

Making the remarkable regular: ‘Marked absolutive’ in Nias

(submitted to *Glossa*)

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Abstract: This paper examines the unusual ‘marked absolutive’ argument marking pattern observed in Nias Selatan. While previous work propose that Nias instantiates a ‘marked absolutive’ case pattern (Brown, 2001, 2005; Baker, 2015), I argue that this is not the case. Instead, I show that Nias’ argument marking system is a purely (morpho)-phonological process and that Nias’ ‘marked absolutive’ pattern is due to a conspiracy of this process’ sensitivity to syntactic domains (i.e. phases) interacting with independently active syntactic operations. Moreover, I show that on this proposal, Nias’ argument marking system is an instance of a class of cross-linguistically attested morpho-phonological processes that are sensitive to syntactic domains in the same manner. Further, I argue that this analysis is consequential in regards to the typology of attested case patterns.

Keywords: syntax-phonology interface, phases, case typology, PF domains

1 Introduction

The empirical focus of this paper concerns the unusual argument marking patterns observed in Nias Selatan (Austronesian; Indonesia) and its typological and theoretical implications for theorizing about case patterns. As illustrated in (1) and (2), Nias core arguments participate in an argument marking pattern (glossed as MUT), where the morpho-phonological form of the nominal undergoes a change that is seemingly dependent on grammatical role. Here, intransitive subjects and objects are marked to the exclusion of transitive subjects, which systematically surface unmarked.¹

¹ All Nias examples in this paper are from Brown 2001 and Donohue and Brown 1999. Beside Nias examples, the citation convention I use is B or DB, followed by page number, e.g. [B559] in example (1). In all Nias examples, I follow the orthography in Brown 2001, except in some cases where I diverge to more closely reflect phonological

- (1) ma=aso?a **duhituhi**
 PERF=fall MUT.trivet
 ‘The trivet stone fell.’ [B559]
tuhituhi → *duhituhi*

- (2) ?i-a **Bavi** ?ama Gumi
 3SG.RLS-eat MUT.pig father Gumi
 ‘Father Gumi eats pig.’ [DB61]
bavi → **Bavi**

Due to this seeming connection between the surface form of the argument and its grammatical role, a number of works have noted that Nias’ argument marking pattern resembles case marking patterns typically associated with ergative/absolutive case systems (Donohue and Brown, 1999; Brown, 2001, 2005; Corbett, 2006; Baker, 2015). That is, languages where the morphological form of intransitive subjects and objects (i.e. absolutive arguments) are grouped distinct from the morphological form of transitive subjects (i.e. ergative arguments). Building on this observation, such works have proposed that the argument marking pattern in (1) and (2) is, in fact, the realization of a ‘marked absolutive’ case system. Specifically, that the morpho-phonological change observed on intransitive subjects and objects is the realization of absolutive case (ABS) and that ergative case (ERG) is unmarked.

While a case-alignment based approach to Nias’ argument marking pattern appears to account for the apparent sensitivity to grammatical role in (1) and (2), I argue that this is not the correct approach. First, from a typological standpoint, such case-based approaches render Nias’ argument marking pattern an extreme typological outlier. In typological works on absolutive case patterns, it has been generally observed that either ERG is the marked case and ABS is unmarked or both ERG and ABS are marked with distinct forms. Crucially, across attested absolutive patterns, no language has been observed to exhibit a ‘marked absolutive’ pattern, where ABS is marked and ERG is the unmarked case (Dixon, 1994; Deal, 2014). Thus, on this approach, Nias’ ‘marked absolutive’ pattern (or unmarked ergative), would be the only attested instance of such a pattern. Given this situation, I propose that this is good reason to reevaluate Nias’ argument marking system as the realization of absolutive case. Second, from a language-internal standpoint, I show that a case-based approach to Nias’ argument marking pattern fails to predict the distribution of marked nominals outside of the basic case in (1,2). Specifically, I show that while the morpho-phonological marking may superficially appear to correlate with absolutive grammatical role in cases like (1,2), this correlation systematically breaks down across a range of cases. More generally, I show that the distribution of marked arguments in Nias does not clearly correspond to the prototypical distribution of ABS-marked arguments observed cross-linguistically. Further, I show that the distribution

form, e.g. in Brown 2001 <kh> in orthography represents the phoneme [x], and <ndr> for [dʳ], whereas in this paper I use the phoneme. For discussion of Nias orthographic conventions and its relation to phonetic description see Brown 2001: 21-49. Glosses follow Leipzig glossing conventions. Additional glossing abbreviations follow Brown 2001: ASS= associative; COLL= collective; DIST= distal; DYN= dynamic verb-forming prefix; HAVE= verb forming prefix; MUT= mutated form; RES= resultative verb forming affix; RLS=realis; ST= stative prefix; TR=transitive verb forming affix.

of marked arguments in Nias does not, in general, correspond to any type of grammatical role.

In light of the above issues, I will propose a reevaluation of Nias’ ‘marked absolutive’ case system, showing that what conditions argument marking is not the grammatical role of the argument but, rather, the structural position the nominal is located in at spell-out to PF. In particular, that argument marking is a purely morpho-phonological process that occurs when the nominal and trigger are spelled out in the same phase, and that the apparent ‘marked absolutive’ pattern is simply a PF reflex of transitive subjects systematically being outside of the argument-marking domain. This situates Nias’ argument marking system in the class of other morpho-phonological processes that are sensitive to syntactic position in this way, e.g. external sandhi processes (Seidl 2001; d’Alessandro and Scheer 2015; Bošković 2017, *i.a.*). The theoretical contributions of this paper are two-fold. First, I show that this approach, where argument marking is a purely morpho-phonological process, has a far greater empirical coverage than the case approach. Second, on an approach where argument marking is purely a morpho-phonological surface effect, the typology of attested case patterns is further restricted by eliminating the only attested ‘marked absolutive’ case pattern.

The paper is structured as follows. §2 outlines the argument marking paradigm for core arguments and the marking-as-case approach to the pattern. §2.2 presents the empirical and theoretical challenges for the case approach. In §3, I develop the new approach to Nias argument marking and shows that this approach captures the empirical distribution of argument marking and situates Nias’ system within a broader cross-linguistic pattern of mutation phenomena. §4 concludes.

2 Argument marking patterns and the case analysis

As illustrated below in (3), default word order in Nias is VO(X)S, where internal arguments surface clause-medially and subjects consistently surface clause-finally. Additionally, as shown in (4), Nias productively allows for null subjects (Brown, 2001, 2005).

- (3) ?i-be?e gefe xö zodʼöröu ?ama Dali
3SG.RLS-give MUT.money DAT MUT.healer Ama Dali
‘Ama Dali gave money to the village healer.’ [B269]
- (4) ?u-sura zura e
1SG-write MUT.letter
‘I wrote a letter.’ [B319]

As observed in Donohue and Brown 1999; Brown 2001, 2005, core arguments in Nias participate in an argument marking pattern— termed ‘nominal mutation’ (Brown, 2001, 2005)— where

nominals undergo a morpho-phonological change to the initial segment of the stem, as in Tab. 1.²

Unmarked	V	f	t	s	c[tʃ]	k	ʔ	b	d	m	n	l	r	dʳ
Marked	n-V	v	d	z[ɕ]	z[ɕ]	g	g	ɓ	dʳ	-	-	-	-	-

Table 1: Mutation Pattern

In the case of intransitive clauses, the subject is consistently marked. As illustrated in (5a), the unergative subject *iβania* (‘her sister’) surfaces with a prothetic nasal, i.e. *niβania*. Similarly, in (5b), the initial [t] of unaccusative subject *tuhituhi* (‘trivet stone’) undergoes voicing, i.e. *duhituhi*.

- (5) a. m-eʔe **niβa-nia**
 DYN-cry MUT.sibling-3SG.POSS
 ‘Her sister is crying.’ [B118]
- b. ma=asoʔa **duhituhi**
 PERF=fall MUT.trivet
 ‘The trivet stone fell.’ [B559]

In the case of transitive clauses, objects are marked in the same way as intransitive subjects. As shown below in (6a), the object *sawi* undergoes voicing surfacing as *zawi* and in (6b) the object *bavi* undergoes trilling surfacing as *bavi*. Importantly, in the case of transitive subjects, these arguments consistently surface unmarked, i.e. *Fasui* and *ʔama Gumi* in (6a) and (6b), respectively.

- (6) a. ma=i-uri **zawi** Fasui.
 PERF=3SG.RLS-keep MUT.cattle Fasui
 ‘Fasui kept cattle.’ [B366]
- b. ʔi-a **bavi** ʔama Gumi
 3SG.RLS-eat MUT.pig father Gumi
 ‘Father Gumi eats pig.’ [DB61]

To summarize what the data appear to show is that the surface form of core arguments in Nias appear to be conditioned by grammatical role. In the case of absolutive arguments (i.e. intransitive subjects and objects) the argument is marked; in the case of ergative arguments (i.e. transitive subjects) the argument surfaces unmarked.

2.1 The case analysis

As was shown, in Nias intransitive subjects and objects, are grouped distinctly from transitive subjects with respect to morphological form. In this respect, Nias’ argument marking pattern seemingly parallels ergative-absolutive case patterns attested cross-linguistically. That is, languages

²As in Tab. 1, when orthography and IPA conventions diverge in tables, I include the IPA representation in parentheses beside the orthography.

where case morphology differentially marks ergative arguments from absolutive arguments (Blake, 1994; König, 2008). To illustrate this point, consider Warlpiri where intransitive subjects (7a) and objects (7b) are unmarked, while transitive subjects are marked with the ERG suffix *-ngku* (7b).

- (7) a. kurdu ka wanka-mi
 child.ABS PRS.IMPF speak-NPST
 ‘The child is crying.’
 b. Ngarrka-**ngku** ka wawirri panti-rni
 man-ERG PRS.IMPF kangaroo.ABS spear-NPST
 ‘The man is spearing the kangaroo.’ (Hale 1983: 13,6)

Similarly, Niuean intransitive subjects (8a) and objects (8b) are marked with the ABS particle *e*, while transitive subjects (8b) are marked with the ERG particle *he*.

- (8) a. Ne fano **e** tehina haaku.
 PST go ABS brother POSS
 ‘My little brother went.’
 b. Ne kai **he** puti ia **e** moa.
 PST eat ERG cat DEM ABS chicken
 ‘The cat ate the chicken.’ (Seiter 1980: 29)

In both Warlpiri and Niuean absolutive arguments are morphologically distinguished from ergative arguments. In this respect, Nias’ argument marking pattern parallels Warlpiri and Niuean’s patterns. As shown, Nias intransitive subjects (5a,5b) and objects (6a,6b), are morphologically distinguished from transitive subjects (6a,6b), by undergoing a morpho-phonological change to the initial segment of the nominal.

Given this surface parallel between absolutive case systems and Nias’ argument marking pattern, previous work has hypothesized that Nias realizes a ‘marked absolutive’ case system (Donohue and Brown, 1999; Brown, 2001, 2005; Corbett, 2006; Baker, 2015). Specifically, that the marking observed on absolutive arguments is the morphological realization of [ABS] and the absence of such marking with [ERG]—i.e. the morphologically unmarked case, as in (9), where MUT represents the abstract morpheme that triggers the phonological change (as shown in Tab. 1).

- (9) Case exponents:
 a. [ABS] ↔ MUT
 b. [ERG] ↔ ∅

Building on the case hypothesis, Baker (2015) proposes that the distribution of marked arguments in Nias is due to a specific parameterization of dependent case assignment, where ABS is the

dependent or ‘marked’ case in Nias. On this proposal, ABS is assigned to an argument in a case assignment domain in contexts where that nominal does not c-command another argument.

(10) Nias marked ABS dependent case assignment:

- a. Assign NP₁ ABS, if there is no other NP₂ in the same dependent case domain (i.e. IP) as NP₁, such that, NP₁ c-commands NP₂;
- b. Otherwise, NP₁ is ergative, i.e. unmarked. (Syntax)

(11) [ABS] → MUT (PF)

On this approach, the case rule in (10) assigns ABS to intransitive subjects and objects due to not c-commanding another NP inside the IP case assignment domain. Since transitive subjects c-command the object, transitive subjects are unmarked.

Importantly, on this proposal, case assignment in Nias closely parallels case assignment in other, typologically more typical, ‘marked ergative’ languages, e.g. Warlpiri and Niuean. In such languages, the case algorithm is also sensitive to c-command relations between arguments. However, the key difference is that while in Nias the case assignment algorithm is parameterized to mark arguments that do not c-command other arguments, i.e. absolutes, in marked ergative languages the algorithm is parameterized to mark arguments to do c-command another arguments, i.e. ergative arguments, as in (12).

(12) Marked ERG dependent case assignment:

- a. Assign NP₁ ERG only if, there is an NP₂ in the same case domain (i.e. IP) as NP₁, such that, NP₁ c-commands NP₂;
- b. Otherwise, NP₁ is absolute.

Thus, the surface marking pattern observed with Nias’ arguments is derived in terms of an underlying absolute case system paralleling other absolute case systems, e.g. Warlpiri and Niuean. On this analysis, the difference is that in Nias ABS is the marked case and in other languages ERG is. More generally, on the case hypothesis, the marking observed on absolute arguments (and its absence on ergatives) is directly tied to the presence/absence of [ABS], which is realized as mutation, as in Tab. 1.

2.2 Challenges for case

While the case hypothesis has a degree of plausibility in the case of the surface pattern observed with core arguments, there are range of contexts where an argument is marked despite not being a prototypical absolute argument.

The first case where nominals are marked despite not being absolutive arguments is with oblique arguments. That is, argument which are introduced by a preposition and typically surface with a case form associated with the preposition, e.g. dative (DAT) or locative (LOC) case. As shown below in (13a,13b), nominals preceded by the dative preposition *xö* must be marked. Similarly, nominals preceded by the locative preposition *ba*, as in (13c) must be marked.

- (13) a. ʔI-beʔe gefe [xö zɔdʰöröu] ʔama Dali
3SG.RLS-give MUT.money DAT MUT.healer Ama Dali
‘Ama Dali gave money to the village healer.’ [B269]
- b. La-tema ganaʔa [xö ziʔila]
3PL.RLS-receive MUT.gold DAT MUT.advisor
‘They received gold from the advisor’ [B350]
- c. ʔu-fa-cibo zexula [ba zumo]
1SG.RLS-DYN-throw MUT.coconut LOC MUT.well
‘I threw the coconut into the well.’ [B229]

Second, genitive nominals consistently surface with mutation. As shown in (14a, 14b), the possessors *ohi* ('coconut tree') and *banua* ('village') surface as *nohi* and *banua*, respectively.

- (14) a. bulu **n**ohi
leaf MUT.coconut.tree
'Leaf of coconut tree' [B348]
- b. ?ono **B**anua
child MUT.village
'Child of the village' [B374]

Third, in experiencer constructions, as in (15), both experiencer and stimulus must be marked.

- (15) ʔa-taʔu [baʔe]_{EXP} [nono matua]_{STIM}
ST-fear MUT.monkey MUT.child male
'The monkey is afraid of the boy' [B344]

On the preceding hypothesis, where argument marking is the realization of [ABS], the above instances of argument marking are unexpected. Assuming that in (13a,13b,13c) the prepositions *xö* and *ba* assign an oblique case to their complement, i.e. [DAT] and [LOC] respectively, then these arguments are expected to surface with a morphologically distinct case form than the one observed with prototypical absolutive arguments (which are presumably ABS-marked). Similarly, in the case of the possessors in (14a,14b), these nominals are expected to have a morphologically distinct form given that such arguments typically bear [GEN] and not [ABS]. Finally, in the case of the experiencer construction in (15), both subject and object share the same morphological form regarding argument marking, despite the subject not being a prototypical absolutive argument.

Given that the distribution of argument marking extends beyond prototypical absolutive arguments to obliques, genitives, and experiencer subjects, I argue that approaches that posit Nias

as exhibiting an underlying absolutive case system must also posit that Nias exhibits an implausibly high degree of case syncretism. Namely, a syncretism between all cases except for ERG, i.e. ABS=OBL=GEN. Although case syncretism is well-attested in ergative-absolutive case systems (Dixon 1994; Zompì 2017, 2019; Smith et al. 2019, *i.a.*), the key issue is that for Nias this requires positing syncretism between all cases except for ERG.

The problem with positing this kind of syncretism is the following. Given that ABS-marking among core arguments has a wider distribution than ERG-marked core arguments in Nias (intransitive subjects and objects *vs.* transitive subjects), ABS is distributionally less marked than ERG (Dixon, 1994). Moreover, it has been observed cross-linguistically that among syncretism patterns between core and peripheral cases, i.e. syncretism between ABS/ERG and cases that surface on obliques (e.g. LOC), the peripheral case will be syncretic with the distributionally marked case. That is, in absolutive/ergative systems the peripheral case(s) will be syncretic with ERG (Blake, 1994; Zompì, 2017, 2019; Smith et al., 2019). However, in Nias this type of syncretism is not what is observed. Instead, on the case approach the key posit is that all peripheral cases are syncretic with the distributionally unmarked ABS case form. In this respect, on the case approach Nias' argument marking pattern is rendered a typological outlier with respect to attested possible case syncretism patterns (in addition to displaying an otherwise unattested 'marked absolutive' case pattern).³

An additional challenge for the case approach is that in a range of cases prototypical absolutive arguments surface unmarked. Given that on the case approach the absence of argument marking is the zero-realization of ERG, this is also not expected. As shown below clause-initial nominals, e.g. topicalized (16) and focused nominals (17), consistently surface unmarked. In both (16,17) the arguments *si?o* and *ja?ugö* are both absolutive arguments, i.e. objects, but do not surface marked.

- (16) *si?o hö?ö ma=i-taru?-ö ba danö*
 stick DIST.DEM PERF=3SG.RLS-plant-TR LOC MUT.ground
 'That stick, he planted in the ground.' [B361]

- (17) *ha ja?ugö ?ö-fa-manömanö-si*
 only 2SG 2SG.RLS-DYN-talk-APP
 'You're just talking about yourself.' [B175]

If argument marking is the realization of ABS and its absence the realization of ERG, then topicalization/focalization of an argument, as in (16,17), should not result in a change in case form, i.e. a switch to ERG.

³Note, that on an approach to case that assumes a case containment hierarchy, where $ABS \subset ERG \subset OBL$, positing an ABS=OBL syncretism is an instance of an ABA syncretism pattern (in the sense of Bobaljik 2012), which is predicted to, quite generally, be an impossible pattern (Zompì, 2019).

Additionally, relativized arguments also consistently surface unmarked. As shown in (18a,18b), the intransitive subjects (i.e. absolutive argument) have undergone relativization to a higher clause-initial position and surface unmarked.

- (18) a. so samösa si=möi
 EXIST someone REL=go
 ‘There’s someone who is coming.’ [B135]
- b. ?adu s=a-ma-kobu
 statue REL=IMPV-DYN-sit.on.haunches
 ‘The statue of the man sitting on his haunches...’ [B240]

Assuming that relativization in (18a,18b) is due to \bar{A} -movement to a higher position in the clause, movement to a higher position should not result in a change in case form. Cross-linguistically, this is what is observed regarding the distribution of ABS-marking under \bar{A} -movement. As illustrated in (19a,19b) with Niuean, ABS-marked arguments retain their case morphology under \bar{A} -movement, e.g. relativization. In (19a,19b), the absolutive arguments have been relativized and the ABS particle *e* is retained.

- (19) a. **e** mena (ne) kua taute **e** Sione
 ABS thing PRS PERF ERG Sione
 ‘The thing that Sione has fixed.’
- b. **e** tama ne hau i Makefu
 ABS child PRS come from Makefu
 ‘The child who comes from Maekfu’ (Massam 1995: 87, 86)

Thus, on an approach where the presence/absence of morphological marking on nominals is the realization of case in Nias, the observation that this marking is lost under \bar{A} -movement is highly unexpected.

Finally, promoted subjects in passive constructions, quite generally surface unmarked in Nias. As (20a,21a) show, the promoted subject surfaces in a clause-initial position. However, in both (20a,21a) the promoted subject surfaces unmarked (cf. (20b,21b)).

- (20) a. ?ahebatö ni-tefe=gu ?idanö
 floor PASS-sprinkle=1SG.POSS water
 ‘The floor that I sprinkled with water. [B553]
- b. ?u-tefe gahebatö ?idanö
 1SG.RLS-sprinkle MUT.floor water
 ‘I sprinkled the floor with water.’ [B552]
- (21) a. ba?a ni-fönu-i=nia ?idanö
 tub PASS-fill-TR=3SG.POSS water

‘The bak which she filled with water.’ [B554]

- b. ʔi-fönu-i baʔa ʔidanö
3SG.RLS-fill-TR MUT.tub water

‘She the bak (water tub) with water.’ [B553]

Assuming that the Nias passive involves valency reduction, i.e. detransitivization, on the case hypothesis, the promoted subjects in (20a,21a) should bear ABS and, thus, surface marked. However, as (20a,21a) show, under passivization the promoted subject surfaces unmarked. Further, given that ERG is the putative morphologically unmarked case, this would suggest that under the passive, the promoted subject is marked with ERG, which is highly unexpected given that ERG marks nominals that are transitive subjects and, thus, should be absent on the subject in (20a,21a). From a cross-linguistic perspective, this is what is observed. Namely, that in constructions that involve detransitivization, ERG morphology is absent on the sole argument. As illustrated below, in (22a), in Inuktitut transitive subjects surface with the ERG suffix *-up*. But in constructions where the verb is marked with the valency reducing anti-passive *si-*, the subject loses ERG and surfaces with ABS, which is the unmarked case in Inuktitut.

- (22) a. Taiviti-**up** surak-tanga igalaaq
David-ERG break-3S.S/3SO window.ABS
‘David broke the window.’

- b. Taiviti surak-**si**-juq igalaar-mik
David.ABS break-AP-3S.S window-MOD
‘David broke the window.’

(Yuan 2018: 28, 29)

The key point here is that, cross-linguistically, detransitivization correlates with the absence of ERG-marked arguments, where the sole argument is ABS-marked, as illustrated with Inuktitut. However, in Nias the reverse appears to be the case, as (20a,21a) show, under passivization the promoted subject is no longer mutated and surfaces unmarked. In this respect, the distribution of mutation under passivization crucially differs from the distribution of ABS and ERG-marked nominals in these constructions cross-linguistically.

Given the above facts, I conclude that the distribution of mutated and unmutated arguments, quite generally, does not correspond to grammatical role. First, it was shown that in several contexts, non-absolute arguments, i.e. oblique (13a,13b,13c), genitive (14a,14b), and subject experiencer (15) arguments, consistently undergo mutation. Second, it was shown that arguments which are presumably absolute, i.e. (16-21a), consistently fail to undergo mutation when dislocated to a clause-initial position. Tab. 2 summarizes these facts.

CONTEXT	MUTATION
Intransitive subjects	✓
Direct objects	✓
Oblique arguments	✓
Genitive arguments	✓
Experiencer subjects	✓
Trans. subject	✗
Promoted subjects in passives	✗
Clause-initial nominals	✗

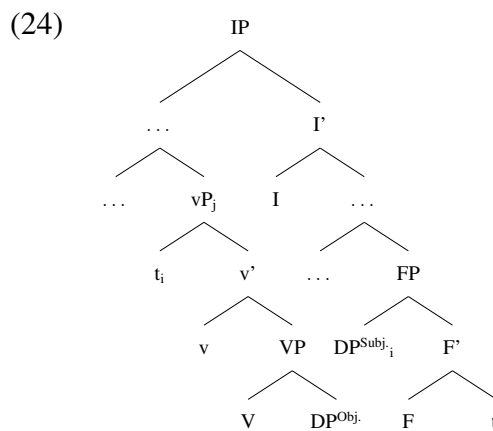
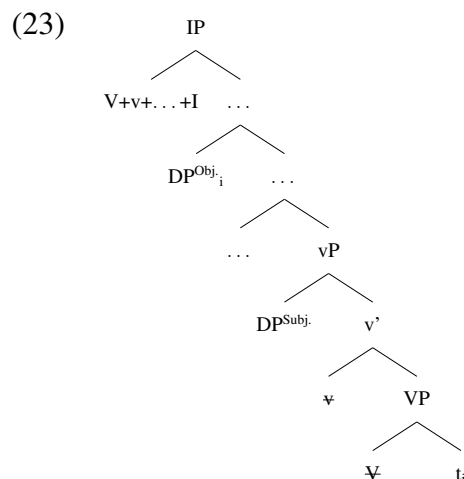
Table 2: Argument marking environments

2.3 Challenges for mutation as dependent case

A core feature of the dependent case approach to argument marking is that the distribution of ABS-marking in Nias is regulated by whether a given nominal does not c-command another nominal in the syntax (Baker, 2015). However, further examination of Nias' clausal syntax indicates that whether a nominal is marked (or not) does not depend on whether that argument does not c-command another. In particular, I argue that due to Nias' V-initial order being derived through phrasal vP-fronting (rather than V-to-X movement, cf. Baker 2015), in transitive clauses the subject and object systematically, fail to stand in a c-command relation with each other, and, thus, should both be marked per the dependent case rule in (10).

Previous research on V-initial languages propose that such orders are derived either by V-to-X movement (Koopman 1984; Travis 1984; Guilfoyle et al. 1992, *i.a.*) or by predicate vP/VP-fronting (Massam 2001; Massam and Smallwood 1997; Chung 2005; Coon 2010, *i.a.*). On the V-to-X analysis, Nias' VOS order would be derived as in (23), where V undergoes head-movement to a higher functional head in the inflectional domain, e.g. I^0 , and the object DP undergoes movement to a position above the subject DP (or the subject DP projects as a right-side Spec of IP, as in Guilfoyle et al. 1992). Conversely, on the vP-fronting approach, as in (24), the subject DP raises out of the predicate phrase and the remnant vP fronts to a Spec, above the subject DP, i.e. SpecIP, pied-piping the *in situ* object DP with it (see Cole and Hermon 2008 for an analysis of this type for Toba Batak).⁴

⁴For expository purposes, I have collapsed VoiceP and vP into a single projection (i.e. vP). While it may be the case that the Nias verbal field involves the projection of a VoiceP (cf. Toba Batak Cole and Hermon 2008), whether VoiceP projects does not make a material difference to the present discussion.



I argue that evidence from surface order of vP-internal elements and binding indicate that Nias' VOS order is derived by phrasal movement, i.e. (24).

As shown below in (25a,25b), frequency adverbs must precede the verb in the clause-initial position.

- (25) a. **toʔölö** la-agö xö d'a-Gusti
 usually 3PL.RLS-stay DAT MUT.COL-Gusti
 'Usually they stay with Gusti's family' [B484]
- b. **ʔasese** la-fake gorokoro ʔira-ina meföna
 often 3PL.RLS-use MUT.scoop ASS-mother in.early.days
 'In the early days, women often used scoops' [B485]

Assuming that such adverbs are adjoined/base-generated low in the verbal field (Jackendoff, 1972; Alexiadou, 1997; Cinque, 1999), the fact that they must surface clause-initially, preceding the main V, is indicative of phrasal movement. In particular, on a phrasal movement approach, the above facts are easily accounted for in terms of extended verbal projection, i.e. vP, undergoing fronting where such elements, e.g. adjuncts, are pied-piped (Chung, 2005; Clemens and Polinsky, 2017; van Urk, 2024). In contrast, on a V-to-X approach, such elements should be stranded lower in the structure, and, thus, should not surface clause-initially preceding the main V.

Similarly, as shown in (26a,26b) directional particles must surface adjacent to the main verb.

- (26) a. ma=aekxu **tou** viga
 PERF=fall down MUT.plate
 'All the plates fell down' [B479]
- b. möi **lawä** böli z=o-guna
 go up MUT.price REL=HAVE-need
 'The prices of goods are going up.' [B150]

Following the assumption that directional particles are base-generated vP-internally (Emonds, 1973; Neeleman and Weerman, 1993; Harley and Noyer, 1998; Ramchand and Svenonius, 2002; Drummond, 2023), the fact that such particles are surface-adjacent to the clause-initial V, further indicates that V-initial order is the result of phrasal movement. If V-initial order were due to V-to-X movement, then the directional particles should be stranded clause-finally in their base-generation position inside the vP-remnant.

Further evidence for vP-fronting comes from binding facts. As shown below in (27), Nias does not morphologically distinguish between pronouns and reflexive anaphors (Brown 2001: 124) (cf. the same pattern in Chamorro, Chung 1989). Thus, in many cases, e.g. (27a,27b), Nias proforms are ambiguous between a free pronominal and a bound anaphoric interpretation.

- (27) a. ?i-bunu ja (ja?ia).
 3SG.RLS-kill 3SG.MUT 3SG
 ‘He killed him/ himself.’ [B542]
- b. ?i-bini-?o ja *pro*
 3SG.RLS-hide-TR MUT.3SG
 ‘He hid him/himself’ [B541]

On a vP-fronting analysis the availability of local binding of the object proform is straightforwardly predicted. Assuming that the object remains *in situ* and fronts with the vP to a position above the subject (as in (24)), the object and subject DPs do not c-command each other and, thus, the two pronouns can be co-indexed without triggering a Condition B violation. Conversely, on a V-to-I raising analysis (23), a bound interpretation should not be available due to the fact that the object DP moves to Spec that c-commands the subject DP, and, thus, inducing a Condition B violation.⁵ Thus, I interpret the availability of locally bound object proforms as further evidence for a predicate phrase-fronting approach to Nias VOS.

Given that Nias’ VOS order is due to subject raising plus fronting of the vP-remnant, I argue that this poses a challenge for an approach that analyzes Nias’ argument marking in terms of dependent case. As discussed in the previous section, on this approach a DP is assigned ABS in contexts where that DP fails to c-command another DP within the case assignment domain (i.e. the IP domain). However, assuming that the underlying structure of Nias’ transitive clause is derived as in (24), then neither argument stands in a c-command relation with the other argument. Thus, per the case assignment rule in (10), both arguments should be assigned ABS and surface marked (contrary to fact).⁶

⁵Note as well that on an analysis of VOS, where V raises, the subject DP is located in a rightward SpecIP, and the object DP remains inside the vP/VP (Guilfoyle et al., 1992), a reflexive interpretation of the object proforms in (27) are not predicted to be possible. On this analysis the subject DP c-commands the object DP, and, thus we should expect a Condition B violation here too.

⁶One could assume (and departing from Baker 2015) that in Nias transitive constructions, the dependent case rule

A further issue with approaches that treat Nias’ argument marking pattern in terms of dependent case comes from the argument marking observed with passive constructions (e.g. 21a) (and repeated below).

- (21a) *baʔa ni-fönu-i=nia* *ʔidanö*
 tub PASS-fill-TR=3SG.POSS water
 ‘The bak which she filled with water.’ [B554]

As previously discussed, in the Nias passive the promoted subject surfaces clause-initially and, crucially, is unmarked. However, per the dependent case rule in (10), if an argument does not c-command another argument, then it is assigned ABS. Assuming that the passive in (21a) involves valency reduction, and that *baʔa* (‘tub’) is the sole argument, then per the dependent case analysis, the promoted subject should be ABS-marked. However, contrary to fact, the promoted subject must surface unmarked.⁷

Thus, the key issue for a dependent case approach to the distribution of argument marking in Nias is that such an approach predicts a tight correlation between the presence/absence of argument marking and (anti)-c-command. However, as shown this correlation fails to hold. Given that the distribution of argument marking does not depend on whether (or not) the argument stands in a c-command relation to another argument, this indicates that the distribution of argument marking is not a reflex of dependent case assignment.

2.4 Summary

To summarize, this section showed that the distribution of marked and unmarked arguments, quite generally, does not clearly correlate with the grammatical role of the argument. First, it was shown that argument marking occurs on a number of arguments that are not traditionally marked with ABS, e.g. oblique arguments. Second, it was shown that clause-initial arguments consistently fail to be marked, even when the argument is an absolutive. On an approach where argument marking is regulated by the presence of ABS (and the absence of marking with ERG), these facts are highly unexpected. That is, the distribution of marked arguments does track with the prototypical distribution of ABS-marking observed cross-linguistically. Further, I showed that on an approach where

applies prior to the subject DP raising out of SpecvP (and vP-fronting) such that the subject DP c-commands the object DP from SpecvP, and, thus, bleeds ABS-assignment to the subject DP in transitives. However, this proposal would require an additional parameterization of the case algorithm, where vP is the dependent case assignment domain for ABS/ERG in Nias, but in all other languages, e.g. Warlpiri, IP is the dependent case assignment domain for ABS/ERG. Further, it has been proposed that vP is the dependent case assignment domain for DAT (Baker, 2015; Yuan, 2020). If this is the case, then Nias’ case algorithm would require further parameterization, such that the ABS/ERG and DAT-assigning case domains do not coincide with both being the vP.

⁷Note that in (21a) the nominal *ʔidanö* is not an argument but rather is an instrumental adjunct, which quite generally are unmarked in Nias (Brown, 2001).

Nias argument marking is due to a dependent case rule (as in Baker 2015), these issues are further compounded due to such an account requiring all marked arguments in Nias to not only correlate with absolutive grammatical role but that such arguments must not c-command other arguments, which is not the case in Nias.

3 New analysis

The previous section showed that while in a restricted range of contexts morphological marking correlates with absolutivity, this correlation does not hold in the general case. In this section, I develop a new analysis of Nias' argument marking, which does not depend on grammatical role. The starting point for this analysis comes from the novel generalization regarding the distribution of marked arguments. Namely, that whether an argument surfaces as marked (or not) in Nias is conditioned by whether (or not) the argument is realized within the same spell-out domain as an argument-introducing head.

3.1 The syntax of argument marking

As was shown in the previous section, the correlation between the presence/absence of argument marking and grammatical role systematically breaks down in a well-defined range of cases. In this section, I will argue that the correct generalization that captures the distribution of marked arguments is the following:

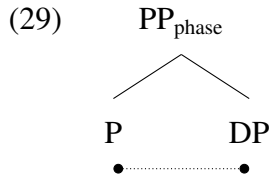
- (28) If a nominal is spelled out in the same phase domain as an argument-introducing X^0 , then the nominal is marked with MUT.

Before turning to the contexts where generalization in (28) applies, I will outline two assumptions. First, following previous works, (Uriagereka 1999; Chomsky 2001, *i.a.*) I assume that syntactic structure is sent to PF in 'chunks', where terminal nodes are replaced with vocabulary items and the structure is linearized and, subsequently, phonological processes apply. Moreover, I adopt the assumption that the relevant 'chunks' that are sent to spell-out correspond to syntactic phases (Fox and Pesetsky 2005; Bošković 2016, *i.a.*). Thus, (28) is a generalization that holds at the point where the phase is spelled-out to PF. Second, regarding which phrases count as phases, I adopt the proposal developed in Bošković 2014, that the highest element in the extended domain of a lexical head delimits a phase domain. Thus, on this approach (and what is relevant here), the highest phrases in the extended domain for every argument-introducing head, i.e. V, P, N, delimits a phase.⁸

⁸While Bošković 2014 includes lexical adjective heads, i.e. A^0 , as heads that have a phase domain and, thus, are

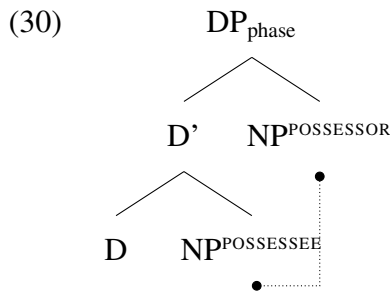
Consider now the distribution of marked arguments in Nias. As was shown, oblique arguments, e.g. dative arguments (13a) are always marked. Assuming that the nominal is generated inside a PP as a complement to the argument introducing preposition *xö*, as in (29), then argument marking correlates with the DP inside the PP phase when the structure is sent to PF where it is marked with MUT.

- (13a) *?i-be?e gefe [PP xö zod'öröu] ?ama Dali*
 3SG.RLS-give MUT.money DAT MUT.healer Ama Dali
 'Ama Dali gave money to the village healer.' [B269]



Similarly, in possessive constructions, the possessor is always marked and is adjacent to the possessee, as in (14a). Assuming that Nias' possessor constructions involve the structure in (30) where POSSESSEE-POSSESSOR order is due to the POSSESSOR being located in a right-side Spec, when (30) is sent to PF the the POSSESSOR will be inside the DP phase with the head NP.⁹

- (14a) *bulu nohi*
 leaf MUT.coconut.tree
 'Leaf of coconut tree' [B348]



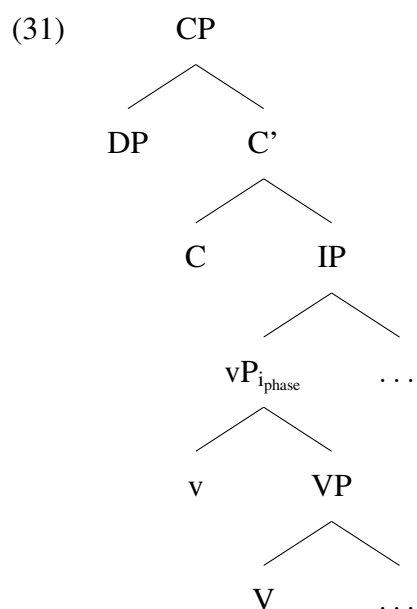
phase delimiting, A^0 is omitted from the present discussion for two reasons. First, as discussed in Brown 2001, it is not clear whether Nias instantiates A^0 as a lexical category (although see Baker 2003 and Chung 2012 for discussion and an alternative approach to this issue regarding the status of lexical A^0 in Austronesian). Second, given that A^0 does not introduce arguments, i.e. DPs, it is not relevant for the generalization in (28) and, thus, is omitted.

⁹Evidence that Nias possessive constructions involve right-side Specs comes from the observation that Nias allows for multiply embedded possessors, as in (i). Assuming that the complex nominal in (i) involves multiple DP layers, that possessors are uniformly on the right-side is indicative of successive rightward Specs.

- i. *A-bölö-bölö [liwaliwa d'aha geu hö?ö]*
 ST-REDUP-strong MUT.movement MUT.branch MUT.tree DIST.DEM
 'The movement of the branches of that tree is very strong.' [B383]

Consider now the cases where a nominal surfaces in a clause-initial position, e.g. topicalization (16) constructions, and the nominal is unmarked. In (16), the nominal is located in a clause-initial position, e.g. SpecCP, as illustrated in (16). Importantly, in this position, the nominal is not in the same phase as the argument-introducing V, which is inside the vP phase. Thus, when the clause-initial nominal is spelled-out in the CP phase, (28) will not hold, and the nominal will be unmarked.

- (16) siʔo hōʔö ma=i-taruʔ-ö ba danö
 stick DIST.DEM PERF=3SG.RLS-plant-TR LOC MUT.ground
 ‘That stick, he planted in the ground.’ [B361]



A similar effect is observed in Nias passive constructions. As shown in (21a), in passives the promoted subject surfaces in a clause-initial position and is unmarked.

- (20a) ʔahebatö ni-tefe=gu ʔidanö
 floor PASS-sprinkle=1SG.POSS water
 ‘The floor that I sprinkled with water.’ [B553]

Further, in cases of object extraction, e.g. with *wh*-movement as in (32a,32b), the object is clause-initial and the verb must be marked with the passive morpheme.¹⁰

- (32) a. hata ni-base-ʔö-u?
 who PASS-wait-TR-2SG.POSS

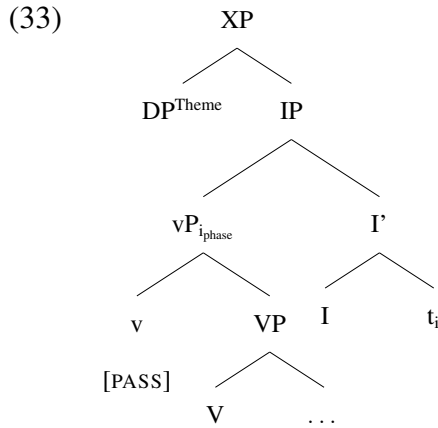
¹⁰In this respect, Nias displays an \bar{A} -extraction asymmetry that is typologically common in Austronesian. Namely, that only logical subjects can undergo \bar{A} -movement from their base position, while logical objects must first undergo an additional operation, e.g. passivization, that feeds \bar{A} -movement (Keenan and Comrie 1977; Rackowski and Richards 2005, *i.a.*)

‘Who are you waiting for?’ [B255]

- b. haija **ni**-waö-nia xö-u?
 what PASS-say-3SG.POSS DAT-2SG.POSS

‘What did he say to you?’ [B350]

That passivization is required for object extraction and that promoted subjects quite generally surface clause-initially, I argue suggests that promoted subjects are external to the vP-phase. Given that promoted subjects are vP-external, they are spelled-out in a domain without an argument introducing head and, thus, surface unmarked, as in (33).



To summarize what has been shown so far, in the case of obliques, genitives, clause-initial dislocated arguments, and promoted subjects, the generalization in (28) clearly tracks when an argument will be marked with mutation and when it will surface unmarked. In cases where the nominal is spelled-out in the same domain an argument introducing head, the nominal is marked. In the cases where the nominal is spelled-out in a domain that is distinct from the argument introducing head, it is unmarked.

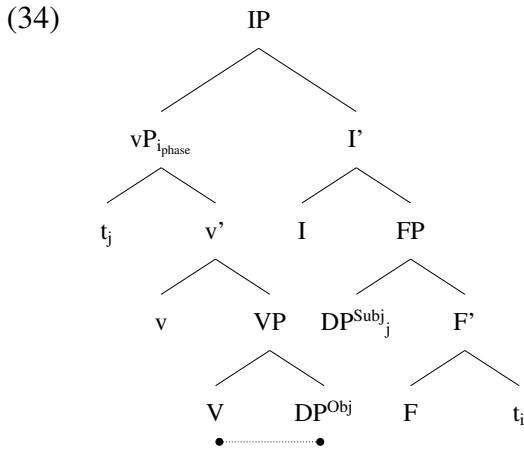
3.1.1 Deriving the core argument pattern

As was shown (and repeated below), intransitive subjects (5b) and objects (6a) are consistently marked to the exclusion of transitive subjects (6a), which surface unmarked.

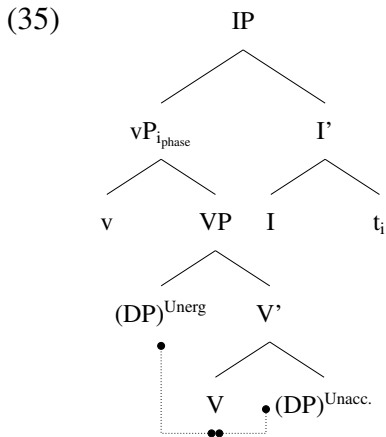
- (5b) ma=aso?a **duhituhi**
 PERF=fall MUT.trivet
 ‘The trivet stone fell.’ [B559]

- (6a) ma=i-uri **zawi** Fasui.
 PERF=3SG.RLS-keep MUT.cattle Fasui
 ‘Fasui kept cattle.’ [B366]

Consider first transitive constructions, and how the structure of such clauses bears on the generalization developed in (28). As argued for in §2.3, the Nias transitive clause involves the subject DP raising to a clause-medial position, i.e. SpecFP, out of the vP and the vP-remnant fronting with the object remaining vP-internal, as in (34). Importantly, this means that while the object remains within the vP phase, the subject is located outside of the vP phase in SpecFP. Consequently, the subject is not located within the same phase as an argument introducing head, i.e. V. Thus, given the structure of transitive clauses the arguments adhere to the generalization in (28) where the object surfaces marked but the subject does not.



Consider now intransitive constructions, as in (5b) where the subject always surfaces marked. I argue that intransitive subjects uniformly remain within the vP phase, which I provide independent evidence for below. Because of this, they are always marked, as per the generalization in (28). Thus, I propose that the intransitive clause has the structure in (35):¹¹



Evidence that intransitive subjects are uniformly structurally lower than transitive subjects comes from causativization patterns. As shown below, when an unaccusative predicate, e.g. a sta-

¹¹For discussion on other languages where there is a difference in structural positions between transitive and intransitive subjects see: Massam 2009 on Niuean and Kouneli 2021 on Kipsigis.

tive as in (36a), is marked with the morphological causative *f(a/e)-*, the theme argument is retained and an agent/causer argument is introduced.

- (36) a. *ʔa-kao ʔita*
 ST-have.difficulty MUT.1PL.INCL
 ‘We are having difficulties’ [B236]
- b. *ʔi-f-a-kao ʔita*
 3SG-CAUS-ST-have.difficulty MUT.1PL.INCL
 ‘He is causing us difficulty’ [B236]

In contrast, when a transitive predicate is causativized, as in (37b), a causer subject is introduced and the causee (i.e. demoted subject of transitive) must surface as an oblique argument.

- (37) a. *ʔu-sura zura pro*
 1SG-write MUT.letter
 ‘I wrote a letter’ [B259]
- b. *ʔi-fa-sura-ʔö zura xö-gu fandrita*
 3SG-CAUS-write-APP MUT.letter DAT-1SG.POSS priest
 ‘The priest got me to write a letter’ [B259]

In the case of causatives of unergatives, the realization of the intransitive subject patterns with the unaccusative in (36b). As shown in (38b), the causee (i.e. the unergative subject) is not realized as an oblique argument (as with transitive subjects) and no argument demotion is visible.

- (38) a. *ʔaʔege dʼaga*
 laugh MUT.1PL.EXCL
 ‘We laughed’ [B236]
- b. *ʔi-f-aʔege dʼaga baʔe*
 3SG-CAUS-laugh MUT.1PL.EXCL monkey
 ‘The monkey made us laugh’ [B236]

I interpret the above pattern as indicating that subjects of unergatives are base-generated lower than transitive subjects, which are base-generated in SpecvP (Massam, 2009; Tollan and Oxford, 2018; Kouneli, 2021). Thus, since vP uniformly lacks an argument merged into its Spec in intransitives, when such predicates are causativized the causer can merge to SpecvP without requiring subject demotion— i.e. the causee being realized as an oblique.

Further data that indicates this difference in the structural position of intransitive and transitive subjects concerns differences regarding theses arguments associating with quantificational elements. In Nias the quantification adverb *ʔoi* can induce a quantificational interpretation of an

argument that is within its scope, as in (39) (Brown, 2001). As shown in (39a,39b), *?oi* can associate with both unergative and unaccusative subjects, inducing a quantificational interpretation of the argument. But in transitive constructions, as in (39c), while *?oi* can associate with objects, it cannot with the subject. As illustrated in (39c), while a quantificational interpretation of the direct and indirect objects is possible, a quantification interpretation of the subject (i.e. *all of them*) is not.

- (39) a. M=oi mo-gamagama niha
 PERF=all DYN-armament MUT.person
 ‘Every man wore weapons/was armed’ [B202]
- b. ?oi to-kia d’aga
 all RES-shock MUT.1P.EXCL
 ‘We all were shocked.’ [B493]
- c. ?oi d’a-mbe v-a-nolo-ra xö d’a-ono
 all 3PL.IRR-give MUT.NMLZ-IMPV-help DAT MUT.COL-child
 ‘They will give all of their help to the children./ *All of them will give help. . . .’ [B492]

I interpret this split between transitive and intransitive subjects as indicating that transitive subjects are located in a structural position that is outside the domain of *?oi*, and, thus, cannot associate with *?oi*. Conversely, given that intransitive subjects quite generally can associate with *?oi*, this indicates that intransitive subjects are in a structural position below *?oi*. Concretely, I propose that *?oi* adjoins low in the structure to vP. Evidence that *?oi* adjoins low comes from additional scope data. As (40) shows, when negation and *?oi* co-occur, *?oi* must scope below negation. Assuming that NegP projects low in the structure, within the extended verbal projection, this indicates that *?oi* must adjoin to a phrase below NegP—i.e. vP.

- (40) löna ?oi man-a ira
 NEG all IMPV-eat MUT.3PL
 ‘Not all of them ate’/ *‘None of them ate’ [B493]

Thus, in light of the data from causativization and interpretative facts regarding *?oi*, I conclude that while transitive subjects are vP-external, intransitive subjects are uniformly vP-internal in Nias.¹²

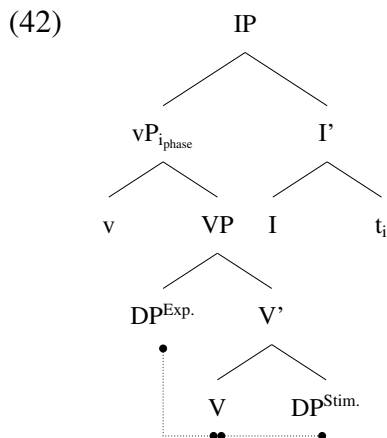
¹²As for why intransitive subjects uniformly remain vP-internal (unlike transitive subjects), this is an open question. One potential reason may be due to an anti-locality effect, where a phrase moving from SpecXP must cross a maximal projection distinct from XP (Deal, 2019; Erlewine, 2020); cf. Bošković 1997). Assuming that vP delimits a phase boundary and that movement through a phase boundary must involve an intermediate movement step at the phase edge (Chomsky, 2001), then all movement from a vP-internal position will require SpecvP as an intermediate landing site. However, if unergative subjects are base-generated in SpecVP, then movement outside of vP would require SpecVP-to-SpecvP movement, which would be blocked due to anti-locality and, thus, trapping unergative subjects inside vP. Crucially, though this explanation would only apply to unergative subjects since in the case of unaccusative subjects, which are base-generated in CompVP, anti-locality wouldn’t apply here. Interestingly, if all intransitive subjects are base-generated in the same Spec (as proposed for Kipsigis in Kouneli 2021), e.g. SpecVP, then movement outside of vP would be uniformly blocked for intransitive subjects.

As was shown in §2.2, there is an exceptional case regarding the absence of marking in transitive subjects, which concerned experiencers. Unlike agentive transitive subjects, experiencer subjects were shown to consistently surface marked, as in (15). Interestingly, unlike agentive transitive subjects, experiencers can also associate with *oi*, as shown in (41).

- (15) ?a-ta?u Ba?e nono matua
 ST-fear MUT.monkey MUT.child male
 ‘The monkey is afraid of the boy’ [B344]

- (41) ?oi ?omasi d’aga nasu
 all like MUT.1P.EXCL MUT.dog
 ‘We all like dogs.’ [B491]

Given the above facts in (15) and (41), following Belletti and Rizzi 1988 among others, I argue that experiencer subjects are base-generated lower in the structure than agentive transitive subjects. Moreover, given that experiencer subjects consistently surface marked and can associate with *?oi*, these subjects remain vP-internal and are spelled out in the same domain as V (as with intransitive subjects), as sketched in (42). Thus, given the structure in (42), experiencer constructions adhere to the generalization in (28).¹³



Zooming out, in this section, I demonstrated that the marking pattern observed on arguments in Nias is captured by the generalization in (28). Crucially, this generalization regarding the distribution of mutation does not make reference to the grammatical role of the argument. Rather, I have argued that the relevant factor regulating when an argument is marked is the structural position of the argument at PF. When the nominal is spelled-out in the same domain as an argument-introducing head (i.e. in the same phase), it surfaces marked; when it is spelled-out in a domain

¹³Note that on the dependent case approach in Baker 2015, Nias’ experiencer subjects are posited to be merged inside a covert PP-shell that assigns [OBL] to the experiencer and blocks it from c-commanding the stimuli. The present approach, however, does not require stipulating additional silent structure in this way, and experiencers simply merge as DPs, as in (42).

distinct from an argument-introducing head it is unmarked. Moreover, I showed that this generalization can capture the argument marking pattern observed with core arguments. Specifically, I showed that the apparent ‘marked absolutive’ surface pattern is due to a systematic difference in structural position between intransitive subjects and objects, and agentive transitive subjects.

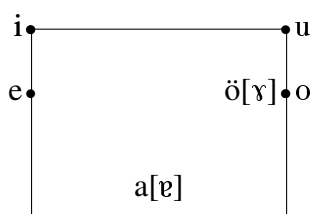
3.2 Argument marking as a morpho-phonological process

As argued in the preceding section, the distribution of marked arguments is regulated by the structural position of the nominal at spell-out to PF. Namely, whether the nominal is spelled out in the same phase as an argument introducing head. In this section, I argue that the surface form of argument marking is a purely phonological process. After outlining basic elements of Nias phonology in §3.2.1, I will show that the surface form of marked or ‘mutated’ arguments is Nias is phonologically predictable and that the argument marking is due to a uniform phonological process. Additionally, in §3.2.3 I discuss Nias’ ‘mutated pronouns’, where I argue that this alternation is a distinct type of alternation from argument marking on lexical nouns.

3.2.1 Phonology background

Shown below are Nias’ vowel (43) and consonant (44) inventories. As discussed in Brown (2001, 2005) the Nias syllable strictly adheres to a CV template (where V may be bimoraic).

(43) Vowel Inventory



(44) Consonant Inventory

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Glottal
Plosive	b		t d				k g		'[ʔ]
Plosive, Trilled Release			ndr[dʳ]						
Nasal	m		n						
Trill	mb[b]		r						
Fricative		f v	s					kh[x]	h
Affricates				c[tʃ] z[ʒ]					
Approx.		β[v]					y[j]	w	
Lat. Approx.			l						

While medial syllables may lack an onset, Nias has a strict ban on initial syllables being onsetless, i.e. no V-initial words ($*[_\omega V]$). In such cases, where the underlying initial syllable lacks an onset, a glottal stop [ʔ] is inserted as a default onset (45) (Brown, 2001). This process is illustrated in Tab. 3. As shown below, when the V-initial stem is prefixed with the intransitive *m-*, no glottal stop appears on the initial segment of the stem, e.g. [m-uta] (‘to vomit’), cf. $*[m-ʔuta]$. But in contexts where the stem is the initial element, i.e. with the transivizing suffix *-iö*, a glottal stop surfaces as the initial element [ʔuta-iö] (‘to throw up *x*’) (cf. $*[uta-iö]$).¹⁴

Stem	Intransitive	Transitive
-uta ‘to vomit’	/m-uta/	ʔuta-iö
-eʔe ‘to cry’	/m-eʔe/	ʔeʔe-si

Table 3: Glottal Insertion

(45) **ʔ-Insertion:** $\emptyset \rightarrow ʔ / _\omega V$

3.2.2 Mutation as nasal insertion

As sketched below in Tab. 4, in the case of consonant-initial nominals, argument marking is realized in two grades. In cases where the initial consonant is voiceless, e.g. *faxe*, argument marking is realized as voicing of the initial segment, e.g. *vaxe*. In cases where the initial consonant is a voiced obstruent, e.g. *doi*, argument marking is realized as trilling *dʰoi*. In cases where the initial segment is a sonorant, e.g. the nasal initial *nagole*, argument marking does not occur even in contexts where arguments typically surface marked. As illustrated in (46), the object is nasal-initial and surfaces unmarked here.

¹⁴Note that while the Nias orthography in Donohue and Brown 1999; Brown 2001, 2005 omits word-initial glottal stops, I include them in the examples in this paper to more transparently reflect phonological form.

Class	UR and Unmutated Surface	Mutated	Alternation
-VOICE		Voicing	
	/faxe/ 'rice'	vaxe	f ~ v
	/tanö/ 'land'	danö	t ~ d
	/si?o/ 'stick'	zi?o	s ~ z[ɕ]
	/ci?aci?a/ 'gecko'	zi?aci?a	c[tʃ] ~ z[ɕ]
	/kefe/ 'money'	gefe	k ~ g
+VOICE, -SONORANT		Trilling	
	/baβi/ 'pig'	baβi	b ~ B
	/doi/ 'thorn'	/dʳoi/	d ~ dʳ
+SONORANT		No Mutation	
	/Mili/ 'Mili (name)'	-	m
	/nagole/ 'meat'	-	n
	/labalaba/ 'large spider'	-	l
	/rake/ 'coral'	-	r
	/dʳi/ 'mosquito'	-	dʳ
Misc.		No Mutation	
	/Gomo/ 'Gomo (name)'	-	g
	/xö/ 'possessions'	-	x

Table 4: Consonant Mutation

- (46) ?u-taba nagole faoma balatu
 1 SG.RLS-cut.up meat with knife
 'I cut the meat with a knife' [B361]

In the case of vowel-initial nominals, the pattern is somewhat different. As shown below in Tab. 5, the surface form of marked vowel-initial nominals appears to be divided into two classes. Nominals where argument marking is realized as a prothetic [n] and nominals where it is realized as a prothetic [g]. In cases where the nominal is unmarked, it surfaces with a prothetic [ʔ], per the glottal-insertion rule in (45).

Unmutated	Mutated
/n/-mutation	
ʔöri 'federation'	nöri
ʔuβu 'plank'	nuβu
ʔiβa 'sibling'	niβa
ʔete 'bridge'	nete
ʔadu 'statue of ancestor'	nadu
/g/-mutation	
ʔöri 'amulet'	göri
ʔuβu 'part of coconut'	guβu
ʔiβö 'movement'	giβö
ʔeteʔete 'long wave'	geteʔete
ʔadulo 'egg'	gadulo

Table 5: Vowel Mutation

Further, as observed in Brown 2001, there are several cases where the marked forms of vowel-initial nominals are seemingly not predictable on the basis of their unmarked surface forms. For example, as Tab. 5 shows, [ʔöri] 'federation' and [ʔöri] 'amulet' are only phonologically distinguished in their marked forms: [nöri] and [göri], respectively. Subsequently, Brown (2001) interprets this observation as indicating that argument marking for vowel-initial nominals is not predictable and that the marked form of such nominals are lexically specified. Although Brown's (2001) observation on this point may suggest that the marked forms of vowel-initial nominals are not phonologically predictable, I argue that this division regarding the surface form of marked vowel-initial nominals is, in fact, predictable on the basis of the underlying form of the nominal stem, which is obscured by the surface forms due to glottal-insertion. I propose that for vowel-initial stems, the surface form of marked nominals uniformly involves a prothetic [n]. In cases, where the vowel-initial stem is unmarked, glottal-insertion (i.e. (45)) applies and the nominal surfaces with a prothetic [ʔ]. In cases where the surface form of the marked nominal involves an initial [g], the underlying form of the nominal stem involves an initial [ʔ], which is visible in contexts where the nominal surfaces unmarked. In contexts where [ʔ]-initial nominals are marked, the general pattern for voiceless consonant-initial nominals applies and the initial [ʔ] undergoes voicing surfacing as [g]. Thus, I conclude that Nias' seeming 'unpredictable' vowel-initial pattern is an artifact of the glottal-insertion rule (with applies to vowel-initial forms) obscuring the difference between the underlying forms between the two classes of nominals.¹⁵

¹⁵Interestingly, Brown (2001) gives diachronic evidence that supporting the present hypothesis. As shown in (i.), stems that are marked with [g] are stems that had uvular stops (i.e. [q]) as the initial segment in Proto-Austronesian, while stems that are marked with [n] were vowel-initial.

- (1) a. PA: *qateluR → Nias: gadulo 'egg'
- b. PA *qalipan → Nias: galifa 'centipede'

To summarize, I conclude that the surface forms of marked arguments are phonologically predictable on the basis of the underlying form of the nominal stem. In cases where the nominal is consonant-initial the nominal undergoes one of two grades of lenition and is either voiced or trilled. In the case of vowel-initial nominals, a prothetic [n] surfaces on the stem. Given this empirical situation, I propose that Nias' argument marking pattern is result of a phonological operation, which occurs in the argument marking contexts discussed in §2.1. Specifically, I propose that the in argument-marking contexts, a phonological operation is triggered, where a prothetic nasal is inserted to the nominal, as in (47), where *M* stands in for the marking context.

$$(47) \quad \emptyset \rightarrow n / M_[_\omega$$

Given (47), the vowel-initial argument marking pattern (as in Tab. 5) follows straightforwardly from the application of (47), as shown in (48).

(48) **Vowel mutation:** *ohi* → *nohi* 'coconut tree'

a. /ohi/

b. **nohi**

Output after *n*-insertion (47)

In the case of the argument marking pattern observed with consonant-initial segments, I argue that (47) applies in these contexts as well and a prothetic [n] is inserted to the stem. However, in such contexts, I argue that the insertion of [n] triggers lenition on the stem. Specifically, when the initial segment is a voiced obstruent, the segment becomes sonorant, which is realized as trilling (49a) and in contexts where the initial segment is voiceless, i.e. lacks a voice feature, the segment undergoes voicing (49b). For stems where the initial segment is a sonorant, neither (49a) or (49b) occurs.¹⁶

$$(49) \quad \begin{array}{ll} \text{a.} & \left[\begin{array}{l} +\text{CONS} \\ -\text{SONORANT} \\ +\text{VOICE} \end{array} \right] \rightarrow [+ \text{SONORANT}] / [+ \text{NASAL}]_ \\ \text{b.} & \left[\begin{array}{l} +\text{CONS} \\ -\text{SONORANT} \end{array} \right] \rightarrow [+ \text{VOICE}] / [+ \text{NASAL}]_ \end{array}$$

Finally, given that Nias quite generally disallows complex onsets, i.e. CC clusters, I argue that the repair rule in (50) is operative and the nasal deletes.

c. PA: *aNak → Nias: nono 'child'

d. PA: *uRát → Nias: nuo 'vein/sinew' (Brown 2001: 71)

Given that Nias lacks uvular stops in its phonological inventory, a reasonable hypothesis is that a change has occurred where uvular stops were replaced with glottal stops for these forms.

¹⁶Note that the for the segments [s] and [ʃ] voicing is realized as affrication, where the initial segment surfaces as [ɕ]. This may provide further evidence for the presence of an abstract nasal segment, which cross-linguistically have been observed to trigger affrication in such contexts (Steriade, 1993).

(50) ***CC resolution:** $C \rightarrow \emptyset / _C$

To illustrate how the above processes conspire to output Nias' argument marking pattern, consider two stems *faxe* and *bavi*. In the first case, as sketched in (51), (47) occurs and creates a context for the voicing process in (49b) to occur. Finally, given the prohibition on CC sequences, the nasal deletes, i.e. (50), generating the surface form *vaxe*. In the second case, as in (52), (47) occurs and creates a context for trilling (49a). Here as well, (50) then occurs and [n] deletes, thus, generating the surface form *Bavi*.

(51) **Voicing Mutation:** *faxe* → *vaxe* 'rice'

- a. /faxe/
- b. nfaxe n-insertion (47)
- c. nvaxe Voicing (49b)
- d. vaxe CC resolution and output (50)

(52) **Trilling Mutation:** *bavi* → *Bavi* 'pig'

- a. /bavi/
- b. nbavi n-insertion (47)
- c. nBavi Trilling (49a)
- d. Bavi CC resolution and output (50)

Note as well, that that 'g-mutation' pattern in Tab. 5 is straightforwardly derived as an instance of voicing mutation. As illustrated below in (53), with the stem *?öri*, after nasal insertion, the initial [ʔ] undergoes voicing to [g]. Then the [n] deletes, outputting the surface form: [göri].

(53) **'g-mutation':** *?öri* → *göri*

- a. /?öri/
- b. n?öri n-insertion (47)
- c. ngöri Voicing (49b)
- d. göri CC resolution and output (50)

To summarize, I have argued that Nias' mutation pattern is a phonologically predictable process. Specifically, in mutation contexts a prothetic nasal is inserted. In cases of a vowel-initial stem, the nasal surfaces. But in contexts where the stem is consonant-initial, the insertion of the nasal triggers lenition of the adjacent segment plus the deletion of the nasal.

It should be noted that on the present analysis, Nias' mutation system parallels mutation systems cross-linguistically. For example, Welsh exhibits a 'soft mutation' pattern where the 3SG.M possessive pronoun *ei* triggers 'soft mutation' on the NP complement, as shown in Tab. 6 (examples from Pyatt 1997).

Unmutated	Mutated	
pen	ei ben	‘(his) head’
tad	ei d ad	‘(his) father’
bara	ei fara [v a ra]	‘(his) bread’
mab	ei fab [v a b]	‘(his) son’

Table 6: Welsh Soft Mutation

Crucially, as with Nias’ argument marking system, the mutated forms in Tab. 6 are phonologically predictable (Pyatt, 1997). Namely, that voiceless segments undergo voicing and voiced stops undergo spirantization. In this respect, Nias and Welsh’s mutation systems are close parallels, where in both cases mutation is a phonologically predictable process.

3.2.3 Pronoun Mutation

While argument marking on lexical nouns was shown to be predictable, Brown (2001, 2005) observes that pronouns participate in a distinct, non-phonologically predictable alternation— termed ‘pronoun mutation’. While Brown (2001) identifies this alternation as tracking grammatical role— i.e. case, I show that this alternation is best explained without reference to the grammatical role of the pronoun.

As shown in Tab. 7, Nias has two pronouns series which are described in Brown 2001, 2005 as ‘unmutated’ and ‘mutated’.

	Unmutated	Mutated
1 SG	jaʔo	d ^r ao
1 SG.EMPH	ja ʔoto	d ^r aoto
2 SG	jaʔugö	d ^r augö
3 SG	jaʔia	ja
1 PL.INCL	jaʔita	ʔita
1 PL.EXCL	jaʔaga	d ^r aga
2 PL	jaʔami	mi
3 PL	jaʔira	ʔira

Table 7: Pronoun Mutation

The motivation for assimilating the two pronoun patterns with the mutation pattern observed with lexical nouns is due to the distribution of pronouns in the two series. Specifically, ‘mutated’ pronouns occur in the same contexts as marked lexical nouns, i.e. intransitive subjects (54a) and objects (54b) but cannot surface as transitive subjects. Conversely, ‘unmutated pronouns’ consistently appear as transitive subjects (54b), as with unmarked lexical nouns.

- (54) a. a-rörö **d^rao**/(^{*}jaʔo)
 ST-distract MUT.1SG/1SG

‘I’m distracted’ [B192]

- b. ʔi-bunu **ja**/(**jaʔia*) **jaʔia**/(**ja*).
3SG.RLS-kill MUT.3SG/3SG 3SG/MUT.3SG
‘He killed him/himself.’ [B542]

In this respect, the distribution of the two pronoun series appears to track with the distribution of marked and unmarked lexical nouns that are core arguments. Namely, that mutated pronouns pattern with marked core arguments in being absolutive arguments. While unmutated pronouns pattern with unmarked core arguments in being ergative arguments.

Despite the distributional similarity between (un)mutated pronouns and (un)marked core arguments, there are several important differences that indicate that the alternation observed with pronouns is not due to an underlying phonological process of the type observed with lexical nouns. First, as shown above in Tab. 7, while the initial segment of some pronouns appear to undergo the same lenition process characteristic of marking on lexical nouns, e.g. the approximate [j] undergoing trilling [dʳ] with the 1SG, in other contexts no lenition process occurs. For example, in the 3SG the initial [j] does not undergo lenition in the mutated case. Second, the surface forms of mutated pronouns suggest that pronoun mutation is a subtractive process. While the surface form of marked lexical nouns never involve phonological reduction of the stem, e.g. syllable deletion, pronoun mutation consistently involves this type of reduction. Throughout the entire mutated pronoun series the stems are consistently phonologically reduced compared to their unmutated counterparts, as shown in Tab. 7. Given the above differences between ‘pronoun mutation’ and argument marking on lexical nouns, I conclude that the alternation observed with pronouns in Nias cannot be the result of the same phonological process that is operative with argument marking on lexical nouns.¹⁷

While the alternation observed with Nias’ pronouns does not correspond to the alternation observed with (un)marked lexical nouns, the two pronouns series do pattern with another morpho-phonological difference: clitic and prosodically independent pronouns. As shown below, Nias’ ‘mutated’ pronouns display properties that are characteristic of clitics (Cardinaletti and Starke, 1999; van Riemsdijk, 1999). First, ‘mutated’ pronouns resist being focused. As illustrated in (55a,55b), ‘mutated’ pronouns participating in cleft constructions or marked with the focus particle *ha* are unattested in Brown (2001, 2005). In both cases, if a pronoun is focused it surfaces as an unmutated pronoun.

¹⁷Note as well, that explaining the observation that the ‘mutation’ on pronouns involves the realization of a (morpho)-phonologically reduced proform, is especially challenging for an account that uniformly identifies mutated forms with ABS-case. If mutated forms are the realization of ABS—i.e. the morphologically marked case, then ABS-marked pronouns are expected to be more (morpho)-phonologically marked than their ERG, i.e. morphologically unmarked, counterparts. While this is the case for lexical nouns, in the case of pronouns the reverse is observed. Namely, that pronouns that are absolutives are (morpho)-phonologically less marked than pronouns that are ergatives.

- (55) a. yaʔia/(*ja) z=o=lau faya
3SG/ MUT.3SG REL=IMPV=do lie
'It is HE who is the liar' [B444]
- b. ha jaʔugö/(*dʰaugö) ʔö-fa-manömanö-si
only 2SG/ MUT.3SG 2SG.RLS-DYN-talk-TR
'You're just talking about yourself' [B175]

Second, cases of 'mutated' pronouns occurring as conjuncts, e.g. (56), are unattested in Brown 2001, 2005. In contrast, mutated lexical nouns may occur in conjunction, as in (57). In this respect, the distributional parallel between 'mutated' pronouns and lexical nouns is absent.

- (56) *d^rao ba ja
MUT.1SG and MUT.3SG
'Me and him'
- (57) d^ra-si?ulu ba ira-ere
MUT.COLL-village.leader and COLL-religious.leader
'kings and religious leaders' [B168]

In these respects, the distribution of ‘mutated’ and ‘unmutated’ pronouns tracks with a difference in prosodic strength. Namely, that while ‘mutated’ pronouns are prosodically deficient clitics, unmutated pronouns are prosodically independent (Cardinaletti and Starke, 1999). Further, I argue that this difference in strength accounts for the distribution of ‘mutated’ pronouns being restricted to objects (54b) and intransitive subjects (54a). Concretely, I propose that at PF, a clitic (Cl⁰), owing to its prosodic deficient status, attaches to a host within the spell-out domain. Given the syntactic structure of transitive (24) and intransitive (35) clauses, both the object and intransitive subject clitic are within vP domain and adjacent to V, and, thus, can cliticize to V (as in (58)).

- | | | | |
|------|----|---|---------------|
| (58) | a. | $[_{VP} \text{ v}^0 \text{ V}^0 \text{ Cl}^0]$ | Syntax |
| | b. | $(\text{S.O. Domain } (\omega \text{ v+Verb }) (\sigma \text{ Cl}))$ | Spell-out |
| | c. | $(\text{S.O. Domain } (\omega (\omega \text{ Verb }) (\sigma \text{ Cl})))$ | Cliticization |

Consider now transitive subject pronouns, which never surface as reduced ‘mutated’ pronouns, i.e. (54b). Given that transitive subjects, unlike objects and intransitive subjects, evacuate vP, they are no longer within the vP spell-out domain. Thus, cliticization on to V is impossible (as in (59)) and only a full, i.e. prosodically independent, pronoun may surface here.¹⁸

¹⁸As shown in Tab. 7 all unmutated pronouns have *ja* as the initial syllable of the stems. If it is the case that full pronouns are structurally more complex than clitics, i.e. involve additional functional structure, and this additional structure results in prosodic independence (as in Cardinaletti and Starke 1999), then it may be the case that *ja* is the morphological realization of this additional structure that allows for prosodic independence.

- (59) a. $[_{IP} [_{VP} v^0 V^0 DP] \dots [_{ClP} Cl]]$ Syntax
 b. $*(_{S.O. Domain} (_{\omega} v+Verb) (_{\omega} DP)) (_{S.O. Domain} (_{\sigma} Cl))$ Spell-out & Cliticization Impossible

Interestingly, this account can explain the exceptional behavior of subject pronouns in experiencer constructions, which surface ‘mutated’, as in (60a,60b).

- (60) a. a-taʔu dʰao nasu
 ST-fear MUT.1SG MUT.dog
 ‘I’m afraid of the dog/dogs.’ [B578]
 b. ogoro dʰao ga-mua-ta-nia
 disgust MUT.1SG MUT.IMPV-do-NMLZ-3SG.POSS
 ‘I am disgusted by her behavior.’ [B578]

As was shown in §3.1.1, experiencer subjects are base-generated below the vP and do not raise out. Due to experiencers remaining vP-internal, such arguments will be spelled out in the same domain as the verbal host. Thus, experiencers can be realized as clitic pronouns, which can attach to the verb at PF, as in (61).

- (61) a. $[_{IP} [_{VP} v^0 Cl_{EXP} V^0 DP_{STIM}] \dots]$ Syntax
 b. $(_{S.O. Domain} (_{\omega} v+Verb) (_{\sigma} Cl) (_{\sigma} DP))$ Spell-out
 c. $(_{S.O. Domain} (_{\omega} (_{\omega} v+Verb) (_{\sigma} Cl)) (_{\omega} DP))$ Cliticization

To summarize, I conclude that the alternation observed regarding Nias’ pronoun system is not the same as the mutation system observed with lexical nouns. Rather, in the case of pronouns the relevant difference is a difference in pronoun type—i.e. clitic vs. independent pronoun.

3.2.4 Syntactic and mutation domains

On the present analysis, the surface form of marked or ‘mutated’ arguments is due to the insertion of a nasal segment to a nominal stem. Moreover, it was shown that the relevant contexts where this process occurs is when a nominal is sent to PF in the same spell-out cycle as an argument-introducing head, as stated in (28). Thus, in light of the present analysis of argument marking as nasal insertion, the generalization can be restated as follows:

- (62) If a nominal is spelled out in the same phase domain as an argument introducing X^0 , then the nominal is marked with [n] at PF.

Given the generalization in (62), I propose that the aforementioned phonological process that underlies argument marking is due to the application of (63) at PF. As shown, (63) states that nasal insertion occurs on a nominal in contexts where the nominal is within the same phase (i.e. YP), as an argument-introducing lexical head (where $X^0 = V, P, N$).

$$(63) \quad \emptyset \rightarrow n/ [_{YP=phase} X^0 \dots \text{---}[N^0 \dots]]$$

(63) straightforwardly captures the generalization that argument marking correlates with the candidate nominal and the argument-introducing head, e.g. a verb, being spelled-out in the same cycle. Thus, in such contexts, when (63) applies, a nasal segment is appended to the stem, which either is realized or triggers voicing/ lenition before deleting (as discussed in §3.2.2).

As was argued in §3.1.1, that argument marking was phase-bound was supported by the alternation observed with argument marking between transitive and intransitive subjects. The former are systematically outside the vP phase and never surface marked; the latter are systematically within the vP phase and always surface marked. I suggest that the reason that the application of (63) is phase bound is due to the general constraint that PF processes are phase bound in this respect. In particular, that a condition on phonological processes occurring between two elements, requires those elements to be within the same phase—i.e. phonological processes are ‘phase-bound’ (see Seidl 2001; Pak 2008; Newell 2009; d’Alessandro and Scheer 2015; Bošković 2017; Fenger 2020; Sande et al. 2020, among others, for proposals that account for phonological locality domains in terms of syntactic phases).

That phonological processes are phase bound in this manner can be observed with external sandhi processes. As shown in (64a,64b) in Mende the initial segment of the verb undergoes voicing in the presence of an overt direct object, which immediately precedes the verb. However, when the object is null (65a) or moves to a vP-external position (65b), this sandhi process is neutralized (Cowper and Rice, 1987).

(64) a. ndòpói [VP mbòmèí vèmbéngà]
 child hammock swing
 ‘The child swung the hammock.’

b. ndòpói [VP ngúléí gbàndiá]
 child oil heated
 ‘The child heated the oil.’

(65) a. ndòpói [VP e fèmbéngà]
 child swing
 ‘The child swung it.’

b. gbémíá_i ndòpói [VP t_i kbàndiá]
 what child heating
 ‘What has the child heated?’

(Cowper and Rice 1987: 189,190)

Cowper and Rice (1987) argues that the the key difference between (64a,64b) and (65a,65b) is that while in (64a,64b) the adjacent nominal, i.e. the sandhi trigger, is in the vP/VP with the verb, in (65a,65b) the nominal is outside of the vP/VP, thus, sandhi is neutralized. Assuming that vP

delineates a phase, then the Mende data indicate that a requirement on mutation is that the trigger and target be located in the same phase (for similar cases of where sandhi processes are conditioned by phase boundaries see also Seidl 2001; Pak 2008; d’Alessandro and Scheer 2015, and Bošković 2017, among others).

A similar effect is observed in Welsh mutation, where phase boundaries can neutralize morpho-phonological processes. As shown in (66a), the first element after the subject surfaces mutated, i.e. lenition. However, in cases where the subject and the adjacent element are in distinct CPs, as in (66b) with the *wh*-item in the embedded CP, mutation is neutralized (Pyatt 2003).

- (66) a. Gwelodd Gwen **g**ath
 saw Gwen cat
 ‘Gwen saw a cat’ *cath* → **g**ath
- b. Gofynnodd Gwen [_{CP} **p**wy (***b**wy) a welodd **g**ath]
 asked Gwen who AFF saw cat
 Gwen asked who saw a cat. **p**wy ↗ **b**wy (Pyatt 2003: 214, 215)

Assuming that CP delimits a phase in (66b), what the above data show is that Welsh mutation can be neutralized in cases where the trigger and target occupy distinct phases (see Pyatt 2003 for a proposal of this pattern in terms of intonational phrase boundaries, which have been argued to correspond to phases, cf. Kratzer and Selkirk 2007, *i.a.*).

In this respect, I argue that Nias’ argument marking pattern is an instance of this more general pattern, where a (morpho)-phonological process can be neutralized in contexts where the trigger and target are in distinct phases. For Mende, this is observed when an object is not realized within the vP phase and sandhi is neutralized. Similarly for Welsh, mutation is neutralized when the trigger and target are in distinct phases. For Nias this is observed with transitive subjects, which are outside the vP and, thus, argument marking is neutralized.

4 Conclusion

In this paper, I have demonstrated that Nias’ argument marking system is not the realization of a ‘marked absolutive’ case system but rather is due to a purely phonological process that is regulated by independent syntactic considerations in Nias. In particular, that argument marking in Nias displays a domain sensitivity (i.e. phases) that, in certain contexts, results in a superficial ‘marked absolutive’ pattern. The domain sensitivity of the Nias argument marking process, places the phenomenon in the same class as other phonological processes, e.g. mutation in Celtic and Mende, that are conditioned whether the trigger and target occupy the same syntactic domain.

That Nias’ ‘marked absolutive’ pattern is a purely phonological surface effect is consequential from a typological standpoint. Namely, that since this pattern is simply a phonological surface

effect, the only potentially attested instance of a ‘marked absolutive’ case pattern is, in fact, an illusory one. In this way, the typology of attested case patterns is further restricted. Furthermore, I suggest that Nias is an instructive case study when theorizing about what appears to be a typologically idiosyncratic case pattern. In Nias, what initially looked like an idiosyncratic case pattern—i.e. ‘marked absolutive’, was revealed to be a conspiracy of otherwise common grammatical processes. Given that such a situation can arise in Nias, this suggests that other idiosyncratic case patterns may be a surface effect due to a confluence of regular processes as well. Thus, I suggest that this study on Nias’ ‘case pattern’, invites future research on, and a reexamination of other idiosyncratic case patterns.

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