Alternations between regular and athematic participles in Brazilian Portuguese

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Handout available at: https://tinyurl.com/lsrlfong
(1) passadas  (2) comidas  (3) partidas
pass-a-d-as    com-i-d-as    part-i-d-as
iron-TH-PTC-AGR eat-TH-PTC-AGR leave-TH-PTC-AGR
‘ironed’      ‘eaten’       ‘left’

Where the PTC may occur

(4) a. Verbal passive
Essa camisa foi **pass-a-d-a** pelo João.
this shirt was iron-REG by.the João
‘This shirt was ironed by João.’
b. Adjectival passive
Essa camisa está/permanece **pass-a-d-a**.
this shirt is/remains iron-REG
‘This shirt is/remains ironed.’
c. Absolute participle
[ **Pass-a-d-a** a última camisa ], o João pôde descansar.
[ iron-REG the last shirt ] the João could rest. INF
Lit.: ‘Ironed the last shirt, João could rest’.
In addition to the regular form, some verbs allow for an additional, shorter PTC.

The shorter PTC form lacks the participle affix (-d) and a theme vowel, hence why they are called **athematic**.

(5)

<table>
<thead>
<tr>
<th>Regular participle</th>
<th>Athematic participle</th>
</tr>
</thead>
<tbody>
<tr>
<td>ganh-a-d-as ‘win-reg’</td>
<td>ganh-as ‘win-athem’</td>
</tr>
<tr>
<td>limp-a-d-as ‘clean-reg’</td>
<td>limp-as ‘clean-athem’</td>
</tr>
<tr>
<td>prend-i-d-as ‘arrest-reg’</td>
<td>pres-as ‘arrest-athem’</td>
</tr>
</tbody>
</table>

The distribution of athematic PTCs

(6)  

a. **Verbal passive: either PTC form possible**

As gavetas foram limp-a-d-as / limp-as pelo João. the drawers were clean-reg / clean-athem by the João

‘The drawers were cleaned by João.’

b. **Adjectival passive: only athematic**

As gavetas estão/permanecem *limp-a-d-as / limp-as.
the drawers is/remain *clean-reg / clean-athem

‘The drawers are/remain clean.’

c. **Absolute participle: only regular**

[ Limp-a-d-as / *Limp-as as gavetas ], o João foi [ clean-reg / *clean-athem the drawers ] the João went descansar.
rest.inf

‘The drawers having been cleaned, João went and rested.’
Questions

i. Why are verbal passives compatible with either a regular or an athematic PTC for the verbs for which both forms are available?

ii. Why is there a restriction in the participial form that can occur in adjectival passives and absolute participles (for the same verbs)?

iii. What could explain the directionality of this restriction?

Assumption: minimal PTC structure

(7) *Minimal PTC structure*

- It also accommodates all pieces of a PTC form.
- Assumption: all PTC sentences share the minimal structure.
  - But how could we account for their differences?
Syntactic differences

#1 Manner adverbs

(8) a. Verbal passive
    O armário foi aber-t-o cuidadosamente/rapidamente.
    the wardrobe was open-reg carefully/quickly
    ‘The wardrobe was carefully/quickly opened.’

b. Adjectival passive
    O armário permanece/está aber-t-o
    the wardrobe remains/is open-ptc-agr
    (*cuidadosamente/*rapidamente).
    (*carefully/*quickly)
    Lit.: ‘The wardrobe is carefully/quickly open.’

c. Absolute participle
    [ Aber-t-o o armário cuidadosamente/rapidamente ], . . .
    [ open-ptc-agr the wardrobe carefully/quickly ] . . .
    ‘The wardrobe having been carefully/quickly opened, . . .’
Interim summary:

Verbal  Adjectival  Absolute

Manner adverbs  ✓   ✓   ✓

A way to model this difference: a difference in the highest categorizer.

- In verbal passives and absolute participles: \( v \)
- In adjectival passives: \( a. \)

# 2 Agentive by-phrase

(10)  
  a. **Verbal passive**
      As gavetas foram organiz-a-d-as **pelo Otávio**.
      the drawers were organized-reg by.the Otávio
      ‘The drawers were organized/cleaned by Otávio.’
  
b. **Adjectival passive**
      As gavetas permanecem/estão organiz-a-d-as (*pelo Otávio).
      the drawers remain/are organized-reg (*by.the Otávio)
      ‘The drawers remain/are clean (*by Otávio).’
  
c. **Absolute participle**
      [ Organiz-a-d-as as gavetas (*pelo Otávio) ], . . .
      [ organize-reg the drawers (*by.the Otávio) ]
      ‘The drawers having been organized/cleaned (*by Otávio), . . .’
Another interim summary:

<table>
<thead>
<tr>
<th></th>
<th>Verbal</th>
<th>Adjectival</th>
<th>Absolute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manner adverbs</td>
<td>✓</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>Agentive by-phrase</td>
<td>✓</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

A way to model this difference: by assumption, a by-phrase requires Voice.

- Verbal passives: project Voice.
- Adjectival passives and absolute participles: lack Voice.

# Unaccusatives

(12) a. Verbal passive
* Os manifestantes foram desaparec-i-d-os pela polícia militar.
  the demonstrators were disappear-reg by.the police military
  Lit.: ‘The demonstrators were disappeared by the military police.’

b. Adjectival passive
  Os manifestantes estão/permanecem desaparec-i-d-os.
  the demonstrators are/remain disappear-reg
  ‘The demonstrators remain gone (lit.: remain disappeared).’

c. Absolute participle
  [ Desaparec-i-d-os vários manifestantes ], os movimentos sociais
  [ disappear-reg several demonstrators ] the movements social
  decidiram se aliar.
  decided self ally
  ‘Several demonstrators having disappeared, some social organizations
  decided to become allies.’
■ Yet another interim summary:

<table>
<thead>
<tr>
<th></th>
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<th>Adjectival</th>
<th>Absolute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manner adverbs</td>
<td>✓</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>Agentive by-phrase</td>
<td>✓</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Unaccusative</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

■ A way to model this difference: by assumption, unaccusatives are incompatible with Voice.

- Verbal passives: project Voice.
- Adjectival passives and absolute participles: lack Voice.

Resulting structures, pt. i

(7) **Minimal PTC structure**

(14) **Absolute participle**
Resulting structures, pt. ii

(7) Minimal PTC structure

\[
\begin{array}{c}
    \text{PtcP} \\
    \text{Ptc} \quad \text{vP} \\
        \text{v} \quad \text{√P} \\
            \quad \text{√} \quad \text{DP}
\end{array}
\]

Adjectival passive

(15) \[\text{aP} \]

\[
\begin{array}{c}
    \text{a} \\
    \text{PtcP} \\
        \text{Ptc} \quad \text{vP} \\
            \text{v} \quad \text{√P} \\
                \quad \text{√} \quad \text{DP}
\end{array}
\]

Resulting structures, pt. iii

(7) Minimal PTC structure

\[
\begin{array}{c}
    \text{PtcP} \\
    \text{Ptc} \quad \text{vP} \\
        \text{v} \quad \text{√P} \\
            \quad \text{√} \quad \text{DP}
\end{array}
\]

Verbal passive

(16) \[\text{VoiceP} \]

\[
\begin{array}{c}
    \text{Voice} \\
    \text{PtcP} \\
        \text{Ptc} \quad \text{vP} \\
            \text{v} \quad \text{√P} \\
                \quad \text{√} \quad \text{DP}
\end{array}
\]
Recall:

(6)  a. Verbal passive: either PTC form possible

   As gavetas foram **limp-a-d-as / limp-as** pelo João.
   the drawers were **clean-reg / clean-athem** by the João
   ‘The drawers were cleaned by João.’

   b. Adjectival passive: only athematic

   As gavetas estão/permanecem **limp-a-d-as / limp-as**.
   the drawers are/remain **clean-reg / clean-athem**
   ‘The drawers are/remain clean.’

   c. Absolute participle: only regular

   [ **Limp-a-d-as / *Limp-as** as gavetas ], o João foi
   [ clean-reg / *clean-athem the drawers ] the João went
   descansar.
   rest.inf
   ‘The drawers having been cleaned, João went and rested.’
Correlations between structure and choice of PTC

\[(17)\]

**Table of Structures**

- **Verbal passive**: Extra layer is VoiceP. The analysis will capitalize on this.
- **Adjectival passive** and verbal passive: Both have an extra layer; both compatible with the athematic PTC.
- **Absolute participle**: Smallest (minimal) structure; only compatible with regular PTC.

**Diagrams**

- **VoiceP**
- **PtcP**
- **vP**
- **DP**

**Assumptions and postulations**
Phases, pt. i

- Assumption: categorizers (\(a, v\), etc) are strong phase heads (Marantz 2007).
- Assumption: in the absence of a higher phase head, a non-categorizing functional head (e.g. Ptc or Voice) is defined as a strong phase head (cf. configurational phases in Bobaljik & Wurmbrand 2005, and Bošković 2014)

Underived stipulation: strong vs. weak phases

- **Strong phase**: both defines a Spell-Out domain and triggers Spell-Out.
- **Weak phase**: unless XP is the highest layer in a given structure, it is a weak phase, i.e. it determines what a SOD is, but does not itself trigger the Spell-Out of a lower phasal complement.

\[
\begin{align*}
(18) & \quad \text{XP} \quad \text{strong phase} \\
& \quad \begin{array}{c}
X \\
\alpha
\end{array}
\end{align*}
\]

\[
\begin{align*}
(19) & \quad \text{WP}/zP \\
& \quad \begin{array}{c}
W/z \\
\text{XP} \quad \text{weak phase}
\end{array}
\end{align*}
\]

\[
\begin{align*}
& \quad \begin{array}{c}
\alpha \\
\alpha
\end{array}
\end{align*}
\]

\[
\begin{align*}
& \quad \begin{array}{c}
\cdots
\end{array}
\end{align*}
\]

\[
\begin{align*}
& \quad \begin{array}{c}
\cdots
\end{array}
\end{align*}
\]

\Rightarrow \quad \text{The same functional projection XP can be a strong or a weak phase, depending on the surrounding structure.}
(20)  a. Weak Phase Impenetrability Condition

The Spell-Out of the complement domain of a phase is delayed until the merge of the next higher phase.

(adapted from Chomsky 2001)

b. \[
\begin{array}{c}
\betaP \text{ phase} \\
\beta \\
W \alphaP \text{ phase} \\
\alpha \\
YP \text{ }'s \text{ SOD; } SO \text{ delayed until } \betaP
\end{array}
\]

Effects of the weak version of the PIC:

1. The Spell-Out of a given phase is delayed until the next higher phase.
2. Upon the completion of a phase \(\alphaP\), if there is no lower phase within \(\alphaP\), then no Spell-Out occurs at this point of the derivation.
How athematic PTCs come about

Fusion rule

\[ [v [\sqrt{R} [v]]] \rightarrow [v \sqrt{R} v] / \text{PTC, where } R \in \{\text{ganh, limp, salv, \ldots}\} \]

- Absolute participle: \(v\) and \(\sqrt{R}\) belong to different SODs, so that Fusion cannot apply.
- Adjectival passive: \(v\) and \(\sqrt{R}\) belong to the same SOD, so that Fusion can apply.
- Verbal passive: two different SODs
  - one where \(v\) and \(\sqrt{R}\) are in different SODs (\(\rightarrow\) Fusion applies)
  - one where they are in the same SOD (\(\rightarrow\) Fusion does not apply).

Variable numerations with Voice

- Chomsky’s (1995) definition of Numeration: “a set of pairs \((LI, i)\), where \(LI\) is an item of the lexicon and \(i\) is its index, understood to be the number of times that \(LI\) is selected.”
- Underived stipulation: Voice may be part of the same numeration as the rest of the pieces of the PTC in a verbal passive.\(^1\)

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\(^{1}\)Inspired by the Merge-over-Move discussion, Chomsky (2000).
Proposed derivations

Absolute particle: regular PTC only

(21)  

a. √PASS: only regular PTC  
[ Pass-a-d-a a última camisa ], o João pôde descansar.  
[ iron-reg the last shirt ] the João could rest-INF  
Lit.: ‘Ironed the last shirt, João could rest’.

b. √LIMP allows for regular and athematic PTCs  
[ Limp-a-d-as / *Limp-as as gavetas ], o João foi  
[ clean-reg / *clean-athem the drawers ] the João went  
descansar.  
rest-INF  
‘The drawers having been cleaned, João went and rested.’
(22) \[ \text{highest functional projection} \rightarrow \text{strong phase} \]
\[ \text{categorizer} \rightarrow \text{strong phase} \]
\[ \text{Spell-Out Domain} \]

\[ \sqrt[\text{Ptc}]{} \]

\[ v \]

\[ \text{Ptc} \]

\[ v \]

\[ \text{Ptc} \]

\[ \text{SOD includes } \sqrt[\text{Ptc}]{}, \text{ but not } v, \text{ bleeding the application of Fusion.} \]

- This would be why athematic PTC’s are not allowed in absolute participles.
- Only the regular PTC may arise.

(23) a. \[ \sqrt[\text{PASS}: \text{only regular PTC}]{} \]

Essa camisa está/permanece \textbf{pass-a-d-a}.

this shirt is/remains iron-\text{REG}

‘This shirt is/remains ironed.’

b. \[ \sqrt[\text{LIMP}: \text{regular and athematic PTCs}]{} \]

As gavetas estão/permanecem *\textbf{limp-a-d-as} / \textbf{limp-as}.

the drawers is/remain *\text{clean-REG} / \text{clean-\text{ATHEM}}

‘The drawers are/remain clean.’
(24) \[ \text{categorizer} \to \text{strong phase} \ a \]

\[ \text{weak phase} \ Ptc \ a \]

\[ \text{Spell-Out Domain} \ v \ Ptc \]

\[ \sqrt{v} \]

⇒ SOD includes both \( \sqrt{ } \) and \( v \). **The context of application of Fusion is met.**

- This would be why athematic PTC’s *are* allowed in adjectival passives.

---

**Verbal passives: regular or athematic PTC**

(25)  

a. \( \sqrt{\text{PASS}}: \) *only regular PTC*

<table>
<thead>
<tr>
<th>Portuguese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essa camisa foi <strong>pass-a-d-a</strong> pelo João.</td>
<td>This shirt was ironed by João.</td>
</tr>
</tbody>
</table>

b. \( \sqrt{\text{LIMP}}: \) *regular and athematic PTCs*

<table>
<thead>
<tr>
<th>Portuguese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>As gavetas foram <strong>limp-a-d-as</strong>/<strong>limp-as</strong> pelo João.</td>
<td>The drawers were cleaned by João.</td>
</tr>
</tbody>
</table>
Two possible ways to compose a PTC Numeration, depending on Voice:

(26)  
\[ \text{NUM: } \{\sqrt{R}, v, \text{Ptc, …} \} \]

b. NUM’: \{\textbf{Voice, …} \}

No Voice in NUM → derivation similar to that of absolute participle.

(26’)  
\[ \text{highest functional projection} \rightarrow \text{strong phase} \quad \text{Ptc} \]
\[ \text{categorizer} \rightarrow \text{strong phase} \quad v \quad \text{Ptc} \]
\[ \text{Spell-Out Domain} \quad \sqrt{v} \quad \text{[cf. (22)]} \]

⇒ SOD includes $\sqrt{\_}$, but not $v$, bleeding the application of Fusion.

- This would be why athematic PTC’s are not allowed in this derivation for verbal passives.
- Only the regular PTC may arise.
Yes Voice in NUM → derivation similar to that of adjectival passive.

(27′)  \( \text{highest functional projection} \rightarrow \text{strong phase} \) Voice

\[ \begin{array}{c}
\text{weak phase} \\
\text{Spell-Out Domain}
\end{array} \]

\[ \begin{array}{c}
Ptc \\
\text{Voice}
\end{array} \]

\[ \begin{array}{c}
v \\
\sqrt{}
\end{array} \]

\[ \begin{array}{c}
Ptc \\
v
\end{array} \]

\[ = (24) \]

⇒ SOD includes both \( \sqrt{} \) and \( v \). The context of application of Fusion is met.

- This would be why athematic PTC’s are also allowed in verbal passives.

Concluding remarks

Providing answers to the questions

i. There are two convergent derivations for verbal passives, depending on which NUM Voice is placed.

ii. Conversely, there is just one possible derivation for adjectival passives and absolute participles.

iii. They differ in how much structure they have, which determines whether or not \( \sqrt{} \) and \( v \) will be Spelled-Out together.
Shortcoming: the analysis proposed seems consistent with the data, but it relies on several unsupported stipulations.

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Obrigado!