

# Workshop on Tenselessness 2

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## Anaphoric and deictic temporal adjuncts in tenseless clauses in Portuguese

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This presentation updates and revises the contents of a previous paper, published in Portuguese (Móia 2012). The main ideas and hypotheses are kept. A few new illustrative (corpora) examples are added for Portuguese and – mainly – for English, showing that, lexical differences aside, similar mechanisms operate in the two languages.

## Topic and goals

- **Subset of anaphoric and deictic Portuguese temporal adjuncts**

whose interpretive mechanisms are similar to those of tensed verb forms, namely in that they also require the selection of a Temporal Perspective Point (TPpt), *sensu* Kamp & Reyle (1993), an approximate counterpart of the Reichenbachian notion of Reference Time.

Temporal adjuncts in focus:

- prototypical lexical manifestation of the TPpt, ***agora*** ('*now*');
  - adjuncts headed by ***desde*** ('*since*');
  - adjuncts with the form ***haver/há* X-TIME ('for X-TIME [now/then]')**<sup>(1)</sup>.
- Analyse their **occurrence in tenseless structures** with propositional content (so-called verbless clauses – e.g. propositional NPs, APs, and PPs –, or propositions with non-finite verb forms [past participle, gerund, infinitive]).
  - Scrutinise the **mechanisms for TPpt-selection** in those tenseless structures.

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(1) *haver* is morphologically a verb equivalent to the English sequence *there (to) be*, but it forms a (partially grammaticalised) counterpart of anchored durational English *for*-phrases, often assuming the (present) form *há* (though it may also surface as the past form *havia*) – cf. Móia (2006, 2011a, 2013).

## Framework assumptions and (a note on) methodology/data

- I will adopt a **Reichenbachian view of tense**, along the modern lines defined in Discourse Representation Theory (DRT). Central tenet:

Verb tenses serve first and foremost to express a temporal location relation between described eventualities and **selected points in the time axis** (which act as timeline-standpoints from which described eventualities are observed) – Reference Time in Reichenbach (1947), Temporal Perspective Point in Kamp & Reyle (1993).

- In addition to relatively simple constructed examples, I will resort to large electronic **corpora** of Portuguese (mainly the corpus **CETEMPúblico**, which contains ca. 200 million words of newspaper texts) in order to illustrate relevant uses in the neutral and/or formal registers of the language.

Though English is not a focussed language, it will be used for comparative purposes, and data from the **British National Corpus** will illustrate the existence of parallel structures in the two languages.

# 1. Preliminary issues

## 1.1. TPpt-dependent temporal adjuncts

- **TPpt-dependent temporal adjuncts as a particular subclass of (referentially dependent) temporal adjuncts**

As is well-known, many temporal adjuncts are referentially dependent.

Crucially, in a subset of these, the interpretation systematically requires a (deictic or anaphoric) association with a Temporal Perspective Point (TPpt)<sup>(1)</sup>, and that association works **in tandem with the verb tense** of the sentence in which the adjuncts occurs (cf. next slide).

The prototypical example is the English adverb *now*, which may have an anaphoric interpretation, besides the common deictic one, and – as Kamp & Reyle (1993) assume – always refers to the TPpt of the sentence in which it occurs.

On the semantics of this expression, cf. also a.o. Altshuler (2009).

(1) Mary had been unhappy in her new environment for more than a year.

But **now** she **felt** at home. (Kamp & Reyle 1993: 596) [ANAPHORIC *now*]

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<sup>(1)</sup> The TPpt can be identified with: (i) the utterance time, in cases of **deictic interpretation**, or (ii) a contextually defined (non-present) moment, in cases of **anaphoric interpretation**.

## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

### ● TPpt-dependent temporal adjuncts as a particular subclass of temporal adjuncts (cont.)

TPpt-dependent temporal adjuncts and verb tenses working in tandem:

(1) A Ana **mora** em Lisboa  
Ana **has been living** in Lisbon

**desde 1980.**  
**since 1980.**

**deictic** verb tenses

Port. *presente* and Engl. present perfect progressive are typically deictic. TPpt is the utterance time.

**deictic** adjuncts

same TPpt as the verb

interpretation: 'from 1980 until the utterance time'

(2) A Ana foi viver para Roma em 2005.  
Ana moved to Rome in 2005. She

**Morava**  
**had been living**

em Lisboa  
in Lisbon

**desde 1980.**  
**since 1980.**

**anaphoric** verb tenses

Port. *pretérito imperfeito* is typically anaphoric  
Engl. past perfect progressive may be anaphoric too

**anaphoric** adjuncts

same TPpt as selected by the anaphoric past verb form  
interpretation: 'from 1980 until the previously mentioned time (2005)'

## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

### ● TPpt-dependent temporal adjuncts as a particular subclass of temporal adjuncts (cont.)

It must be noted that not all referentially dependent temporal adjuncts are (necessarily) TPpt-dependent. With some, it may happen that the temporal parameter required for the adjunct interpretation differs from the TPpt, as identified via the verb tense.

These adjuncts will not be studied in this presentation.

(1) A casa **estava** desabitada **há dois anos atrás.**

'the house was uninhabited there-is two years behind'

The house **was** uninhabited **two years ago.**

**anaphoric** tense (*pretérito imperfeito*):

requires a past TPpt

**deictic** adjunct

(not dependent on the sentence TPpt,

which is past)

## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

### ● Outstanding examples of TPpt-dependent temporal adjuncts in Portuguese: structurally complex adjuncts with the counterparts of *since* and (one use of) *for*

They exhibit deictic-anaphoric ambivalence and their interpretation depends systematically on the sentence TPpt, i.e. they work in tandem with tensed verb forms whenever they coincide in the same sentence.

- (i) **adjuncts headed by *desde*** (a counterpart – albeit imperfect – of English *since*), expressing one of two distinguishable values [Móia 2000]:
  - simple (durative) temporal location of atelic eventualities;
  - temporal circumscription of quantification over (any Aktionsart type of) eventualities.

⇒ In any case, the upper bound of the described interval coincides with the sentence TPpt (as identified by the verb).
  
- (ii) **adjuncts headed by *haver* [*há/havia*]**, when they express
  - time-anchored duration (i.e. the duration achieved at a given point in time) [Móia 2006]

hence, when they are a counterpart of English *for* X-TIME {*now / then*} (not when they are a counterpart of English X-TIME *ago/before*).

⇒ In this case, the point in time where the mentioned duration is achieved coincides with the sentence TPpt (as identified by the verb).

## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

### ● (Simple) Durative temporal location with *desde* ('since') – examples and formal analysis

Schematic structure and DRS-conditions:

- (1)  $\Pi_{\text{ATELIC}}$  **desde** X-INTERVAL
- (2)  $ev, [ev: \Pi], [ev \circ \text{TPpt}]$  (with **TPpt defined via the tense in  $\Pi$** ),  
 $[t \subseteq ev], [\text{beg}(t) = t'], [X\text{-INTERVAL}(t')], [\text{end}(t) = \text{TPpt}]$
- (3)



Meaning: (an atelic eventuality extending) “from X-INTERVAL (i) until the utterance time [present TPpt], or (ii) until a contextually defined moment [past/future TPpt]”.

The interpretation of the adjunct (deictic or anaphoric) is totally predictable from the verb tense (in  $\Pi$ ). Examples of slide 5, repeated below:

- (4) A Ana *mora* em Lisboa desde 1980. [DEICTIC]  
‘the Ana lives in Lisbon since 1980’  
Ana has been living in Lisbon since 1980.
- (5) A Ana foi viver para Roma em 2005. *Morava* em Lisboa desde 1980. [ANAPHORIC]  
‘the Ana went live<sub>INF</sub> to Rome in 2005 [she] lived<sub>IMPERFECTIVE</sub> in Lisbon since 1980’  
Ana moved to Rome in 2005. She had been living in Lisbon since 1980.



## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

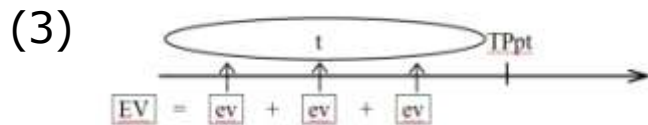
### • Temporal circumscription of quantification with *desde* ('since') [Móia 2000, 2001]

#### – examples and formal analysis

Schematic structure and DRS-conditions:

(1)  $[\Pi_{\text{TELIC/ATELIC}} + \text{QNT}] \text{ desde X-INTERVAL}$

(2)  $EV, [EV = \Sigma ev: [ev \subseteq t], [ev: \Pi] ], [ |EV| = \text{QNT} ], [EV < \text{TPpt} ],$   
 $[\text{beg}(t) = t'], [\text{X-INTERVAL}(t')], [\text{end}(t) = \text{TPpt}]$  (with **TPpt defined via the tense in  $\Pi$** )



Meaning: (total amount of the described eventualities) “from X-INTERVAL (i) until the utterance time [present TPpt], or (ii) until a contextually defined moment [past/future TPpt]”.

Once more, the interpretation of the adjunct (deictic or anaphoric) is totally predictable from the verb tense (in  $\Pi$ ).

(4) A Ana *foi* ao Brasil três vezes desde 1980. [DEICTIC]

‘the Ana went<sub>PERFECTIVE</sub> to-the Brazil three times since 1980’

Ana has visited Brazil three times since 1980.

(5) Encontrei a Ana no final de 2001. Ela *tinha ido* ao Brasil três vezes desde 1980. [ANAPH.]

‘[I] met the Ana at-the end of 2001 she had gone to-the Brazil three times since 1980’

I met Ana at the end of 2001. She had visited Brazil three times since 1980.

## 1. Preliminary issues | 1.1. TPpt-dependent temporal adjuncts (cont.)

- **Time-anchored duration with *haver* ('for', literally 'there-be')** [Móia 2006]  
– **examples and formal analysis**

Schematic structure and DRS-conditions:

- (1)  $\Pi_{\text{ATELIC}}$  ***haver* [há/havia] X-TIME**
- (2)  $ev, [ev: \Pi], [ev \circ \text{TPpt}]$  (with **TPpt defined via the tense in  $\Pi$** ),  
 $ev', [ev' \subseteq ev], [\text{beg}(ev') = \text{beg}(ev)], [\text{end}(ev') = \text{TPpt}], [\text{dur}(ev') = \text{mt}], [X\text{-TIME}(\text{mt})]$
- (3)

Meaning: (an atelic eventuality) “reaching a duration of X-TIME (i) at the utterance time [present TPpt], or (ii) at a contextually defined moment [past/future TPpt]”.

Interpretation of the adjunct (deictic or anaphoric) totally predictable from the verb tense (in  $\Pi$ ).

- (4) A Ana *mora* em Lisboa há quase vinte anos.  
'the Ana lives in Lisbon there-is almost twenty years'  
Ana has lived in Lisbon for almost twenty years (now).
- (5) A Ana foi viver para Roma em 2005. *Morava* em Lisboa há quase vinte anos.  
'the Ana went live<sub>INF</sub> to Rome in 2005 [she] lived<sub>IMPERF</sub> in Lisbon there-is almost twenty years'  
Ana moved to Rome in 2005. She had lived in Lisbon for almost twenty years (then).

## 1. Preliminary issues (cont.)

### 1.2. Mechanisms for TPpt-selection in regular main sentences as dictated by tensed verb forms

#### ● Interdependence between TPpt-definition and (verb) tense

In the literature, TPpts are classically defined through the **tense** of the clause containing the temporal adjunct (cf. a.o. Kamp & Reyle 1993<sup>(1)</sup>, for English, or Peres 1993, for Portuguese). In Portuguese, for instance:

(i) **presente** – as *mora* ('lives') –, **pretérito perfeito simples** – as *foi* ('went'), and (one use of the) futuro imperfeito are typically **deictic** and anchor situations to the utterance time (**n**), whence (in the examples before)

*mora*<sub>PRES</sub> *desde 1980 / há quase vinte anos* – DEICTIC

*foi*<sub>PERFECT.PAST</sub> *três vezes desde 1980*

(ii) other tenses, like **pretérito imperfeito** – *morava* ('lived<sub>IMPERF</sub>') – and **pretérito mais-que-perfeito** – *tinha ido* ('had gone'), are anaphoric and require a sentence/discourse-mechanism for selecting the TPpt, whence

*morava*<sub>IMPERFECT.PAST</sub> *desde 1980 / há quase vinte anos* – ANAPHORIC

*tinha ido*<sub>PLUPERFECT</sub> *três vezes desde 1980*

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(1) In classical DRT, DRS-construction rules explicitly formulate this dependency (cf. Kamp & Reyle 1993: 610). In regular (tensed) sentences, the Instruction «Choose TPpt» is solely dependent on the verb feature [TP = ± PAST].

● Overall view for Portuguese verb forms

The relation between specific verb tenses and TPpt-selection, in Portuguese, is typically in accordance with the following table:

		TEMPORAL LOCATION WITH RESPECT TO THE TEMPORAL PERSPECTIVE POINT			
		ANTERIORITY	OVERLAPPING	POSTERIORITY	
TEMPORAL PERSPECTIVE POINT (TPpt)	PRESENT [TPpt = n]	pretérito perfeito simples	presente	futuro imperfeito	DEICTIC
	PAST [TPpt < n]	pretérito mais-que-perfeito	pretérito imperfeito	condicional presente (futuro do pretérito)	ANAPHORIC
	FUTURE [TPpt > n]	futuro perfeito	futuro imperfeito	futuro imperfeito	

Table 1. Basic temporal location values of Portuguese tenses (Indicative mood) [based on Peres 1993 and Móia 2000]

## ● Mechanisms for TPpt-selection in regular main sentences as dictated by tensed verb forms

These are relatively well-known from the literature<sup>(1)</sup>.

### A. DEICTIC: present TPpt (i.e. utterance time)

Setting the utterance time as TPpt is made directly via a deictic (or absolute) tense (e.g. present), with or without an association with a temporal adjunct.

(1) A Ana *está* a trabalhar (neste momento).

'the Ana is to work<sub>INF</sub> (at-this moment)'

Ana *is* working (right now).

(2) A Ana *está* (actualmente) em Lisboa.

'the Ana is (currently) in Lisbon'

Ana *is* (currently) in Lisbon.

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(1) For various syntactic, semantic and pragmatic restrictions affecting the selection of the mechanisms described here, consider crucial theoretical works on the temporal structure of discourse, as e.g. Dowty (1986), Webber (1988), Bell (1991), Song & Cohen (1991), Hwang & Schubert (1992), Kamp & Reyle (1993), Lascarides & Asher (1993), Hitzeman *et al.* (1995) – cf. Mani *et al.* (2005).

1. Preliminary issues | 1.2. Mechanisms for TPpt-selection in regular main sentences as dictated by tensed verb forms (cont.)

**B. ANAPHORIC:** non-present (past or future) TPpt

An instruction to look for a TPpt in the context is the result of using an anaphoric tense (e.g. imperfective past, *pretérito imperfeito*, in Portuguese).

**B1.** Sentence-internal TPpt-definition, via e.g. time adjuncts, including subordinate temporal clauses (that I will term **TPpt-fixing adjuncts**)

(1) Às cinco horas, a Ana *estava* a trabalhar.

'at-the five hours the Ana was<sub>IMPERFECTIVE</sub> to work<sub>INF</sub>'

At five, Ana was working.

(2) Quando o Paulo entrou na sala, a Ana *estava* a trabalhar.

'when the Paulo entered in-the room the Ana was<sub>IMPERFECTIVE</sub> to work<sub>INF</sub>'

When Paulo entered the room, Ana was working.

**B2.** Sentence-external (or discourse) TPpt-definition, via an immediately or closely preceding sentence

(3) O Paulo entrou na sala. (Eram duas horas.) A Ana *estava* a trabalhar.

'the Paulo entered in-the room [it] was two hours the Ana was<sub>IMPERFECTIVE</sub> to work<sub>INF</sub>'

Paulo entered the room. (It was two o'clock.) Ana was working.

## 2. TPpt-dependent temporal adjuncts in tenseless clauses

Temporal adjuncts (whether or not TPpt-dependent, for that matter) may occur in **tenseless structures with propositional content**<sup>(1)</sup>, namely in:

- (i) so-called verbless structures (NPs, APs, PPs with propositional content);
- (ii) structures with non-finite verb forms (past participle, gerund, infinitive).

TPpt-dependent adjuncts may exhibit therein deictic or anaphoric dependencies.

⇒ corpora examples of **deictic dependence** (with *agora*, *haver* [*há*, *havia*] and *desde*)

- (1) «No culminar de uma carreira que teve tanto de brilhante como de polémica, o tenista norte-americano, [<sub>pp</sub> **agora com quase 33 anos**], parece apostado em deixar uma imagem sem mácula na memória dos adeptos.» (CP, ext762016-nd-92a-1)

[tennis player] ‘now with almost 33 years’ | now almost 33 years old<sup>(2)</sup>

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(1) Interestingly, they may also occur within eventuality-denoting (non-clausal) NP-phrases, such as *a permanência de tropas no território {desde 1980 / há três meses}* (*the presence of troops in the territory {since 1980 / for three months}*), which I will not take into account here. [Cf. e.g. Mória (2011b).]

(2) For corpora examples, I will provide only glosses and translations (separated by a vertical slash) for the (bracketed) verbless structures.

## 2. TPpt-dependent temporal adjuncts in tenseless clauses (cont.)

⇒ corpora examples of **deictic dependence** (with *agora*, *haver*[*há*, *havia*] and *desde*) [cont.]

- (1) «Bush (...) começou por visitar (...) Homestead, uma zona completamente arrasada pelo furacão, [<sub>NP</sub> **agora um aglomerado de tendas**]. (CP, ext32376-soc-92b-1)  
'now a cluster of tents' | now a cluster of tents
- (2) «O Partido Trabalhista britânico, [<sub>PP</sub> **na oposição há 15 anos**], regista a maior subida de sempre nas sondagens (...).» (CP, ext57169-pol-94b-3)  
'in-the opposition there-is 15 years' | in the opposition for 15 years (now)
- (3) «[<sub>AP</sub> **Independente desde 1965**], (...) a Gâmbia é um dos mais pequenos países africanos.» (CP, ext865923-pol-93b-1)  
'independent since 1965' | independent since 1965
- (4) «(...) este sindicato ainda não conseguiu ser recebido pela ministra, o que não deixa de ser espantoso tendo em conta o tempo [<sub>PARTICIP.-CLAUSE</sub> **decorrido desde a primeira audiência**].» (CP, ext600-soc-95a-2)  
[time] 'elapsed since the first hearing' | that has elapsed since the first hearing



## 2. TPpt-dependent temporal adjuncts in tenseless clauses (cont.)

⇒ corpora examples of **anaphoric dependence** (with *agora*, *haver* [*há*, *havia*] and *desde*)  
[past TPpt in the given examples, but future TPpt also possible]

- (1) «Corria já o século VII quando a cidade se viu reduzida a lembranças. Das suas ruas, [<sub>AP</sub> **agora desertas**], tinham saído todos os passantes.» (CP, 1148557-dt-92b-2)  
[streets] 'now desert(ed)' | now empty
- (2) «As revistas ganhavam fortunas com as birras (...) da caprichosa Callas, [<sub>NP</sub> **agora uma figura do "jet-set"**], fotografada com Grace Kelly e Rainier no Mónaco ou ao lado de André Malraux.» (CP, ext727940-nd-97b-1)  
'now a figure of-the jet set' | now a jet set member
- (3) «Em confronto encontram-se duas facções bem distintas: os apoiantes da Junta, (...) que derrotou, nas últimas autárquicas, o PSD, [<sub>AP</sub> **detentor do poder há muitos anos**]; e os do padre Brito, na sua maioria pessoas (...) que (...) faziam parte da lista que perdeu as referidas eleições.» (CP, ext247716-soc-97a-1)  
'holder of-the power there-is many years' | a power holder for many years (then)

## 2. TPpt-dependent temporal adjuncts in tenseless clauses (cont.)

⇒ corpora examples of **anaphoric dependence** (with *agora*, *haver* [*há*, *havia*] and *desde*) [cont.]

- (1) «Há quase dois anos, a casa-mãe, na Suécia, (...) despediu Lars Bildman, [<sub>NP</sub> **seu presidente havia 15 anos**], e ainda dois outros quadros superiores.  
‘its president there-was 15 years’ | its president for 15 years (then)
- (2) «O século XVIII é para Veneza (...) um tempo de evidente perda de protagonismo (...). A conquista da República pelas tropas napoleónicas, a humilhação a que submeteram uma cidade [<sub>AP</sub> **orgulhosamente independente desde a queda do Império Romano**], vieram pôr ponto final (...) a alguns séculos de originalidade artística (...).» (CP, ext32269-nd-98a-2)  
[town] ‘proudly independent since the fall of-the Empire Roman’ | proudly independent since the fall of the Roman Empire (until then)
- (3) «O corpo do irlandês (...), [<sub>PARTICIP-CLAUSE</sub> **desaparecido desde dia 7 nas águas do rio Arade**], foi encontrado no sábado (...).» (CP, ext3472-soc-97a-2)  
[Irishman] ‘disappeared since day 7 in-the waters of-the river Arade’ | missing in River Arade since [name of the month] 7

## 2. TPpt-dependent temporal adjuncts in tenseless clauses (cont.)

### ● Comparable examples in English

⇒ examples with *now* from Quirk *et al.* (1984) [DEICTIC/ANAPHORIC AMBIVALENCE]

(1) She glanced with disgust at the cat, **now quiet**. [p. 425]

(2) Though **now frail**, they were quite capable of looking after themselves. [p. 997]

⇒ examples with **(by) now** from the British National Corpus

(3) [DEICTIC] «<sub>[AP]</sub> **Now empty**, decay and neglect are slowly eating away at the building's fabric. Built in 1823, the crescent shaped hospital is listed as being of architectural interest.»

(4) [DEICTIC] «Reagan demanded a pull-back by the Israelis, with the <sub>[AP]</sub> **by now familiar** result.»

(5) [ANAPHORIC] «(...) in 1841 Cambridge was empty when Coleridge reached it in October. (...) His old friend and mentor, Thomas Middleton, <sub>[PP]</sub> **now in his final year at Pembroke College**, was the only person he knew (...).»

(6) [ANAPHORIC] «A moment later and he had reappeared, powerful arms folded across the expanse of muscular chest, with a <sub>[AP]</sub> **by now familiar** look of resigned impatience.»

## 2. TPpt-dependent temporal adjuncts in tenseless clauses (cont.)

### • Comparable examples in English (cont.)

⇒ examples with **since** from the British National Corpus

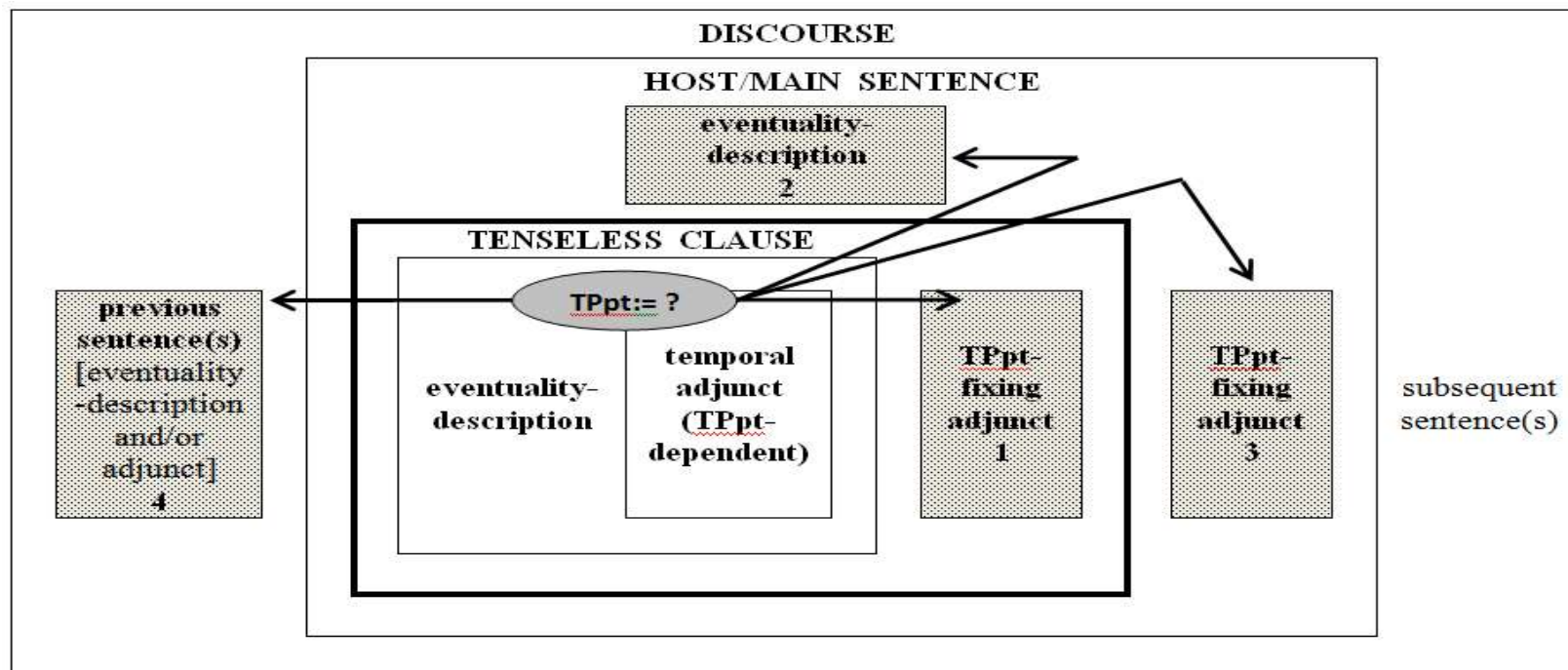
- (1) [DEICTIC] «Somalia, [<sub>AP</sub> **independent since 1960**], was formed by bringing together the former British Somaliland Protectorate and the UN Trust Territory of Somalia (...).»
- (2) [DEICTIC] «Tension between the two Korean states – [<sub>PP</sub> **technically at war since 1950**] – increased during February as a result of the Gulf War (...).»
- (3) [ANAPHORIC] «Tanzania was formed in 1964 by the union of Zanzibar (a former British protectorate, briefly independent in 1963-64) with Tanganyika, [<sub>AP</sub> **itself independent since 1961**](...).»
- (4) [ANAPHORIC] «Israeli negotiators had gained proof on Oct. 19 of the death of a soldier, Yossi Fink, [<sub>-ING CLAUSE</sub> **missing in Lebanon since 1986**].

⇒ examples with (time-anchored) **for** from the British National Corpus

- (5) [DEICTIC] «Zimbabwe, [<sub>AP</sub> **now independent for a decade after a prolonged war of liberation (...)**], has been primarily concerned to throw off its colonial legacy.»
- (6) [ANAPHORIC] «Harlem Brundtland (...), returned to office on Nov. 3, heading a minority government for the third time. The centre-right coalition (...), [<sub>PP</sub> **in power for just over a year (...)**], had collapsed on Oct. 29 because of a deadlock over Norway's policy towards European integration (...).»

### 3. Mechanisms for TPpt-selection in tenseless clauses

The definition of TPpt in tenseless clauses (whose relevance is evinced by the presence of internal TPpt-dependent temporal adjuncts) appears to be somewhat more complex than in regular main sentences. In particular, a greater number of grammatical **anaphoric mechanisms** seem to be available: four will be discussed in this presentation (see arrows in the Figure below; still **work in progress**).



**Figure 1.** Anaphoric mechanisms to define temporal perspective points in tenseless clauses (containing TPpt-dependent time adjuncts)

### 3. Mechanisms for TPpt-selection in tenseless clauses (cont.)

#### 3.1. Anaphoric definition of the TPpt in tenseless clause

##### Mechanism 1.

##### TPpt-definition via a TPpt-fixing temporal adjunct inside the tenseless clause

There is a non-present TPpt set by adjuncts (e.g. PPs or subordinate temporal clauses) inside the tenseless clause. The fact that such **TPpt-fixing temporal adjuncts** can occur within these tenseless structures is in line with their propositional status!

(1) [<sub>pp</sub> **Em guerra {há trinta anos / desde 1980} quando foi invadido**],

o país está a enfrentar actualmente uma grave crise económica.

'at war there-is thirty years / since 1980 when [it] was invaded  
the country is at face<sub>INFINITIVE</sub> currently a serious crisis economic'

At war {for thirty years / since 1980} when it was invaded,  
the country is now facing a serious economic crisis.

☞ INTERPRETATION: TENSELESS CLAUSE – **past TPpt**, defined by the adjunct within the tenseless clause; HOST/MAIN SENTENCE – **present TPpt**, as results from the use of the present tense (*está a enfrentar/is facing*).

As we can see, **the TPpt of the tenseless clause and the TPpt of the host/main sentence need not coincide**. Obviously, they may also coincide – e.g. if we replace *está a enfrentar actualmente* (*is currently facing*) by *estava a enfrentar nessa altura* (*was facing at that time*) in the host/main sentence.

### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.1. Anaphoric definition (cont.)

#### Mechanism 2.

#### TPpt-definition directly via the eventuality-description in the host/main sentence

There is a non-present TPpt set directly by the host/main sentence eventuality-description.

(1) [<sub>PP</sub> **Em guerra {há trinta anos / desde 1980}**],

o país não resistiu e foi à falência. (Aconteceu o ano passado.)

`at war there-is thirty years / since 1980

the country NEG resisted and went to-the bankruptcy [it] happened the year past'

At war {for thirty years / since 1980},

the country did not resist and went bankrupt. (It happened last year.)

☞ RELEVANT INTERPRETATION<sup>(1)</sup>: TENSELESS CLAUSE – **past TPpt**, coinciding with the time of the eventuality described in the main/host sentence, i.e. the moment of bankruptcy; HOST/MAIN SENTENCE – (arguably) **present TPpt**, as results from the use of the pretérito perfeito simples (*não resistiu/did not resist* and *foi/went*).

Again, we see that **the TPpt of the tenseless clause and the TPpt of the host/main sentence need not coincide.**

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(1) Another possible interpretation: present TPpt for the tenseless clause (cf. *Atualmente em guerra há trinta anos / desde 1980, o país não resistiu e foi à falência. Aconteceu o ano passado.*)

### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.1. Anaphoric definition (cont.)

#### Mechanism 3.

#### TPpt-definition via a temporal adjunct within the host/main sentence

There is a non-present TPpt set by temporal adjuncts (including subordinate temporal clauses) within the host/main sentence.

(1) No ano 2000, [<sub>PP</sub> **em guerra {há trinta anos / desde 1970}**],  
o país estava a enfrentar uma grave crise económica.

'in-the year 2000 at war there-is thirty years / since 1970  
the country was to face<sub>INF</sub> a serious crisis economic'

In the year 2000, at war {for thirty years / since 1970},  
the country was facing a serious economic crisis.

☞ INTERPRETATION<sup>(1)</sup>: **past TPpt** for the TENSELESS CLAUSE, set by the sentence-initial adverbial (*no ano 2000 / in the year 2000*), which also defines the TPpt for the HOST/MAIN SENTENCE, with the pretérito imperfeito (*estava a enfrentar/was facing*).

The TPpt of the tenseless proposition and the TPpt of the host/main sentence always coincide in this mechanism.

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(1) A deictic interpretation seems possible only with post-subject order: *no ano 2000, o país, em guerra {há trinta anos / desde 1970}, estava a enfrentar uma grave crise económica* [AMBIGUOUS SENTENCE, WITH DEICTIC OR ANAPHORIC INTERPRETATION OF THE TENSELESS STRUCTURE].



### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.1. Anaphoric definition (cont.)

#### Mechanism 4. TPpt-definition in the discourse

There is a non-present TPpt set by a sentence immediately or closely preceding the one containing the tenseless clause.

(1) Visitei este país africano em 2000. [<sub>pp</sub> **Em guerra {há trinta anos / desde 1970}**], os cidadãos enfrentavam (na altura) uma grave crise económica.

'[I] visited this country African in 2000 at war there-is thirty years / since 1970 the citizens faced<sub>IMPERFECTIVE</sub> (at-the time) a serious crisis economic'

I visited this African country in 2000. At war {for thirty years / since 1970}, its citizens were facing (at that time) a serious economic crisis.

☞ RELEVANT INTERPRETATION<sup>(1)</sup>: **past TPpt** for the TENSELESS CLAUSE (the moment of the speaker's visit to the relevant African country), set by the first sentence, which also defines the TPpt for the HOST/MAIN SENTENCE, with the pretérito imperfeito (*enfrentavam/were facing*).

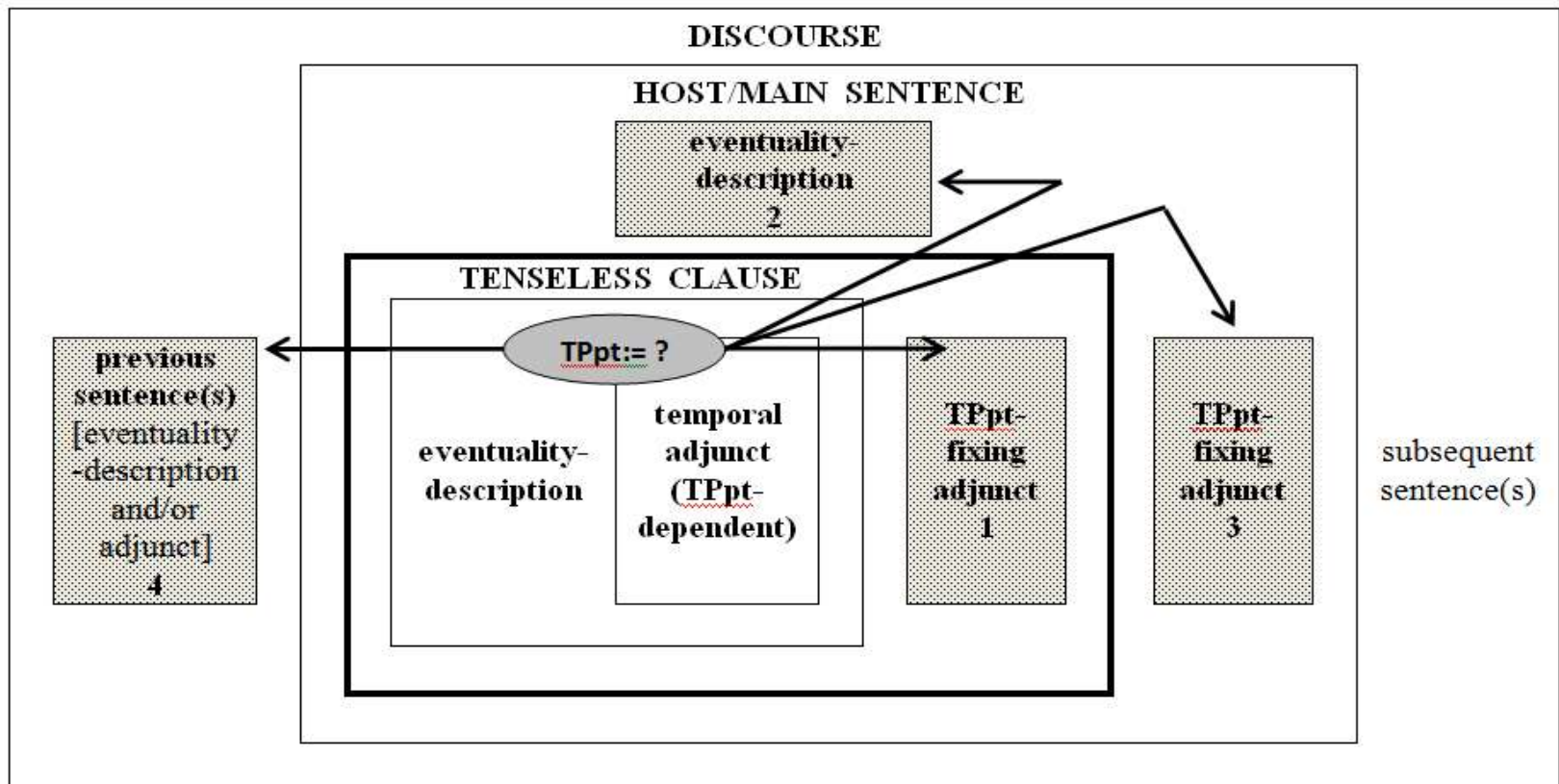
The TPpt of the tenseless proposition and the TPpt of the host/main sentence tend to coincide in this mechanism.

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(1) Another possible interpretation: present TPpt for the tenseless clause (cf. *Visitei este país africano em 2000. Atualmente em guerra há trinta anos / desde 1970, os cidadãos enfrentavam na altura uma grave crise económica*), hence with the TPpt of the tenseless clause and that of the host sentence not coinciding.

### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.1. Anaphoric definition (cont.)

Overall view of anaphoric mechanisms (again):



**Figure 1.** Anaphoric mechanisms to define temporal perspective points in tenseless clauses (containing TPpt-dependent time adjuncts)

### 3. Mechanisms for TPpt-selection in tenseless clauses (cont.)

#### 3.2. Deictic definition of the TPpt in tenseless clause

Interestingly, the utterance time may be selected as a TPpt for the tenseless clause, despite the lack of an explicit deictic/absolute tense therein.

A deictic interpretation may – though need not – be made explicit via adjuncts such as *actualmente* ('currently') inside the tenseless clause.

(1) [<sub>PP</sub> (**Atualmente**) **Em guerra {há trinta anos / desde 1980}**],  
no final da década, este país terá possivelmente realizado eleições livres  
e estará pacificado.

'[Currently] at war there-is thirty years / since 1980

at-the end of-the decade this country will-have possibly held elections free  
and will-be appeased'

Currently at war {for thirty years / since 1980}, by the end of the decade,  
this country will possibly have held free elections and there will be peace.

☞ INTERPRETATION: TENSELESS CLAUSE – **present TPpt**, possibly reinforced by adjuncts (*actualmente/currently*); HOST/MAIN SENTENCE – **future TPpt**, as required by the future verb forms (*terá realizado/will have held* and *estará/will be*), and fixed by the sentence-initial adjunct (*no final da década/by the end of the decade*).

Again, **the TPpt of the tenseless proposition and the TPpt of the host/main sentence need not coincide**, as in this example shows.

### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.2. Deictic definition (cont.)

A deictic interpretation (i.e. a present TPpt) seems normally possible with tenseless clauses, often in competition with an anaphoric interpretation, except for some specific contexts (to be further investigated), namely the following two.

Structures where a deictic interpretation for the tenseless structure is blocked:

**A.** When a TPpt-fixing (non-present) adjunct occurs inside the tenseless clause (since this adjunct necessarily fixes the TPpt)

(1) [<sub>PP</sub> **Em guerra {há trinta anos / desde 1980} quando o FMI interveio**],  
no final da década, este país terá possivelmente realizado eleições  
livres e estará pacificado. [**\*DEICTIC** / <sup>OK</sup>ANAPHORIC]

'at war there-is thirty years / since 1980 when the IMF intervened  
at-the end of-the decade, this country will-have possibly held elections  
free and will-be appeased'

At war {for thirty years / since 1980} when the IMF intervened,  
by the end of the decade, this country will possibly have held free elections  
and there will be peace.

### 3. Mechanisms for TPpt-selection in tenseless clauses | 3.2. Deictic definition (cont.)

Structures where a deictic interpretation for the tenseless structure is blocked (cont.)

**B.** When a TPpt-fixing (non-present) adjunct occurs in the host/main sentence and the tenseless clause is placed in initial (pre-subject) position (a case in which the main sentence adjunct necessarily fixes the TPpt)

(1) Em 2000, [<sub>PP</sub> **em guerra {há trinta anos / desde 1980}**],  
o país estava em risco de ir à falência. [**\*DEICTIC** / <sup>OK</sup>ANAPHORIC]

'in 2000 at war there-is thirty years / since 1980  
the country was at risk of go<sub>INF</sub> to-the bankruptcy'

In the year 2000, at war {for thirty years / since 1980},  
this country was at risk of going bankrupt.

vs. (non-sentence-initial position of the verbless clause)

(2) Em 2000, *o país*, [<sub>PP</sub> **em guerra {há trinta anos / desde 1980}**],  
estava em risco de ir à falência. [<sup>OK</sup>DEICTIC / <sup>OK</sup>ANAPHORIC].

## 4. Conclusions

The interpretation of a **subset of temporal adjuncts** appears to be dependent directly on a temporal perspective point (TPpt) in a way similar to **tenses**.

- Portuguese examples: *agora*; *desde* X-INTERVAL; *haver*[*há/havia*]<sub>DURATIONAL</sub> X-TIME.
- English counterparts: *now*; *since* X-INTERVAL; *for* X-TIME (*now/then*).

When those adjuncts occur in **tensed structures**, the TPpt they require and the TPpt tenses require do coincide, whence – in terms of processing – a simple mechanism establishing their coincidence could easily be assumed.

However, when those adjuncts occur in **tenseless structures** – as is the case focussed in this presentation –, the TPpt they require cannot be defined via (or in tandem with) internal tense (which does not exist), but rather has to be fixed via different mechanisms (presenting a few grammatical specificities) that were outlined here. Crucially, the TPpt selected for the tenseless structure and the TPpt selected for the host/main sentence need not coincide, and often don't.

#### 4. Conclusions (cont.)

Looking at the data presented here from a slightly different (more formal) angle – with an **impact on DRS-construction rules** –, one might assume that the need for a TPpt (i.e. a timeline-standpoint from which described eventualities are observed) – substantiated in the instruction «Choose TPpt», in DRT – is a general property of propositional structures (i.e. constituents that identify eventualities, or states-of-affairs)<sup>(1)</sup> and not only of tensed S-phrases.

The need for a TPpt is obvious in **tensed clauses**, as abundantly explored in the Reichenbachian literature, and there it may be primarily made dependent in the **TP feature of tense** (as in Kamp & Reyle's system).

However, the need for a TPpt in **tenseless clauses** (of tensed languages) may also be advocated, taking into consideration the possible use of TPpt-dependent adjuncts within them. Here, the choice of TPpt is obviously independent of tense, but requires complex deictic-anaphoric mechanisms, which are however – not unexpectedly – comparable to those required by verb tenses, where they occur (e.g. an anaphoric TPpt is fixed by adverbs or eventuality-descriptions in neighbouring structures; compare sections 1.2 and 3.1 above).

It would be interesting to study the existence of counterparts of TPpt-dependent temporal adjuncts in **languages lacking tense**, and, should they exist, their behaviour therein.

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(1) With some possible exceptions, e.g. atemporal generic sentences.

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## Corpora

[BNC] British National Corpus, available at <https://www.english-corpora.org/bnc/>

[CP] CETEMPúblico, ca. 190 million words, containing only newspaper text (*Público*) available at <http://www.linguateca.pt/ACDC/>