fact' (Bauer 1970, p. 192; cf. also Smith 1991, p. 148). Although the use of the perfect affects (un)boundedness, it does not affect a sentence's aspect or Aktionsart, as the above linguist seems to suggest. The following examples show that the use of a non-progressive perfect tense may turn an unbounded sentence into a bounded one:

- (19)a. John too loves Mary. (unbounded atelic)
- b. John too loved Mary. (unbounded atelic)
- c. John too will love Mary. (unbounded atelic)
- d. John too has loved Mary. (bounded atelic)

⁸ The sentence in (17a) either refers to a single event or to a habitual situation. In the latter case, it is atelic. However, most telic sentences can be given a repetitive reading and therefore be classified as atelic. In the discussion which follows, sentences of this type will be considered to be telic, unless there is an explicit indication that repetition is involved. A similar line of reasoning applies to example (18a).

- e. At that time, it was clear that John too had loved Mary. (bounded atelic)
- (20)a. John plays football. (unbounded atelic)
- b. John played football. (unbounded atelic)
 - c. John will play football. (unbounded atelic)
 - d. John has played football. (bounded atelic)
 - e. It was clear that John had played football. (bounded atelic)

The non-progressive perfect sentences in (19) and (20) differ from the other examples in that they represent a situation as bounded. This observation has important consequences for the expression of temporal relations in past time sentences. Before illustrating this claim, the following point needs to be made. In the examples in (19) and (20), the perfect tense is of the 'indefinite' type (Declerck 1991a, p. 28), i.e., the perfect is interpreted as referring to a situation lying completely before the moment of speaking. There is also the question of how sentences with a 'continuative' perfect (Declerck 1991a, p. 31) (i.e., a perfect interpreted as referring to a situation that starts before the time of speaking and leads up to it) should be classified. In sentences of this type, the left boundary is explicitly mentioned and a right boundary is implicit in the structure of the continuative perfect itself, i.e., a situation starts in the past and leads up to now. However, the situation is not represented as ending, which explains why sentences with a continuative perfect may be said to be bounded to the left and unbounded to the right (cf. also Declerck 1991b, p. 100):

- (21)a. I have lived here since 1985.
- b. I have been waiting for you since 8 o'clock.

Although the situations in (21a) and (21b) are represented as having the moment of speaking as their right-hand boundary, they are not represented as ending at that particular moment.

5. THE RELEVANCE OF (UN)BOUNDEDNESS AND (A)TELICITY TO THE ANALYSIS OF TENSE AND ASPECT

It is widely known that (a)telicity is important for aspect. Every grammar dealing with the progressive points out that there are constraints on the use of a progressive form related to the type of situation referred to in the sentence.

Having listed some of the factors that influence a sentence's classification as bounded or unbounded, we are now also in a position to demonstrate why (un)boundedness is important for the use of tense. It is generally

known that reference to a situation that is anterior to a past reference time does not always require the use of a past perfect. The past tense is interchangeable with the past perfect provided the temporal relation of anteriority is not blurred:

- (22) He confessed he *had been (was)* very lonely when he lived in London.

However, substituting the past perfect for a past tense sometimes affects the temporal relation between two situations, as is clear from example (23):

- (23)a. Now that she was alone she lost all the inhibitions which *had confined* the poetry in her soul.
 b. Now that she was alone she lost all the inhibitions which *confined* the poetry in her soul.

The past perfect refers to a period of time lying completely before the main clause situation whereas the past tense represents the relative clause situation as a state that is simultaneous with the main clause situation. A similar comment applies to the restrictive relative clause example in (24):

- (24)a. He suddenly knew envy for the easy happiness with which she *had returned* to life, while his own return was so lonely and uneasy.
 b. He suddenly knew envy for the easy happiness with which she *returned* to life, while his own return was so lonely and uneasy.

The past perfect suggests that the process of returning to life is completely over, 'she is back in life'. When the past tense is used (24b), the process of returning to life is represented as going on at the time of the main clause situation: the relative clause situation is simultaneous with the main clause situation. The generalization to be derived from examples (23) and (24) is that whenever there is no pragmatic, especially contextual information which safeguards a correct temporal interpretation, changing a past perfect sentence with an atelic verb into a past tense sentence will coincide with a change from bounded to unbounded. This results in a change in temporal interpretation, i.e., the anteriority relation changes into a simultaneity relation. In other words, the notion (un)boundedness explains why there is a constraint on the interchangeability of the past tense and the past perfect to refer to an anterior situation.

(Un)boundedness is also the factor which determines whether a situation belongs to the foreground or background of a text. The foreground of a text is constituted by the sequence of chronologically ordered situ-

ations. The two basic characteristics determining the foreground/background status of a sentence are usually said to be the following:

1. Achievements/accomplishments belong to the foreground, states/activities belong to the background. (cf. Hinrichs 1986, p. 68)
2. Main clauses carry the action forward, subclauses do not. (cf. Labov and Waletzky 1967, p. 21; Reinhart 1984, p. 796)

The following examples, in which the foregrounded clauses are italicized, illustrate how the distinction should be understood:

- (25)a. [Dozing a little, Alleyn sat slumped forward in his seat] *A violent jerk woke him.* The train had slowed down. *He wiped the misty windowpane, shaded his eyes, and tried to look out into this new country.* The moon had risen. He saw arching hills, stumps of burnt trees, some misty whiteflowering scrub, and a lonely road. It was very remote and strange . . . *He turned to see Susan dab at her eyes with a handkerchief. She gave him a deprecatory smile.* (Dry 1981, p. 234).
- b. *Nick opened the door and went into the room.* Ole Anderson was lying on the bed with all his clothes on. He had been a heavyweight prizefighter and he was too long for the bed. He lay with his head on two pillows. He did not look at Nick. *'What was it?' he asked.* (Reinhart 1984, p. 783)

In spite of the fact that most of the rules of foregrounding are formulated in terms of the Vendlerian Aktionsart classes (achievement, accomplishment, state, activity), it is in fact (un)boundedness which determines whether or not the action is pushed forward. The question whether it is (a)telic sentences rather than (un)bounded sentences which are important for foregrounding has not gone entirely unnoticed. Hatav (1989), for instance, argues that what I call bounded atelic sentences may be 'located on the time line' (i.e., may push the action forward). She puts it as follows: 'Situations have end points iff they are contained in their RT [reference time], and only such situations can appear on the time line. Events are always contained in their R-time and hence are always candidates for the time line, but states are contained in it only when (a) they are interpreted as inchoatives or (b) their duration is restricted by overt linguistic marking, for example, adverbials such as 'for three hours'' (1989, p. 487). In her opinion, it is the reference to the temporal boundary of a situation which determines whether a situation appears on the time line or not. The logical outcome of such an approach is that bounded states or activities (i.e.,

bounded atelic sentences) may also be foregrounded (1989, p. 487). Hatav illustrates her claim with examples from Biblical Hebrew, Russian and French:

- (26) Quand on fut exténué, on fit la paix. (Hatav 1989, p. 491)

The first clause is bounded to the right. This sentence means that peace can only be made once a certain stage has been reached, i.e., when they are exhausted. This implies reference to a point of transition: they no longer feel like fighting (=end-point), they are tired (=initial point). In other words, the example in (26) is not bounded on both sides. Even so, the fact that such situations may belong to the foreground can already be taken as an indication that the important criterion is indeed (un)-boundedness rather than (a)telicity. Couper-Kuhlen (1987, p. 16) explicitly points out that (a)telicity is too narrow a concept to account for all the examples containing foregrounded clauses and therefore she rejects Nerbonne's idea that (a)telicity is the determining factor. Couper-Kuhlen's examples should prove that 'certain non-telic predicates will also be understood to refer to events in succession in narration' (Couper-Kuhlen 1987, p. 16):

- (27) The balloon popped. The child jumped. (Couper-Kuhlen 1987, p. 16)

The first clause is bounded telic. If the second clause is interpreted as a single action (bounded telic), there is reference to a sequence. However, the second clause could also refer to an iterative situation, in which case the child starts jumping as a result of the sudden explosion of the balloon, i.e., the second situation is bounded to the left. A similar comment applies to the following example:

- (28) The guide looked up at the sky. The tourists looked up at the sky.

If the situations in (28) are interpreted as telic and bounded, there is reference to a sequence: the guide looks up at the sky and as a result all the tourists look up at the sky. The difference with the example in (27) is that the situation referred to in (28) is a 'punktuelle Veränderung' (Schopf 1984, p. 103), i.e., it refers to an action plus a resulting state of affairs, that in the second sentence in (27) is a 'punktuelles Ereignis' (Schopf 1984, p. 99). The course of events in (28) could be represented as follows:

X-----
 X-----

On the bounded telic reading, the actions of looking up at the sky follow each other, the resulting states are simultaneous. When *look up at the sky* is interpreted as atelic and unbounded, the situations occur simultaneously. In other words, Couper-Kuhlen's examples are not unequivocally bounded on both sides either. Aristar Dry (1983) also touches upon the (un)boundedness-(a)telicity issue. When describing the factors which result in a situation being understood as foregrounded, Aristar Dry (1983) rejects the view expressed in an earlier article of hers (Dry 1981) that it is a change of state that pushes the action forward: 'Although that assertion is true within limits, I have come to see that it should be broadened: references to changes of states necessarily constitute references to points – the beginning and ending points of situations – but sentences like (5) indicate that reference to sequenced points which are not changes of state also trigger perception of time movement:

- (5)a. At twelve the sky was threatening (b) and at one there was no change.

So this paper argues that those constructions that move time refer to sequenced points, not changes of state' (Dry 1983, p. 23). Although Dry does not use the terms (a)telic or (un)bounded, the following quote also indicates that it is (un)boundedness she has in mind: 'It is reference to sequenced temporal points which triggers the illusion of time movement; and [. . .] the points most often referred to are initial and final points of situations' (1983, p. 47). The above observations prove that foregrounding should be formulated in terms of (un)boundedness rather than (a)telicity or Vendlerian situation types (cf. also Declerck 1991a, pp. 124–125, 138). However, the examples with which that claim has so far been substantiated are not bounded 'on both sides'; the states or activities in (26) to (28) are bounded to the left/right. The examples in (29) do contain bounded atelic situations and show that they may indeed belong to the foreground:

- (29)a. There was a small ivory push button beside the door marked '405'. I pushed it (. . .) and *waited for what seemed a long time*. Then the door opened noiselessly about a foot. (Couper-Kuhlen 1989, pp. 15–16)
- b. He signed a contract with IBM, *for whom he worked for three years*.

6. CONCLUSION

This article provides evidence for the necessity of a distinction between potential endpoints and actual temporal boundaries, the former notion being captured by *(a)telicity*, the latter by *(un)boundedness*. A comparison has been made between this double distinction, first introduced by Declerck (1989), and those made by Dahl (1981) and Moens (1986). Having examined how NPs, directional PPs and tense affect a sentence's classification as bounded or unbounded, we have been able to demonstrate that *(un)boundedness* is important for the use of tense and the interpretation of temporal relations in English.

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