# Alternations between regular and athematic participles in Brazilian Portuguese

Suzana Fong
*sznfong@mit.edu*

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Handout available at: **https://tinyurl.com/lsrlfong**

## Morphological make-up of participle

| | | | | | |
|---|---|---|---|---|---|
| (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'.

## Athematic PTCs

- 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)

| Regular participle | | **Athematic participle** | |
|---|---|---|---|
| ganh-a-d-as | 'win-REG' | ganh-as | 'win-ATHEM' |
| limp-a-d-as | 'clean-REG' | limp-as | 'clean-ATHEM' |
| prend-i-d-as | 'arrest-REG' | pres-as | 'arrest-ATHEM' |



## 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?

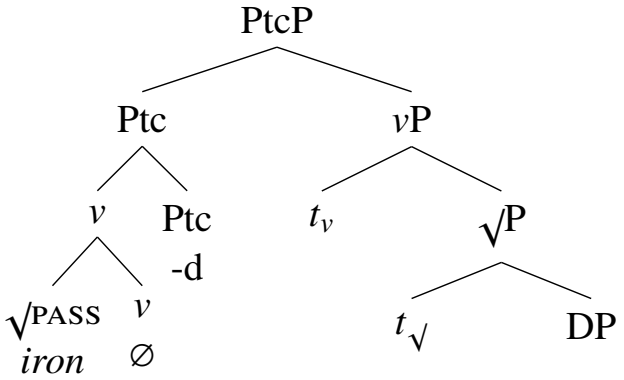
*ii.* Why is there a restriction in the participial form that can occur in adjectival passives and absolute participles (for the same verbs)?

*iii.* What could explain the directionality of this restriction?



# Assumption: minimal PTC structure

(7) *Minimal PTC structure*




- Structure independently proposed by Oltra-Massuet & Arregi (2006) for nonfinite forms in Spanish.
- 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:

(9)

| | 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:

(11)

| | **Verbal** | **Adjectival** | **Absolute** |
|---|---|---|---|
| Manner adverbs | ✓ | * | ✓ |
| Agentive *by*-phrase | ✓ | * | * |

- 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 demontrators 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 dissapeared).'

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:

(13)

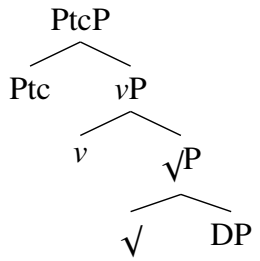
| **Verbal** | **Adjectival** | **Absolute** | |
|---|---|---|---|
| Manner adverbs | ✓ | * | ✓ |
| Agentive *by*-phrase | ✓ | * | * |
| Unaccusative | * | ✓ | ✓ |

- A way to model this difference: by assumption, unaccusatives are incompatible with Voice.
  - **Verbal passives**: project Voice.
  - **Adjectival passives** and **absolute participles**: lack Voice.



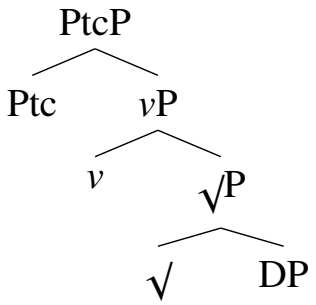
# Resulting structures, pt. *i*

(7) *Minimal PTC structure*



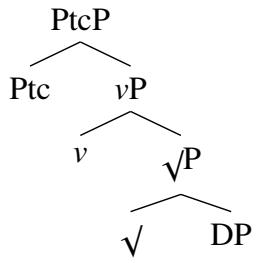

*Absolute participle*

(14)



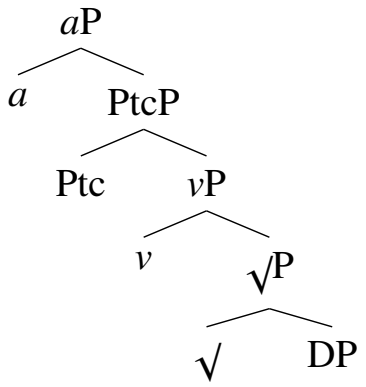
# Resulting structures, pt. *ii*

(7) *Minimal PTC structure*




*Adjectival passive*

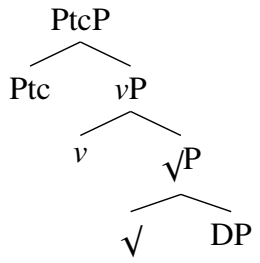
(15)





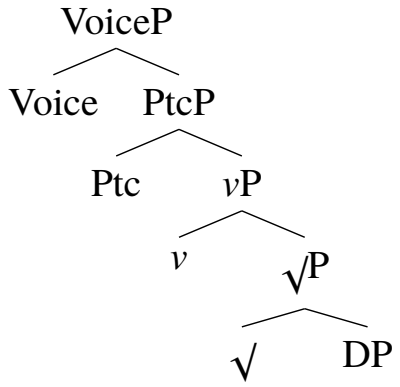

# Resulting structures, pt. *iii*

(7) *Minimal PTC structure*




*Verbal passive*

(16)



# Restrictions in the distribution of the PTC

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*

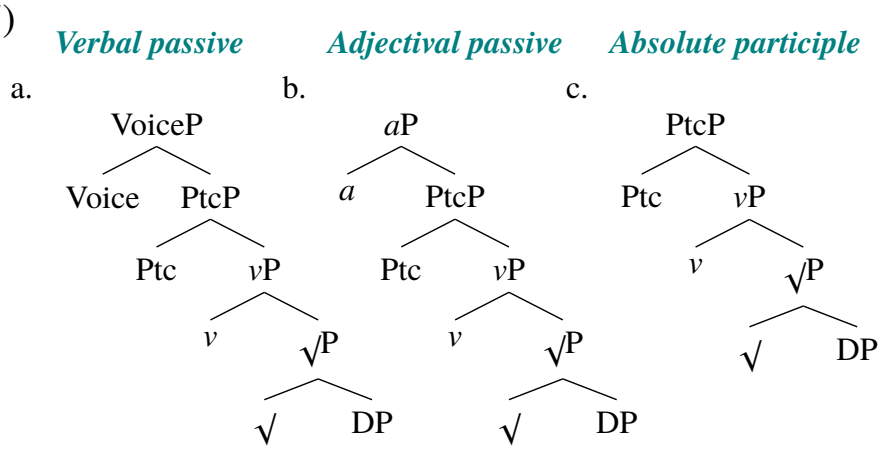
As gavetas estão/permanecem ***limp-a-d-as / limp-as**.
the drawers are/remain *clean-REG / clean-ATHEM
'The drawers are/remain clean.'

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)




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



# Assumptions and postulations

## Phases, pt. *i*

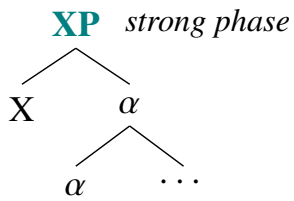
- Assumption: categorizers (*a*, *v*, etc) are strong phase heads (Marantz 2007).
- Assumption: in the absence of a higher phase head, a non-categorizing functional head (e.g. Ptc or Voice) is defined as a strong phase head (cf. configurational phases in Bobaljik & Wurmbrand 2005, and Bošković 2014)



## Phases, pt. *ii*

- 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.

(18)

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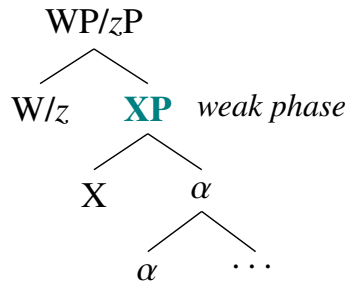



⇒ The same functional projection XP can be a strong or a weak phase, depending on the surrounding structure.

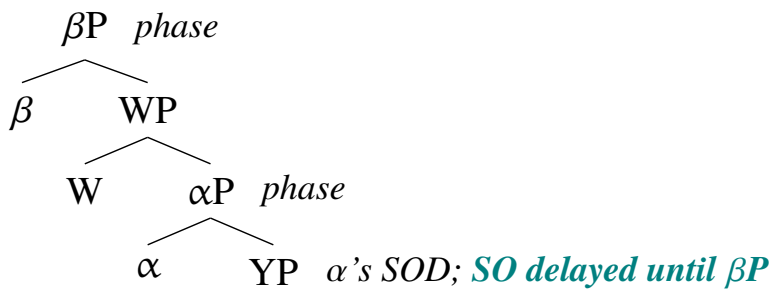
# Phases, pt. *iii*

(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.






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 $\alpha$P, if there is no lower phase within $\alpha$P, then no Spell-Out occurs at this point of the derivation.

## How athematic PTCs come about

### Fusion rule

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

- 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 (→ Fusion applies)
  - one where they are in the same SOD (→ 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]

[1] Inspired by the Merge-over-Move discussion, Chomsky (2000).

# Proposed derivations

## Absolute particle: regular PTC only

(21) a. $\sqrt{\textsc{pass}}$: *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. $\sqrt{\textsc{limp}}$ *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) *highest functional projection* → *strong phase* Ptc

*categorizer* → *strong phase* *v* Ptc

***Spell-Out Domain*** √ *v*

⇒ SOD includes √, but not *v*, **bleeding the application of Fusion**.

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



## Adjectival passive: athematic PTC only

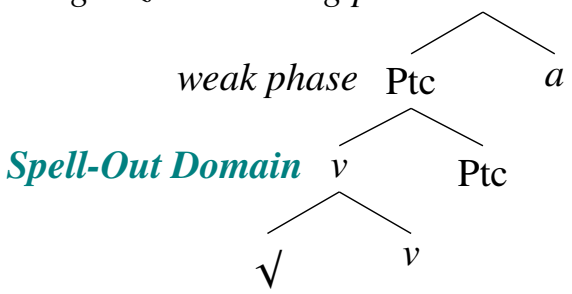
(23) a. √PASS: *only regular PTC*

Essa camisa está/permanece **pass-a-d-a**.
this shirt is/remains iron-REG
'This shirt is/remains ironed.'

b. √LIMP: *regular and* ***athematic*** *PTCs*

As gavetas estão/permanecem ***limp-a-d-as / limp-as**.
the drawers is/remain *clean-REG / clean-ATHEM
'The drawers are/remain clean.'

(24) *categorizer* → *strong phase* *a*




⇒ SOD includes both √ 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. √PASS: *only regular PTC*

Essa camisa foi **pass-a-d-a** pelo João.
this shirt was iron-REF by.the João
'This shirt was ironed by João.'

b. √LIMP: ***regular*** *and* ***athematic*** *PTCs*

As gavetas foram **limp-a-d-as / limp-as** pelo João.
the drawers AUX1.PST clean-REG / clean-ATHEM by.the João
'The drawers were cleaned by João.'

Two possible ways to compose a PTC Numeration, depending on Voice:

(26) a. NUM: $\left\{\sqrt{R}, v, \text{Ptc}, \ldots\right\}$ (27) NUM: $\left\{\sqrt{R}, v, \text{Ptc}, \textbf{Voice}, \ldots\right\}$

b. NUM′: $\{\textbf{Voice}, \ldots\}$

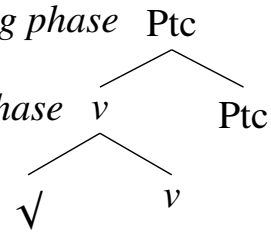


**No** Voice in NUM → derivation similar to that of absolute participle.

(26′) *highest functional projection → strong phase*

*categorizer → strong phase*

***Spell-Out Domain***



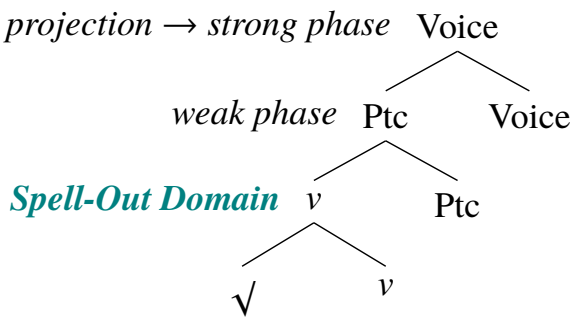

[cf. (22)]

⇒ 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′) *highest functional projection → strong phase*




[= (24)]

⇒ SOD includes both √ 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 √ and *v* will be Spelled-Out together.

Shortcoming: the analysis proposed seems consistent with the data, but it relies on several unsupported stipulations.



## Acknowledgments

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*Obrigado!*