

# *Infinitival before and after*-clauses in European Portuguese: temporal and aspectual properties

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**ABSTRACT.** The main goal of this paper is to discuss temporal and aspectual features of sentences with clauses introduced by the connectives *antes de* + Infinitivo ('before' + Infinitive) and *depois de* + Infinitivo ('after' + Infinitive) combined with situations in the *Pretérito Perfeito* in European Portuguese. Our discussion is based on the widespread view that these clauses are locating adverbials (cf. Kamp and Reyle (1993)) with temporal information of anteriority, in the case of *antes de*, and posteriority, in the case of *depois de*. However, this analysis is not as straightforward as one would expect, because, while *before*-clauses consistently render the same temporal relation (of anteriority), *after*-clauses may convey a temporal relation of inclusion, in addition to the standard posteriority relation. We put forward the hypothesis that aspectual characteristics play an important role in these differences, insofar as allowing a temporal reading that at first sight is not predicted from the semantic nature of the connective.

In order to maintain a uniform treatment of *before* and *after*-clauses with respect to their temporal features, accounting simultaneously for the differences that emerge in their linguistic behaviour, we claim, along with Beaver & Condoravdi (2003) and Condoravdi (2010), that the locating time interval provided by these clauses is bounded to the left, but not to the right, that is, what is focused is the initial frontier of the situation that provides the time interval, leaving the final one undetermined. Furthermore, we show that, although the temporal mechanisms are parallel, the interference of aspectual properties leads to interesting differences in the final interpretation of *before* and *after*-sentences.

**KEY-WORDS.** semantics; *before* and *after*-clauses; temporal and aspectual features; European Portuguese

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We would like to thank Fátima Oliveira, António Leal, Fátima Silva and Idalina Ferreira for their support, as well as CLUP and FCT. We would also like to express our gratitude to the anonymous reviewers for their thorough and valuable comments.

<sup>1</sup> Paper financed by Fundação para a Ciência e a Tecnologia, QREN – POPH – Tipologia 4.1. – Formação avançada, participada pelo Fundo Social Europeu e por fundos nacionais do MEC.

## 1. Introduction

One of the most common and widespread views about subordinate sentences introduced by *antes de* ('before') and *depois de* ('after') is that they act as temporal locating adverbials (cf. Partee (1984); Hinrichs (1986); Kamp & Reyle (1993); García Fernandez (1999); Lopes & Morais (1999); Declerck (2006), among others), establishing the Location Time (Lt) for the main clause with which they are combined.

The main goal of this paper is to discuss the temporal<sup>2</sup> and aspectual features of sentences with clauses introduced by the connectives *antes de* + Infinitivo ('before' + Infinitive) and *depois de* + Infinitivo ('after' + Infinitive) combined with main clauses in the *Pretérito Perfeito*<sup>3</sup> in European Portuguese<sup>4</sup>, aiming at obtaining a unified treatment of these constructions that, nonetheless, is able to deal with some problematic data that earlier proposals did not take into account or did not develop to a full extent (cf. Partee (1984); Beaver & Condoravdi (2003), and, specifically for European Portuguese, Mória (2000); Lobo (2014); Silvano (2010), a.o.). In order to achieve this goal, we will follow Beaver & Condoravdi's (2003) analysis regarding the choice of the relevant intervals for the eventualities of *before* and *after*-clauses. However, we will develop their proposal by focusing on the consequences of such an analysis with respect to the aspectual treatment of the eventualities represented in the subordinate clauses under discussion.

Typically, *before*-clauses locate the situation presented in the main clause at an interval prior to the time at which the eventuality they describe takes place; conversely, *after*-clauses impose a relation of posteriority to the situation in the main clause with respect to the interval they identify.

However, as we will discuss shortly, there are empirical data that conflict with this analysis, asking for a more elaborate explanation. In particular,

<sup>2</sup> In this paper, we are mainly concerned with the influence of the eventualities' aspectual features in the final temporal interpretation of the sentences. However, we will not explore the role played by tenses in these sentences. For a detailed discussion, see Declerck (2006) and Silvano (2010).

<sup>3</sup> Notice that, in European Portuguese, there are two tenses that correspond to the English Simple Past, the *Pretérito Perfeito*, with a terminative value, and the *Pretérito Imperfeito*, with an imperfective value (Cf. Oliveira & Lopes (1995), Oliveira (2003; 2013) for a characterization of tenses in European Portuguese).

<sup>4</sup> In European Portuguese, besides the structures that select the Infinitive, *antes* ('before') can also combine with inflected sentences introduced by *que* ('that') and selecting the Subjunctive. However, as pointed out by Marques & Alves (2014), these two constructions differ in many respects. In particular, some sentences with *antes que* + *Conjuntivo* ('before that + Subjunctive') behave much like purpose clauses in so far as they involve some kind of intentionality associated to the attainment of a particular goal – that of avoiding the situation described in the subordinate clause or its consequences. We will not deal with these structures here, referring the interested reader to Marques & Alves' work.

regarding the relationship between the eventualities, although all *before*-clauses combined with *Pretérito Perfeito* in the main clause impose a precedence relation, not all *after*-clauses in the same context determine a relation of succession, because, given the appropriate circumstances, they can have readings in which some kind of inclusion emerges. We argue that this asymmetry calls for an analysis in which temporal properties closely interact with aspectual characteristics, in order to preserve a unified treatment of *before* and *after*-clauses.

## 2. The puzzle

Commonly, *before* and *after*-clauses are treated as entirely symmetric temporal adverbials that supply the location time <sup>5</sup> for the main clauses with which they co-occur. <sup>6</sup> *Before*-clauses locate the main situation in an interval preceding the location time they establish; conversely, *after*-clauses locate the main situation in an interval following the location time they define.<sup>7</sup> Examples (1) and (2) illustrate:

- (1) Antes de ir ao cinema, o João jantou. ( $e_2 < e_1$ )  
'Before of go (INF.) to-the cinema, the João dine (S.PAST PERF)<sup>8</sup>  
'Before going to the cinema, João had dinner'
- (2) Depois de ir ao cinema, o João jantou. ( $e_1 < e_2$ )  
'After of go (INF.) to-the cinema, the João dine (S.PAST PERF)'  
'After going to the cinema, João had dinner'

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<sup>5</sup> As far as the Temporal Perspective Point of the situation represented by the main clause is concerned, since we are dealing with data with the *Pretérito Perfeito*, the interval that acts as TPpt is the utterance time. For the analysis of the TPpt in data with other tenses, see Silvano 2010.

<sup>6</sup> Another aspect in which *before* and *after*-clauses differ considerably – and, thus, are not symmetric – concerns the veridicality of the relevant situations (cf. Krifka 2010). While *after*-clauses are always veridical, the sentences represented in *before*-clauses may convey non-veridical eventualities. It is the case, for instance, of the event in the *before*-clause of a sentence like “before composing his *requiem*, Mozart died” (i.e., actually, Mozart did not compose his *requiem*). Since a discussion involving modality is called for properly explain these readings, and it goes beyond the goal of the present research, we will not address further the problem in this paper.

<sup>7</sup> It is interesting to note, with Krifka (2010, section 4), that *after* and *before*-clauses can include measuring temporal phrases in their structure, as illustrated by examples like “O João tomou o pequeno-almoço meia hora antes de sair” (‘João had his breakfast half an hour before leaving’). The fact that the measure phrases are directly associated to the *before* or *after*-clause can be invoked as an additional argument in favour of the idea that it is the subordinate sentence – and not the main one – that establishes the relevant locating interval.

<sup>8</sup> S.PAST PERF stands for the tense Simple Past with the aspectual value terminative.

As expected, the main situation in (1) – “João had dinner” – is located in an interval that precedes the eventuality that establishes the location time – “João going to the cinema”. The substitution of the connective *antes* (‘before’) for *depois* (‘after’), however, produces the opposite result: in (2) the main situation – “João had dinner” – follows obligatorily the eventuality that establishes its location time, namely “João going to the cinema”, as expected by the lexical meaning of the connectives.

However, if we consider now the presence of stative situations in the subordinate clause, we find that an exact parallelism between configurations involving the connectives *before* and *after* is not observed. Consider the following sentences:

- (3) Antes de estar grávida, a Maria comprou roupas novas.  
 ‘Before of be (INF.) pregnant, the Maria buy (S.PAST PERF) clothes new’  
 ‘Before being pregnant, Maria bought new clothes’
- (4) Depois de estar grávida, a Maria comprou roupas novas.  
 ‘After of be (INF.) pregnant, the Maria buy (S.PAST PERF) clothes new’  
 ‘After being pregnant, Maria bought new clothes’

Like (1), (3) has only one possible reading, in which Maria bought new clothes in an interval that obligatorily precedes her pregnancy. However, contrary to (2), (4) is ambiguous, conveying two distinct interpretations: in one of them, parallel to (2), Maria bought new clothes in an interval that is completely posterior to her pregnancy (that is, in a period of time in which she is no longer pregnant); in the other one, however, Maria bought new clothes in an interval that is included in her pregnancy state (that is, in a period of time in which she is still pregnant).

The question we are faced with is whether these data mean that we have to treat differently the semantics of *before* and *after*-clauses. That is, we wonder whether the data adduced above validate a hypothesis of analysis in which the semantic mechanisms of temporal location of *after* and *before* differ significantly. Nevertheless, such an option would, in our view, bear undesirable consequences.

First, a completely separate temporal analysis for *before* and *after*-clauses would obscure the intuitive parallelism that nevertheless seems to

exist between these two configurations. We would lose a desirable uniform treatment for these structures.

Second, it would be necessary to postulate two distinct temporal analyses for the different temporal readings associated to *after*-clauses: a posterior and an inclusive one. It is, though, not clear that this ambiguity can be directly ascribed to the lexical features of the connective *after*.

A third shortcoming of this kind of analysis has to do with the fact that it would not properly take the central role played by aspectual restrictions into account. As we will demonstrate shortly, the aspectual class of the predication of the subordinate clause is decisive regarding the interpretative possibilities observed in these sentences.

So, we will pursue in this paper the hypothesis that *after* and *before*-clauses show symmetric temporal features that lead to symmetric mechanisms of temporal location. The interpretative divergences that we have noticed earlier can be explained by the interaction of these constant mechanisms of temporal location with some relevant aspectual characteristics of the predications at issue.

Before presenting our proposal, we will look more closely at the interaction between the aspectual classes occurring in *before* and *after*-clauses and the different temporal interpretations.

### 3. Aspect and temporal interpretation in *before* and *after*-clauses

*Before*-clauses with *Préterito Perfeito* in the main clause exhibit an invariable temporal interpretation, regardless of the aspectual class of the predication in the subordinate clause. They consistently locate the situation of the main clause in an interval that entirely precedes the occurrence of the eventuality in the subordinate clause. The following examples illustrate this:<sup>9</sup>

- (5) Antes de fechar a loja, a Teresa arrumou os livros. (culmination)  
'Before of close (INF.) the shop, the Teresa arrange (S.PAST PERF) the books'  
'Before closing the shop, Teresa arranged the books'

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<sup>9</sup> We will follow here the aspectual classification proposed in Moens (1987) and Moens & Steedman (1988). Notice also that we will only concentrate on the aspectual class of the predication in the subordinate clause, since it establishes the relevant Lt, ignoring that of the main clause.

- (6) Antes de escrever o artigo, o Luís comeu um chocolate. (culminated process)  
 'Before of write (INF.) the paper, the Luís eat (S.PAST PERF) a chocolate'  
 'Before writing the paper, Luís ate a chocolate'
- (7) Antes de viajar, o João encontrou-se com a Maria. (process)  
 'Before of travel (INF.), the João meet (S.PAST PERF) with the Maria'  
 'Before travelling, João met with Maria'
- (8) Antes de viver em Londres, o Pedro trabalhou na IBM. (state)  
 'Before of live (INF.) in London, the Pedro work (S.PAST PERF) in-the IBM'  
 'Before living in London, Pedro worked for IBM'
- (9) Antes de ser futebolista, o Rui estudou filosofia. (state)  
 'Before of be (INF.) football-player, the Rui study (S.PAST PERF) philosophy'  
 'Before being a football player, Rui studied philosophy'

In all of these sentences, regardless of the aspectual class of the predication that occurs in the *before*-clause, we observe that the two situations establish a relation of succession: the end of the situation in the main clause must have taken place in an interval that necessarily comes before the beginning of the eventuality in the subordinate clause. In other words, the two situations never overlap.

Consider now similar examples with *after*-clauses:

- (10) Depois de fechar a loja, a Teresa arrumou os livros. (culmination)  
 'After of close (INF.) the shop, the Teresa arrange (S.PAST PERF) the books'  
 'After closing the shop, Teresa arranged the books'
- (11) Depois de escrever o artigo, o Luís comeu um chocolate. (culminated process)  
 'After of write (INF.) the paper, the Luís eat (S.PAST PERF) a chocolate'  
 'After writing the paper, Luís ate a chocolate'
- (12) Depois de trabalhar, o João encontrou-se com a Maria. (process)  
 'After of work (INF.), the João meet (S.PAST PERF) with the Maria'  
 'After working, João met with Maria'
- (13) Depois de viver em Londres, o Pedro trabalhou na IBM. (state)  
 'After of live (INF.) in London, the Pedro work (S.PAST PERF) in-the IBM'  
 'After living in London, Pedro worked for IBM'
- (14) Depois de ser futebolista, o Rui estudou filosofia. (state)  
 'After of be (INF.) football-player, the Rui study (S.PAST PERF) philosophy'  
 'After being a football player, Rui studied philosophy'

The temporal analysis of these sentences is not as straightforward as the one ascribed to the previous group of examples. Sentences (10)-(12), integrating events in the subordinate clause, are entirely symmetric with respect to their counterparts in (5)-(7). So, the eventualities represented in the main clause begin in an interval that obligatorily follows the end of the situation in the subordinate clause; overlap of the two eventualities is never possible.

Examples (13) and (14), however, pose an interesting problem. Surprisingly, as noted in Cunha (2004), they seem to be ambiguous between a complete successive reading and an inclusive reading. For instance, in sentence (13), it is equally possible that Pedro worked for IBM in a period of time in which he is no longer in London – he could have moved to Paris –, corresponding to the interpretation ( $e_1 < e_2$ ) or that Pedro worked for IBM while he was still living in London, corresponding to the interpretation ( $e_1$  includes  $e_2$ ). In this latter reading, partial overlap between the eventualities is admitted.

Contextual factors, as well as our world knowledge, can favour one of these two possibilities, as the contrast between (15) and (16) demonstrates:

- (15) Depois de ser futebolista, o Rui treinou o FC Porto.  
'After of be (INF.) football-player, the Rui coach (S.PAST PERF) the FC Porto'  
'After being a football player, Rui coached FC Porto'
- (16) Depois de ser futebolista, o Rui jogou em grandes estádios.  
'After of be (INF.) football-player, the Rui play (S.PAST PERF) in great stadiums'  
'After being a football player, Rui played in great stadiums'

While the most likely reading for (15) points to the complete posteriority of the Rui's coaching event regarding his being-a-football-player state, the preferred interpretation for (16) involves the inclusion of playing-in-great-stadiums situation into the being-a-football-player state.<sup>10</sup>

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<sup>10</sup> In spite of the fact that some native speakers may find the inclusion reading in these contexts marginal, there are several examples produced in real communicative contexts that strongly point to this interpretation (cf. (i) e (ii)).

- (i) Pouco tempo depois de estar no Governo, Mariano Gago suspendeu a última fatia do Praxis destinada ao Taguspark (...). (*Cetempúblico par = ext337967-clt-96a-1*)  
(ii) Mas há mais alguns sentidos que só descobri depois de ser médico. (<http://www.portaldasaude.pt/porta/conteudos/a+saude+em+portugal/ministerio/comunicacao/discursos+e+intervencoes/nova+medicina.htm>)

Finally, it should be noted that the possibility of having an inclusive reading is highly restricted to the presence of a stative predication in the *after*-clause<sup>11</sup>; if we have events in this context, only an interpretation of posteriority is licensed (cf. examples (10)-(12)).

#### 4. Towards a uniform treatment of *before* and *after*-clauses

Taking the examples discussed so far into account, we might wonder whether it is indeed possible to maintain a symmetric and unified analysis for *before* and *after*-clauses that, nevertheless, is also able to explain the observed interpretative divergences between these structures. We will argue in favour of this possibility. Thus, the hypothesis we will develop here, based on the interaction between temporal and aspectual properties, follows such a strategy.

First of all, we will assume, as we have already mentioned, along with Partee (1984), Hinrichs (1986), Kamp & Reyle (1993), Lopes & Morais (1999), Mória (2000), Beaver & Condoravdi (2003), among many others, that both *before* and *after*-clauses help to establish the location time for the interval of the main clause. In the case of *before*, the main clause is located in an interval prior to its location time; conversely, in the case of *after*, the main clause is located in a time interval following its location time.

However, we have to look into the exact nature of that location time. If we consider that the location time interval corresponds to the whole situation represented in the subordinate clause, we would obtain wrong predictions. In particular, sentences like (13), (14) and (16), in their inclusive readings, would be immediately ruled out, since, under that analysis, we could only obtain a successive relation between the two eventualities. In other words, overlap would never be possible, contrary to facts.

Following Beaver & Condoravdi (2003) and Condoravdi (2010), we will assume that the relevant location time is provided, not by the eventuality as a whole, but, instead, by a salient part of the phase structure associated to the situation in the subordinate clause, as proposed by Heinämäki (1974), among other authors, for similar structures. By default, this will be the initial

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<sup>11</sup> Partee (1984: 262) claims that *before* and *after*-clauses cannot occur with states and processes arguing that apparent states or processes must be interpreted as events inchoatively or, especially with *after*-clauses, terminatively. Nevertheless, such a stipulation does not explain the inclusive temporal interpretation that arises in sentences like (16).



boundary of the eventuality. The truth conditions are presented in (17):

- (17) a. A Before B iff  $(\exists t \in A) t < \textit{earliest.B}$   
b. A After B iff  $(\exists t \in A) t > \textit{earliest.B}$  (Condoravdi (2010: 887))

Taking into account that, in European Portuguese, *after* and *before*-clauses select infinitive forms, for statives and processes their initial frontier is the only available boundary, since these aspectual classes do not convey, by themselves, an intrinsic endpoint.<sup>12</sup>

On this assumption, the relevant data concerning *before*-clauses are easily explained: since the situation represented in the main clause must be (completely) located in an interval prior to the initial boundary of the eventuality in the subordinate clause, a relation of anteriority is always required.

Overlap is immediately ruled out, at least as far as situations combined with the *Pretérito Perfeito*<sup>13</sup> are concerned, since they must be completely located in an interval that precedes the beginning of the eventuality presented in the *before*-clause.

The case of *after*-clauses is more complex. Beaver & Condoravdi (2003) and Condoravdi (2010) assume, as we have already pointed out, the same analysis for *before* and *after*-clauses in English, the only difference being the temporal ordering relation (cf. (17)). However, such an analysis does not fully explain the data. That is why Krifka (2010) proposes that the relation between the two relevant time intervals must be of precedence and overlap and not only precedence. This temporal characterisation properly describes examples such as (18):

- (18) The lights went off after she tripped the switch. (Krifka (2010: 921))

Nonetheless, neither author explores the role of aspect in these temporal interpretations.

Heinämäki (1974) and Móia (2000) put forward a proposal that tries

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<sup>12</sup> For those few Portuguese native speakers that find some ambiguity with culminated processes, the relevant boundary may be either the initial one or the culmination itself (cf. Lopes & Morais (2000) for a detailed discussion of this issue).

<sup>13</sup> Cf. note 3.

to account for different readings of *before* and *after*-sentences taking into consideration the aktionsart of the relevant situations. They propose the following: "(i) *before* indicates an anteriority relation between the beginning of the eventuality **ev'** represented in the subordinate structure, and either the end (for accomplishments) or the beginning (for other aktionsart types) of the eventuality **ev** represented in the main clause; (ii) *after* indicates a posteriority relation between *some subinterval* of the eventuality **ev** represented in the main clause and either the end (for accomplishments) or the beginning (for other aktionsart types) of the eventuality **ev'** represented in the subordinate clause" (cf. Mória 2000:190). Although we are not going to discuss it in detail, we would like to address a few problems.

First, it does not properly distinguish between the behavior of states and processes in *after*-sentences. As we have observed in examples (12) and (16), these aspectual classes may lead to different temporal interpretations: while with processes there is normally a successive reading, with states an inclusive reading may occur. Second, as it stands, the proposal does not explain the two possible temporal readings observed when states appear in subordinate *after*-clauses.

Our analysis aims at solving these problems in a straightforward manner, while simultaneously providing a uniform treatment for *before* and *after*-sentences.

If the *after*-clause integrates non-durative situations, i.e., culminations and points, the only possibility is a successive relation: since duration is irrelevant for these aspectual classes, the consideration of their initial boundary does not affect the location of the main clause that must occupy an interval necessarily following the whole eventuality. This explains the posteriority relation obtained in examples like (10).

The case of statives is, however, different. Since the eventuality of the main clause must be located in an interval following the beginning of the stative in the *after*-clause, it can occur either in a period of time entirely posterior to the occurrence of the whole state (cf. the successive readings of (13)-(15)), or in a period of time in which the state still holds (cf. the inclusive readings of (13), (14) and (16)).

In fact, taking the initial boundary of the state as the relevant location time for the posteriority relation enables us to account for both the successive

and the inclusive readings, due to the possibility of the state to persist in time beyond its reference time, originating an inclusive relation, or to stop before the main situation occurs, giving rise to a successive relation.

With respect to durative events, we have to justify why a reading of inclusion is impossible with processes and culminated processes, taking into account that the location time for the posteriority relation may be their initial boundary.

The answer can be found if we resort to Kamp & Reyle's (1993) proposals on the relationship between aspectual classes and their reference times. According to the authors, while statives overlap with their reference times (Rpts), events (including durative ones) must be included in their respective Rpts.

If we assume that (i) an event is completely included in its reference time and (ii) this Rpt is taken into account to establish the relevant location time for the temporal relation of posteriority required by *after*-clauses, succession is the only possible result for processes and culminated processes, as the sentences in (11)-(12) confirm. Since events cannot occur beyond their reference times, and these intervals are relevant for computing temporal relations between sentences, they can never give rise to a relation of inclusion in *after*-clauses. On the other hand, since states overlap with their reference times – and these interfere with location times –, statives can extend beyond them: this fact, combined with the left-boundary assumption, explains the emergence of the two different interpretations discussed so far. In fact, the situation of the main clause can only be located in an interval that follows the beginning of the state provided by the *after*-clause: if the stative goes beyond its Rpt and, thus, also beyond the location time for the main clause, we have an inclusive reading; if, on the other hand, it ceases before the interval in which the eventuality is located, we obtain a successive reading.<sup>14</sup> The choice of one or the other interpretation depends on information sources such as lexical properties and world knowledge.

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<sup>14</sup> We could simplify our assumptions by stating, with Mória (2000: 193), that "typically, atelic eventualities overlap with the location time, while telic eventualities are included in the location time." However, the relationship between location times and Aktionsarten is much more complex. For instance, in a sentence like "O João esteve doente em 1999" ('João was sick in 1999'), the inclusion of the state in its location time seems to be the most salient reading, and the overlapping reading seems quite odd. Thus, we prefer to maintain a proposal in which we establish a link between reference times and location times.

To sum up, *before*-clauses locate the situation of the main clause in an interval that precedes the location time provided by the initial boundary of the situation they describe. As a consequence, only successive readings are available, at least with the *Pretérito Perfeito*, which imposes terminativity to the main (located) situation. In turn, *after*-clauses locate the situation of the main clause in an interval that follows the location time provided by the initial boundary of the situation they describe. As a consequence, events in the subordinate clause obligatorily determine successive interpretations, since they are included in the respective reference times. States, on the other hand, enable both successive and inclusive readings, since they overlap with their reference times and the only requirement to be satisfied is that the main situation be located at an interval that follows the initial boundary of the state. Note that these reference times are taken into account when establishing the relevant location intervals for the situations in the main sentences of *before* and *after*-clauses.

Finally, (i) since, as we have seen, it is the subordinate clause that provides the location time for the main clause and (ii) it is the initial boundary of the eventuality in the subordinate clause that seems to be relevant in setting the temporal location, it follows that the situations in the main clause have no particular contribution regarding the temporal relation at hand. So, the predications described in the main clause combined with the *Pretérito Perfeito* are, as expected, uniformly treated as terminated eventualities, irrespective of their aspectual character. So, due to the semantic properties of the above-mentioned tense, even statives in a main clause of a *before*-sentence cannot overlap with the situation in the subordinate clause, as the following examples confirm:

(19) Antes de viajar, o João esteve doente.

‘Before of travel (INF.), the João be (S.PAST PERF) sick’

‘Before travelling, João was/felt sick’

(20) Antes de partir para Londres, o Rui foi jogador de futebol.

‘Before of leave (INF.) to London, the Rui be (S.PAST PERF) player of football’

‘Before leaving to London, Rui was a football player’

Notice that, in spite of the presence of statives in the main clause, the only possible readings for sentences (19) and (20) are those where João is no longer sick when he travels and where Rui is no longer a football player when he leaves to London, respectively. That is, when states occur in the main clause, their interpretation is mainly conditioned by the temporal information of the subordinate clause and, due to the temporal features of the *Pretérito Perfeito*, the only available reading is the terminative one.<sup>15</sup>

## 5. Conclusions

Although the data concerning *before* and *after*-clauses apparently call for a distinct, separate treatment for these structures, we argue that a uniform and symmetric analysis is feasible. In particular, we have held the idea that *before* and *after*-clauses behave as temporal localisers, imposing a relation of anteriority or posteriority to the situations described in the main clauses with which they combine, respectively.

In order to account for the clear differences exhibited by *before* and *after*-sentences, we have proposed, following Beaver & Condoravdi (2003) and Condoravdi (2010), that it is the initial boundary of the situation in the subordinate clause, and not the whole eventuality, that is taken as the location time for the main predication. We took this analysis further by showing that aspectual factors play an important role regarding the final readings associated to these temporal structures. In particular, the opposition between events and states is determinant for the final interpretation of the configurations at issue.

Overall, although the temporal mechanisms are parallel, the interference of aspectual properties leads to interesting differences in the final interpretation of *before* and *after*-sentences.

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<sup>15</sup> The temporal prominence of the left boundary of the situation in the subordinate clause is so important in the temporal structuring of these cases that, even when the *Imperfeito* (Imperfect) is used, a successive non-overlapping reading occurs frequently, as in “Antes de encontrar a Maria, o João estava contente” (‘Before meeting Maria, João was happy’). Since we will not deal with the Imperfect in our paper, we leave a deeper analysis of examples like these for future research.

## REFERENCES

- Beaver, D. & Condoravdi, C. 2003. A Uniform Analysis of *Before* and *After*. In: R. B. Young, & Y. Zhou, (Eds.). *Proceedings from Semantics and Linguistic Theory XIII*. Ithaca: Cornell University, 37-54.
- Condoravdi, C. 2010. NPI licensing in temporal clauses. *Natural Language & Linguistic Theory*. 28:4, 877-910.
- Cunha, L. F. 2004. *Semântica das Predicações Estativas. Para uma Caracterização Aspectual dos Estados*. PhD Dissertation. Porto: Faculdade de Letras da Universidade do Porto.
- Declerck, R. 2006. Adverbial *Before*-clauses and *After*-clauses. *The Grammar of the English Tense System*. Berlin: Mouton de Gruyter.
- García Fernandez, L. 1999. Los Complementos Adverbiales Temporales. La Subordinación Temporal. In: I. Bosque & V. Demonte (Eds.). *Relaciones Temporales, Aspectuales y Modales*. Volume 2, Chapter 48. Madrid: Editorial Espasa Calpe, S.A., 3129-3208.
- Heinämäki, O. 1974. *Semantics of English Temporal Connectives*. PhD Dissertation. Austin: University of Texas (reproduced by the Indiana University Linguistics Club, Bloomington, 1978).
- Hinrichs, E. 1986. Temporal Anaphora in Discourses of English. *Linguistics and Philosophy*, volume 9, 1. D. Reidel Publishing Company, 63-82.
- Kamp, H. & Reyle, U. 1993. *From Discourse to Logic: Introduction to Modeltheoretic Semantics of Natural Language, Formal Logic and Discourse Representation Theory*. Dordrecht: Kluwer Academic Publishers.
- Krifka, M. 2010. Before and After without Coercion: Comment on the Paper by Cleo Condoravdi. *Natural Language and Linguistic Theory*. 28: 911-929.
- Lobo, M. 2013. Subordinação adverbial. In: E.P. Raposo et al. (Eds.). *Gramática do Português*. Lisboa: Fundação Calouste Gulbenkian. Volume 2. 1981-2057.
- Lopes, A. C. M. & Morais, M. da F. 2000. *Antes e Depois: Elementos para uma Análise Semântica e Pragmática*. *Revista Portuguesa de Filologia*. Volume XXIII, 1999 – 2000: 183-243.
- Marques, R. & Alves, A. T. 2014. Sobre as variações de modo nas frases subordinadas temporais com *antes*. In: *Textos Seleccionados do XXIX Encontro Nacional da Associação Portuguesa de Linguística*. Porto: APL, 333-343.
- Moens, M. 1987. *Tense, Aspect and Temporal Reference*. PhD Dissertation. Edinburgh: Centre for Cognitive Science, University of Edinburgh, Scotland.

- Moens, M. & Steedman, M. 1988. Temporal Ontology and Temporal Reference. *Computational Linguistics*. Volume 14, number 2: 15-28.
- Móia, T. 2000. *Identifying and Computing Temporal Locating Adverbials with a particular focus in Portuguese and English*. PhD Dissertation. Lisbon: Faculdade de Letras da Universidade de Lisboa.
- Oliveira, F. & Lopes, A. 1995. Tense and Aspect in Portuguese. In Thieroff, R. (Ed.) *Tense Systems in European Languages II*. Tübingen: Max Niemeyer Verlag, 95-115.
- Oliveira, F. 2003. Tempo e Aspecto. In M. H. Mateus et al. *Gramática da Língua Portuguesa*. Lisboa: Ed. Caminho.
- Oliveira, F. (2013) Tempo Verbal. In. Raposo, E.P. et al. (Eds.). *Gramática do Português*. Volume II. Lisboa: Fundação Calouste Gulbenkian, 509-556.
- Partee, B. 1984. Nominal and Temporal Reference. *Linguistics and Philosophy*. 7: 243-286.
- Silvano, P. 2010. *Temporal and rhetorical relations: the semantics of sentences with adverbial subordination in European Portuguese*. PhD Dissertation. Porto: Faculdade de Letras da Universidade do Porto.