On temporal constructions involving counting from anchor points

Semantic and pragmatic issues

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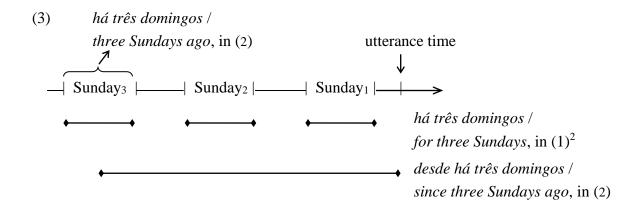
Introduction

This paper focuses on two closely related subtypes of **temporal expressions**, illustrated in (1) and (2) below. The property that brings them together is the fact that they both involve **counting of temporally ordered entities** (such as weekdays – Sundays, in the examples below –, calendar years or sport seasons, for instance). I will concentrate on Portuguese and English, although parallel expressions in other languages, such as French or Spanish, seem to behave similarly with respect to the issues at stake.

- (1) a. O Paulo não vai à igreja há três domingos."the Paulo not goes to-the church there-is three Sundays"
 - b. Paulo hasn't been to church for three Sundays (now).
- (2) a. O Paulo não vai à igreja *desde há três domingos (atrás)*. "the Paulo not goes to-the church since there-is three Sundays (behind)"
 - b. Paulo hasn't been to church since three Sundays ago.

Notice that the two Portuguese sentences above – sentences a – contain the expression $h\acute{a}$ (an inflected present tense verb form, similar to French $il\ y\ a$), differing only with respect to the temporal preposition desde (the equivalent of English since). However, their approximate English counterparts – sentences b – symptomatically involve different temporal operators: for in the first case, and a combination of since and ago in the second case.

Now, the sentences in (1) and (2) – which describe a negative habitual state – are not equivalent. In a scenario where Paulo went to church on a Wednesday the week before the utterance time, for instance, the statements in (1) would not necessarily be false, whereas those in (2) would. The reason is that the assertions in (1) merely involve the three Sundays that precede the utterance time, while those in (2) involve the whole interval between the utterance time and the third Sunday in its past, including all weekdays (cf. section 3 for elaboration on this issue). In schema (3), the relevant intervals for the location of the described state, which are discontinuous for (1), are represented by the thicker lines below the time axis:



Given the asymmetry just portrayed in (3), I will assume that the relevant temporal expressions in (1) and (2) belong in different semantic categories, with Portuguese $h\acute{a}$ -expressions being genuinely ambiguous³, approximately in the following terms:

- i. In sentences like (1a), Portuguese *há*-expressions are associated with the *sum of* n *PERIODS* of the stated type (in this case, three Sundays) in the past of the utterance time, that is, they involve a set of location times, rather than a single location time. In this respect, they are akin to the so-called 'adverbials of temporal quantification' like todos os domingos (every Sunday), em três domingos (on three Sundays) and nos últimos três domingos (on the last three Sundays), and directly express what could perhaps be termed **location relative to a set of intervals** (cf. Móia 2000). In the use at stake, Portuguese *há*-expressions behave as the counterpart of English *for*-expressions (like those in (1b)).
- ii. In sentences like (2a) or (4a) below –, Portuguese *há*-expressions represent the nth *PERIOD of the stated type* (in this case, the third Sunday) *in the past of the utterance time*⁴; in fact, they are **time-denoting expressions**, which can be combined though need not be, as illustrated in (4a) with a locating preposition like *desde* to form a (strict) **temporal locating adverbial**, i.e. a phrase defining a single location time (cf. end of section 1 for a development on this issue). In the use at stake, Portuguese *há*-expressions behave as the

counterpart of English *ago*-expressions (like those in (2a) or (4a)), or *before*-expressions, in other contexts (such as *Paulo had been in church three Sundays before (that)*).

- (4) a. O Paulo esteve na igreja *há três domingos (atrás)*. "the Paulo was in-the church there-is three Sundays (behind)"
 - b. Paulo was in church three Sundays ago.

As said above, the property shared by the temporal expressions in (1) and (2) is the involvement of an operation of counting temporally ordered entities from an anchor point. Before proceeding to the semantic analysis of these expressions, which is the focus of this paper, it is worth noticing that the same temporal operators $-h\acute{a}$ in Portuguese, for or ago in English – may be used with predicates of amounts of time (e.g. three hours, three months) as their complements, in which case an operation of **time measurement** (rather than counting) is involved. Witness the following examples:

- (5) a. O Paulo não vai à igreja há três meses."the Paulo not goes to-the church there-is three months"
 - b. Paulo hasn't been to church for three months (now).
- (6) a. O Paulo não vai à igreja desde há três meses (atrás)."the Paulo not goes to-the church since there-is three months (behind)"
 - b. Paulo hasn't been to church *since three months ago*. [odd, or not used]

Sentences (5a) and (6a) arguably contain two different $h\acute{a}$ -homonyms (parallel to those in (1a) and (2a), respectively). However, these two Portuguese sentences – contrary to what is the case with (1a) and (2a) – *are equivalent*. In section 2, these facts will be considered, together with the possible oddity of English sentences like (6b).

1. Time-denoting expressions involving counting from anchor points

Time-denoting phrases which define intervals by measurement from an anchor point, like those in (6) (há três meses / three months ago), have often been mentioned in the literature. For instance, Bras (1990) considers a class of "adverbiaux qui désignent la zone temporelle en operant **un report de mesure**" (p. 199, my emphasis), and Asher *et al.* (1995) – referring back to Molinès (1989) and Bras & Molinès (1993) – state that

(...) [locating time adverbials] fall into (...) classes, depending on (...) whether or not the identification of the referent depends on the **projection of a length of time** on the

temporal axis (from some given point). For example, for the adverbials *il y a 3 jours*, *3 jours avant Noël*, *depuis 3 jours* (3 days ago, 3 days after Christmas, for the last 3 days) the measure "3 days" is projected on the temporal axis. (p. 109, my emphasis)

To my knowledge, however, the possibility illustrated in (2), where the same temporal operators occur in constructions involving counting rather than measuring (há três domingos / three Sundays ago), has not been discussed in the literature (in connection with operators of the type at stake).

From a descriptive point of view, it is worth noticing that at least three different sorts of entities – to wit: intervals, eventualities and "ordinary" individuals/objects – may be involved in the counting operation associated with these time-denoting expressions (see Table 1 below). In connection, three different types of expressions may occur, in the relevant position, in combination with the temporal operators under analysis: (common) predicates of times, situational predicates, and object/individual-denoting predicates.

In general, the use of this relatively complex type of temporal expressions appears to be particularly constrained, their counterparts with predicates of amounts of time being possibly more common. One fact that seems to favour the use of these expressions (though it is not crucial) is the relevance of the mentioned *type of interval* in connection with the *type of described eventuality* (world knowledge obviously interfering). So, for instance, sentences (7) and (8) are possibly less likely to appear with *Tuesdays* than with *Sundays* or *weekends*, in (7) and (8) respectively (or, for that matter, with measure nouns like *weeks*).

Table 1. Time-denoting expressions involving counting from anchor points

	Type of counted entity	Type of relevant complement	Illustrative sentences in Portuguese and English
A	intervals	predicates of times (three weekends / nights / Sundays / summers)	O Paulo esteve nos Alpes há três fins-de-semana (atrás). Paulo was in the Alps three weekends ago.
В	eventualities	situational predicates (three classes / elections / meals / Olympic Games)	O professor começou a analisar a obra de Goethe há três aulas (atrás). The teacher started to analyse Goethe's work three classes ago.
C	ordinary individuals / objects	individual / object- denoting predicates (three cigarettes / papers)	 O Paulo está a fumar cigarros uns atrás dos outros. Há três cigarros (atrás) começou a tossir. Paulo is smoking cigarettes one after the other. Three cigarettes ago he started to cough.

- (7) a. O Paulo não esteve na igreja há três {domingos / terças-feiras} (atrás). "the Paulo not was in-the church there-is three {Sundays / Tuesdays} (behind)"
 - b. Paulo was not in church three {Sundays / Tuesdays} ago.
- (8) a. O Paulo teve de trabalhar há três {fins-de-semana / terças-feiras} (atrás). "the Paulo had to work there-is three {Sundays / Tuesdays} (behind)"
 - b. Paulo had to work three {weekends / Tuesdays} ago.

The first group of expressions in Table 1 – that is, those involving (common) predicates of times – essentially involve what some authors term "calendar nouns", i.e. expressions which represent recursive intervals of the time axis, like parts of the day (afternoons, evenings, nights), days of the week, weekends, months or seasons of the year, for instance. The British National Corpus (henceforth, BNC) contains numerous instances of these expressions – e.g. nights ago, summers ago or Saturdays ago (39, 10, and 5 instances, respectively). For obvious pragmatic reasons, the commonest forms are those with low cardinals (two, three, or four) and vague quantifiers (like a couple of or a few). There are, however, mainly in sports reports, a few cases with higher exact numerals, like the following:

- (9) a. "Forty three summers ago, England suffered their greatest humiliation when the likes of Tom Finney, Billy Wright and Stan Mortensen lost 1-0 to the USA in the 1950 World Cup." (K3A 1256)
 - b. "If those boys in Karachi had found an 8 to hook on the scoreboard those 33 long winters ago, instead of rummaging fruitlessly about on all fours (..)." (CU1 534)

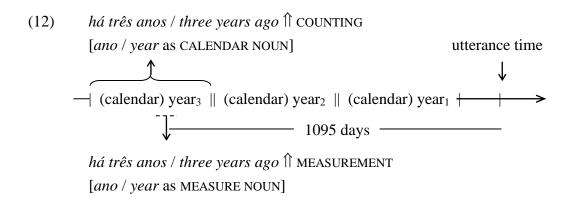
It must be noted that common nouns like *semana* / *week*, *mês* / *month* or *ano* / *year*, when used as calendar terms (and not as measure nouns), form expressions of this type as well. The difference is that – contrary to what happens with nouns like *domingo* / *Sunday* or *fim-desemana* / *weekend* – the relevant counted intervals are adjacent. Thus, time-denoting expressions like *há três anos* / *three years ago* are ambiguous: they may involve time measurement – just like in (6) –, or counting (of calendar years) – just like in (2) –, the latter case being illustrated in (11) below:

(10) há três anos / three years ago

- time measurement "a moment surrounding the 1095th day (approximately) in the past of the utterance time";
- **counting** "the third calendar year in the past of the utterance time".

- (11) a. No ano passado, foram construídos 250 km de novas estradas, em contraste com 110 km há dois anos e 95 km *há três anos*."in-the year past, were built 250 km of new roads, in contrast with 110 km there-is two years and 95 km there-is three years"
 - b. Last year, 250 km of new roads were built, in contrast with 110 km two years ago, and 95 km *three years ago*.

Schematically, the difference can be depicted as follows:



As for the cases in line B of Table 1, the relevant situational predicates obviously refer to recurrent eventualities. These eventualities may occur with a (more or less fixed) regular cycle or not – compare, for instance, the differences between *Jogos Olímpicos / Olympic Games*, *refeições / meals*, *eleições / elections*, *aulas / classes* or *viagens / trips*, all of which may occur in the relevant environment. The use of this type of complements in the time-denoting expressions under discussion seems to be strongly restricted, although it may take place if an adequate context is supplied, as in the examples given in Table 1, or in the following ones taken from the BNC (where 85 and 6 instances of *seasons ago* and *games ago*, respectively, are registered):

- (13) a. "Allison, who took over Rovers *four games ago* after the sacking of Dennis Rofe, has already hauled them off the bottom of the table (...)." (CBG 8775)
 - b. "It was Robson's return *four games ago* that helped spark a maximum haul of 12 points." (CBG 10414)

As for the (apparently, not very frequent) expressions in line C of table 1, the designated objects are also associated with given intervals of the time axis (in the examples given, cigarettes with the moment they are smoked) and, by way of this association, ordered in time. Obviously, a special context, where the counted objects are involved in some form of temporal ordering, is required, as in the following example from the BNC:

"There had been no boys left to help Jimmy because *since five minutes and three hundred pounds ago*, three of them had started working for us and a fourth one was lying in the toilet presently not working for anybody." (H80 1899)

Before proceeding to a brief discussion of some restrictions affecting the use of these expressions, two side-notes are in order at this point. The first is that, although I am concentrating here on expressions with $h\acute{a}$ in Portuguese and ago in English, many other phrases (with different operators) belong in this group of time-denoting expressions as well – see (15)-(16) below. In fact, as can be easily seen, the class of expressions under analysis may be subdivided according to different parameters such as (i) the direction of the operation – backwards or forwards in time –, and (ii) the type of anchor point – a deictic or anaphoric temporal perspective point, or a time set by an explicit (referentially independent) complement (see Móia 2000, chapter 7, for a more thorough analysis):

- forward counting / measurement from a deictic temporal perspective point:
 - (15) a. daqui a três {fins-de-semana / horas} "from-here to three {weekends / hours}"
 - b. three {weekends / hours} from now
- backward / forward counting / measurement from a time set by an explicit (referentially independent) complement:
 - (16) a. três {fins-de-semana / meses} {antes / depois} das eleições "three {weekends / months} {before / after} of-the elections"
 - b. three {weekends / months} {before / after} the elections

The second note is to briefly justify why I am classifying all the relevant Portuguese $h\acute{a}$ -expressions and the English ago-expressions as time-denoting phrases, and not as locating adverbials, contrary to the usual categorisation in the literature. As is known, a clear dividing line between time-denoting expressions and temporal locating adverbials is not easy to draw, given that some expressions – like yesterday or $last\ week$, for instance – may occur with the same superficial form in the typical contexts of both categories (cf. e.g. $yesterday\ was\ a\ nice\ day\ vs.\ John\ left\ yesterday$). The relevant $h\acute{a}$ - and ago-expressions belong in this group of ambivalent phrases, as illustrated in (17)-(19). The first two of these examples contain occurrences of such phrases in the typical contexts of time-denoting expressions – verb complement position, in (17), and complement of an explicit temporal preposition $(at\acute{e}\ /\ until)$, in (18). Conversely, in (19), they surface as 'full' adverbials.

- (17) a. A reunião estava marcada para *há duas horas* (*atrás*). "the meeting was scheduled for there-is two hours (behind)"
 - b. The meeting was scheduled for *two hours ago*.
- (18) a. O Paulo esteve na sala até *há três horas* (*atrás*). (cf. (2a)) "the Paulo was in-the room until there-is three hours (behind)"
 - b. Paulo was in the room until *three hours ago*. (cf. (2b))
- (19) a. O Paulo saiu do sala *há três horas (atrás)*. "the Paulo left of-the room there-is three hours (behind)"
 - b. Paulo left the room *three hours ago*.

Now, by postulating a null locating preposition with a value close to that of *in*, *on* or *at*, in these latter contexts – as I advocate in Móia (2000) and assume here –, a uniform analysis is achieved, in which the relevant $h\acute{a}$ - and ago-expressions are always taken as time-denoting expressions. Accordingly, (19) will be analysed as follows:

- (19') a. O Paulo saiu do sala \emptyset_{em} há três horas (atrás).
 - b. Paulo left the room \emptyset_{at} three hours ago.

2. Some particular restrictions on the combination *desde há* in Portuguese and *since...ago* in English

In this section, I will concentrate on a particular instance of the time-denoting expressions described in the previous section, namely that with the combination *desde há* in Portuguese, and *since...ago* in English, which seems to be subject to specific restrictions.

As was said before, apropos sentences (1) and (2), the difference between $h\acute{a}$ (n PERIODS) and desde $h\acute{a}$ (n PERIODS) in Portuguese, as well as that between for (n PERIODS) and since (n PERIODS) ago in English (where "n PERIODS" represents a predicate of the groups described in Table 1 above), lies essentially in the relevance of the intervals between the counted periods. Now, this difference vanishes – as was briefly mentioned, in connection with sentences (5) and (6) – in structures where predicates of amounts of time (x-TIME, henceforth) occur in the same context as "n PERIODS". This seems due to the fact that continuous intervals are associated with predicates of amounts of time in these contexts. Observe the following sentences (which are of the same type as (5) and (6)):

- (20) a. O Paulo está no hospital *há dois meses*. \Leftrightarrow "the Paulo is in-the hospital there-is two months"
 - b. O Paulo está no hospital *desde há dois meses*."the Paulo is in-the hospital since there-is two months"

- (21) a. Paulo has been in the hospital for two months (now). \Leftrightarrow
 - b. Paulo has been in the hospital *since two months ago*. [odd, or not used]

The two Portuguese sentences in (20) – the second containing counterparts of *since* and *ago* – are equivalent and equally grammatical. The sentences in (21) illustrate a curious fact about English, to wit: that the logically admissible combination of *since* and an *ago*-expression with predicates of amounts of time is normally not used and/or accepted. In fact, sentence (21b) is considered odd by most speakers. In order to express the temporal relations at stake, English normally resorts to a *for*-construction, as in (21a), which, though formally involving a temporal expression of a different category, conveys the same temporal information. Now, the oddity of the combination *since...ago* in (21b) is somehow unexpected, given that, once we assume (as I do) a time-denoting analysis for *ago*-phrases, they are expected to freely combine with temporal locating operators, such as *since* or *until*. As for the combination *until...ago*, it seems unproblematic in English, like in Portuguese for the counterparts of these particles:

- (22) a. O Paulo esteve no hospital *até há dois meses*. "the Paulo was in-the hospital until there-is two months"
 - b. Paulo was in the hospital until two months ago.

As for the combination *since* X-TIME *ago*, its oddity seems, at a closer look, more a matter of use than of strict grammaticality. In fact, the BNC contains several records of this combination:

- (23) a. «"With exasperation, he said, 'Since when? Since Christmas?' Doone said stolidly, 'Since ten days ago.'» (ADY 679)
 - b. "Nothing in the metal's fundamentals has changed *since a month ago*, when the price languished at a seven-year low of \$126 an ounce." (CR7 2794)
 - c. "I haven't played with anyone for like since months ago!" (KE1 805, KE1 1418)
 - d. "Every room here has been booked *since a year ago*, and I was dearly hoping Donna would screw up the nerve to send her packing (...)" (JY6 2805)
 - e. "(...) and they've probably been isolated *since fourteen thousand years ago*, with that every population has gone slightly different to, to the next one." (F8H 74)
 - f. "(...) I well recall the Second Reading debate of the Shops Bill 1986 which followed upon the discussions and deliberations of the Auld committee which, since as long ago as 1985, had been engaged in a series of debates about Sunday trading." (HHX 11597)

g. "Animals have been anthropomorphised *since as long ago as Egyptian times.*" (BMD 337)

In contrast with these cases, others exist where (according to my informants) the combination of *since* and *ago* appears to be generally accepted. This is the case of (2b) above, for instance. As far as I can judge from the information I gathered, the non-problematic cases in English seem to require the concurrence of three facts⁵:

- i. involvement of **discontinuous intervals** (e.g. Sundays, weekends, nights, seasons), corresponding to temporal predicates like those in Table 1 above (given that the combination with predicates of amounts of times, which are associated with continuous intervals, is seldom used) cf. the contrast between *since three Sundays ago*, in (24a) and *since three weeks ago*, in (24d) below;
- ii. relevance of the **periods between** those intervals (otherwise, a *for*-construction is preferred) cf. *since three Sundays ago*, in (24a) vs. *for three Sundays*, in (24b);
- iii. (contextual) salience of the period marking the starting point of the location time, which justifies the choice of the relatively complex expression "n PERIODS ago" (otherwise, a construction with "for x-TIME" is preferred) cf. since three Sundays ago, in (24a) vs. for three weeks, in (24c).
 - (24) a. Paulo hasn't been to church since three Sundays ago. (This was the last time the priest saw him.)
 - b. Paulo hasn't been to church for three Sundays (now).b'. Paulo hasn't been to church for the last three Sundays.different truth-conditions

 - c'. Paulo hasn't been to church for the last three weeks.
 - d. (?)Paulo hasn't been to church since three weeks ago.

When these facts concur, there seems to be no alternative construction to "since n PERIODS ago" that is formed by a single temporal preposition and a time-denoting complement, of the type "PREP x-TIME" or "PREP the last x-TIME". The non-existence of such an alternative apparently closely relates to the acceptance of the combination since...ago.

The examples given above contain atelic descriptions. In combination with telic descriptions, constructions with *since...ago* behave similarly, the main difference being that the temporal preposition now occurring in the approximately equivalent constructions with predicates of amounts of time is not *for*, but rather *within*, *in/on* or *during* (together with *the last*). Compare, for instance, (25) below, which represents a sum of telic events, with (26), which basically differs in that it does not make the mentioned third Sunday salient:

- (25) Thirty weddings have been celebrated in this church since three Sundays ago. (This was the day weddings restarted to be celebrated here, after a break of nearly three years.)
- (26) Thirty weddings were celebrated in this church {within / in / during} the last three weeks.
- (27) Thirty weddings were celebrated in this church since three weeks ago. [odd, or not used]

Likewise, we observe that constructions with "since n PERIODS ago" – as (25) – and those with e.g. "within the last n PERIODS" – as (28) below – are not equivalent, differing – like (2) differs from (1) – in that the latter only involves the mentioned three Sundays and not the intervening periods⁶:

(28) Thirty weddings have been celebrated in this church {within / on / during} the last three Sundays.

3. Semantic-pragmatic differences between constructions involving counting of ordered entities

The constructions involving counting of ordered entities of the types illustrated in (1) and (2) exhibit several semantic-pragmatic differences. In this section, I will elaborate a bit more on two of them. One difference, which has already been mentioned several times, concerns the relevance of periods intervening between the counted intervals. The combination with 'adverbs of temporal quantification' – illustrated in (29) and (30) – shows that different intervals are involved, in accordance with schema (3):

- (29) a. Um avião etíope aterra em Lisboa todos os dias desde há três domingos (atrás). "an aeroplane Ethiopian lands in Lisbon all the days since there-is three Sundays (behind)"
 - b. An Ethiopian aeroplane has been landing in Lisbon *everyday* since three Sundays ago.
- (30) a. *Um avião etíope aterra em Lisboa todos os dias há três domingos."an aeroplane Ethiopian lands in Lisbon all the days there-is three Sundays"
 - b. *An Ethiopian aeroplane has been landing in Lisbon *everyday* for (the last) three Sundays.

It was also briefly mentioned that if the periods between the discontinuous mentioned intervals are immaterial (world knowledge, for instance, interfering), than constructions with *for* (in English) and $h\acute{a}$ (in Portuguese) are preferred, this preference being possibly stronger in English than in Portuguese⁷. Therefore, assuming – in accordance with current knowledge – that soup eating only takes place during meals, while wine drinking may occur both during and between meals, the contrasts in (31) and (32) are predicted. Sentences in (31) are slightly odd with *desde há* and *since...ago*, while those in (32) are not. This seems due to the fact that sentences in (32) with *desde há* and *since...ago* are not equivalent to those with *há* or *for*, respectively, whereas in (31) this equivalence exists (given the irrelevance of the periods between meals).

- (31) a. O Paulo não come sopa {?desde há duas refeições (atrás) / há duas refeições}. "the Paulo not eats soup {since there-is two meals (behind) / there-is two meals"
 - b. Paulo hasn't eaten soup {?since two meals ago / for two meals}.
- (32) a. O Paulo não bebe vinho {desde há duas refeições (atrás) / há duas refeições} . "the Paulo not drinks wine {since there-is two meals (behind) / there-is two meals"
 - b. Paulo hasn't drunk wine {since two meals ago / for two meals}.

A second difference between the constructions like those in (1) and (2) has to do with the pertinence – for counting purposes – of the period containing the utterance time. Take for example the Portuguese expressions desde há três domingos / há três domingos, or their English counterparts since three Sundays ago / for three Sundays, and consider a scenario where the utterance takes place on a Sunday. In the constructions with desde há and since...ago, the general consensus among speakers seems to be (despite some hesitation) that the "Sunday of utterance" is never one of the three that are being counted. Thus, sentences like (33) below always count back three entire Sundays (irrespective of whether any landing occurred on the Sunday of utterance or not):

- (33) a. Um avião etíope aterra neste aeroporto desde há três domingos."an aeroplane Ethiopian lands at-this airport since there-is three Sundays"
 - b. An Ethiopian aeroplane has been landing at this airport *since* three Sundays *ago*.

Constructions with $h\acute{a}$ and for are different, one of two situations possibly holding: (i) if the "Sunday of utterance" contains (prior to the utterance) an instance of the events of the type

described in the main clause (landings of Ethiopian aeroplanes, here), then it is taken as one of the three that are being counted – see (34), and its possible continuation in a' and b'. Otherwise, that is, if no landing has yet occurred on that Sunday, by the utterance time, than it is irrelevant for counting purposes – see (34) again, and its continuation in a'' and b''.

- (34) a. Um avião etíope aterra neste aeroporto *há* três domingos. "an aeroplane Ethiopian lands in-this airport there-is three Sundays"
 - b. An Ethiopian aeroplane has been landing at this airport for three Sundays (now).
 - a'. ... Hoje chegou mais cedo que das outras duas vezes.

 "today [it] arrived more soon than of-the other two times"
 - b'. ... Today it arrived sooner than the other two times.
 - a". ... Vamos ver se hoje também aterra e no mesmo sítio das outras três vezes.

 "let-us see if today [it] also lands and at-the same place of-the other three times"
 b". ... Let us see if it also lands today, and at the same place as the other three times.

4. Conclusion

In this paper, two different temporal constructions involving counting from anchor points — which, to my knowledge, have not been explored in the literature — were discussed, their semantic and pragmatic specificity being partially explored. Concurrently, it was argued for the need of distinguishing between two categories of temporal phrases occurring in these constructions (which, interestingly, have homonymous elements in Portuguese): (i) one whose members count the number of contiguous intervals of a given type containing instances of given events, illustrated in (1); (ii) another one whose members are merely time-denoting phrases, illustrated in (2). The semantic and pragmatic differences that were pointed out here should be taken as a contribution for a more thorough study — pending further research — of the vast subclass of anchor-dependent temporal expressions in natural languages, of which they are distinguished instances.

Notes

- 1. In European Portuguese, the adverbial form $atr\'{a}s$ (literally 'behind') optionally co-occurs with $h\'{a}$ without any semantic variance in sentences of type (2a). In Brazilian Portuguese, there seems to be a growing trend to avoid the verbal form $(h\'{a})$ and only use the adverbial $atr\'{a}s$. This is more conspicuous in sentences like (2a), where the temporal expression is dependent on an explicit preposition (e.g. desde [since], $at\'{e}$ [until] or de [from / of]), than in sentences like (4a) cf. Móia and Alves (forthcoming). In this paper, only European Portuguese is taken into account.
- **2.** As will be mentioned in section 3, the utterance time may overlap "Sunday₁" in structures like (1), but not in those like (2).
- **3.** Portuguese time-denoting $h\acute{a}$ -expressions as those in (2a) and (4a) contrast with the type of $h\acute{a}$ -expressions in (1a) in at least the following three properties: (i) they optionally co-occur with the adverbial form $atr\acute{a}s$, (ii) they may be preceded by explicit temporal prepositions, like the counterparts of since and until, and (iii) they combine both with atelic and telic descriptions (whereas those in (1a) only combine with atelics).
- **4.** I take these expressions to denote, as a whole, the *entire* nth instance of the relevant period, counting backwards from the anchor point, given the interpretation of sentences like the following:
 - (i) O número de bilhetes (para este museu) vendidos aos fins-de-semana é o seguinte: 1200 no fim-de-semana passado, 1100 há dois fins-de-semana, 800 há três fins-de-semana.
 - "the number of tickets (for this museum) sold on weekends is the following: 1200 in-the last weekend, 1100 there-is two weekends, 800 there-is three weekends"
 - (i') The number of tickets (for this museum) sold on weekends is as follows: 1200 last weekend, 1100 two weekends ago, 800 three weekends ago.
 - (ii) 115 aviões aterraram neste aeroporto há três fins-de-semana, o que constituiu um novo recorde.
 - "115 planes landed in-this airport there-is three weekends, the what constitutes a new record"
 - (ii') 115 planes landed at this airport three weekends ago, which sets a new record.

The processing of these sentences requires consideration of all the relevant events (ticket-sales or landings) occurred within a given stretch of time. In these cases, this stretch is obviously a whole weekend (no part of it being irrelevant).

- **5.** The requirements in (ii) and (iii) apply, with the relevant adaptations, to Portuguese constructions with " $desde\ h\acute{a}$ n PERIODS" (although the second one discussed below, in section 3 appears to be less compulsory in Portuguese).
- **6.** Facts in Portuguese are similar for *desde há* constructions. See the examples below (where *se* is a clitic pronoun, marking a passive construction, which is not translated in the glosses):

- (i) Celebraram-se trinta casamentos nesta igreja desde há três domingos (atrás). [like (25)] "Celebrated SE thirty weddings in-this church since there-is three Sundays (behind)"
- (ii) Celebraram-se trinta casamentos nesta igreja nas últimas três semanas. [like (26)] "Celebrated SE thirty weddings in-this church in-the last three weeks"
- (iii) Celebraram-se trinta casamentos nesta igreja desde há três semanas (atrás). [not odd, unlike (27)] "Celebrated SE thirty weddings in-this church since there-is three weeks (behind)"
- (iv) Celebraram-se trinta casamentos nesta igreja nos últimos três domingos. [like (28)] "Celebrated SE thirty weddings in-this church in-the last three Sundays"
- **7.** See, however, the following example from the BNC: "I've been coming to games at the Manor since I was 10 (...) *since three seasons ago* I haven't missed a match I've been to them all" (ECN 1624).

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