PHONOLOGY GRANTS NO ASYLUM: THE INESCAPABILITY OF SYNTAX IN A'INGAE DOMINANCE BLOCKING

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ABSTRACT This paper presents and analyzes data from A'ingae (or Cofán, an Amazonian isolate, ISO 639-3: con), where the patterns of stress and glottalization in words with classifying nominalizers are sensitive to the base's morphological and syntactic structure. Normally, classifying suffixes override their base's stress and glottalization. However, the overriding is blocked if the base has previously undergone a functional projection spell-out. This violates *bracket erasure*, an empirical generalization which states that the phonological grammar cannot access morphological information from previous cycles (Kiparsky, 1982). More specifically, the A'ingae data shows that the distinction between functional and categorizing phase heads (e. g. Guekguezian, 2021; Newell, 2008) can be referred to in the course of phonological evaluation, setting a lower bound on the amount of morphosyntactic information phonology needs to access. As such, the study bears on the architecture of the phonology-morphosyntax interface, and contributes to a growing body of literature demonstrating that morphosyntactic information is preserved after PF operations such as vocabulary insertion (Gribanova and Harizanov, 2017; Winchester, 2016) and even phonological evaluation (Dąbkowski and Sande, 2021; Dobler et al., t.a.).

1 INTRODUCTION

This paper presents and analyzes data from A'ingae (or Cofán, an Amazonian isolate, ISO 639-3: con), where the patterns of stress and glottalization in words with classifying nominalizers are sensitive to the phonological form of the nominalizer as well as its base's morphological and syntactic structure. For example, stress and glottalization of the earlier cycle can be overwritten by the bounded space classifier *-khû*$^{\emptyset}_{n}$ BND[1] when it attaches to a bare verbal root (1a), but is always preserved in a phonologically similar base if it contains an inflectional morpheme (1b). Stress is marked with the acute accent (´) and often **boldface**. Suffixes are accompanied by diacritics (*-sfx*$_{i}$, *-sfx*$^{\emptyset}_{i}$, *-sfx*$_{ii}$, *-sfx*$^{\emptyset}_{ii}$, *-sfx*$^{\emptyset}_{n}$) which indicate their morphophonological class (to be discussed throughout the paper).

(1) INFLECTIONAL MORPHOLOGY BLOCKING STRESS/ʔ OVERWRITING

a. STRESS/ʔ OVERWRITTEN

/ ***pán?***jen /
/ [***pán?***jen]$_{v\text{P}}$ *-khû*$^{\emptyset}_{n}$ /
[pan***jén***khû]$_{n\text{P}}$
turn off -BND
"turning-off room"
(2024-08-19(1)_mll)

b. STRESS/ʔ RETAINED

/ pa /
/ [pa]$_{v\text{P}}$ *-ʔje*$^{\emptyset}_{i}$ /
/ [***pá?***je]$_{\text{AspP}}$ *-khû*$^{\emptyset}_{n}$ /
[***pá?***jekhû]$_{n\text{P}}$
die -IPFV -BND
"room where (s/he) is dying"
(2024-08-19(1)_mll)

1 The following glossing abbreviations have been used: 1 = first person, 3 = third person, ACC = accusative, ACC2 = accusative 2, ADN = adnominal, AIMP = attenuated imperative, ANA = anaphora, ANG = angular, APPR = apprehensional, ASSR = assertive, BND = bounded, BRS = bristly, CAUS = causative, DIST = distal, DS = different subject, FLAT = flat, FRST = frustrative, IF = conditional, IMP = imperative, INF = infinitive, INGR = ingressive, IPFV = imperfective, IRR = irrealis, ITER = iterative, LAT = lateral, LOC = locative, LQD = liquid, LRG = large, N = nominalizer, NEG = negative, NEW = new topic, PASS = passive, PATH = path, PERM = permissive, PL = plural, PLC = place, PLS = plural subject, PROH = prohibitive, PROX = proximal, RCPR = reciprocal, RND = round, SG = singular, SS = same subject, TENT = tentative, VDM = verbal diminutive, VPR = viperous.

The main generalization that will emerge from the present investigation is that the classifying suffixes cannot delete phonological structure (specifically, stress and glottalization) from their base if it has previously undergone phonological evaluation in the course of a functional projection spell-out. This *condition on dominance blocking* is restated in (2).

(2) CONDITION ON DOMINANCE BLOCKING
The dominant phonological operation ordinarily triggered by classifying suffixes (the deletion of the stress and glottalization of their base, if extant) is blocked if the base has undergone phonological evaluation in the course of a functional (non-categorizing) projection spell-out.

The implications of the study stem from the statement of the above condition, which bears directly on the architecture of the phonology-morphosyntax interface. By referencing the morphological and syntactic structure of the base of affixation, the condition violates *bracket erasure*, which states that the phonological grammar cannot access morphological information from previous cycles (Kiparsky, 1982). Specifically, overwriting is blocked by spell-out associated with "high" inflectional, but not "low" derivational, suffixes, wich will be formalized as a distinction between *functional* phase heads and *categorizing* phase heads (e. g. Guekguezian, 2021; Newell, 2008). This distinction is referenced by the condition on phonological dominance, setting a lower bound on the amount of morphosyntactic information phonology needs to access.

More broadly, the account contributes to a growing body of literature demonstrating that morphosyntactic information is preserved after PF operations such as vocabulary insertion (Gribanova and Harizanov, 2017; Winchester, 2016) and even phonological evaluation (Dąbkowski and Sande, 2021; Dobler et al., t.a.). It departs from previous work in allowing morphosyntactic information to have a direct impact on the phonological form.

The rest of the paper is structured as follows. Section 2 gives background on the language and its speakers. Section 3 summarizes previous finding on verbal morphology morphophonology. Section 4 describes the patterns of stress and glottalization observed in forms suffixed with classifying nominalizers. Section 5 relates these patterns to conditions on phonological spell-out. Section 6 discusses the relevance of the findings.

2 LANGUAGE BACKGROUND

A'ingae (or Cofán, ISO 639-3: con) is an Amazonian isolate spoken in northeast Ecuador and southern Colombia. The language is endangered and highly underresourced. The Cofán people experience severe ecological and economic duress. Nevertheless, their attitudes towards their language and cultural heritage are uniformly positive and they welcome projects aimed at bolstering the language's status (Dąbkowski, 2021a).

A'ingae is a heavily agglutinating, exclusively suffixing (and encliticizing), predominantly head-marking language. The word order is flexible, but predominantly SOV, especially in subordinate clauses which will be the focus of today's talk. The language's syllable structure is (C)V(V)(ʔ), i. e. onsets are optional, nuclei are maximally diphthongal, and the glottal stop is the only possible coda. VV diphthongal nuclei are the only heavy nuclei in the language; there are no long monophthongs. In this paper, I use the language's practical orthography, with one exception: the glottal stop is transcribed as *ʔ*, rather than an apostrophe (ʼ). Postvocalic *m* and *n* are not codas—they represent vowel nasality, as well as consonantal prenasalization if followed by a stop. A'ingae shows progressive nasalization, leading to extensive oral-nasal allomorphy among its many functional morphemes (Sanker and AnderBois, 2024).

The role that syntactic structure plays in blocking the A'ingae morphophonological effects—which is the main focus of the paper—will be demonstrated with patterns of stress assignment and glottalization. A'ingae stress is culminative and obligatory at the level of the phonological word. The position of stress is contrastive (3). The presence of glottalization is contrastive in roots (4a-b) and affixes (4c-d). The position of the glottalization is contrastive in morphologically complex forms (4e-f).

(3) CONTRASTIVE STRESS (Dąbkowski, 2021b)

a.	b.	c.	d.
népi *-ye*$_{ii}$	*nepí* *-ye*$_{ii}$	*áfa* *-ye*$_{ii}$	*afá* *-ye*$_{i}^{\emptyset}$
disappear -INF	arrive -INF	speak -INF	speak -PASS

(4) CONTRASTIVE GLOTTALIZATION (based on Dąbkowski, 2024c)

a.	b.	c.	d.	e.	f.
chá*ndi*	***chá****ʔndi*	***tsá*** *=ma*$_{ii}$	***tsá*** *-ʔma*$_{ii}$	***séʔ****je -pa*$_{ii}$	***sé****je -ʔpa*$_{n}^{\emptyset}$
be clear	be cold	ANA =ACC	ANA -FRST	cure -SS	cure -N

Previous work on A'ingae includes phonetic studies (Brandt, 2024; Repetti-Ludlow et al., 2019), phonological descriptions (Borman, 1962; Dąbkowski, 2024b), a grammatical sketch (Fischer and Hengeveld, 2023), diachronic and synchronic accounts of nasality and diphthongs (Dąbkowski, 2023, 2024a; Sanker and AnderBois, 2024), and an analysis of laryngeal co-occurrence restrictions (Repetti-Ludlow, 2021). Stress and glottalization participate in a number of morphosyntactically-conditioned phonological processes. The processes attested in the A'ingae verbal domain have received extensive treatment in Dąbkowski (2021b, 2024c). The present paper takes Dąbkowski's findings as a point of departure and investigates the morphophonology of A'ingae stress and glottalization in morphologically complex words with classifiers.

All the data that does not come from previous publications has been collected by the author since 2022 with two native speakers from the communities of Dureno and Sinangoé in Sucumbíos, Ecuador. All the fieldwork data will be deposited in the California Language Archive (CLA) as Dąbkowski (2020). Most of them are cited with a `YYYY-MM-DD(N)_ccc` identifier.

3 SUMMARY OF VERBAL MORPHOLOGY

In this section, I summarize the basics of A'ingae verbal inflection, including a brief overview of the verbal morpheme-specific phonological processes. Finite tensed verbs may consist of a bare verbal root, or may be inflected with many of the language's suffixes, which can be grouped into four phasal domains: *v*P, AspP, TP, and CP (5). There is phonological, morphological, and syntactic evidence diagnosing each of the domains, and each domain may undergo a separate phonological evaluation (Dąbkowski, 2024c).

(5) AT MOST FOUR PHONOLOGICAL EVALUATIONS PER VERB

[[[[*indi* *-án*$_{i}$]$_{vP}$ *-khu*$_{i}^{\emptyset}$ *-ʔje*$_{i}^{\emptyset}$ *-ngi*$_{i}^{\emptyset}$]$_{AspP}$ *-ʔfa*$_{ii}$ *-ya*$_{ii}$]$_{TP}$ *-ʔni*$_{ii}$]$_{CP}$ *-nda*$_{ii}$

be fermented -CAUS -RCPR -IPFV -PROX -PLS -IRR -IF.DS -NEW

"if$_{\text{IF.NEW}}$ (they$_{\text{PLS}}$) will$_{\text{IRR}}$ come$_{\text{PROX}}$ to be$_{\text{IPFV}}$ fermenting$_{\text{CAUS}}$ among themselves$_{\text{RCPR}}$, (someone else$_{\text{DS}}$) ..." (`2022-08-29(1)_jxm`)

The *v*P projection contains the verb roots and the causative suffix *-ña/-an/-en*$_{i}$ CAUS, if present. The causative *-ña/-an/-en*$_{i}$ CAUS is the only verbal suffix capable not only of attaching to verbs (6a), but also of deriving new verbs from nouns, both morphologically simple (6b) and derived (6c-d). As such, I follow Dąbkowski (2024c) in treating it as categorizing verbal head *v*.

(6) CAUSATIVE *-ÑA/-AN/-EN*$_{i}$ CAUS AS A CATEGORIZING *v* HEAD

a.	b.	c.	d.
séma -en	*tsáuʔ -ña*	*tsáu -ʔpa -en*	*tûmbi -án -khi -an*
work -CAUS	house -CAUS	house -N -CAUS	cool -CAUS -BND -CAUS
"employed"	"built a house"	"built a nest"	"cast a shadow"

AspP (the aspectual projection) contains the other voice suffixes, including the reciprocal *-khu*$_{i}^{\emptyset}$ RCPR and the passive *-ye*$_{i}^{\emptyset}$ PASS, as well as associated motion and aspectual suffixes, including the imperfective *-ʔje*$_{i}^{\emptyset}$ IPFV. The TP projection contains the plural subject *-ʔfa*$_{ii}$ PLS, the irrealis *-ya*$_{ii}$ IRR, the negative *-mbi*$_{ii}$ NEG, and the infinite *-ye*$_{ii}$ INF. The CP projection contains various clause (and sentence) level exponents, such as the different subject conditional *-ʔni*$_{ii}$ IF.DS. Since the A'ingae clauses discussed in Section 4.2 cannot contain verbal structure above TP, suffixes (and clitics) found in the CP layer will be of limited interest to us.

A part of the morphological template of the A'ingae verb is given in Table 1. The root is at the bottom; each successive morphological slot is higher up in the table, mimicking the orientation of a syntactic tree. The arcs represent phasal domains which may undergo spell-out, or phonological evaluation.

CP		
	(ix)	CLAUSE TYPE MATRIX: *-ja*$_{ii}$ IMP, *-kha*$^{\emptyset}_{ii}$ AIMP, *-ʔse*$_{ii}$ PERM, *-jama*$^{\emptyset}_{ii}$ PROH, *-ʔya*$_{ii}$ ASSR COSUBORDINATE: *-pa*$_{ii}$ SS, *-si*$_{ii}$ DS SUBORDINATE: *-saʔne*$_{ii}$ APPR, *-khen*$^{\emptyset}_{ii}$ TENT, (*-ʔa*$_{ii}$ IF.SS,) *-ʔni*$_{ii}$ IF.DS, *-ʔma*$_{ii}$ FRST
TP		
	(viii)	POLARITY: *-mbi*$_{ii}$ NEG
	(vii)	REALITY/FINITENESS: *-ya*$_{ii}$ IRR, *-ye*$_{ii}$ INF
	(vi)	SUBJECT NUMBER: *-ʔfa*$_{ii}$ PLS
AspP		
	(v)	ASSOC MOTION: *-ʔngi*$^{\emptyset}_{i}$ PROX, *-ʔnga*$^{\emptyset}_{i}$ DIST
	(iv)	ASPECT: *-ʔje*$^{\emptyset}_{i}$ IPFV, *-ji*$_{i}$ INGR, *-kha*$^{\emptyset}_{i}$ VDM, *-ʔñakha*$^{\emptyset}_{i}$ ITER
	(iii)	PASSIVE: *-ye*$^{\emptyset}_{i}$ PASS
	(ii)	RECIPROCAL: *-khu*$^{\emptyset}_{i}$ RCPR
*v*P		
	(i)	CAUSATIVE: *-ña/-an/-en*$_{i}$ CAUS
	(o)	VERBAL ROOT: ✓

Table 1: Morphophonological template of the A'ingae verb (building on Dąbkowski, 2021b, 2024c)

3.1 *Morpheme-specific phonology*

Now, I turn to the morphophonological processes affecting A'ingae verbs. First, let's look at three phonological classes of roots: stressless, stressed, and glottalized (Dąbkowski, 2024c). Stressless roots have no underlying stress. On the surface, stress is assigned to the penultimate syllable (7-8a). This can be seen as the stress shifts when a recessive suffix is added (7-8b). Stressed roots have underlying stress on the first syllable and it doesn't shift when a recessive suffix is added (7-8c-d). Glottalized roots have a glottal stop in the rime of the penultimate syllable, and all of them are also stressed (so their stress doesn't change upon suffixation) (7-8e-f).

(7)

STRESSLESS ROOTS		STRESSED ROOTS		GLOTTALIZED ROOTS	
a. / *afe* /	b. / *atapa* /	c. / ***káti*** /	d. / ***áfase*** /	e. / ***íʔna*** /	f. / ***ákheʔpa*** /
[***áfe***]	[*a**tápa***]	[***káti***]	[***áfase***]	[***íʔna***]	[***ákheʔpa***]
give	breed	cast	offend	cry	forget

(8)

... WITH A SUFFIX		... WITH A SUFFIX		... WITH A SUFFIX	
a. / *afe -ji*$_i$ /	b. / *atapa -ji*$_i$ /	c. / ***káti** -ji*$_i$ /	d. / ***áfase** -ji*$_i$ /	e. / ***íʔna** -ji*$_i$ /	f. / ***ákheʔpa** -ji*$_i$ /
[***aféji***]	[*ata**páji***]	[***kátiji***]	[***áfaseji***]	[***íʔnajin***]	[***ákheʔpaji***]
give -INGR	breed -INGR	cast -INGR	offend -INGR	cry -INGR	forget -INGR

Additionally, there are at least four morphophonological classes of A'ingae suffixes: *inner recessive*, *inner dominant*, *outer recessive*, and *outer dominant*. The labels *inner* and *outer* reflect the fact that the inner suffixes are typically closest to the root, followed by the outer suffixes. The *recessive* suffixes preserve the stress and glottalization of their base of attachment. The *dominant* suffixes delete the base's stress (and if *inner*, also glottalization).

A detailed analysis of A'ingae verbal morphophonology, couched in Cophonologies by Phase (Sande, Jenks, and Inkelas, 2020), is given in Dąbkowski (2024c). Below, the phonological processes triggered by the suffix classes are given as descriptive algorithms. First, the *inner recessive* suffixes (9) retain the stress and glottalization of their base (10d-e). If the base is stressless, they do not assign any stress themselves. Instead, penultimate stress is assigned by default (10a-c).

(9) *INNER RECESSIVE* (*-SFX$_i$*) STRESS RULE
   i. Retain base stress and glottalization (if any).
   ii. Do not assign new stress. (Eventually, penultimate stress is assigned to stressless outputs.)

(10) APPLICATIONS OF THE *INNER RECESSIVE* STRESS RULE

a.	b.	c.	d.	e.
/ *afe -an$_i$* /	/ *athûi -ji$_i$* /	/ *atapa -ji$_i$* /	/ ***á**fase -an$_i$* /	/ ***áʔ**mbian -jin$_i$* /
[***á**fian*]	[*a**thú**ji*]	[*ata**pá**ji*]	[***á**fasian*]	[***áʔ**mbianjin*]
give -CAUS	spit -INGR	breed -INGR	offend -CAUS	have -INGR

The *inner dominant* suffixes (11) delete the stress and glottalization of their base. If a suffix doesn't have a glottal stop, the output is stressless, and later receives the default penultimate stress (12b-c). If the suffix has a glottal stop, stress is assigned to the syllable which has the second mora to the left of the glottal stop. This is to say, the glottalized syllable receives stress if it is heavy (i. e. contains a diphthong) (12d). However, if the glottalized syllable is light, stress is assigned to the syllable that precedes it (12a,e).[2]

(11) *INNER DOMINANT* (*-SFX$_i^{\emptyset}$*) STRESS RULE
   i. Delete base stress and glottalization (if any).
   ii. If the suffix has a glottal stop:
      if the glottalized syllable is heavy (contains a diphthong) or is the first syllable of the word:
         assign stress to the glottalized syllable;
      otherwise:
         assign stress to the syllable which immediately precedes the glottalized one.
   Otherwise (i. e. if the suffix does not have a glottal stop):
      do not assign new stress. (Eventually, penultimate stress is assigned to stressless outputs.)

(12) APPLICATIONS OF THE *INNER DOMINANT* STRESS RULE

a.	b.	c.	d.	e.
/ *atapa -ʔje$_i^{\emptyset}$* /	/ ***á**fase -khu$_i^{\emptyset}$* /	/ ***áʔ**jû -ye$_i^{\emptyset}$* /	/ ***káʔ**nian -ʔngi$_i^{\emptyset}$* /	/ ***á**kheʔpa -ʔñakha$_i^{\emptyset}$* /
[*a**tá**paʔje*]	[*afa**sé**khu*]	[*a**jú**ye*]	[*ka**niáʔ**ngi*]	[*a**khé**paʔñakha*]
breed -IPFV	offend -RCPR	vomit -PASS	insert -PROX	forget -ITER

The *outer recessive* suffixes (13) retain preexisting stress and glottalization (14d-e). However, if the base is stressless, they assign stress to the syllable which immediately precedes the (first) outer recessive suffix (14a-c).

(13) *OUTER RECESSIVE* (*-SFX$_{ii}$*) STRESS RULE
   i. Retain base stress and glottalization (if any).
   ii. If the base is stressless:
      assign stress to the syllable which immediately precedes the suffix.

2 To account for the interaction between glottalization and stress (including stress deletion), Dąbkowski (2024c) proposes that, within the *inner* domain, (i) glottalization is an optional feature of metrical feet, (ii) A'ingae footing is trochaic, (iii) the glottal stop is preferentially right-aligned with its foot (whenever possible).

(14) APPLICATIONS OF THE *OUTER RECESSIVE* STRESS RULE

a.	b.	c.	d.	e.
/ *afe -ʔfa*$_{ii}$ /	/ *athûi -ya*$_{ii}$ /	/ *atapa -saʔne*$_{ii}$ /	/ ***á**fase -ʔma*$_{ii}$ /	/ ***áʔ**mbian -si*$_{ii}$ /
[***afé**ʔfa*]	[*a**thû**iya*]	[*ata**pá**saʔne*]	[***á**faseʔma*]	[***áʔ**mbiansi*]
give -PLS	spit -IRR	breed -APPR	offend -FRST	have -DS

Finally, the *outer dominant* suffixes (15) assign stress to the syllable which immediately precedes them, regardless of the base type (16a-e). However, glottal stops of the base remain intact (14c-e).

(15) *OUTER DOMINANT* (*-SFX*$^{\emptyset}_{ii}$) STRESS RULE

i. Delete base stress, but retain glottalization (if any).

ii. Assign stress to the syllable which immediately precedes the suffix.

(16) APPLICATIONS OF THE *OUTER DOMINANT* STRESS RULE

a.	b.	c.	d.	e.
/ *atapa -khen*$^{\emptyset}_{ii}$ /	/ ***á**fase -jama*$^{\emptyset}_{ii}$ /	/ ***áʔ**jû -kha*$^{\emptyset}_{ii}$ /	/ ***áʔ**mbian -khen*$^{\emptyset}_{ii}$ /	/ ***á**kheʔpa -jama*$^{\emptyset}_{ii}$ /
[*ata**pá**khen*]	[*afa**sé**jama*]	[*aʔ**jû**kha*]	[*aʔ**mbián**khen*]	[*akheʔ**pá**jama*]
breed -TENT	offend -PROH	vomit -AIMP	have -TENT	forget -PROH

The surface stress and glottalization of a verb depend both on the class of the root and the suffixes that attach to it, and result from a cyclic application of the morphophonological rules. Generally speaking, each step in the presented derivations corresponds to a well-formed word. Two examples of morphologically complex words whose phonological form reflects their derivational history are given in (17).

(17) CYCLIC PHONOLOGY RESULTING IN SURFACE STRESS AND GLOTTALIZATION

a.

/ ***á**kheʔpa -en*$_i$ /	*root is stressed and has a glottal stop*
/ [***á**kheʔpaen*]$_{vP}$ *-ʔje*$^{\emptyset}_i$ /	*inner recessive -en*$_i$ CAUS *preserves stress, glottalization*
/ [*akhe**páen**ʔjen*]$_{AspP}$ *-ʔfa*$_{ii}$ /	*preglottalized -ʔje*$^{\emptyset}_i$ IPFV *deletes preexisting glottal stops; prestresses*
/ [*akhe**páen**ʔjenʔfa*]$_{TP}$ *-jama*$^{\emptyset}_{ii}$ /	*outer recessive -ʔfa*$_{ii}$ PLS *retains previous cycle's stress, ʔ*
[*akhepaenʔjenʔ**fá**jama*]$_{CP}$	*outer dominant -jama*$^{\emptyset}_{ii}$ PROH *retains ʔ; prestresses*
forget -CAUS -IPFV -PLS -PROH	

"don't$_{PROH}$ y'all$_{PLS}$ be$_{IPFV}$ making$_{CAUS}$ forget" (2024-08-19(1)_mll)

b.

/ ***séʔ**je* /	*root is stressed and has a glottal stop*
/ [***séʔ**je*]$_{vP}$ *-ye*$^{\emptyset}_i$ *-ji*$_i$ /	*no vP suffixes; the root stress and glottalization are retained*
/ [*sejeyeji*]$_{AspP}$ *-mbi*$_{ii}$ /	*inner dominant -ye*$^{\emptyset}_i$ PASS *deletes stress, ʔ; leaves output stressless*
/ [*sejeye**jí**mbi*]$_{TP}$ *-ʔma*$_{ii}$ /	*outer recessive -mbi*$_{ii}$ NEG *assigns stress to preceding syllable*
[*sejeye**jí**mbiʔma*]$_{CP}$	*outer recessive -ʔma*$_{ii}$ FRST *retains the previous cycle's stress*
cure -PASS -INGR -NEG -FRST	

"is not$_{NEG}$ about$_{INGR}$ to be$_{PASS}$ cured, but$_{FRST}$ ... " (2024-08-19(1)_mll)

If the output of the morphological derivation is stressless, either because it involves a stressless root or stress has been deleted by an inner dominant suffix, penultimate stress is assigned. While I previously referred to it as the "default" stress, I assume that the penultimate stress assignment takes place specifically in the course of TP spell-out (following Dąbkowski, 2024c) (18).[3] This assumption is further vindicated in Section 5.

(18) TP-LEVEL PENULTIMATE STRESS ASSIGNMENT

/ ***séʔ**je* /	*root is stressed and has a glottal stop*
/ [***séʔ**je*]$_{vP}$ *-ye*$^{\emptyset}_i$ *-ji*$_i$ /	*no vP suffixes; the root stress and glottalization are retained*
/ [*sejeyeji*]$_{AspP}$ /	*inner dominant -ye*$^{\emptyset}_i$ PASS *deletes stress, ʔ; leaves output stressless*
[*seje**yéji***]$_{TP}$	*penultimate stress assigned to stressless output at TP*
cure -PASS -INGR	

"is about$_{INGR}$ to be$_{PASS}$ cured" (2024-08-19(1)_mll)

3 In Dąbkowski (2024c), the *outer* TP suffixes' prestressing and the TP-level penultimate stress assignment receive a unified analysis. Both are analyzed as a matter of stress alignment with the right edge of AspP (ALIGN(STRESS-R, PHASE-R)), outranked by word-level

3.2 *Morphology and tensedness*

Finally, I briefly discuss the temporal interpretation of A'ingae matrix clauses. Although there is no morphology in A'ingae devoted specifically to the expression of time, tense is determined by a combination of lexical aspect, morphological aspect, and reality marking. For example, eventive verbs without morphological aspect marking are interpreted as past (19a). To effect a present (continuous) interpretation, the imperfective suffix *-ʔje*$^{\emptyset}_{i}$ IPFV must be added (19b). This temporal interpretation is not a consequence of an implicature calculated globally over the entire sentence—for example, bare eventive verbs (past) are incompatible with future adverbs (19c). I attribute the specific temporal semantics to the presence of the TP layer, despite the absence of overt tense morphology.

(19) TENSEDNESS ARISING FROM LEXICAL AND MORPHOLOGICAL ASPECT

a. [*tíse =tsû áfe*]$_{\text{TP}}$
3SG =3 give
"S/he gave (something)." (2024-08-30(1)_mll)

b. [*tíse =tsû áfe-ʔje*]$_{\text{TP}}$
3SG =3 give-IPFV
"S/he is giving (something)." (2024-08-30(1)_mll)

c.* [*tíse =tsû áfe tű́'i*]$_{\text{TP}}$
3SG =3 give tomorrow
intd.: "S/he will give tomorrow." (2024-08-30(1)_mll)

4 DESCRIPTION: NOUNS AND CLASSIFIER NOMINALIZATIONS

The core data set of this paper pertains to nominalizations formed with A'ingae classifying suffixes. As such, I first touch briefly on the patterns of stress and glottalization observed in basic nouns, and quickly move on to the phonological outcomes of attaching classifying nominalizers to words of various syntactic classes.

A'ingae nouns can be classified as plain (i. e. not glottalized) or glottalized. Plain nouns have penultimate stress (20a-c). In glottalized nouns, the rime of the penult has a glottal stop. If the glottalized noun is disyllabic, stress is assigned to the glottalized syllable (20d). If the glottalized noun is trisyllabic, stress is assigned to the syllable which contains the second mora to the left of the glottal stop (20e-f). Thus, glottalized nouns show the same stress pattern as glottalized verbal roots (7d-e) and verbs with preglottalized *inner dominant* suffixes (12).

(20) STRESS IN NOMINAL ROOTS

a. ***pí**ndu* hawk
b. *tsun**sí**na* ear
c. *cha**ná**nge* lowland paca
d. ***théʔ**thu* tooth
e. ***bán**saʔmu* balsam
f. *a**náeʔ**ma* hammock

4.1 *Deverbal and denominal derivatives*

In addition to morphologically simple nominal roots (20), A'ingae has a variety of strategies for deriving new nouns. The strategy of present interest involves classifying suffixes, which characterize the shape, size, or prominent dimension (be it spatial or temporal) of the referent. The rich set of classifiers includes, but is not limited to, the viperous *-si* VPR (21a), bounded space *-khû*$^{\emptyset}_{n}$ BND (21b), flat *-je* FLAT (21c), large *-jiun* LRG (21d), angular *-ʔkhu* ANG (22a), lateral *-ʔfa* LAT (22b), place *-ʔthi* PLC (22c), and path *-ʔki* PATH (22d) classifiers. The A'ingae classifying suffixes can derive nouns from verbs (21-22a-b) and other nouns (21-22c-d).

(21) PLAIN CLASSIFIERS ON VERBAL ROOTS AND ON NOMINAL ROOTS

a. / *bûthu -si*$^{\emptyset}_{n}$ /
[*bû**thú**si*]
run -VPR
"Puerto Rican racer"

b. / ***ká**ti -khû*$^{\emptyset}_{n}$ /
[*ka**tí**khû*]
throw -BND
"trash can"

c. / ***bú**ʔmbu -je*$^{\emptyset}_{n}$ /
[*bu**mbú**je*]
pambil -FLAT
"pambil leaf"

d. / ***tá**ʔva -jiun*$^{\emptyset}_{n}$ /
[*tavá**jiun*]
cotton -LRG
"silk-cotton tree"

NONFINALITY(STRESS). In the absence of TP suffixes, the right edge of AspP coincides with the right edge of the phonological word. A violation of NONFINALITY(STRESS) is completely avoided and the gradient ALIGNMENT constraint is violated minimally, resulting in stress on the second syllable counting from the right edge of the prosodic word/AspP.

(22) GLOTTALIZED CLASSIFIERS ON VERBAL ROOTS AND ON NOMINAL ROOTS

a.	b.	c.	d.
/ *akhûi -ʔkhu*$^{\emptyset}_{n}$ /	/ ***á**fase -ʔfa*$^{\emptyset}_{n}$ /	/ ***tsá**ndie -ʔthi*$^{\emptyset}_{n}$ /	/ ***tsám**pi -ʔki*$^{\emptyset}_{n}$ /
[*a**khú**i**ʔkhu*]	[*a**fá**seʔfa*]	[*tsa**ndié**ʔthi*]	[*tsá**m**piʔki*]
lever -ANG	criticize -LAT	man -PLC	forest -PATH
"lever"	"critical paragraph"	"men's place"	"forest trail"

When attaching to verbal or nominal roots, the classifiers delete the stress and glottalization of the base. If the classifier has a glottal stop, stress is assigned to the syllable which contains the second mora to the left of the glottal stop. This means that the glottalized syllable is stressed if heavy (22a,c); otherwise, the syllable to its left receives stress (22b,d). Thus, the behavior of classifiers is similar *inner dominant* suffixes. If the classifier does not have a glottal stop, stress is assigned to the penultimate syllable of the word (21). I assume that the penultimate stress assignment takes place in the same cycle as the attachment of the classifier, which differs from the *inner dominant* suffixes, as they leave the output stressless. The *dominant nominalizer* stress rule is given in (23).

(23) *DOMINANT NOMINALIZER* (*-SFX*$^{\emptyset}_{n}$) STRESS RULE

i. Delete base stress and glottalization (if any).

ii. If the suffix has a glottal stop:

if the glottalized syllable is heavy (contains a diphthong) or is the first syllable of the word:

assign stress to the glottalized syllable;

otherwise:

assign stress to the syllable which immediately precedes the glottalized one.

Otherwise (i.e. if the suffix does not have a glottal stop):

assign penultimate stress.

Since the classifying nominalizers can form denominal nominalizations, they may attach to nominalized verbs (24a) and nominalized nouns (24b), which can even result in the stacking of multiple affixes in one word (24c). In all such cases, the surface form reflects a cyclic application of the *dominant nominalizer* stress rule.

(24) CYCLIC STRESS/ʔ OVERWRITING IN DEVERBAL, DENOMINAL NOMINALIZATIONS

a. / *chhuvi* / — *verbal root is stressless*
/ [*chhuvi*]$_{vP}$ *-ʔpa*$^{\emptyset}_{n}$ / — *no vP suffixes; the root remains stressless*
/ [***chhú**viʔpa*]$_{nP}$ *-ʔkhû*$^{\emptyset}_{n}$ / — *preglottalized -ʔpa*$^{\emptyset}_{n}$ *N stresses 2nd syllable to its left; yields "(women's) urine"*
[*chhu**ví**paʔkhû*]$_{nP}$ — *preglottalized -ʔkhû*$^{\emptyset}_{n}$ *LQD deletes ʔ; stresses 2nd syllable to its left*
urinate -N -LQD
"(women's) urine" (2024-08-20(1)_mll)

b. / *nujan* / — *nominal roots is stressless, has no ʔ*
/ [***nú**jan*]$_{nP}$ *-ʔsi*$^{\emptyset}_{n}$ / — *plain nominal root is assigned penultimate stress*
/ [***nú**janʔsi*]$_{nP}$ *-ʔfa*$^{\emptyset}_{n}$ / — *-ʔsi*$^{\emptyset}_{n}$ *BRS (vacuously) reassigns stress; yields "small plant with thorns"*
[*nu**ján**siʔfa*]$_{nP}$ — *-ʔfa*$^{\emptyset}_{n}$ *FLAT deletes stress/ʔ; assigns stress two syllables to its left*
thorn -BRS -LAT
"thorny vine" (2024-08-20(1)_mll)

c. / ***sû**tsa* / — *verbal root is underlyingly stressed*
/ [***sû**tsa*]$_{vP}$ *-ʔpa*$^{\emptyset}_{n}$ / — *root's stress is not deleted at vP*
/ [***sû**tsaʔpa*]$_{nP}$ *-ʔkhu*$^{\emptyset}_{n}$ / — *preglottalized -ʔpa*$^{\emptyset}_{n}$ *N vacuously reassigns stress; yields "sucking"*
/ [*sû**tsá**paʔkhu*]$_{nP}$ *-khû*$^{\emptyset}_{n}$ / — *-ʔkhu*$^{\emptyset}_{n}$ *RND deletes ʔ; reassigns stress; yields "sugar cane"*
[*sûtsapa**khú**khû*]$_{nP}$ — *-khû*$^{\emptyset}_{n}$ *BND deletes stress and glottalization; stresses penult*
suck -N -RND -BND
"sugar cane plantation" (2024-08-20(1)_mll)

4.2 *Subordinate clauses*

Besides nominalizing nouns and verbs, some of the A'ingae classifying suffixes can also form subordinate nominalized clauses. Clauses subordinated with the classifiers may be interpreted either as tensed clauses (like the matrix clauses discussed in Section 3.2), or as entities, such as objects or places, in a way that correlates with their inflectional morphology and/or phonological form. In the rest of the section, I will focus on the connection between the form and meaning and propose that the latter are TP nominalizations (compatible with TP morphology), and the former — lower nominalizations (below TP).

4.2.1 *Uninflected stressed verbs*

First, I consider classifier subordinations of uninflected stressed verbs. If the verb consists of a bare root (25-26) or has only the derivational causative suffix *-ña*/*-an*/*-en*$_i$ CAUS (27-28), two outcomes are possible. First, the subordinator may apply its regular phonology and overwrite the stress and glottalization of the base (25-28a). These nominalizations denote an object or place related to the content of the clause; they are generally translated as nouns or present tense (generic) clauses.

Second, the subordinator's overwriting may be blocked (25-28b). In this case, the underlying stress (and glottalization) of the base surface unimpeded. If the subordinated verb is eventive, the nominalization is always interpreted as a past tense finite clause. Notably, these subordinations cannot receive the generic readings. I consider the tensedness of these clauses to indicate that these nominalizations contain the TP layer (despite the fact that there is no overt TP morphology). In the proposed analysis, there is a structural difference between (25-28a) and (25-28b), which is reflected in both semantics and phonology.

(25) BARE VERB /***kú***NDASE/ 'TELL' + -JE$^{\emptyset}_{n}$ FLAT

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN
tíse [*kundas**é***]$_{v\text{P}}$-*je*$^{\emptyset}_{n}$ *=ma* *=ngi kán*
3SG tell-FLAT =ACC =1 look
"I read his/her written story." (S/he has a written copy, but s/he did not tell the story him/herself.)
(2024-07-01(3)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*tíse* [***kú**ndase*]$_{v\text{P}}$]$_{\text{TP}}$-*je*$^{\emptyset}_{n}$ *=ma* *=ngi kán*
3SG tell-FLAT =ACC =1 look
"I read his/her written story," i. e. "I read a story that had been told by him/her."
literally: "I saw (a) flat (thing) such that s/he (had) told (a story that is written on it)."
not: "*I read his/her written story." (S/he has a written copy, but s/he did not tell the story him/herself.)
(2024-07-01(3)_mll)

(26) BARE VERB /***kHÁʔ**YA/ 'SWIM' + -ʔKI$^{\emptyset}_{n}$ PATH

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN
tíse [***khá**ya*]$_{v\text{P}}$-*ʔki*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG swim-PATH =LOC =1 going
"I'm going to his/her swimmable river." (S/he is the owner of the river, but has never swum before.)
(2024-07-01(3)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED[4]
[*tíse* [***khá**ʔya*]$_{v\text{P}}$]$_{\text{TP}}$-*ʔki*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG swim-PATH =LOC =1 going
"I'm going to the river where s/he swam."
not: "*I'm going to his/her swimmable river." (S/he is the owner of the river, but has never swum before.)
(2024-07-01(3)_mll)

(27) CAUSATIVIZED VERB /***pú?***TA-EN$_i$/ 'PIERCE-CAUS' + -KHÛ$^{\emptyset}_{n}$ BND

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN
tíse [*pu**tá-en***$_i$]$_{v\text{P}}$-*khû*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG pierce-CAUS-BND =LOC =1 going
"I'm going his/her shooting range." (S/he owns it, but has never shot a gun him/herself.)
(2024-08-19(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*tíse* [***pú?****ta-en*$_i$]$_{v\text{P}}$]$_{\text{TP}}$-*khû*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG pierce-CAUS-BND =LOC =1 going
"I'm going to the room where s/he shot (lit. made (a gun) pierce)."
not: "*I'm going his/her shooting range." (S/he owns it, but has never shot a gun him/herself.)
(2024-08-19(1)_mll)

(28) CAUSATIVIZED VERB /***guá?***THI-AN$_i$/ 'BOIL-CAUS' + -ʔTHI$^{\emptyset}_{n}$ PLC

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN
tíse [*gua**thi-án***$_i$]$_{v\text{P}}$-ʔ*thi*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG boil-CAUS-PLC =LOC =1 going
"I'm going to his/her boiling place." (S/he has never boiled water him/herself.)
(2024-08-21(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*tíse* [***guá?****thi-an*$_i$]$_{v\text{P}}$]$_{\text{TP}}$-ʔ*thi*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
3SG boil-CAUS-PLC =LOC =1 going
"I'm going to the place where s/he boiled (water)."
not: "*I'm going to his/her boiling place." (S/he has never boiled water him/herself.)
(2024-08-21(1)_mll)

The difference between (25-28a) and (25-28b) does not necessarily entail a difference in argument structure. For example, both low (29a) and high (29b) nationalizations are compatible with regular subjects (unmarked) and objects (accusative-marked).

(29) LOW AND HIGH NOMINALIZATIONS OF /***rú?***NDA/ 'WAIT' COMPATIBLE WITH CLAUSAL ARGUMENTS

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN
máma=me *dû?shû* [*ru**ndá***]$_{v\text{P}}$-*khû*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
mom=ACC2 child wait-BND =LOC =1 going
"I'm going to a place where children usually wait for their mothers." (2024-08-30(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*máma=me* *dû?shû* [***rú?****nda*]$_{v\text{P}}$]$_{\text{TP}}$-*khû*$^{\emptyset}_{n}$ *=ni* *=ngi jáyi*
mom=ACC2 child wait–BND =LOC =1 going
"I'm going to a place where a child waited for his/her mother."
not: "*I'm going to a place where children usually wait for their mothers."
(2024-08-30(1)_mll)

4.2.2 *Uninflected stressless verbs*

Now, I consider uninflected (but optionally causativized) stressless verbs. When a classifier attaches to a stressless verb, low nominalizations apply the regular nominalizer phonology (30-31a). The high nominal-

4 The nominalizers' (pre)glottalization (as in -ʔki$^{\emptyset}_{n}$ PATH) does not disappear in the cases when the stress of the base is retained. In this, the nominalizers differ from the otherwise similar *inner dominant* suffixes whose cophonology—as given by Dąbkowski (2024c)—predicts that a failure to realign stress should erase the glottal stop. This can be modeled by ranking MAXIMALITY(ʔ) above FOOT(ʔ) in the *dominant nominalizer* cophonology.

izations (30-31b) show stress on the penultimate syllable of the verb (i. e. second syllable counting from the end of the verbal structure; discounting the nominalizer).

(30) BARE VERB /*ATAPA*/ 'REPRODUCE' + -*KHÛ*$^{\emptyset}_{n}$ BND

a. LOW NOMINALIZATION — REGULAR -*SFX*$^{\emptyset}_{n}$ STRESS
tíse [*ata**pá***]$_{v\text{P}}$-*khû*$^{\emptyset}_{n}$ =*ni* =*ngi jáyi*
3SG reproduce-BND =LOC =1 going
"I'm going to his/her (animal) hatchery." (S/he has never had children.) (2024-07-29(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS
[*tíse* [*a**tá**pa*]$_{v\text{P}}$]$_{\text{TP}}$-*khû*$^{\emptyset}_{n}$ =*ni* =*ngi jáyi*
3SG reproduce-BND =LOC =1 going
"I'm going to the room where s/he reproduced."
not: "*I'm going to his/her (animal) hatchery." (S/he has never had children.)
(2024-07-29(1)_mll)

(31) CAUSATIVIZED VERB /*SAMBA-EN*$_i$/ 'DRY-CAUS' + -*ʔFA*$^{\emptyset}_{n}$ PLC

a. LOW NOMINALIZATION — REGULAR -*SFX*$^{\emptyset}_{n}$ STRESS
tíse [*sa**mbáen***$_i$]$_{v\text{P}}$-*ʔfa*$^{\emptyset}_{n}$ =*ma* =*ngi ísû*
3SG dry-CAUS-LAT =ACC =1 take
"I took his/her siphon." (S/he had never used the siphon.) (2024-08-21(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS
[*tíse* [***sá**mba-en*$_i$]$_{v\text{P}}$]$_{\text{TP}}$-*ʔfa*$^{\emptyset}_{n}$ =*ma* =*ngi ísû*
3SG dry-CAUS-LAT =ACC =1 take
"I took (his/her) siphon which s/he had (already) used (to extract water)."
not: "*I took his/her siphon." (S/he had never used the siphon.) (2024-08-21(1)_mll)

4.2.3 *Inflected destressed verbs*

The reciprocal -*khu*$^{\emptyset}_{i}$ RCPR and passive -*ye*$^{\emptyset}_{i}$ PASS delete stress and glottalization and leave the output stressless. As such, the reciprocal and passive verbs pattern with the underlyingly stressless ones. The low nominalizations apply the regular nominalizer phonology (32-33a). The high nominalizations (32-33b) show stress on the penultimate syllable of the verb (where the reciprocal -*khu*$^{\emptyset}_{i}$ RCPR the and passive -*ye*$^{\emptyset}_{i}$ PASS count as part of the verbal, but the classifying suffixes do not).

(32) DESTRESSED VERB /*ÁFA-KHU*$^{\emptyset}_{i}$/ 'SPEAK-RCPR' + -*KHÛ*$^{\emptyset}_{n}$ BND

a. LOW NOMINALIZATION — REGULAR -*SFX*$^{\emptyset}_{n}$ STRESS
tíse [*afa**-khú***$^{\emptyset}_{i}$]$_{v\text{P}}$-*khû*$^{\emptyset}_{n}$ =*ni* =*ngi jáyi*
3SG speak-RCPR-BND =LOC =1 going
"I'm going to his/her debate room." (The room is newly built; there have been no debates there yet.) (2024-08-21(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS
[*tíse* [*a**fá**-khu*$^{\emptyset}_{i}$]$_{v\text{P}}$]$_{\text{TP}}$-*khû*$^{\emptyset}_{n}$ =*ni* =*ngi jáyi*
3SG speak-RCPR-BND =LOC =1 going
"I'm going to the room where s/he debated."
not: "*I'm going to his/her debate room." (The room is newly built; there have been no debates there yet.) (2024-08-21(1)_mll)

(33) DESTRESSED VERB /***sé?***$_{JE\text{-}YE_i}^{\emptyset}$/ 'CURE-PASS' + -$_{JE_n}^{\emptyset}$ FLAT

a. LOW NOMINALIZATION — REGULAR -$_{SFX_n}^{\emptyset}$ STRESS
tíse [*seje-**yé***$_i^{\emptyset}$]$_{vP}$-*je*$_n^{\emptyset}$ *=ma =ngi ísû*
3SG cure-PASS-FLAT =ACC =1 take
"I took his/her leaf that can cure." (No one was cured with it before.) (2024-08-21(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS
[*tíse* [*se**jé***-*ye*$_i^{\emptyset}$]$_{vP}$]$_{TP}$-*je*$_n^{\emptyset}$ *=ma =ngi ísû*
3SG dry-PASS-FLAT =ACC =1 take
"I took the leaf with which s/he was cured."
not: "*I took his/her leaf that can cure." (No one was cured with it before.)
(2024-08-21(1)_mll)

4.2.4 *AspP-inflected stressed verbs*

If aspectual morphology, such as -*ʔje*$_i^{\emptyset}$ IPFV, is present on the verb and the inflected verb is stressed (typically as a consequence of morphologically triggered stress assignment), the (otherwise expected) overwriting of stress and glottalization is blocked. Nonetheless, two readings of the subordinated clause are still available. The nominalized clause can denote an object or place where an activity generally takes place (34-35a), or where an activity is taking place at present (34-35b). The former matches the semantics of the low nominalizations we have seen, while the latter corresponds to the regular present-tense reading of matrix imperfective clauses (§3.2). As such, I assume that clauses with perfective *ʔje*-marked verbs can form both low and high nominalizations, despite the fact that the verb's stress and glottalization are never overwritten by the nominalizer.

(34) IMPERFECTIVE VERB /*ÁNA-ʔJE*$_i^{\emptyset}$/ 'SLEEP-IPFV' + -*KHÛ*$_n^{\emptyset}$ BND

a. LOW NOMINALIZATION — STRESS/ʔ RETAINED
tíse [***á**na-ʔjen*$_i^{\emptyset}$]$_{AspP}$-*khû*$_n^{\emptyset}$ *=ni =ngi jáyi*
3SG sleep-IPFV-BND =LOC =1 going
"I am going to his/her bedroom." (S/he is not presently sleeping there.) (2024-08-23(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*tíse* [***á**na-ʔjen*$_i^{\emptyset}$]$_{AspP}$]$_{TP}$-*khû*$_n^{\emptyset}$ *=ni =ngi jáyi*
3SG sleep-IPFV-BND =LOC =1 going
"I'm going to the room where s/he is sleeping." (2024-08-30(1)_mll)

(35) IMPERFECTIVE CAUSATIVIZED VERB /*CHAVA-EN*$_i$-*ʔJE*$_i^{\emptyset}$/ 'BUY-CAUS-IPFV' + -*ʔTHI*$_n^{\emptyset}$ PLC

a. LOW NOMINALIZATION — STRESS/ʔ RETAINED
tíse [*cha**vá-en***-*ʔjen*$_i^{\emptyset}$]$_{AspP}$-*ʔthi*$_n^{\emptyset}$ *=ni =ngi jáyi*
3SG buy-CAUS-IPFV-PLC =LOC =1 going
"I'm going to his/her store." (S/he's not selling there right now; I'm going for another reason.)
(2024-08-23(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED
[*tíse* [*cha**vá-en***-*ʔjen*$_i^{\emptyset}$]$_{AspP}$]$_{TP}$-*ʔthi*$_n^{\emptyset}$ *=ni =ngi jáyi*
3SG buy-CAUS-IPFV-PLC =LOC =1 going
"I am going to the place where s/he is selling." (2024-08-30(1)_mll)

4.2.5 *TP-inflected stressed verbs*

Finally, verbs with overt TP inflection, including the plural subject -*ʔfa*$_{ii}$ PLS (36a), the irrealis -*ya*$_{ii}$ IRR (37a), and the negative -*mbi*$_{ii}$ NEG (38a) always receive tensed interpretations. This is expected, as TP inflection entails the presence of the TP layer. Additionally, when TP suffixes are present, the stress and glottalization of the verbal base (which were underlyingly present or assigned in the course of verbal inflection) are retained.

(36) PLURAL VERB /***rúʔ***$_{\text{NDA-ʔFA}_{ii}}$/ 'WAIT-PLS' + -$KH\hat{U}_n^{\emptyset}$ BND

a. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

[*tíseʔpa* [***rúʔ***nda]$_{v\text{P}}$-ʔfa$_{ii}$]$_{\text{TP}}$-$KH\hat{U}_n^{\emptyset}$ =*ni* =*ngi jáyi*
3PL wait-PLS-BND =LOC =1 going

"I am going to the room where they waited."
not: "*I'm going to the room where they wait." (2024-08-23(1)_mll)

(37) IRREALIS CAUSATIVIZED VERB /*ATAPA-EN*$_i$*-YA*$_{ii}$/ 'BREED-CAUS-IRR' + -$KH\hat{U}_n^{\emptyset}$ BND

a. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

[*tíse* [*ata**pá-en***]$_{v\text{P}}$-ña]$_{\text{TP}}$-$KH\hat{U}_n^{\emptyset}$ =*ni* =*ngi jáyi*
3SG reproduce-CAUS-IRR-BND =LOC =1 going

"I'm going to the place where he will breed (animals)." (2024-08-30(1)_mll)

(38) NEGATED VERB /*PANZA-MBI*$_{ii}$/ 'HUNT-NEG' + -$ʔTHI_n^{\emptyset}$ PLC

a. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

[[***kú**ndase*]$_{v\text{P}}$-*mbi*]$_{\text{TP}}$-ʔ*thi*-$a_n^{\emptyset}$ =*ni* =*ngi jáyi*
tell-NEG-PLC-ADN =LOC =1 going

"I'm going to a place where (s/he) hasn't told (a story)."
not: "*I'm going to a place where (they) don't tell (stories)," "*I'm going to a non-(story-)telling place." (2024-08-30(1)_mll)

5 ANALYSIS: FUNCTIONAL PHASE BLOCKING

I propose that the above patterns can be generalized in the following way: A nominalizing classifier cannot overwrite the stress (and glottalization) of its base if the base has been spelled out as a functional projection. This generalization is restated below as a condition of the A'ingae interface between morphosyntactic structure and phonology (39).

(39) CONDITION ON DOMINANCE BLOCKING
The dominant phonological operation ordinarily triggered by classifying suffixes (the deletion of the stress and glottalization of their base, if extant) is blocked if the base has undergone phonological evaluation in the course of a functional (non-categorizing) projection spell-out.

A crucial distinction made by the condition is that between categorizing phrases such as *n*P, *v*P, *adv*P, which had been studied largely within the framework of Distributed Morphology (DM) (e. g. Embick, 2010, 2015; Halle and Marantz, 1993; Marantz, 2007; Marvin, 2002), and functional phases such as AspP, TP, and CP, which had been the focus of many syntactic proposals (e. g. Abels, 2003; Chomsky, 2000, 2001, 2004; Svenonius, 2004). The two groups can be roughly mapped onto derivation and inflection, with the derivational/categorizing morphemes including e. g. nominalizers (*n*°), verbalizers (*v*°), and adverbializers (*adv*°), and the inflectional/functional morphemes including e. g. aspectual (Asp°), predicate-level (T°), and clause-level (C°) information. (Following Bošković 2016, and Dąbkowski 2024c for A'ingae, I assume that heads are spelled out together with their complements.)

Specifically, the spell-out triggered by a functional head does not preclude a later change to stress/glottalization triggered by a subsequent morpheme. For example, nouns derived with stacked nominalizers show cyclic overwriting of stress and glottalization; the prevailing surface form is determined by the last morpheme (40).

(40) CYCLICAL OVERWRITING IN DERIVED NOUNS

/ ***sʉ́***tsa /	*verbal root is underlyingly stressed*
/ [***sʉ́***tsa]$_{v\text{P}}$ -ʔpa$^{\emptyset}_{n}$ /	*root's stress is not deleted at vP*
/ [***sʉ́***tsaʔpa]$_{n\text{P}}$ -ʔkhu$^{\emptyset}_{n}$ /	*preglottalized -ʔpa$^{\emptyset}_{n}$ N vacuously reassigns stress; yields "sucking"*
/ [sʉ̂***ts****á*paʔkhu]$_{n\text{P}}$ -khʉ̂$^{\emptyset}_{n}$ /	*-ʔkhu$^{\emptyset}_{n}$ RND deletes ʔ; reassigns stress; yields "sugar cane"*
[sʉ̂tsapa***khʉ́***khʉ̂]$_{n\text{P}}$	*-khʉ̂$^{\emptyset}_{n}$ BND deletes stress and glottalization; stresses penult*
suck -N -RND -BND	
"sugar cane plantation"	(2024-08-20(1)_mll)

In nominalized clauses with bare (or causativized) stressed verbs, the surface form depends on the height of nominalization. In low nominalization, there is no functional projection undergoing spell-out. As such, the classifier overwrites stress and glottalization (41a). I do not rule out the possibility that other phases, such as VceP or AspP, may be present in the syntactic structure of a subordinated clause. However, I assume that these phases do not undergo phonological evaluation if they do not introduce any overt morphology. As such, I do not represent them in the derivations below.

I assume that when TP is followed by a nominalizing classifier, TP always undergoes spell-out—even if no overt morphology is realized in TP.[5] The spell-out of TP projection, which is a functional projection, blocks later overwriting. As such, in high (TP) nominalizations, the verb's underlying stress and glottalization are preserved (41b). In this way, the structural difference between low and high nominalizations finds both a semantic and a phonological reflection.

(41) UNINFLECTED STRESSED VERBS

a. LOW NOMINALIZATION — STRESS/ʔ OVERWRITTEN

/ ***púʔ***ta -en$_i$ /	*root is underlyingly stressed and glottalized*
/ [***púʔ***taen]$_{v\text{P}}$ -khʉ̂$^{\emptyset}_{n}$ /	*inner recessive -en$_i$ CAUS does not affect stress/ʔ*
[pu***táen***khʉ̂]$_{n\text{P}}$	*nominalizer -khʉ̂$^{\emptyset}_{n}$ BND applies regular stress/ʔ overwriting*
pierce -CAUS -BND	
"shooting room," "shooting range"	(2024-08-19(1)_mll)

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

/ ***púʔ***ta -en$_i$ /	*root is underlyingly stressed and glottalized*
/ [***púʔ***taen]$_{v\text{P}}$ -∅ /	*inner recessive -en$_i$ CAUS does not affect stress/ʔ*
/ [***púʔ***taen]$_{\text{TP}}$ -khʉ̂$^{\emptyset}_{n}$ /	*existing stress/ʔ preserved in the course of TP evaluation*
[***púʔ***taenkhʉ̂]$_{n\text{P}}$	*overwriting otherwise triggered by -khʉ̂$^{\emptyset}_{n}$ BND blocked: *[pu**táen**khʉ̂]*
pierce -CAUS -T -BND	
"room where (s/he) shot"	(2024-08-19(1)_mll)

In low nominalizations with stressless verbs, the nominalizer gets to apply its regular stress assignment. For example, if the nominalizer does not have a glottal stop, such as the bounded space -khʉ̂$^{\emptyset}_{n}$ BND, penultimate stress is assigned to the nominalized word (42a). In high nominalizations, penultimate stress is assigned to the verb in the course of TP spell-out. Since TP is a functional projection, the penultimate stress is retained even when the classifier is attached (42b).

(42) UNINFLECTED STRESLESS VERBS

a. LOW NOMINALIZATION — REGULAR -SFX$^{\emptyset}_{n}$ STRESS

/ atapa /	*root is underlyingly stressless*
/ [atapa]$_{v\text{P}}$ -khʉ̂$^{\emptyset}_{n}$ /	*no overt suffixes in vP; stress not assigned*
[ata***pá***khʉ̂]$_{n\text{P}}$	*-khʉ̂$^{\emptyset}_{n}$ BND has not stress to overwrite; assigns its regular penult stress*
breed -BND	
"breeding room," "hatchery"	(2024-07-29(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS

/ *atapa* /	*root is underlyingly stressless*
/ [*atapa*]$_{vP}$ -$\emptyset$ /	*no overt suffixes in vP; stress not assigned*
/ [*a**tá**pa*]$_{TP}$ -*khû*$^{\emptyset}_{n}$ /	*penultimate stress assigned in the course of TP spell-out*
[*a**tá**pakhû*]$_{nP}$	*overwriting otherwise triggered by -khû*$^{\emptyset}_{n}$ BND *blocked: *[ata**pá**khû]*
breed -T -BND	
"room where (s/he) reproduced"	(2024-07-29(1)_mll)

Verbs destressed by the reciprocal -*khu*$^{\emptyset}_{i}$ RCPR or the passive -*ye*$^{\emptyset}_{i}$ PASS pattern with the underlyingly stressless ones. First, the inner dominant suffix deletes the stress (and glottalization) of the base (43). Then, in low nominalization, the classifier's regular phonology is applied (43a). High nominalizations undergo TP spell-out, whereby penultimate stress is assigned to the penultimate syllable. That functional-projection stress is then preserved even after the attachment of a nominalizer (43b).

(43) INFLECTED DESTRESSED VERBS

a. LOW NOMINALIZATION — REGULAR -*SFX*$^{\emptyset}_{n}$ STRESS

/ ***á**fa* /	*root is underlyingly stressed*
/ [***á**fa*]$_{vP}$ -*khu*$^{\emptyset}_{i}$ /	*no suffixes in vP*
/ [*afakhu*]$_{AspP}$ -*khû*$^{\emptyset}_{n}$ /	*stress is deleted by inner dominant -khu*$^{\emptyset}_{i}$ RCPR
[*afa**khú**khû*]$_{nP}$	*-khû*$^{\emptyset}_{n}$ BND *assigns penultimate stress to destressed verb*
speak -RCPR -BND	
"debating room," "debate room"	(2024-08-21(1)_mll)

b. HIGH NOMINALIZATION — VERB PENULT STRESS

/ ***á**fa* /	*root is underlyingly stressed*
/ [***á**fa*]$_{vP}$ -*khu*$^{\emptyset}_{i}$ /	*no suffixes in vP*
/ [*afakhu*]$_{AspP}$ -$\emptyset$ /	*stress is deleted by inner dominant -khu*$^{\emptyset}_{i}$ RCPR
/ [*afá**khu*]$_{TP}$ -*khû*$^{\emptyset}_{n}$ /	*penultimate stress assigned in the course of TP spell-out*
[*afá**khu**khû*]$_{nP}$	*overwriting otherwise triggered by -khû*$^{\emptyset}_{n}$ BND *blocked: *[afa**khú**khû]*
speak -RCPR -T -BND	
"room where (s/he) debated"	(2024-08-21(1)_mll)

Many of the aspectual suffixes delete their base's glottalization and reassign stress. For example, in imperfective -*ʔje*$^{\emptyset}_{i}$ IPFV assigns stress to the immediately preceding syllable if it is heavy (i. e. a diphthong) (44). I assume that when there is overt morphology present in AspP, the AspP projection undergoes phonological evaluation. Since AspP is a functional projection, it blocks the overwriting of stress even in the absence of the TP layer. As such, stress and glottalization are preserved in both low (44a) and high nominalizations (44b).

(44) ASPP-INFLECTED STRESSED VERBS

a. LOW NOMINALIZATION — STRESS/ʔ RETAINED

/ *chava -en* /	*root is underlyingly stressless*
/ [*chavaen*]$_{vP}$ -*ʔje*$^{\emptyset}_{i}$ /	*inner recessive -en*$_{i}$ CAUS *does not assign stress*
/ [*cha**váen**ʔjen*]$_{AspP}$ -*ʔthi*$^{\emptyset}_{i}$ /	*inner dominant -je*$^{\emptyset}_{i}$ IPFV *stresses preceding heavy syllable*
[*cha**váen**ʔjenʔthi*]$_{nP}$	*overwriting otherwise triggered by -ʔthi*$^{\emptyset}_{n}$ PLC *blocked: *[cha**váen**jenʔthi]*
buy -CAUS -IPFV -PLC	
"selling place," "store"	(2024-08-23(1)_mll)

5 In other syntactic circumstances, e. g. when followed by the verbal CP layer, a phonologically null TP does not undergo spell-out (Dąbkowski, 2024c). Thus, I propose that the phonological evaluation/spell-out of a projection may be conditioned not only by its morphological content, but also by its syntactic context. This is similar to Bošković (2014), who argues that phasehood is contextual, based on purely syntactic criteria, such as extraction availability and ellipsis.

b. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

/ *chava -en* /	*root is underlyingly stressless*
/ [*chavaen*]$_{vP}$ *-ʔje*$^{\emptyset}_{i}$ /	*inner recessive -en*$_{i}$ CAUS *does not assign stress*
/ [*cha**váen**ʔjen*]$_{AspP}$ *-∅* /	*inner dominant -je*$^{\emptyset}_{i}$ IPFV *stresses preceding heavy syllable*
/ [*cha**váen**ʔjen*]$_{TP}$ *-ʔthi*$^{\emptyset}_{i}$ /	*previously assigned stress/ʔ preserved in the course of TP evaluation*
[*cha**váen**ʔjenʔthi*]$_{nP}$	*overwriting otherwise triggered by -ʔthi*$^{\emptyset}_{n}$ PLC *blocked: *[cha**váen**jenʔthi]*
buy -CAUS -IPFV -T -PLC	
"place where (s/he) is selling"	(2024-08-30(1)_mll)

Finally, the presence of TP morphology logically entails the presence of the TP layer. All the TP affixes assign stress to their bases (some — only if the base is stressless). The spell-out of TP blocks the classifier's overwriting, so stress and glottalization are always preserved if one of the TP affixes (the plural subject *-ʔfa*$_{ii}$ PLS, the irrealis *-ya*$_{ii}$ IRR, or the negative *-mbi*$_{ii}$ NEG) is present (45a).

(45) TP-INFLECTED STRESSED VERBS

a. HIGH NOMINALIZATION — STRESS/ʔ RETAINED

/ ***rúʔ**nda* /	*root is underlyingly stressed and glottalized*
/ [***rúʔ**nda*]$_{vP}$ *-ʔfa*$_{ii}$ /	*no suffixes in vP; stress/ʔ retained*
/ [***rúʔ**ndaʔfa*]$_{TP}$ *-khû*$^{\emptyset}_{n}$ /	*outer recessive -ʔfa*$_{ii}$ PLS *does not shift stress*
[***rúʔ**ndaʔfakhû*]$_{nP}$	*overwriting otherwise triggered by -khû*$^{\emptyset}_{n}$ BND *blocked: *[runda**fákhû**]*
wait -PLS -BND	
"room where (they) waited"	(2024-08-23(1)_mll)

6 DISCUSSION AND CONCLUSIONS

In summary, I have presented a case of the A'ingae classifying nominalizers attaching to both nouns and verbs in a variety of morphosyntactic contexts. The main empirical point of interest is that the usual phonological operation triggered by these morphemes (the deletion of stress and glottalization) is blocked under specific syntactic conditions. This shows that the (morpho)phonological grammar can be—at least to some degree—sensitive to syntactic structure.

Specifically, I have proposed that the overwriting of stress and glottalization (ordinarily triggered by the classifiers) is blocked when the base of attachment has undergone phonological evaluation associated with a functional projection. This is to say, I propose that phonology may access the information on whether a suffix's base has undergone spell-out. Additionally, it must be able to distinguish between—at minimum—whether the spelled-out chunk is a categorizing or functional projection.

Granting phonology access to information about the (morpho)syntactic structure of previous cycles violates *bracket erasure* (Kiparsky, 1982). This challenges Kiparsky's (1982) framework of Lexical Morphology and Phonology, as well as all other frameworks which derive Kiparsky's (1982) bracket erasure as a corollary of their architectural assumptions, including Cophonology Theory (e. g. Anttila, 1997; Inkelas, 1998; Inkelas, Orgun, and Zoll, 1997; Orgun, 1996) and Cophonologies by Phase (e. g. Sande, 2017, 2019; Sande and Jenks, 2018; Sande, Jenks, and Inkelas, 2020).

At the same time, the distinction between two different phase types accords with previous research on morphophonological phasehood. For example, Newell (2008) proposes that functional and categorizing phase heads have different phonological and morphological properties. Likewise, Guekguezian (2021) speculates that in Muskogee, $n°$, $v°$, and Asp° may all be phase heads, but $n°$, $v°$ show a different behavior from Asp° when it comes to phonology, allomorphy, and allosemy.

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