

Paraguayan Guaraní progressive nasalization as phonologically conditioned allomorphy

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Introduction

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* An example from Paraguayan Guarani:

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2SG-dog-PL
'your dogs'

b. [←]nẽ-mĩtã-^hŋ^guera
2SG-child-PL
'your children'

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* remains **understudied** compared to regressive nasalization

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First formal analysis of Guarani progressive nasalization as **phonologically conditioned suppletive allomorphy**.

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Consequences for analyzing **exceptional causative constructions**.

- no straightforward analysis
- mixed evidence on their productivity vs. lexical status (Russell 2021, Estigarribia 2021)

Roadmap

1. Background on Paraguayan Guaraní
2. Empirical facts on progressive harmony
3. The analysis
4. Exceptional causative constructions
5. Conclusions and future directions

Background

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Guaraní has been described for decades ([Gregores & Suárez 1965](#)) and has significantly contributed to phonological theory ([Beckman 1998](#); [Walker 1998](#); [Piggott 2003](#)).

Background

All data collected in consultation with **8** native speakers.

6: in-situ fieldwork in Coronel Oviedo, Paraguay.

2: virtual fieldwork; Asunción and Concepción.

Age range: 24 to 70 y.o.

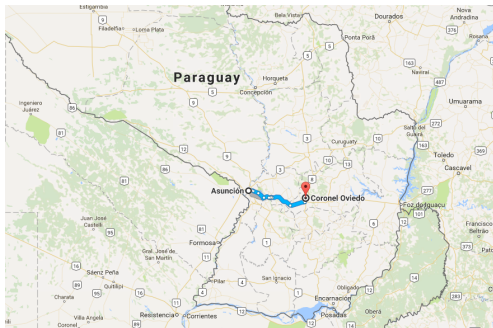
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Nasal-oral stops and full nasal consonants are in complementary distribution. Similarly, *j* [ɕ] and *ñ* [ɲ].

- (4) a. -[m^b]a b. -[m̃]ã (5) a. a'[j]a b. ã'[ñ]ã
TOT CMPL 'during' 'evil'

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* nasal consonants post-oralize before oral vowels (Stanton 2017).

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Some evidence from words with non-final stress:

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|---------|-----------|-----------|------------|
| mã'mõnẽ | ‘papaya’ | 'mãrãmõ | ‘never’ |
| 'mẽ nã | ‘husband’ | nã'hãnĩrĩ | ‘nahaniri’ |

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* suffixes (and roots) form their own prosodic domain

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Regressive and progressive (rightward) nasalization are different mechanisms. (Estigarribia 2020, Russell 2021, Cabrera 2024)

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* Coming up: data from **Coronel Oviedo** speakers

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- (12) a. a-jero'ki-[←][t]a
1SG-dance-FUT
'I will dance'
- b. ãĩ-pĩtĩ'võ-[←][t]a
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- (13) a. a-jero'ki-mã
1SG-dance-CMPL
'I finished dancing'
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Suffix targets are affected differently by progressive nasalization.

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1SG-mother-DOM
'my mother'

- b. $\overleftarrow{\text{chẽ-mĩ'tã-}}\text{'mẽ}$
1SG-child-DOM
'the child'

Progressive nasalization: the facts

Progressive nasalization triggered only by phonemic nasal vowels.

- (16) $\overleftarrow{\text{pãnãm}^{\text{b}}\text{i-}^{\text{h}}\text{k}^{\text{h}}\text{uera}}$ * $\text{-'}\eta^{\text{g}}\text{uera}$
butterfly-PL
'butterflies'

Progressive harmony: the facts

Alternations may stack and occur non-locally.

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- (17) a. o-karu-se-pa-pota-'pe've
3-eat-DES-TOT-INCIP-until
'until he is about wanting to finish eating'

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- * across intervening suffixes (-se DES)
- * across oral vowels of alternating suffixes

Progressive nasalization: the facts

Verbal and nominal roots also show lexically-specific progressive alternations, as seen in compounds.

- (18) a. o-^hkĩ
3-rain
'it rained'

- (19) a. ^hāmā-^hĩĩ
rain-rain
'rain'

- b. ^hũ-^hĩĩ
black-rain
'grey; brown'

- c. ^hāsē-^hĩĩ
3POSS-cry-rain
'weep'

Progressive nasalization: summary

List of stop-initial morphemes

(Estigarribia 2020, Russell 2021)

| undergoing (T ~ N ^D) | | | undergoing (TV ~ N ^ĩ) | | | non-undergoing | |
|---|----------------------|-------|--|-------|---------|-----------------------|----------|
| 'kuera | 'ŋ ^g uera | PL | pe | me | LOC;DOM | ta | FUT |
| 'pa | 'm ^b a | TOT | 'peve | 'mẽvẽ | 'until' | pa | Q |
| po'ta | m ^b o'ta | INCIP | | | | ke | FORCE |
| 'ti | 'n ^d i | COLL | | | | mã | CMPL |
| | | | | | | nã | REQ |
| | | | | | | nẽ | DUB |
| | | | | | | mo'ʔã | NEG.FUT |
| | | | | | | 'mi | PLEA;DIM |
| (and roots) | | | | | | | |

(T = voiceless stop; N^D = nasal-oral stop)

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* Lexical stress (or historical status; Russell 2021) doesn't fully predict the distribution.

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| undergoing | 'kuera ~ 'ŋ ^g uera _{PL} | { TV , NV } |
|------------|---|---------------------------|

(19)

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| (19) | undergoing | pe ~ mẽ LOC; DOM { TV , NṼ } |

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| (19) | undergoing | 'kuera ~ 'ŋ ^g uera PL | { TV , NV } |
| | undergoing | pe ~ mẽ LOC; DOM | { TV , N[~]V } |
| | non-undergoing | ta FUT | { TV } |
| | | mã CMPL | { N[~]V } |

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|------|----------------|----------------------------------|--|
| (19) | undergoing | 'kuera ~ 'ŋ ^g uera PL | { TV , NV } N^DV |
| | undergoing | pe ~ mẽ LOC; DOM | { TV , $N\tilde{V}$ } |
| | non-undergoing | ta FUT | { TV } |
| | | mã CMPL | { $N\tilde{V}$ } |

* post-oralization: $N \rightarrow N^D / _ V$ (Stanton 2017, Cabrera 2023)

The analysis: broad strokes

2. Phonological conditioning

The analysis: broad strokes

2. Phonological conditioning

(20) $*[\alpha\text{NAS}]_{\text{ROOT}} \dots [-\alpha\text{NAS}, -\text{CONT}]$ (PROGHARM)

Assign a violation to every non-local sequence of a rightmost $[\alpha\text{NAS}]$ segment in a root followed by a $[-\alpha\text{NAS}]$ stop in the output.

The analysis: broad strokes

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Root control (non-local)

(21) $\overset{\leftarrow}{\text{õ-ñẽ?ẽ-se-}}\boxed{\text{m}^{\text{b}}}\text{a-}\boxed{\text{m}^{\text{b}}}\text{o'ta}$
3-talk-DES-TOT-INCIP

The analysis: broad strokes

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3-talk-DES-TOT-INCIP

Symmetric (α)

(22) $*\text{jagua-}\textcolor{red}{\eta}^{\text{g}}\text{uera, } *\overset{\leftarrow}{\text{mĩtã-}}\textcolor{red}{k}\text{uera}$
dog-PL child-PL

The analysis

PROGHARM selects nasal-initial allomorphs in the presence of nasal roots.

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- (23) mĩtã-'ŋ⁹uera *-kuera
child-PL

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- (23) mĩtã-^guera *-kuera
child-PL

| $/\tilde{V}_{RT} - \{TV, NV\}/$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---------------------------------|---|-----|------------|----------|----------|
| (24) | a. $\tilde{V} - TV$ | | | *! | |
| | b. $V - TV$ | | *! | | |
| | c. $\tilde{V} - NV$ | *! | | | |
| |  d. $\tilde{V} - N^DV$ | | | | * |

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- (23) mĩtã-'ŋ⁹uera *-kuera
child-PL

| /Ṽ _{RT} - { TV, NV }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---------------------------------|--|-----|------------|----------|----------|
| (24) | a. Ṽ - TV | | | *! | |
| | b. V - TV | | *! | | |
| | c. Ṽ - NV | *! | | | |
| |  d. Ṽ - N ^D V | | | | * |

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- (23) mĩtã-'ŋ⁹uera *-kuera
child-PL

| /Ṽ _{RT} - { TV, NV }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
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| (24) | a. Ṽ - TV | | | *! | |
| | b. V - TV | | *! | | |
| | c. Ṽ - NV | *! | | | |
| |  d. Ṽ - N ^D V | | | | * |

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child-PL

| /Ṽ _{RT} - { TV, NV }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---------------------------------|--|-----|------------|----------|----------|
| (24) | a. Ṽ - TV | | | *! | |
| | b. V - TV | | *! | | |
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| |  d. Ṽ - N ^D V | | | | * |

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
- (23) mĩtã-^guera *-kuera
child-PL

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| |  d. $\tilde{V} - N^DV$ | | | | * |

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child-PL

| / \tilde{V}_{RT} - { TV, NV }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|----------------------------------|---|-----|------------|----------|----------|
| (24) | a. \tilde{V} - TV | | | *! | |
| | b. V - TV | | *! | | |
| | c. \tilde{V} - NV | *! | | | |
| |  d. \tilde{V} - N ^D V | | | | * |

The analysis

Similarly, oral-initial allomorphs are selected in the presence of an oral root.

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- (25) jagua-^hk^huera *-^hŋ^huera
dog-PL

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Similarly, oral-initial allomorphs are selected in the presence of an oral root.

- (25) jagua-^hkuera *^h-^huera
dog-PL

| /V _{RT} - { TV, NV }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|--------------------------------|-----------------------------------|-----|------------|----------|----------|
| (26) | a. V - TV | | | | |
| | b. V - NV | *! | | * | |
| | c. V - N ^D V | | | *! | * |
| | d. \tilde{V} - N ^D V | | *! | | * |

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| (26) | a. V - TV | | | | |
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| (26) | a. V - TV | | | | |
| | b. V - NV | *! | | * | |
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The analysis

Suffixes with full nasalization have a nasal vowel in their nasal allomorph.

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- (27) kosi'nã-mẽ *-pe
kitchen-LOC

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kitchen-LOC

| /Ṽ _{RT} - { TV, N [~] V }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|--|-----|------------|----------|----------|
| (28) | a. Ṽ - TV | | | *! | |
| |  b. Ṽ - N [~] V | | | | |
| | c. Ṽ - N ^D Ṽ | | | | *! |

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Suffixes with full nasalization have a nasal vowel in their nasal allomorph.


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kitchen-LOC

| | | $*/\tilde{V}_{RT} - \{ TV, N\tilde{V} \} /$ | $*NV$ | IDENT[NAS] | PROGHARM |
|------|--|---|-------|------------|----------|
| (28) | a. | $\tilde{V} - TV$ | | | *! |
| |  b. | $\tilde{V} - N\tilde{V}$ | | | |
| | c. | $\tilde{V} - N^D\tilde{V}$ | | | *! |

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| (28) | a. \tilde{V} - TV | | | *! | |
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The analysis

Non-alternating morphemes violate PROGHARM optimally.

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- (29) $\tilde{a}^{\tilde{I}}$ - $p\tilde{I}t\tilde{I}'\tilde{v}\tilde{o}$ - t^{a} $*\text{-n}^{\text{d}}\text{a}$
1SG-dance-FUT

The analysis

Non-alternating morphemes violate PROGHARM optimally.

- (29) \tilde{a}^i -pĩtĩ'vĩõ-t̩a *-n^da
1SG-dance-FUT

| $/\tilde{V}_{RT} - \{TV\}/$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|-----------------------------|-----------------------|-----|------------|----------|----------|
| (30) | a. $\tilde{V} - TV$ | | | * | |
| | b. $\tilde{V} - N^DV$ | | *! | | * |
| | c. $V - TV$ | | *! | | |

The analysis

Non-alternating morphemes violate PROGHARM optimally.

- (29) $\tilde{a}^{\text{I}}\text{-p}\tilde{\text{t}}\tilde{\text{t}}'\tilde{\text{v}}\tilde{\text{o}}\text{-t}\tilde{\text{a}}$ * $\text{-n}^{\text{d}}\text{a}$
 1SG-dance-FUT

| $/\tilde{\text{V}}_{\text{RT}} - \{ \text{TV} \} /$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|---|-----|------------|----------|----------|
| (30) | a. $\tilde{\text{V}} - \text{TV}$ | | | * | |
| | b. $\tilde{\text{V}} - \text{N}^{\text{D}}\text{V}$ | | *! | | * |
| | c. $\text{V} - \text{TV}$ | | *! | | |

The analysis

Non-alternating morphemes violate PROGHARM optimally.

- (29) $\tilde{a}^{\text{I}}\text{-p}\tilde{t}\tilde{t}^{\text{'}}\tilde{v}\tilde{o}\text{-t}\tilde{a}$ * $\text{-n}^{\text{d}}\text{a}$
 1SG-dance-FUT

| $/\tilde{V}_{\text{RT}} - \{ \text{TV} \} /$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|--|--|-----|------------|----------|----------|
| (30) | a. $\tilde{V} - \text{TV}$ | | | * | |
| | b. $\tilde{V} - \text{N}^{\text{D}}\text{V}$ | | *! | | * |
| | c. $\text{V} - \text{TV}$ | | *! | | |

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Non-alternating morphemes violate PROGHARM optimally.

- (29) $\tilde{a}^{\text{I}}\text{-p}\tilde{t}\tilde{t}^{\text{'}}\tilde{v}\tilde{o}\text{-t}\tilde{a}$ * $\text{-n}^{\text{d}}\text{a}$
 1SG-dance-FUT

| $/\tilde{V}_{\text{RT}} - \{ \text{TV} \} /$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|--|--|-----|------------|----------|----------|
| (30) | a. $\tilde{V} - \text{TV}$ | | | * | |
| | b. $\tilde{V} - \text{N}^{\text{D}}\text{V}$ | | *! | | * |
| | c. $\text{V} - \text{TV}$ | | *! | | |

The analysis

Non-alternating morphemes violate PROGHARM optimally.

- (29) $\tilde{a}^{\text{I}}\text{-p}\tilde{\text{t}}\tilde{\text{t}}'\tilde{\text{v}}\tilde{\text{o}}\text{-t}\tilde{\text{a}}$ * $\text{-n}^{\text{d}}\text{a}$
 1SG-dance-FUT

| $/\tilde{V}_{\text{RT}} - \{ \text{TV} \} /$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|--|--|-----|------------|----------|----------|
| (30) | a. $\tilde{V} - \text{TV}$ | | | * | |
| | b. $\tilde{V} - \text{N}^{\text{D}}\text{V}$ | | *! | | * |
| | c. $\text{V} - \text{TV}$ | | *! | | |

The analysis

Non-alternating morphemes violate PROGHARM optimally.

- (31) \tilde{a}^i -pĩtĩ'vĩõ-t̩a *-n^da
1SG-dance-FUT

| $/\tilde{V}_{RT} - \{TV\}/$ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|-----------------------------|-----------------------|-----|------------|----------|----------|
| (32) | a. $\tilde{V} - TV$ | | | * | |
| | b. $\tilde{V} - N^DV$ | | *! | | * |
| | c. $V - TV$ | | *! | | |

* similar analysis for oral roots and non-alternating nasal morphemes (o-jero'ki-mã)

Roots in progressive harmony

Recall: roots undergo progressive nasalization.

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* examples from compounds:

- (33) a. o-ki
3-rain
'it rains'

Roots in progressive harmony

Recall: roots undergo progressive nasalization.

* examples from compounds:

(33) a. o-[̃]kɪ̃
3-rain
'it rains'

(34) a. [̃]ãmã-[̃]ɲɪ̃
rain-rain
'rain'

b. [̃]hũ-[̃]ɲɪ̃
black-rain
'grey; brown'

c. [̃]h-ãse-[̃]ɲɪ̃
3POSS-cry-rain
'weep'

Roots in progressive harmony

Recall: roots undergo progressive nasalization.

* examples from compounds:

(33) a. o-k̃i
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rain-rain
'rain'

b. hũ-ŋ̃i
black-rain
'grey; brown'

c. h-āsẽ-ŋ̃i
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'weep'

* analysis of compounds consistent with proposed analysis

Exceptional causative constructions

Roots also alternate in **exceptional causative constructions**

(Estigarribia 2020, Russell 2021, Estigarribia 2021).

Exceptional causative constructions

Roots also alternate in **exceptional causative constructions**

(Estigarribia 2020, Russell 2021, Estigarribia 2021).

(34) a. o-paⁱ
3-wake.up
'he woke up'

b. ã-mã-m^baⁱ diego-pe
3-CAUS-wake.up diego-DOM
'he woke up Diego'

Exceptional causative constructions

Roots also alternate in **exceptional causative constructions**

(Estigarribia 2020, Russell 2021, Estigarribia 2021).

- (34) a. o-**p**aⁱ
3-wake.up
'he woke up'
- b. ã-**m**ã-**m**aⁱ diego-pe
3-CAUS-wake.up diego-DOM
'he woke up Diego'
- (35) a. che-**k**aⁱ'gue
1SG-bore
'I'm bored'
- b. n^de chẽ-**m**ã-**ŋ**aⁱ'gue
2SG 1SG-CAUS-bore
'you bored me'

Exceptional causative constructions

Exceptional: otherwise, causatives follow the expected regressive nasalization pattern.

(36) a. $\overleftarrow{\text{ã-m}^{\text{b}}\text{o-pu'pu}}$?i
1SG-CAUS-hot water
'I boiled water'

b. n^de $\overleftarrow{\text{ã-mõ-kãñẽ' ?õ}}$
2SG 1SG-CAUS-tired
'I tired you'

Exceptional causative constructions

Exceptional: otherwise, causatives follow the expected regressive nasalization pattern.

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'I boiled water'

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2SG 1SG-CAUS-tired
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* like with suffixes and compounds, root alternations are lexically specific and unpredictable.

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'I boiled water'

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2SG 1SG-CAUS-tired
'I tired you'

* like with suffixes and compounds, root alternations are lexically specific and unpredictable.

(37) a. * $\overleftarrow{\text{ã-mõ-m}^{\text{b}}\text{u'pu}}$?i
1SG-CAUS-hot water

b. * $\overleftarrow{\text{õ-m}^{\text{b}}\text{o-'pa}^{\text{i}}}$
3-CAUS-wake.up

Exceptional causative constructions

- * Exceptional causatives have two possible analyses.
 - proposed analysis favors one of them

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Analysis 1: root is exceptionally nasal-initial

(38) $\overleftarrow{\text{õ-mõ-}}\text{m}^{\text{b}}\text{a}^{\text{i}}$
3-CAUS-wake.up

Exceptional causative constructions

- * Exceptional causatives have two possible analyses.
 - proposed analysis favors one of them

Analysis 1: root is exceptionally nasal-initial

- (38) $\overleftarrow{\text{õ-mõ-}}\text{m}^{\text{b}}\text{a}^{\text{i}}$ \rightarrow root not phon. conditioned
3-CAUS-wake.up

Exceptional causative constructions

- * Exceptional causatives have two possible analyses.
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Analysis 1: root is exceptionally nasal-initial

(38) $\overleftarrow{\text{õ-mõ-}^{\text{b}}\text{a}^{\text{i}}}$ \rightarrow root not phon. conditioned
3-CAUS-wake.up

Analysis 2: causative prefix is exceptionally nasal

Exceptional causative constructions

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Analysis 1: root is exceptionally nasal-initial

- (38) $\overset{\leftarrow}{\text{õ-mõ-}}\text{m}^{\text{b}}\text{a}^{\text{i}}$ \rightarrow root not phon. conditioned
3-CAUS-wake.up

Analysis 2: causative prefix is exceptionally nasal

- (39) $\overset{\leftarrow}{\text{õ-mõ-}}\boxed{\text{m}^{\text{b}}}\text{a}^{\text{i}}$
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Exceptional causative constructions

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Analysis 1: root is exceptionally nasal-initial

- (38) $\overset{\leftarrow}{\text{õ-mõ-}}\text{m}^{\text{b}}\text{a}^{\text{i}}$ \rightarrow root not phon. conditioned
3-CAUS-wake.up

Analysis 2: causative prefix is exceptionally nasal

- (39) $\overset{\leftarrow}{\text{õ-mõ}}\text{[m}^{\text{b}}\text{a}^{\text{i}}]$ \rightarrow root is phon. conditioned
3-CAUS-wake.up

Exceptional causative constructions

- * Exceptional causatives have two possible analyses.
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Analysis 1: root is exceptionally nasal-initial

$$(38) \quad \overset{\leftarrow}{\text{õ-mõ-}} \text{m}^{\text{b}} \text{a}^{\text{i}} \quad \rightarrow \text{root not phon. conditioned}$$

3-CAUS-wake.up

Analysis 2: causative prefix is exceptionally nasal

$$(39) \quad \overset{\leftarrow}{\text{õ-mõ}} \boxed{\text{m}^{\text{b}}} \text{a}^{\text{i}} \quad \rightarrow \text{root is phon. conditioned}$$

3-CAUS-wake.up

- * Analysis 2 in line with current analysis

Exceptional causative constructions


Analysis 2

(40) CAUSATIVE \Leftrightarrow mō for $\{wake.up, bored, \dots\}$

Exceptional causative constructions

Analysis 2


(40) CAUSATIVE \Leftrightarrow mĩ for {wake.up, bored, ...}

| /mĩ - {pa ⁱ , ma ⁱ }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|---|-----|------------|----------|----------|
| (41) | a. mĩ - pa ⁱ | | | *! | |
| | b. mĩ - ma ⁱ | *! | | | |
| |  c. mĩ - m ^b a ⁱ | | | | * |

Exceptional causative constructions

Analysis 2


(36) CAUSATIVE \Leftrightarrow mǝ for {*wake.up*, *bored*, ...}

| /mǝ - {pa ⁱ , ma ⁱ }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|---|-----|------------|----------|----------|
| (37) | a. mǝ - pa ⁱ | | | *! | |
| | b. mǝ - ma ⁱ | *! | | | |
| |  c. mǝ - m ^b a ⁱ | | | | * |

Exceptional causative constructions

Analysis 2


(36) CAUSATIVE \Leftrightarrow mǝ for {*wake.up*, *bored*, ...}

| /mǝ - {pa ⁱ , ma ⁱ }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|---|-----|------------|----------|----------|
| (37) | a. mǝ - pa ⁱ | | | *! | |
| | b. mǝ - ma ⁱ | *! | | | |
| |  c. mǝ - m ^b a ⁱ | | | | * |

Exceptional causative constructions

Analysis 2


(36) CAUSATIVE \Leftrightarrow mĩ for {wake.up, bored, ...}

| /mĩ - {pa ⁱ , ma ⁱ }/ | | *NV | IDENT[NAS] | PROGHARM | *CONTOUR |
|---|---|-----|------------|----------|----------|
| (37) | a. mĩ - pa ⁱ | | | *! | |
| | b. mĩ - ma ⁱ | *! | | | |
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Exceptional causative constructions

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(36) CAUSATIVE \Leftrightarrow mĩ for {wake.up, bored, ...}

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CAUS prefix cannot be treated as a root - roots are independent in regressive spread.

(38) a. avati-mĩ rĩ[←]
corn-small

b. *[←]āvātĩ-mĩ rĩ

c. ā-mō-kānē' ?ō[←]
1SG-CAUS-tired

d. *[←]ā-m^bo-kānē' ?ō

Exceptional causative constructions

- * Are exceptional causatives **productive**? Or **lexicalized** forms?

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 'drunk'
- b. ãkã-ŋ^ga'ʔu
 head-drunk
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 'to inebriate'
- (40) a. ti'ki
 'drop; to drip'
 b. ãmã-ŋ^gi'ki
 rain-to.drip
 'rainwater'
 c. mō-ŋ^gi'ki
 CAUS-to.drip
 'to
 squeeze/distill'

Exceptional causative constructions

Productive: speakers generalize progressive nasalization to new constructions/environments.

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- (41) a. o-^hkĩ
3-rain
'it rains'
- b. ^hũ-^hĩĩĩ
black-rain
'grey; brown'
- c. ^hāsẽ-^hĩĩĩ
3POSS-cry-rain
'weep'

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'it rains' 'grey; brown' 'weep'

Context: *Imagine you don't want to go to work because you're sick. You pray to the gods that it rains so you don't have to work. It finally starts to rain - your prayers worked! How do you say "I made it rain"?*

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Context: *Imagine you don't want to go to work because you're sick. You pray to the gods that it rains so you don't have to work. It finally starts to rain - your prayers worked! How do you say "I made it rain"?*

- (41) che ã-mõ-'ŋ̥i, *ã-m^bo-'ki
1SG 1SG-CAUS-rain
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Lexicalized: exceptional causatives have **idiomatic** meanings, while non-exceptional causatives have **compositional** meanings

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 3-CAUS-man DEM child-DOM
 'he **baptized** the child' (Russell 2021)

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 3-CAUS-man DEM child-DOM

‘he **baptized** the child’ (Russell 2021)

- b. pe i-vi'gote ã-m^bo-kara'i pe mĩ'tã-mẽ
 DEM 3-mustache 3-CAUS-man DEM child-DOM

‘The mustache **makes** the child look **like a man**’ (Russell 2021)

Exceptional causative constructions

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- (43) a. che n-ã-mõ-m^bu-i pe bomba
1SG NEG-1SG-CAUS-sound-NEG DEM balloon
'I didn't **pop/explode** the balloon'

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'I didn't **pop/explode** the balloon'
- b. che n-ã-m^bo-'p^bu-i pe i-m^bara'ka
1SG NEG-1SG-CAUS-sound-NEG DEM 3-guitar
'I didn't **sound** the guitar'

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Lexicalized: **judgments vary** across constructions (probably due to context)

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'you bored me'

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b. n^de nã-chẽ-**m^bo**-[k]aigue-i
2SG neg-isg-caus-bored-NEG
'you didn't bore me'

Exceptional causative constructions

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(44) a. n^de chẽ-mõ-ŋ^gai'gue
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2SG neg-1sg-caus-bored-NEG
'you didn't bore me'

(45) a. che ãõ-mõ-m^bi'ta
1SG 1/2-CAUS-stop
'I stopped you'

b. che nõ-ãõ-m^bo-pi'ta-i
1SG neg-i/Λ-caus-stop-NEG
'I didn't stop you'

Exceptional causative constructions

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- (44) a. n^de chẽ-mõ-ŋ^gai'gue
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- (45) a. che rĩ-mõ-m^bi'ta
1SG 1/2-CAUS-stop
'I stopped you'
- b. che nĩ-rĩ-m^bo-pi'ta-i
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'I didn't stop you'

* Alternative construction not wrong, just not used frequently in such context/construction.

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| (T = voiceless stop; N ^D = nasal-oral stop) | | |
|--|----------------------------------|------------------------|
| undergoing | 'kuera ~ 'ŋ ^g uera PL | {TV, NV} |
| undergoing | pe ~ mẽ LOC; DOM | {TV, N [~] V} |
| non-undergoing | ta FUT | {TV} |
| | mã CMPL | {N [~] V} |

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Implications for analyzing **exceptional causative constructions**.

- * mixed evidence for their productivity vs. lexicalization

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- consistent allomorphs across compounds and causatives
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- * proposed analysis predicts productivity
- * only extend proposed analysis if exceptional causatives show that predicted productivity

Aguyjevete!

Thank you!

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Appendix

Guarani stress, and is it lexically specific?

Appendix

Elicit these with exceptional causatives before mfm.

(47) ĩõ-ĩõ-m^bo-vi'ʔa

1PL-REC-CAUS-joy

'we make each other happy' (Estigarribia 2020)

(48) a. a-poro-m^bo-jo-ju'hu

1SG-PPL-CAUS-REC-find

'I make people meet each other' (Estigarribia 2020)

 b. ã-põrõ-mõ-ñõ-rãĩrõ


1SG-PPL-CAUS-REC-attack

'I make people fight each other' (Estigarribia 2020)

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Explain this

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All data discussed here is from Coronel Oviedo speakers.

* Asunción and Concepción speakers show **optional** progressive nasalization.

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Coronel Oviedo speakers:

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3-talk-DES-TOT-INCIP-until
'until he is about wanting to finish talking'

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Asunción, Concepción speakers:

- (39) a. $\overset{\leftarrow}{\text{õ-ñẽ?ẽ-se-}}\boxed{\text{pa}}\text{-}\boxed{\text{p}}\text{ota-}'\boxed{\text{pe}}\text{ve}$
3-eat-DES-TOT-INCIP-until
'until he is about wanting to finish eating'

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Optionality is *asymmetric*.

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dog-PL
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'my child'

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1SG-mother-DOM
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* same suffixes alternate as Coronel Oviedo speakers

Dialectal variation

* PROGHARM constraint is asymmetric

(42) $[+NAS]]_{\text{ROOT}} \dots [-NAS -CONT]$ (PROGHARM+-)
→ low weight, violable

(43) $[-NAS]]_{\text{ROOT}} \dots [+NAS -CONT]$ (PROGHARM-+)
→ high weight, less violable

**But they show same pattern in causative constructions.
Potential further evidence for lexicalized exceptional
causatives.**