Rethinking the syntax of aspect

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This talk: syntax & semantics of aspect

- Aspect head – imperfective, perfective…
- How many are there?
- What happens when we have complex forms, e.g., periphrastic progressives?
- What is the nature of the non personal part?
- What is the meaning of the inflected head?

-- semantics ascribed to the perfective
About what there is wide consensus

- Viewpoint aspect is a temporal category
- Informs about the developmental status of an event in time

(1) Juan pintó la habitación  
   Juan paint-pfve.3ps the room  \hspace{1cm} \textit{Finished}

(2) Juan estaba pintando la habitación.  
   Juan was.impfve painting the room  \hspace{1cm} \textit{Ongoing}

(3) Juan iba a pintar la habitación  
   Juan went.impfve to paint the room  \hspace{1cm} \textit{About to start}

All situations before the Utterance Time “past”.
About what there is wide consensus

(4) Cuando Tim abrió la puerta, Juan estaba besando a María.
    When Tim opened the door, John was kissing Mary
(5) Cuando Tim abrió la puerta, Juan besó a María.
    When Tim opened the door, John kissed Mary
    Tim opening the door  x
    John kissing Mary       /

Are ordered in a different manner depending on their Aspect:

(4')  ---------////x///------

(5')  ---------x-/-

Therefore: Aspect also contributes to 
*temporal ordering* → it is a ordering predicate
About what there is wide consensus

What the intervals to be ordered are:

- Topic Time: the time the sentence refers to, speaks about

  *I saw a book. The book was in Russian.*

- TT of “was” is the time in which I saw the book

- Event Time: the time the whole situation runs over

- Reference Time: the time with respect to which the TT is ordered (yielding past, present, future).
About what there is wide consensus

• Aspect establishes a relation between the Time of the Situation (Event Time) and the Time the sentence refers to (Topic Time).

• Aspect is thus conceived as an ordering predicate establishing (temporal) topological relations.

• Analogous to Tense

• Difference lies in the times/intervals they order

• Klein 1994; Demirdache & Uribe-Etxebarria 2000
Syntax of Tense and Aspect

RefT, TT and EvT are Zeit Phrases (ZPs); Stowell 1993

Maria was washing the car (when I saw her)

----------[////////X/////////////-----Utterance Time
Typical aspect descriptions

<table>
<thead>
<tr>
<th>Viewpoints</th>
<th>Predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective</td>
<td>TT AT ($\subseteq$) EvT (TT = EvT)</td>
</tr>
<tr>
<td>Progressive</td>
<td>TT IN ($\subset$) EvT</td>
</tr>
<tr>
<td>Perfect</td>
<td>TT after EvT</td>
</tr>
<tr>
<td>Prospective</td>
<td>TT before EvT</td>
</tr>
</tbody>
</table>
## Typical aspect descriptions

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Ordering Predicate</th>
<th>Effects</th>
<th>Interpretation</th>
<th>Traditional intuitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive Imperfective</td>
<td>TT (WITH)IN EvT</td>
<td>only <em>part</em> is asserted unbounded</td>
<td>ongoing</td>
<td>seen from the inside</td>
</tr>
<tr>
<td>Perfective</td>
<td>TT AT EvT (Total overlap)</td>
<td>the <em>whole</em> is asserted bounded</td>
<td>finished</td>
<td>seen from the outside; unanalyzed whole</td>
</tr>
</tbody>
</table>

Comrie 1976
Smith 1991
About what there is about the progressive

• Progressive: associated with imperfective aspect
• Progressive: semantics is typically described as IN.

• **What is the element procuring such relation?**
• The progressive combines with other heads inflected for aspect as well in languages such as Spanish.

• **Is the progressive (V-ndo; V-ing) an aspect?**
• Have we got more than one aspect head? – inflected form showing in Spanish.
Some observations on the progressive

• The inflected form does not have to be imperfective.
• The progressive is always syntactically lower than the inflected head.
Is progressive an aspect?
Progressive is not an aspect

- It creates an in-progress state.
- It belongs to the structural domain where the material is of event sort.

(Lundquist 2012; Svenonius & Ramchand 2014)
We think this is a satisfying reinterpretation of the Reichenbachian view for a number of reasons. Firstly, there is no real logical reason why tense forms in language should require a two step process of temporal relations to relate an event to the speech time. If an event has a time, and the speech time is the deictic anchor, why doesn't language just relate the event directly to the speech time? Why does it seem to go through this intermediate 'placeholder' which Reichenbach called the reference time? Under the sortal view, the two step process becomes required: events do not inherently come with intervals so they need to be converted to the situational sort first, derivationally speaking (by embedding under Asp*), and then related to the speech time (by T).

Asp* is formally relational: it relates its complement, the event description, to the situation of which that event is a constitutive part. We could represent the situation as an argument in the specifier of Asp*, along the lines proposed by Wiltschko (to appear) (see also Percus 2000), but since that will play no further role in the specifics of our proposal, we do not explicitly represent it in our tree diagrams.

Thus, to reiterate, we assume that the locus of Relation 2 in the above table is an aspectual head, Asp*, while the locus of Relation 1 is the tense head, T (cf. Klein 1994, Demirdache and Uribe-Etxebarria 2000). We furthermore assume that at the transition point Asp*, the event sort is embedded in a situation (formally, it is related to a situation and existentially closed). This is represented in the following tree.

(31)

TP

h

h

h

h

h

h

h

h

h

h

h

h

h

h

s

T

(s^0,s)^R

Asp

V

(e,x)

(7)

situation, domain of sort s

transition: \exists e. R(s,e)

event, domain of sort e
Sortal domains
(Svenonius & Ramchand 2014)

proposition, domain of sort $p$

transition: $\exists s.R(p,s)$

situation, domain of sort $s$

transition: $\exists e.R(s,e)$

event, domain of sort $e$
Diagnosing the presence of aspect

- How can we tell if the -ndo/-ing ("progressive") constitutes an aspect head?
  - Note that if there is, the syntax of aspect becomes more complicated than traditionally assumed (see tree above)

- The proposed reasoning:
  - Aspect relates intervals of time; provides time arguments to the event.
    - If progressive is aspect: it should access intervals of time
    - If progressive is not aspect it does not access intervals; only parts of the event.
    - If progressive is any sort of an aspect head, ceteris paribus, it should order two intervals.
Diagnosing the presence of aspect

- If such two intervals can be somehow identified: support for progressive being aspect.
- If its presence brings over a change in temporal interpretation and such a change can be argued to be aspectual in any sense.
Diagnosing the presence of aspect

Empirical arena: perfective progressives, so the content of the heads contrasts and is easier to track.
Perfective progressive

- What is it?
- It is the paraphrase of a perfective under certain circumstances:
  - With activities:
    (9) Pedro caminó por el parque.
    Pedro walk-pfve.3ps by the park
    (10) Pedro estuvo caminando por el parque.
    Pedro was-pfve.3ps walk-ing by the park
Perfective progressive

• With accomplishments: when duration is measured

(11) Pedro pintó la habitación.
    Pedro paint-pfve.3ps the room

(12) #Pedro estuvo pintando la habitación.
    Pedro was-pfve.3ps painting the room

(13) Pedro pintó la habitación durante dos horas.
    Pedro paint-pfve.3ps the room for two hours

(14) Pedro estuvo pintando la habitación durante dos horas.
    Pedro was-pfve.3ps painting the room for two hours
Perfective progressives

- With accomplishments:
  - When duration is measured
  - Entailment of culmination disappears
Progressive & lack of culmination

(16) Pedro pintó la habitación, pero no terminó.
   Pedro paint-pfve.3ps the room, but not finished
   ‘Pedro painted the room but he did not finish to’

(17) Pedro pintó la habitación durante dos horas, pero no terminó.
   Pedro paint-pfve.3ps the room for two hours, but not finished
   ‘Pedro painted the room for two hours but he did not finish to’
Progressive & lack of culmination

But culmination is still possible:

(18) Pedro pintó la habitación durante dos horas, y terminó.

Pedro paint-pfve.3ps the room for two hours, and finished
‘Pedro painted the room for two hours and he finished’

• So not so easy to conclude that the progressive (and/or the durante-XP adverbial) has turned the accomplishment into an activity.

(15) * Pedro paseó durante dos horas, pero no terminó.

Pedro stroll.pfve for three hours but not finished

• We need to have an accomplishment to deny culmination.
(19) # Pedro pintó la habitación y terminó.
Pedro paint-pfve.3ps the room, and finished
‘Pedro painted the room and he finished’

In the absence of modification culmination is understood.
Progressive, lack of culmination and *durante*

- *Durante dos horas* gives us the *size* of an *interval*
- Not the entire interval of the situation necessarily:

(20) Pedro *pintó* la *habitación* durante dos horas.

   Pedro paint-pfve.3ps the room for two hours

   ‘Pedro painted the room for two hours’

- True even if he was engaged in painting it for five hours.
- Pragmatics
Semantics of the *durante*-modifiers

• **Durante-modifier:**

  Seems to modify the TT, the Assertion Time, rather than the interval of the whole event.

  *For two hours* gives us only **part** of the interval the event may extend over, but gives us the relevant part observed in the sentence and that part is over, bounded.

  **For two hours: ‘for at least two hours’**
Semantics of the *in*-modifier

*In*-time adverbials:

(21) Pedro pintó la habitación *en dos horas.*

Pedro painted the room in two hours

cannot be true if it took Pedro five hours to paint the room.

cannot be continued by “not finish to” → culmination obligatory

(22) *Pedro pintó la habitación *en dos horas*, pero no terminó.

Pedro painted the room in two hours, but not finished
Semantics of the *in*-modifier

In two hours: ‘in two hours maximum’
Semantics of the modifiers

*En dos horas*
*in two hours* → interval of the whole actual event

*Durante dos horas*
*for two hours* → interval of the assertion

Demirdache & Uribe-Etxebarria 2004: temporal adverbials are modifiers of the Assertion Time or the Event Time.
The syntax of *interval size* modifiers (17) to be refined below

(23) \textit{durante}-time \newline \textit{for}-time

\begin{itemize}
  \item AspP
  \item AstT
  \item for-PP
  \item AstT
  \item Asp'
  \item Asp°
  \item EvtT
\end{itemize}

(24) \textit{en}-time \newline \textit{in}-time

\begin{itemize}
  \item AspP
  \item AstT
  \item Asp'
  \item Asp°
  \item EvtT
  \item EvtT
  \item in-PP
\end{itemize}
Some correlations

- Durante-XP time
- Lack of culmination
- Perfective → paraphrased by Perfective Progressive

(25) ??Pedro estuvo pintando la habitación entera.
   Pedro was-pfve.3ps painting the room whole
(26) ?? Pedro estuvo pintando la habitación del todo.
   Pedro was-pfve.3ps painting the room completely
If progressive is an aspect

There is some interval \( t \) that is *included IN* the whole \( \text{EvT} \) extent/interval of painting which completely overlaps with the \( \text{TT} \).

(paint the room)
The syntax of the durative bound

- This interval $t$, *included IN* the EvT and completely overlapping with the TT, measures two hours.
- Given the complete overlap with the TT, the TT gets measured alike.
- When for-time is there, the complex structure is there.

• BUT: *for*-time modifier cannot appear there in spell out.
• Asp + Asp = compound form
Is progressive an aspect?
The intermediate interval

• If progressive is an aspect and just following the rules of the book:
  • Another head
  • Another interval
  • Given the overlap between TT and t brought by the perfective, how can we tell?
  • Any modifier that applies only to the intermediate interval?
Probing into the intermediate interval

(29) ???Pedro pintó la habitación desde las tres.
   Pedro paint-pfve the room since three

(30) Pedro estuvo pintando la habitación desde las tres.
   Pedro was-pfve painting the room since three

(31) Pedro estaba pintando la habitación desde las tres.
   Pedro was-impfve painting the room since three
(32) ??Pedro ha pintado la habitación desde las tres.
   Pedro has painted the room since three
(33) Pedro ha estado pintando la habitación desde las tres.
   Pedro has been painting the room since three
• “Desde” marks the commencement of the situation → the situation has started, thus it is in progress.
Is progressive an aspect?

- If it is, at least in the by-the-book way, there must be an intermediate ordering head, which needs an intermediate interval.

- *Desde* seems to tackle it, suggesting the existence of an intermediate interval.

- This suggests that the progressive is within the structural territory of situations, rather than (plain) events.

- Now, this intermediate interval is not the TT per se.

- What is needed to be considered a typical TT?

- Being able to be related to the UTT?

- That is a different question.
Interval material

• How low can we find predication of times?
• See nominalizations. (Fábregas & Marin 2012; Arche & Marin 2012, 2017)

(34) Las discusión de la tesis duntante una hora llevó a la conclusión opuesta.

‘The discussion of the thesis for an hour led to the opposite conclusion’

(35) La construcción del puente en seis meses sorprendió al alcalde.

‘The construction of the bridge in six months surprised the mayor’
Interval material

(36) La construcción del puente durante seis meses se hizo pesada pero terminaron.

‘The construction of the bridge for six months was laborious but they finished’

(37) La construcción del puente durante seis meses se hizo pesada y no terminaron.

‘The construction of the bridge for six months was laborious and they did not finish’

(38) * La construcción del puente en seis meses se hizo pesada y no terminaron.

‘The construction of the bridge in six months was laborious and they did not finish’
Interval material

- Can there be intervals without an ordering predicate taking them?
- No ordering predicate in nominalizations:

(39) * La discusión del artículo cuando llegué.
  ‘The discussion of the paper when I arrived’.

(40) * La construcción del puente en seis meses cuando llegué.
  ‘The construction of the bridge when I arrived’
That is

• It seems that the progressive belongs to a territory where interval predication happens.

• Through ZP quantification.

• Not only event mereology is at stake.

• This seems to be possible at a very early/low stage of the derivation, as nominalizations suggest.

• Nominalizations also point to a disengagement between intervals and presence of an ordering predicate.
This talk: syntax & semantics of aspect

• Aspect head – imperfective, perfective…

• How many heads are there (for a “single” meaning)? – of course recursion.
  • Two.

• What happens when we have complex forms, e.g., periphrastic progressives?
  • What is the nature of the non personal part? aspectual

• What is the meaning of the inflected head?
  -- semantics ascribed to the perfective: culmination with perfective accomplishments can be cancelled.
  -- Perfective can be paraphrased by a perfective progressive.
  -- Perfective can refer to a part.
This talk: syntax & semantics of aspect

• The inflected head does the job of advancing narration – TT job.
• The perfective progressive works like a perfective for the matter:

  (41) Pedro entró, estuvo leyendo el artículo durante media hora y se marchó.

  ‘Pedro entered, was-pfve.3ps reading the paper for half an hour and left’
Gracias
Me gusta la película.

Me está gustando la película.

??Pedro estuvo llegando a la meta.

Pedro llegó a la meta.

- Ramchand 2014, to appear: The event is existentially closed off.
- The ZP can do precisely that: quantify the event and convert it into time material.
- The whole EvT is visible only with culminated accomplishments.
Further questions

• Coercion

• A Juan le estaba gustando la película =/ le gusta la película.

• Juan estaba llegando a la meta cuando…

• → additional interval introduced

• But: ?? Juan estuvo llegando a la meta.

• (unless iterative reading).
Inflected forms are not always entirely equivalent to the progressive periphrasis with the imperfect:

? Cuando entré todavía redactaba el informe.

Cuando entré todavía estaba redactando el informe.

Todavía: adv de fase (Garcia Fernandez 1999): commencement has taken place. – Similar to desde but different