A’ingae Syllabic Weight

and its two dimensions in lexical stress assignment

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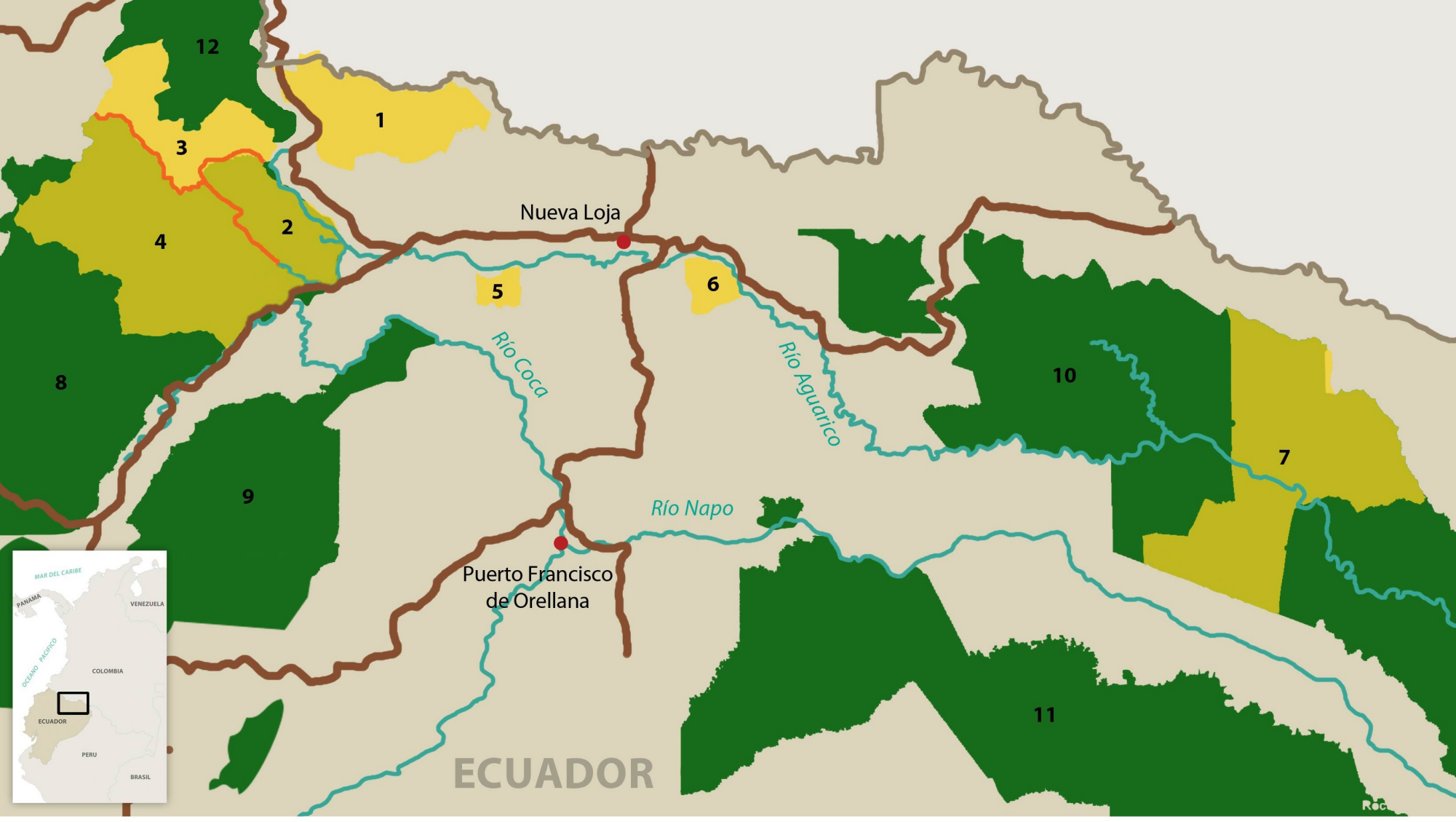
the Cofán

- indigenous to Ecuador and southern Colombia
- traditionally hunter-gatherer, now less so
- threats:
  - territorial intrusion
  - poaching
  - environmental pollution
  - illegal oil extraction
- **a'ingae** person=MANN *in the way of the people*
- understudied language isolate



PROTECTED AREAS

1. Cofán Bermejo Ecological Reserve
8. Cayambe Coca Ecological Reserve
9. Sumaco Napo Galeras National Park
10. Cuyabeno Wildlife Reserve
11. Yasuní National Park
12. La Bonita Municipal Reserve

COFAN TERRITORIES

1. Cofán Bermejo Ecological Reserve
2. Sinagoe
3. Río Cofanes
4. Cofán co-managed area
5. Duvuno
6. Dureno
7. Zábalo

PRELIMINARIES I

- stress $\stackrel{def}{=}$ relative emphasis given to a syllable
  - if unpredictable, must be learned
  - if predictable, can be derived by rules, as in Polish
  - complicated by syllabic weight and extrametricality
- foot $\stackrel{def}{=}$ a group of two forming a rhythmic unit
- trochee $\stackrel{def}{=}$ a foot whose left beat is strong
- my theoretical commitment $\in$ Hayes (1995)

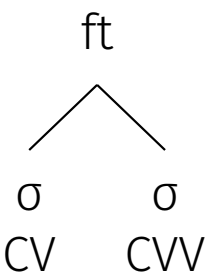
PRELIMINARIES II

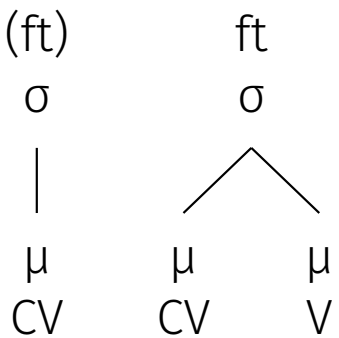
- weight $\stackrel{def}{=}$ how "heavy" a syllable is
  - heavy nuclei:
    - long vowels
    - diphthongs (two vowels in one syllable)
  - codas (syllable-final consonants): glottal stops

(×) (×)

gentle genteel

- mora $\stackrel{def}{=}$ a subsyllabic unit that determines syllable weight
  - weight-insensitive
  - weight-sensitive





PRELIMINARIES III

- extrametricality $\stackrel{def}{=}$ invisibility to stress rules
  - applicable to peripheral constituents
  - right edge unmarked
  - does not chain

(×)
(× .)(× .)
universi⟨tet⟩
university$_{\text{POLISH}}$

LITERATURE REVIEW

- little research on the language's suprasegmental phonology
- Borman (1962) denies weight sensitivity
- right-aligned stress placement
  - penultimate (next to the last)
  - antepenultimate (third last)

(×)
(× .)(× .)
sɨfotʰõ+ᵐbi
float=NEG
not float

- Fischer and Hengeveld (in press) link stress and morphology
  - inflectional morphology does not affect stress
  - derivational morphology affects stress

THESIS

diphthongs and glottal stops contribute to weight

in two different ways

based on elicitations with Hugo Lucitante ’19

BASELINE

L L
pãⁿdza
hunt

L L L
atapa
breed

H L
ɨite
help

L L L
pãⁿdza+je
hunt=INF
to hunt

L L L L
atapa+je
breed=INF
to breed

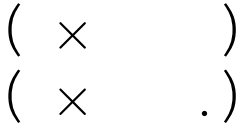
H L L
ɨite+je
help=INF
to help

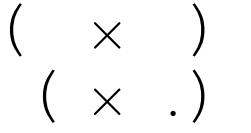
L H
ɨ̃ⁿdɨi
sweep

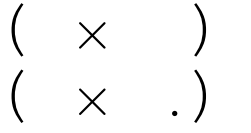
L L H
atapõẽ
breed-CAUS
make breed

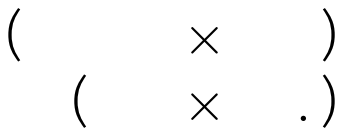
H H
ɨitĩã
help-CAUS
make help

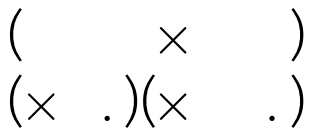
syllabic trochee	(× .) σ σ
foot layer	× . . . ←—
word layer	(×) . . . ×)

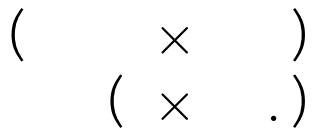

pãⁿdza
hunt

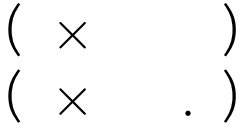

atapa
breed

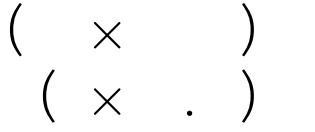

fɨite
help

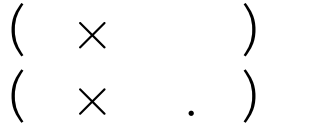

pãⁿdza+je
hunt=INF
to hunt


atapa+je
breed=INF
to breed


fɨite+je
help=INF
to help


fɨ̃ⁿdɨi
sweep


atapõẽ
breed-CAUS
make breed


fɨitĩã
help-CAUS
make help

*(×)
(× .)
pãⁿdza+'he
hunt-IMPF
be hunting

(×)
(× .)
fɨ̃ⁿdɨi+'he
sweep-IMPF
be sweeping

*(×)
(× .)
pãⁿdzã+ᵑgi
hunt-VEN
come to hunt

(×)
(× .)
fɨ̃ⁿdɨ̃ĩ+ᵑgi
sweep-VEN
come to sweep

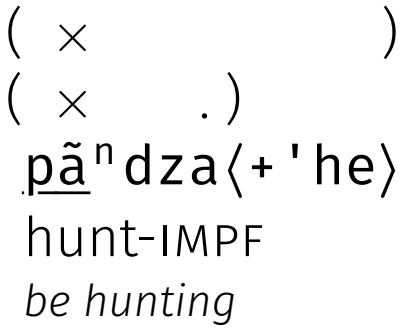
first refinement

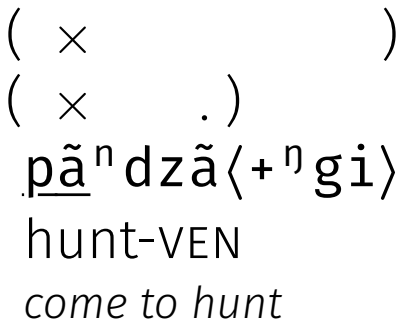
moraic trochee	(× .) or (×) ˘ ˘ or -
foot layer	× . . . ⟵
word layer	(×) . . . ×)

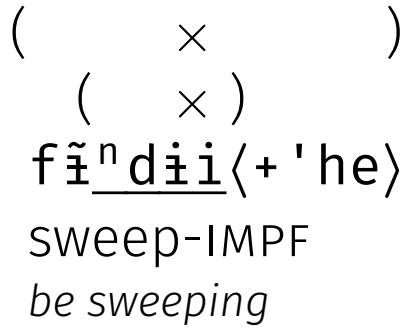
lexicon

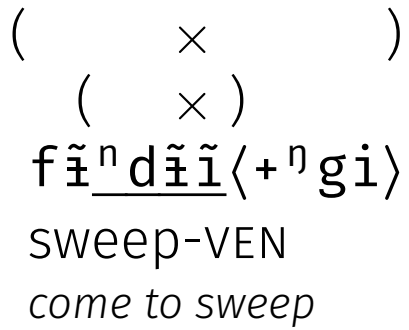
⟨+'he⟩
-IMPF

⟨+ᵑgi⟩
-VEN


(×)
(× .)
pãⁿdza⟨+'he⟩
hunt-IMPF
be hunting


(×)
(× .)
pãⁿdzã⟨+ᵑgi⟩
hunt-VEN
come to hunt

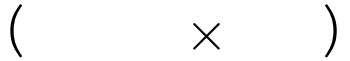

(×)
(×)
fɨ̃ⁿdɨ̇i⟨+'he⟩
sweep-IMPF
be sweeping

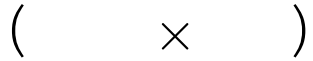

(×)
(×)
fɨ̃ⁿdɨ̃ĩ⟨+ᵑgi⟩
sweep-VEN
come to sweep

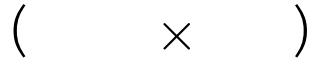

pãⁿdza
hunt


atapa
breed


fɨite
help


pãⁿdza+je
hunt=INF
to hunt


atapa+je
breed=INF
to breed


fɨite+je
help=INF
to help


fɨ̃ⁿdɨi
sweep


atapõẽ
breed-CAUS
make breed


fɨitĩã
help-CAUS
make help

mora extrametricality

$\mu \longrightarrow \langle \mu \rangle / \ . \ \mu \ \_$

moraic trochee

$(\ \times\ .\ )$ $\breve{}\ \breve{}$ or $(\ \times\ )$ $-$

foot layer

$\times \ldots$ $\longleftarrow$

word layer

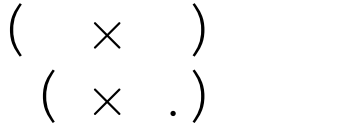
$(\quad \times\ )$
$\ldots \times\ )$

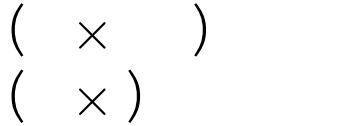
lexicon

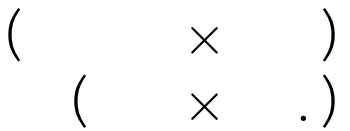
⟨+'he⟩
-IMPF

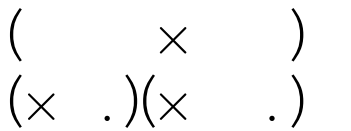
⟨+ŋgi⟩
-VEN

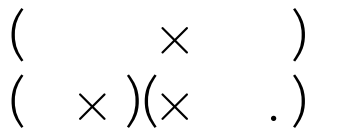

pãⁿdza
hunt

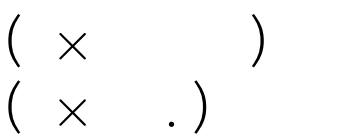

atapa
breed

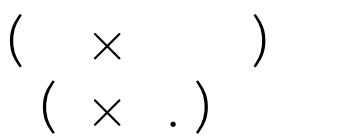

fɨite
help


pãⁿdza+je
hunt=INF
to hunt


atapa+je
breed=INF
to breed


fɨite+je
help=INF
to help


fɨ̃ⁿdɨ⟨i⟩
sweep

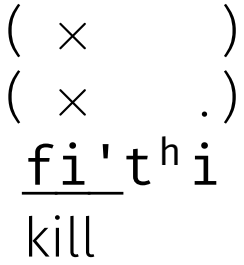

atapõ⟨ẽ⟩
breed-CAUS
make breed

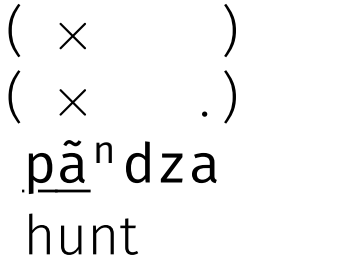

fɨitĩ⟨ã⟩
help-CAUS
make help

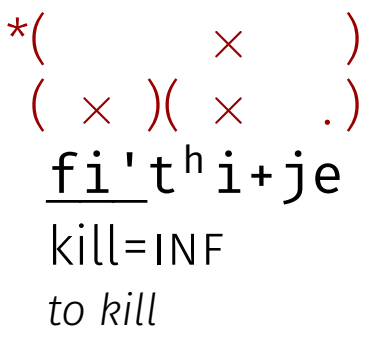
TAKING STOCK

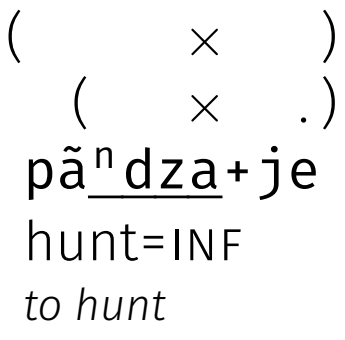
- stress is sensitive to syllabic weight
- diphthongs count as heavy
- difficult to spot due to:
  - mora extrametricality
  - rightmost primary stress
  - rarity of diphthongs

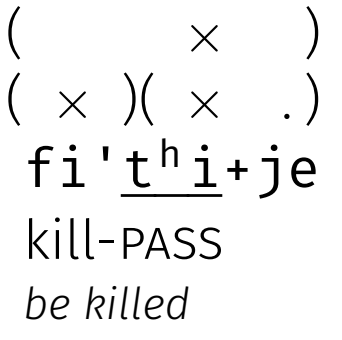
SECOND COMPLICATION

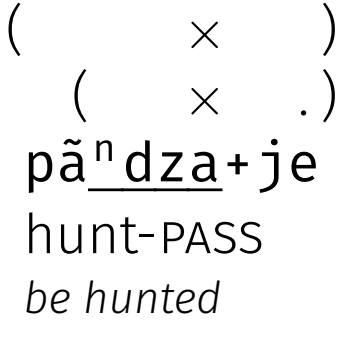












mora extrametricality

$$\mu \longrightarrow \langle \mu \rangle / \ . \ \mu \ \_$$

moraic trochee

$$\underset{\breve{} \ \breve{}}{(\times \ .\ )} \quad \text{or} \quad \underset{-}{(\times)}$$

glottal prominence

$$\sigma' \longrightarrow \overset{\times}{\sigma'}$$

foot layer

$$\times \ \ldots \quad \longleftarrow$$

word layer

$$\begin{array}{r} (\quad \times) \\ \ldots \times) \end{array}$$

lexicon

⟨+'he⟩
-IMPF

⟨+ᵑgi⟩
-VEN

⌫
+je
-PASS

(×)
[× .]
fi'tʰi
kill

(×)
(× .)
pãⁿdza
hunt

(×)
[× .]
fi'tʰi+je
kill=INF
to kill

(×)
(× .)
pãⁿdza+je
hunt=INF
to hunt

(×)
(× .)
fi'tʰi+je
kill-PASS
be killed

(×)
(× .)
pãⁿdza+je
hunt-PASS
be hunted

CONCLUSIONS

- two dimensions of syllabic weight
  - diphthongs make for heavy syllables
  - glottal stops trigger foot construction before parsing
- broader theoretical interest
  - Hayes (1995) distinguishes syllable quantity from prominence
  - the two phenomena are constrained differently
  - overall confirmation for the theoretical split
  - revisions of particular constraints might be warranted

Thank you!

SPECIAL THANKS TO

Hugo Lucitante

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Chelsea Sanker
Uriel Cohen Priva

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