Functional hierarchies and phonological blocking in A'ingae

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Overview

A'ingae (or **Cofán**, ISO 639-3: con): an endangered Indigenous isolate spoken in Ecuador and Colombia (Dąbkowski, 2021; Pomilia, 2025)

complex grammatical interactions between metrical stress and glottal stops (e. g. Dąbkowski, 2024, 2025, 2026)

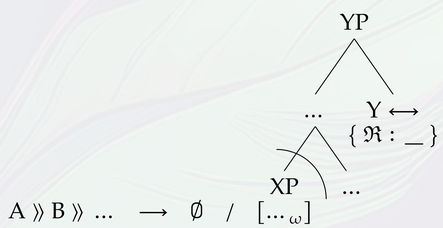
CORE OBSERVATION: usual overriding of stress/ʔ is blocked in certain morphosyntactic contexts

Condition on dominance blocking

IF the base of affixation has metrical structure/glottalization,
AND that metrical structure/glottalization has undergone the spell-out associated with a functional projection XP:
IF Y extends X in a functional projection hierarchy (X ≺ Y):
THEN, a dominant suffix *-sfx** introduced in YP overrides metrical structure/glottalization;
OTHERWISE:
*-sfx** is blocked from applying its morphophonology.
OTHERWISE:
*-sfx** applies its morphophonological process.

verbal functional hierarchy: **C** ⟩ **T** ⟩ **Asp** ⟩ **Vce** ⟩ *v*
nominal functional hierarchy: **K** ⟩ **D** ⟩ ***n***
adjectival functional hierarchy: **Mod** ⟩ ***a***

Formalization: Phonological impoverishment



where:
arcs indicate spell-out,
X is a functional head,
Y ⟫ X

MANUSCRIPT IN PREPARATION: https://rb.gy/03wlvh

Implications

outermost dominant affixes **do not** always **prevail** (cf. Alderete, 1999; Inkelas et al., 2007; Rolle, 2018, but Zimmermann, 2018)

functional sequences are relevant to **phonology**

morphosyntax is accessible to phonology after:

- linearization (Fox et al., 2005);
- vocabulary insertion (Gribanova et al., 2017; Winchester, 2017);
- phonology (Branan, 2018; Sande et al., 2026)

Regular overriding

(1) Verbs with verbal suffixes

/ *ákheʔpa* /	*root is stressed and glottalized*
/ [*ákheʔpa*]$_{vP}$ *-ʔngi*$^{\emptyset}_{\diamond}$ /	*no vP suffixes; stress and glottalization are preserved*
/ [*a**khé**paʔngi*]$_{AspP}$ *-khen*$^{\emptyset}_{\circ}$ /	*-ʔngi*$^{\emptyset}_{\diamond}$ VEN *deletes ʔ; stresses 2nd syllable to its left*
[*akhepaʔ**ngí**khen*]$_{CP}$	*-khen*$^{\emptyset}_{\circ}$ TENT *preserves ʔ; shifts stress to preceding syllable*
forget -VEN -TENT	

"(try) to$_{TENT}$ come$_{AND}$ and forget"

(2) Nouns with stacked nominalizers

/ ***sú**tsa* /	*verbal root is underlyingly stressed*
/ [***sú**tsa*]$_{vP}$ *-ʔpa*$^{\emptyset}_{\diamond}$ /	*root's stress is not deleted at vP*
/ [***sú**tsaʔpa*]$_{nP}$ *-ʔkhu*$^{\emptyset}_{\diamond}$ /	*-ʔpa*$^{\emptyset}_{\diamond}$ N *vacuously reassigns stress; "sucking"*
/ [*sû**tsá**paʔ**khú**khû*]$_{nP}$ *-khû*$^{\emptyset}_{\diamond}$ /	*-ʔkhu*$^{\emptyset}_{\diamond}$ RND *deletes ʔ; reassigns stress; "sugar cane"*
[*sûtsapa**khú**khû*]$_{nP}$	*-khû*$^{\emptyset}_{\diamond}$ BND *deletes stress/ʔ; stress assigned to penult*
suck -N -RND -BND	

"sugar cane$_{N,RND}$ plantation$_{BND}$"

(3) Derived nouns with nominal modifiers

/ *atesû* /	*root is underlyingly stressless*
/ [*atesû*]$_{vP}$ *-ʔchu*$^{\emptyset}_{\diamond}$ /	*no stress assigned at vP spell-out*
/ [*até**sû**ʔchu*]$_{nP}$ *-ndekhû*$^{3}_{\diamond}$ /	*inner dominant -ʔchu*$^{\emptyset}_{\diamond}$ EN *stresses 2nd syllable left of ʔ*
[*atesû**chú**ndekhû*]$_{FP}$	*inner antipenultimate -ndekhû*$^{3}_{\diamond}$ ASSC *deletes ʔ; restresses*
learn -EN -PL.H	

"wise$_{EN}$ (one)s$_{PL.H}$"

(4) Verbs with nominalizers (low nominalization)

/ ***guáʔ**thian* /	*root is underlyingly stressed and glottalized*
/ [***guáʔ**thian*]$_{vP}$ *-khû*$^{\emptyset}_{\diamond}$ /	*stress and glottalization preserved at vP spell-out*
[*gua**tián**khû*]$_{nP}$	*-khû*$^{\emptyset}_{\diamond}$ BND *deletes stress/ʔ; stress assigned to penult*
boil -BND	

"boiling room$_{BND}$"

(5) Nouns with verbal suffixes

/ *panza* /	*root is underlyingly stressless*
/ [*panza*]$_{vP}$ *-ʔsû*$^{\emptyset}_{\diamond}$ /	*no stress assigned at vP spell-out*
/ [***pá**nzaʔsû*]$_{nP}$ *-khen*$^{\emptyset}_{\circ}$ /	*-ʔsû*$^{\emptyset}_{\diamond}$ SN *stresses 2nd syllable to its left; "hunter"*
[*panzaʔ**sû**khen*]$_{CP}$	*outer dominant -khen*$^{\emptyset}_{\circ}$ TENT *retains ʔ; prestresses*
hunt -SN -TENT	

"(try) to$_{TENT}$ (be a) hunter"

(6) Adjectives with verbal suffixes

/ *chipiri* /	*root is stressless*
/ [*chi**pí**ri*]$_{aP}$ *-khen*$^{\emptyset}_{\circ}$ /	*penultimate stress assigned at last aP spell-out*
[*chipi**rí**khen*]$_{CP}$	*-khen*$^{\emptyset}_{\circ}$ TENT *reassigns stress to the penult*
small -TENT	

"(try) to$_{TENT}$ (be) small"

(7) Derived adjectives with verbal suffixes

/ *avûja* /	*root is stressless*
/ [*avûja*]$_{vP}$ *-tshi*$^{\perp}_{\circ}$ /	*no stress assigned at vP spell-out*
/ [*avû**já**tshi*]$_{aP}$ *-khen*$^{\emptyset}_{\circ}$ /	*-tshi*$^{\perp}_{\circ}$ PA *assigns stress to the penult*
[*avûja**tshí**khen*]$_{CP}$	*-khen*$^{\emptyset}_{\circ}$ TENT *reassigns stress to the penult*
rejoice -PA -TENT	

"(try) to$_{TENT}$ (be) happy$_{PA}$"

Overriding blocked

(8) Modified nouns with modifiers

/ *yaya* /	*root is underlyingly stressless*
/ [***yáya***]$_{nP}$ *-ʔye*$^{2}_{\diamond}$ /	*stress is assigned at last nP spell-out*
/ ⟦ *yaya**ʔye* ⟧$_{FP}$ *-ndekhû*$^{3}_{\diamond}$ /	*-ʔye*$^{2}_{\diamond}$ DCS *prestresses; "deceased father"*
[*yaya**ʔyendekhû*]$_{FP}$	*-ndekhû*$^{3}_{\diamond}$ PL.H*'s overriding blocked: *[yaya**yéndekhû**], cf.* (3)
father -DCS -PL.H	

"deceased$_{DCS}$ fathers$_{PL.H}$"

(9) Modified nouns with modifiers

/ *yaya* /	*root is underlyingly stressless*
/ [***yáya***]$_{nP}$ *-ndekhû*$^{3}_{\diamond}$ /	*stress is assigned at last nP spell-out*
/ ⟦ *yaya**ndekhû* ⟧$_{FP}$ *-ʔye*$^{2}_{\diamond}$ /	*-ndekhû*$^{3}_{\diamond}$ PL.H *stresses antepenult; "fathers"*
[*yaya**ndekhûʔye*]$_{FP}$	*-ʔye*$^{2}_{\diamond}$ DCS*'s overriding blocked: *[yayande**khûʔye**], cf.* (3)
father -PL.H -DCS	

"deceased$_{DCS}$ fathers$_{PL.H}$"

(10) Case-marked nouns with nominalizers

/ ***ún**keʔnge* /	*root is stressed and glottalized*
/ [***ún**keʔnge*]$_{nP}$ *-mbe*$^{\perp}_{\circ}$ /	*stress and glottalization preserved at nP spell-out*
/ ⟦ ***ún**keʔngembe* ⟧$_{KP}$ *-khû*$^{\emptyset}_{\diamond}$ /	*-mbe*$^{\perp}_{\circ}$ BEN *retains previous stress; "son's"*
[***ún**keʔngembekhû*]$_{nP}$	*-khû*$^{\emptyset}_{\diamond}$ BND*'s overriding blocked: *[unkenge**mbékhû**], cf.* (2, 4)
daughter -BEN -BND	

"daughters's$_{BEN}$ room$_{BEN}$"

(11) Verbs with nominalizers (high nominalization)

/ ***guáʔ**thian* /	*root is underlyingly stressed and glottalized*
/ [***guáʔ**thian*]$_{vP}$ *-∅* /	*stress and glottalization preserved at vP spell-out*
/ ⟦ ***guáʔ**thian* ⟧$_{TP}$ *-khû*$^{\emptyset}_{\diamond}$ /	*stress and glottalization retained at TP spell-out*
[***guáʔ**thiankhû*]$_{nP}$	*-khû*$^{\emptyset}_{\diamond}$ BND*'s overriding blocked: [gua**thián**khû], cf.* (2, 4)
breed -T -BND	

"room$_{BND}$ (where s/he) boiled"

(12) Inflcted verbs with nominalizers

/ ***rúʔ**nda* /	*root is underlyingly stressed and glottalized*
/ [***rúʔ**nda*]$_{vP}$ *-ʔfa*$^{\perp}_{\circ}$ /	*no suffixes in vP; stress/ʔ retained*
/ ⟦ ***rúʔ**ndaʔfa* ⟧$_{TP}$ *-khû*$^{\emptyset}_{\diamond}$ /	*outer recessive -ʔfa*$^{\perp}_{\circ}$ PLS *does not shift stress*
[***rúʔ**ndaʔfakhû*]$_{nP}$	*-khû*$^{\emptyset}_{\diamond}$ BND*'s stress/ʔ deletion blocked: *[runda**fákhû**], cf.* (2, 4)
wait -PLS -BND	

"room$_{BND}$ (where they$_{PLS}$) waited"

(13) Modified nouns with verbal suffixes

/ *kuraga* /	*root is underlyingly stressless*
/ [*kurá**ga***]$_{nP}$ *-ʔye*$^{2}_{\diamond}$ /	*penultimate stress assigned at last nP spell-out*
/ ⟦ *kura**gáʔye* ⟧$_{FP}$ *-khen*$^{\emptyset}_{\circ}$ /	*-ʔye*$^{2}_{\diamond}$ DCS *prestresses; "deceased shaman"*
[*kura**gáʔyekhen*]$_{CP}$	*-khen*$^{\emptyset}_{\circ}$ TENT*'s overriding blocked: *[kuragaʔ**yékhen**], cf.* (1, 5)
shaman -DCS -TENT	

"(try) to$_{TENT}$ (be a) deceased$_{DCS}$ shaman"

(14) Inflected adjectives with verbal suffixes

/ *avûja* /	*root is stressless*
/ [*avûja*]$_{vP}$ *-tshi*$^{\perp}_{\circ}$ /	*no stress assigned at vP spell-out*
/ [*avû**já**tshi*]$_{aP}$ *-a*$^{\perp}$ /	*-tshi*$^{\perp}_{\circ}$ PA *stress the penult*
/ ⟦ *avû**já**tshia* ⟧$_{ModP}$ *-khen*$^{\emptyset}_{\circ}$ /	*-a*$^{\perp}$ ADN *retains preexisting stress*
[*avû**já**tshiakhen*]$_{CP}$	*-khen*$^{\emptyset}_{\circ}$ TENT*'s overriding blocked: *[avûja**tshiákhen**], cf.* (1, 6, 7)
rejoice -PA -ADN -TENT	

"(try) to$_{TENT}$ (be a) happy$_{PA}$ (one$_{ADN}$)"

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