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## Two grammars of A'ingae glottalization

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### abstract

language: A'ingae, or Cofán, an Amazonian isolate, ISO 639-3: con

inner domain: glottal stops are a prosodic feature

- (i) trigger stress assignment
- (ii) deleted along with stress

outer domain: glottal stops are regular consonants (i) no effect on stress

(ii) unaffected by stress deletion

stress deletion: triggered by idiosyncratic morphemes

implications: need to combine phonological effects specific to

- (i) domains, as in Stratal OT (e.g. Bermúdez-Otero, 1999)
- (ii) morphemes, as in Cophonology Theory (e.g. Orgun, 1996)

Amazonian isolate, ISO 639-3: con

spoken by ca. 1,500 Cofán people in

- Sucumbíos, northeast Ecuador
- Putumayo, southern Colombia

## A'ingae (or Cofán): geography



figure 1: indigenous languages of southern Colombia and northern Ecuador (Curnow and Liddicoat, 1998) endangered and highly underdocumented

under economic, ecological, and political pressures

uniformly positive language attitudes (Dąbkowski, 2021)

data

- $\cdot$  collected by author
- in 2021–2022
- $\cdot$  with two consultants from Dureno, Sucumbíos, Ecuador

## consultants



Jorge Mendúa



Shinjen Aguinda

- (1) ? AS CONTRASTIVE IN ROOTS
  - a. *fk<sup>h</sup>a* b. *f?k<sup>h</sup>a* break.INTR break.TR
- (2) ? AS CONTRASTIVE IN FUNCTIONAL MORPHEMES
  - a. tsá =ma b. tsá -?ma ANA =ACC ANA -FRST

heavily agglutinating, suffixing language

two morphophonological domains, or strata

- inner domain: root, voice, aspect, associated motion
- outer domain: number, reality, polarity, subject person, etc.
- (3) STRATAL ORGANIZATION OF THE A'INGAE VERB

[kofé -k<sup>h</sup>o -?he -<sup>n</sup>gi ] -?fa -ja -<sup>m</sup>bi =ts<del>i</del> play -RCPR -IPFV -PROX -PL -IRR -NEG =3

"they\_{3,PL} will\_{IRR} not\_{NEG} come\_{PROX} to be\_{IPFV} playing with each other\_{RCPR}"

- (4) STRESSLESS ROOTS
  - a. / atapa / [ atápa ] breed
- (5) STRESSED ROOTS
  - a. / <mark>á</mark>fase / [ <mark>á</mark>fase ] offend
- (6) GLOTTALIZED ROOTS a. / ák<sup>h</sup>e?pa / [ ák<sup>h</sup>e?pa ] be shy

- b. / atapa -hi / [ ata<mark>pá</mark> -hi ] breed -PRCL
- b. / áfase -hi / [ áfase -hi ] offend -PRCL
- b. / ák<sup>h</sup>e?pa -hi / [ ák<sup>h</sup>e?pa -hi ] be shy -PRCL

## stress and glottalization in suffixed verbs

	lexical stress			
	nc	o lexical stres ↓	ss 🔶 le>	kical stress and ?
		<i>atapa</i> breed	<b>á</b> fase offend	ák <sup>h</sup> e <b>?</b> pa forget
inner regular inner preglottalized inner stress-deleting	-hi prcl - <mark>?</mark> he IPFV -k <sup>h</sup> o rCPR	ata <mark>pá</mark> hi a <mark>tá</mark> pa <b>?</b> he ata <mark>pá</mark> k <sup>h</sup> o	<mark>á</mark> fasehi a <mark>fá</mark> se <mark>?</mark> he afa <mark>sé</mark> k <sup>h</sup> o	ák <sup>h</sup> e <b>?</b> pahi a <mark>k<sup>h</sup>épa?</mark> he ak <sup>h</sup> epák <sup>h</sup> o
outer regular outer preglottalized outer stress-deleting	-ja IRR - <b>?</b> fa PL -k <sup>h</sup> a IMP	ata <mark>pá</mark> ja ata <mark>pá?</mark> fa ata <mark>pá</mark> k <sup>h</sup> a	<mark>á</mark> faseja áfase <mark>?</mark> fa afa <mark>sé</mark> k <sup>h</sup> a	ák <sup>h</sup> e?paja ák <sup>h</sup> e?pa?fa <u>ak<sup>h</sup>e?pák<sup>h</sup>a</u>

*blue*: stress *red*: glottal stop

#### central generalization:

stress and glottal stops either interact or they don't

inner domain: stress and glottal stops do interact

- (i) glottal stops trigger stress assignment
- (ii) stress deletion deletes glottal stops

outer domain: stress and glottal stops do not interact

- (i) glottal stops do not affect stress
- (ii) stress deletion ignores glottal stops

(7) INNER DOMAIN: ? IS A FEATURE OF THE FOOT

> . (× . **?**). a <u>tá</u> pa he breed IPFV

(8) OUTER DOMAIN: ? IS A REGULAR SEGMENT

> . . (× . ) a ta **pá ?f**a breed PL

(9) INNER DOMAIN: ? AT THE RIGHT EDGE OF THE FOOT

(10) OUTER DOMAIN: ? AS A REGULAR CONSONANT

a ta pa ja  $a \text{ ta } pa \hat{ja}$ breed IRR  $\longrightarrow$  breed IRR

 $\ldots$   $\ldots$   $\ldots$   $(\times$   $\ldots)$ a ta pa ?fa a ta pá ?fa breed PL  $\longrightarrow$  breed PL

#### (11) INNER DOMAIN: ? AS A FEATURE OF THE FOOT

(x . ?)	Γ		(×	. )
<b>á</b> k <sup>h</sup> e	pa k <sup>h</sup> o		a k <sup>h</sup> e <b>p</b> a	á k <sup>h</sup> o
forget	RCPR	$\longrightarrow$	forget	RCPR

(12) OUTER DOMAIN: ? AS A REGULAR CONSONANT

(x.).				(× .)
á k <sup>h</sup> e? pa	k <sup>h</sup> a		a k <sup>h</sup> e?	<b>pá</b> k <sup>h</sup> a
forget	IMP	$\longrightarrow$	forget	IMP

inner domain: glottal stops are a prosodic feature outer domain: glottal stops are regular consonants **stress deletion:** triggered by idiosyncratic morphemes (i) *inner* stress deletion targets ? (ii) outer stress deletion retains ? implications: need to combine phonological effects specific to (i) domains, as in Stratal OT (e.g. Bermúdez-Otero, 1999) (ii) morphemes, as in Cophonology Theory (e.g. Orgun, 1996) full paper: a case for Cophonologies by Phase (Sande et al., 2020)

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