Deriving Superficial Ergativity in Nias

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Abstract

In this paper, I discuss the case and agreement system of Nias, a language that has been described as a marked-absolutive system by various authors (Donohue and Brown, 1999; Corbett, 2006; Cysouw, 2005; Handschuh, 2008; Wichmann, 2005). I shall argue in particular that the ergativity of this language is highly superficial in nature, showing that hypothesised marked-absolutive arguments fail to display typical subject properties. Extending the linking theory of ergativity by Manning (1994) and Manning and Sag (1999), which assumes an inverse linking pattern for transitive, I shall suggest that Nias transitives are best analysed as a Nominative-Accusative system, attributing the "ergative" split in Nias to an "inverse" linking of intransitives instead. Under this perspective, case, agreement, and word order will receive a natural explanation.

1 Case and Agreement in Nias

1.1 Case marking

Nias[1] distinguishes mainly two morphological cases in the nominal system: a morphologically zero-marked case, called the Ergative by some authors (Brown, 1997; Donohue and Brown, 1999), and a morphologically marked case, sometimes referred to as the Absolutive.[2] Case marking of lexical NPs in Nias is effected by initial segmental alternation (Brown, 2005). With pronominals, marked case is further differentiated into Absolutive and Genitive, the latter being used in possessive constructions and with most prepositions.

As depicted in table 1, Nias case marking on consonant initial lexical NPs is signalled by mutation, involving either voicing or trilling. For vowel-initial NPs, marked case is expressed by prefixation of /g/ or /n/, the choice being morphologically (not phonologically) conditioned (Brown, 2005).

Case assignment in Nias (Brown, 1997; Donohue and Brown, 1999) has repeatedly been assumed to belong to the ergative type. The main evidence for this

[†]The Nias data cited in this paper and the presentation of the basic empirical facts are based on Léa Brown's field work on the language, published in a series of papers (Brown, 1997; Donohue and Brown, 1999; Brown, 2005), as well as documented in her University of Sydney dissertation (Brown, 2001).

The analysis proposed here has been presented at the 4th Conference on Austronesian Languages and Linguistics, SOAS, London and the 16th Conference on HPSG. I would like to thank to the audiences at these tow venues for their stimulating questions and comments, in particular to Peter Sells, Peter Austin, Bill Palmer, Sebastian Nordhoff, Ileana Paul, Doug Arnold, Olivier Bonami and Ivan Sag. I am particularly indepted to Nikolaus Himmelmann for providing me with detailed comments, suggestions and criticism, and to my colleague Mats Exter for discussing the ideas proposed here already at an early stage. All remaining errors are of course mine.

[1]Nias is an Austronesian language spoken by over 600,000 speakers on the Barrier islands of Nias and Batu, off the Western coast of Sumatra.

[2]In more recent work, Brown (2001, 2005) has dropped the terms "absolutive" and "ergative" in favour of the descriptively neutral terms "mutated" and "unmutated".

unmutated	mutated
f	v
t	d
k	g
s	z [dʒ]
c [tʃ]	z [dʒ]
b	mb [ʙ]
d	ndr [d^r]

Table 1: Nias mutation

typological categorisation comes from the fact that case marking of the **S**(ole) argument in intransitives patterns with that of the **O**(bject) argument in transitives. The **A**(gent) of transitives, however, features case marking which is clearly distinct from the S(ole) argument of intransitives, yielding a partitioning characteristic of other ergative languages.

(1) manavuli sui [**n**-ama-da Tohönavanaetu] ba Maenamölö
return again MUT-father-1.PL.IN.GEN Tohönavanaetu LOC Maenamölö
'Ama Tohonavanaetu came back again to Maenamölö.' (Donohue and Brown, 1999)

(2) I-a [**mb**avi] [ama Gumi]
3.sg.RLS-eat MUT.pig father Gumi
'Father Gumi eats pig.' (Donohue and Brown, 1999)

As illustrated by the data above, mutated case is used to mark both **O** and **S**, arguments, whereas A arguments display zero case marking, a pattern that can be summarised as in table 2.

CASE	∅	MUT
Intr		S
Tr	A	P

Table 2: Nias case patterns

As pointed out by Donohue and Brown (1999), the case marking pattern observed in Nias is not an effect of surface adjacency, or even a pure surface phonological issue: as illustrated by the example below, assignment of mutated case applies even in the case of intervening obliques.

(3) I-be khö-nia **g**-ana'a.
3SG.RLS-give OBL-him MUT-gold
'He gave him (the) gold.' (Donohue and Brown, 1999)

The peculiar case assignment of Nias raises some typologically important issues:as stated by Donohue and Brown (1999), Nias constitutes an apparent exception to Greenberg's Universal 38:

> "where there is a case system, the only case which ever has only zero allomorphs is the one which includes among its meanings that of the subject of the intransitive verb" (Greenberg, 1963)

Although Marked-S systems are indeed typologically rare, they are not unheard of: according to Dixon (1994), Marked Nominative systems can be found in the Yuman languages of Southern California, as well as with several languages of the Afroasitic family, mainly Cushitic and Omotic in Eastern Africa, as well as Berber Sasse (1984); Hayward (1990). In addition to these, marked nominative systems have also been reported for several languages of the unrelated Nilotic family (Andersen, 1988; Dimmendaal, 1985; Kiessling, 2007) found in close vicinity to Cushitic and Omotic, making this property qualify as an areal feature.

Marked-absolutive systems, by contrast, appear to be extremely rare: as far as I am aware, apart from Nias, only two languages from the Otomanguean family, namely Tlapanec (Wichmann, 2005) and Chinantec (Foris, 2000) have been argued to be of this type. However, in Tlapanec, evidence for Marked Absolutive is solely located in the system of cross-referencing pronominal affixes in this head-marking language. Thus, it appears that Nias is the only language with dependent marking for which an analysis in terms of Marked Absolutive has been advanced.

An important fact about Nias that should cast some initial doubt about Nias being a marked absolutive language is that morphological unmarkedness aligns pretty well with functional unmarkedness in this language: as discussed at length by Brown (1997), morphologically unmarked "ergative" case is also functionally unmarked. In particular, it is the form used in citation, for core arguments in relatives clauses and infinitivals, and for elliptical answers (see the examples below), .

(4) Intransitive

a. Q: hanata **z**i möi?
who MUT.REL go
'Who went?'

b. A: Ama Doli. / Möi **N**ama Doli.
Ama Doli go MUT.Ama Doli
'Ama Doli. / Ama Doli went.' (Brown, 1997)

(5) a. Q: haija ni-tagö?
what PASS-steal
'What did they steal?

b. A: Kefe- nia. / La-tagö **g**efe-nia.
what PASS-steal 3.P.RLS-steal MUT.money-POSS.3.S
'His money. / They stole his money. (Brown, 1997)'

Furthermore, topicalised preverbal constituents invariably surface with unmarked case.

(6) Si'o hö'ö ma=i-taru-'ö ba danö.
stick DIST PERF=3.S.RLS-plant-TR LOC MUT.ground
'That stick he planted in the ground.' (Brown, 2001)

1.2 Agreement

Nias, just like many Austronesian languages, recognises a major division in the Tense-Mood-Aspect system between Realis and Irrealis mood, a split which is also manifest in the agreement system.

Realis In the realis, verb agreement appears to follow, again, a superficial ergative divide: while **A** argument control verb agreement, both **O** and **S** arguments fail to do so.

(7) a. *I*-tolo **z**i'ila *ama-gu*
3SG.RLS-help MUT.village.advisor father-1SG.POSS
'My father helped the village advisors.' (Brown, 2003)

b. *La*-tolo **n**-ama-gu *si*-ila
3PL.RLS-help MUT-father-1SG.POSS village.advisor
'The village advisors helped my father.' (Brown, 2003)

(8) Mofanö **n**-ama-gu
leave MUT-father-1SG.POSS
'My father left.' (Brown, 2003)

As illustrated by the data above, **A**-arguments, which are unmarked for case, do control agreement on the verb, whereas **S** and **O** arguments, both featuring marked case, do not. As a result, transitives feature agreement morphology, whereas intransitives do not.

Irrealis Agreement in the irrealis, by contrast, does not align with the case system. While case assignment is entirely parallel to that found in the Realis, agreement on the verb is controlled by the highest role (**A** or **S**), irrespective of case marking.

(9) a. Gu-m-örö=e mana?
1.S.I-DYN-sleep=PTCL at.this.time
'I'm going to bed now, ok?' (Brown, 2001)

b. Ya-te-bato **d**eu
3.S.I-RES-stop MUT.rain
'The rain will stop.' (Brown, 2001)

(10) Ndra-m-a'ege-ö ndrao
3.P.I-I-laugh-TR MUT.1.S
'They will laugh at me.' (Brown, 2001)

1.3 Marked absolutive?

Summarising the empirical data, the characterisation of Nias as an ergative language is mainly supported by the alignment patterns: indeed, as far as case marking or agreement in the Realis are concerned, the language treats **S** and **O** arguments similarly, to the exclusion of **A** arguments. However, upon further scrutiny, it becomes apparent that morphologically (and functionally) marked "absolutive" arguments fail to show any properties of prototypical subjects. By contrast, supposedly "ergative", i.e. objective, arguments display all the prototypical properties of subjects, including exclusive control of agreement in the Realis, as well as appearing in the morphologically and functionally unmarked case. In essence, under the perspective of Nias as a Marked-Absolutive language, we are confronted with a typologically doubly marked system: not only that marked-absolutive systems, in general, are typologicaly rare, but also systems, in which the highest ranked case fails to control agreement: although Corbett (2006) tacitly adopts the marked-absolutive analysis of Nias, he still recognises "ergative"-controlled agreement as non-canonical.

Finally, pro-drop in Nias targets **A** arguments. Pronominal **A** arguments are realised by means of a cross-referencing prefix on the verb, the agreement prefix, whereas pronominal **S** and **O** arguments are expressed by means of an independent pronoun. Under the hypothesis that Nias is marked-absolutive, this would be quite a surprising fact, since it forces one to concede that pro-drop in this language makes exclusive reference to objects, again, a typologically rather marked property.

To conclude, Nias looks ergative, if we only consider the alignment of properties, but once we consider the properties themselves, an ergative analysis becomes less and less plausible: in essence, unmutated, supposedly "ergative" **A** arguments exhibit prototypical subject properties, as far as agreement and case are concerned, whereas mutated **O** or **S** arguments systematically lack both. Furthermore, unmarked case is shared between **A** arguments and topics, another property prototypical associated with subjects.

2 Linking

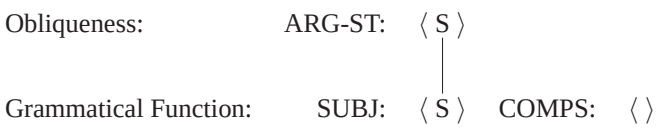
In his dissertation, Manning (1994) argues that syntactically ergative languages display a systematic split between subject properties: while surface-oriented processes, like case marking and agreement indeed follow an **S/O** pivot, other processes, like binding and control are actor-oriented. Building on a distinction between argument structure and valency (grammatical function), he suggests that these split properties can be accounted for, once we recognise two different notions of subjecthood: a-subjects, as thematically least oblique arguments, and surface grammatical subjects. The difference between syntactically accusative and syntactically ergative language is attributed to different linking patterns between these two representations. Accusative languages feature a direct linking between these two levels of representation, identifying the a-subject with subject grammatical function. Ergative languages, however, display an "inverse" linking for transitives, mapping the

a-subject to direct object function, and the thematic object to subject function. This theory not only accounts for split subject properties in ergative languages, but also provides a convenient basis for case assignment in terms of grammatical function.

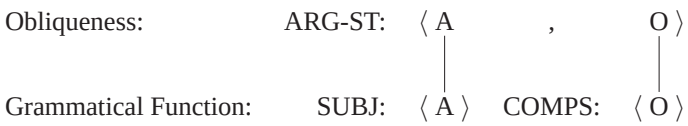
Within HPSG, Pollard and Sag (1994, ch. 9) have suggested to split the SUBCAT list into (at least) two valence lists, SUBJ and COMPS, following proposals by Borsley (1987). The SUBCAT list, being considered at the time a mere concatenation of valence lists was retained as the locus of Binding Theory. Manning and Sag (1999) argued that Manning's theory of ergativity can be straightforwardly integrated into HPSG by parametrising the mapping between argument structure (ARG-ST) and the valence lists SUBJ and COMPS.

In essence, the linking patterns suggested by Manning and Sag (1999) can be schematically represented as follows.

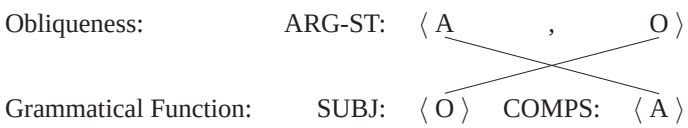
(11) Intransitive linking



(12) a. Nominative-Accusative linking



b. Ergative-Absolutive linking



Just like in Manning's original proposal, the inverse linking characteristic of ergative languages will derive both the **S/O** alignment in the case system, as well as the split in subject properties.

2.1 Canonical agreement in Ergative languages

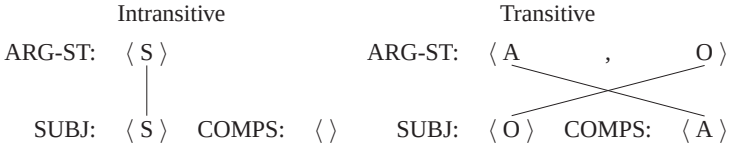
Manning's theory of ergativity in terms of "inverse" linking between argument structure and valence lists makes some interesting predictions for subject-verb agreement in ergative languages: since the notions of thematic (a-subject) and grammatical subjects (s-subject) do not coincide, we expect that agreement processes may either align with thematic rank, or with grammatical function and, therefore, case. Indeed, both these systems are actually attested.

The Daghestanian language Archi (Kibrik, 1994) represents an example of the latter type:

(13) Buwa d-arχaši d-i
mother.II.A **II**-lie.down **II**.be
'Mother is lying down.' (Kibrik, 1994)

(14) Buwa-mu b-ez diīa<b>u χ̄^{w}alli a<b>u
mother.II-E **III**-1.S.D early<**III**> **bread.III.A** made<**III**>
'Mother made bread for me early.' (Kibrik, 1994)

This pattern is readily explained, if subject-verb agreement in this language is controlled by the surface subject, i.e. the SUBJ valency.



An example of the other type is contributed by Udi, another language of the Caucasus (Harris, 1984):

(15) zu a-r-e-zu k'wa
1.S.ABS hither-come-AOR-**1.S** home
'I came home.' (Harris, 1997)

(16) zu a-za-k'-sa šel läzätt'u pak.
1.S.ERG see$_1$-**1.S**-see$_2$-PRES good pretty garden.ABS
'I see a good, pretty garden.' (Harris, 1984)

As illustrated by the data above, the case system in Udi exhibits the typical ergative split. Subject-verb agreement, however, does not align with the case system, being uniformly controlled by the thematically highest role, i.e., the initial element on ARG-ST.

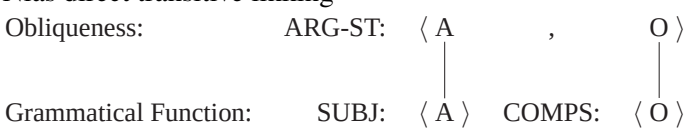
3 Nias as a nominative-accusative language

3.1 Outline of the analysis

In section 1, we have seen that **A** arguments of transitive verbs display all the typical properties of subjects: they receive morphologically and functionally unmarked case, they control agreement in the Realis, they undergo pro-drop, and they surface in peripheral position.

If this perspective of **A** arguments as surface subjects is correct, this means that Nias transitive verbs display a direct linking characteristic of nominative-accusative languages, and not an inverse linking.

(17) Nias direct transitive linking



Assuming that this analysis is essentially on the right track, we are confronted with the following two remaining issues:

1. How to account for superficial ergativity?

2. How to account for lack of subject properties in intransitives?

As we shall see shortly, the answer to these questions rests on the analysis of intransitives: in particular, I shall propose that Manning's theory needs to be extended, recognising a second canonical linking pattern for intransitives, which assigns the **S** to object, rather than subject function.

Intransitive linking revisited Supporting evidence for such an extension comes from Split-S systems, i.e. languages that systematically differentiate unergtive and unaccusative verbs. One such language is related, near-by Acehnese.

According to Durie (1987), the distinction between actor and non-actor arguments is grammaticalised in the Acehnese agreement system: while actor arguments of transitive and intransitive verbs trigger obligatory agreement on the verb, realised as a proclitic, non-actor arguments, including **S** arguments of unaccusative verbs and **O** arguments of transitives, only trigger optional agreement marking, realised by an enclitic.

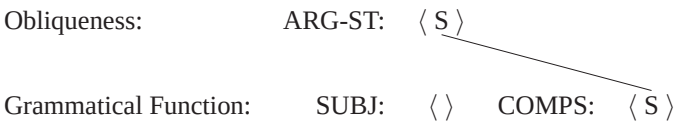
(18) a. (gopnyan) geu= jak
(3.S) 3.S= go
'(s)he goes' (Durie, 1987)

b. (gopnyan) rhët (=geuh)
(3.S) fall (=3.S)
'(s)he falls' (Durie, 1987)

(19) (gopnyan) ka lôn= ngieng (=geuh)
(3.S) CPL 1.S= see (=3.S)
'I saw him/her' (Durie, 1987)

In order to provide an account for Split-S systems and to capture the striking parallelism between non-actor **S** arguments with **O** arguments on the one side and between actor **S** arguments with **A** arguments of transitives on the other, we need to complement the intransitive linking pattern recognised in Manning and Sag (1999) with the following pattern, which maps the **S** argument of intransitives onto the COMPS valency list instead:

(20) "Inverse" intransitive linking



Besides grammaticalised mapping of **S** arguments to complement function, as witnessed by Acehnese, subject-less intransitives can also be observed in languages that otherwise canonically map **S** arguments of unaccusatives to SUBJ function (e.g. German).

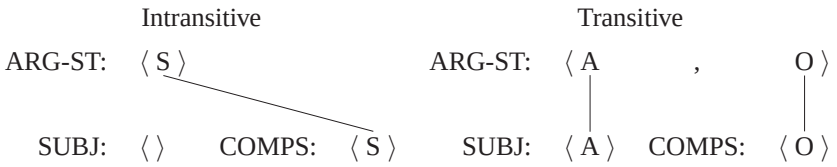
(21) a. weil mich friert
because me.ACC freezes.3.SG
'because I am freezing'

b. weil ich friere
because I.NOM freeze.1.SG
'because I am freezing'

As witnessed by the example above, the sole argument of a German verb like **frieren** can be realised either as an accusative direct object complement, or as a nominative subject. If the **S** argument is realised as a nominative subject, as in the b. sentence above, the verb obligatorily agrees with it, if it is realised as a complement, i.e., if the verb is subject-less, default third singular agreement is chosen.

This fourth linking type, independently motivated by Acehnese unaccusatives, will form the basis of our reanalysis of the Nias case and agreement system, ultimately enabling us to reconcile the superficial ergative split with the observed lack of subject properties of intransitive **S** arguments.

(22) Nias linking patterns



Thus, in contrast to most systems, which generalise the unergative pattern to all intransitives, Nias chooses the other option licensed by Universal Grammar, namely generalising the unaccusative linking pattern.

Once we adopt this position, a straightforward account of the properties of the Nias case and agreement system falls readily into place: treating **S** arguments of intransitives as surface complements accounts both for their lack of subject properties (marked case, no agreement in the Realis, no pro-drop) and for the superficially ergative pattern, as these arguments are mapped onto exactly the same grammatical functions as **O** arguments of transitives. Adopting an "inverse" intransitive linking instead of an ergative-type inverse transitive linking, our analysis of Nias can do full justice to the subject properties of **A** arguments as essentially a Nominative-Accusative system.

Case and Agreement in the Irrealis The approach outlined so far can be straightforwardly applied to account for case and agreement marking in the Nias Irrealis as well. As we have seen in section 1 above, case marking patterns in the Irrealis

are exactly parallel to those in the Realis. Since structural case assignment in a Manning-style linking theory applies on valence lists, we can conclude that the Realis/Irrealis alternation leaves the linking patterns unaffected.

With respect to agreement, however, we find considerable differences: while in the Realis, only **A** arguments (= surface subjects) control agreement and undergo pro-drop, both **A** and **S** arguments (= a-subjects), function as agreement controllers in the Irrealis. Likewise both can undergo pro-drop. Under the account presented here, the difference between Realis and Irrealis agreement patterns is captured by reference to the two different notions of subject. Recall further, that both types of agreement, that is agreement with s-subjects and agreement with a-subjects are cross-linguistically valid options.

Experiencer verbs (double mutation) The behaviour of experiencer-stimulus verbs ('like', 'be afraid of' etc.) also fits in quite neatly with this new perspective on Nias linking: in contrast to transitives, these verbs assign mutated case to both the experiencer and the stimulus, a fact that is easily derived, if we assume that these verbs pattern with intransitives (cf. Brown, 2001), as far as linking is concerned. As expected, agreement in the Realis is null.

(23) A-ta'u **mb**a'e **n**-ono matua
ST-fear MUT.monkey MUT.child male
'The monkey is afraid of the boy.' (Brown, 2005)

In the Irrealis, however, agreement morphology corresponds to the experiencer argument.

(24) Ndra-omasi **v**-a-maigi ono s=aßena tumbu.
3.P.I-like MUT-IPF-see child REL=just.now born
'They like to see the new born child.' (Brown, 2001)

Again, this is in line with our theory of case and agreement in Nias which states that Irrealis agreement should be independent of surface grammatical function, and therefore independent of case, whereas Realis agreement should always be controlled by an unmutated surface subject.

Word order The different status in terms of valency lists for mutated and unmutated arguments is further supported by word order facts. Umutated arguments in Nias surface in right-peripheral position, whereas mutated arguments appear closer to the verb.

According to HPSG's standard theory of subcategorisation (Pollard and Sag, 1994; Borsley, 1987), we actually expect SUBJ valencies to be realised outside head-complement structures, giving rise to a contoured phrase structure. Since unmutated **A** arguments are the only elements assigned to the SUBJ list under the current analysis, their peripheral realisation is actually predicted.

COMPS valencies, however, are saturated simultaneously by virtue of the Head-Complement Schema, giving rise to a flat phrase structure. Thus, if mutated **S** arguments are indeed complements they should, in principle, be able to surface in an internal position, intervening between the verb and other, more oblique complements. Again, this expectation is confirmed by A-subjects of experinecer verbs (Brown, 2001), which appear in internal position.

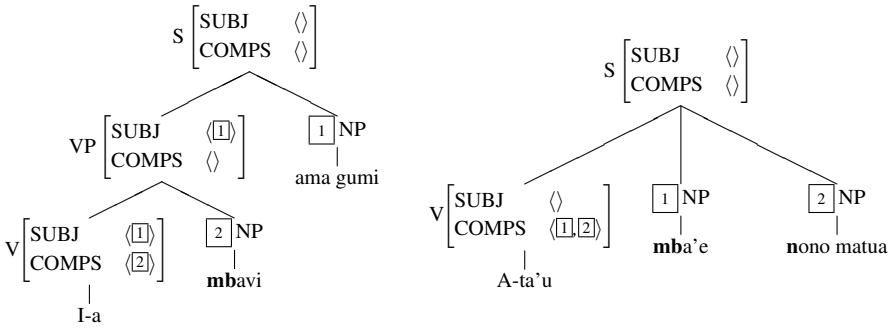


Figure 1: Peripheral vs. internal realisation

The perspective of Nias unmutated **A** arguments as nominative subjects, instead of ergative objects, also aligns quite well with typological observations regarding word order in Western Austronesian: As stated by Himmelmann (2005), VXS basic word order, together with evidence for a VP constituent is a common typological pattern in these languages.

3.2 Case assignment and agreement

In the previous section, we have seen how a change of perspective from Nias as an ergative language, to an accusative language with "inverse" linking of intransitives can account for the subject properties of unmutated **A** arguments (case, agreement, word order), the lack of such properties observed with unmutated **S** and **O** arguments. At the same time this shift in perspective models the superficial "ergativity" of the language, namely the similarity of **O** and **S** arguments, on the basis of their being non-subject complements.

In this section, we will develop the details of case assignment and agreement in Nias, systematically building on the linking suggested in the previous section.

3.2.1 Linking

The basis of our formal analysis of Nias case and agreement are the two linking patterns used to assign core arguments to grammatical functions. Oblique, non-core arguments are indiscriminately assigned to the COMPS list. Following Manning and Sag (1999), I shall assume that linking patterns are constraints on lexeme classes.[3] For our purposes, we shall capture the difference between core and oblique

[3] As a result, morphosyntactic rules will be able to derive non-canonical linkings.

arguments by reference to their case values.

Transistive verbs are characterised by having two core arguments on their ARG-ST list, whereas intransitive verbs only have one core argument. Both transitives and intransitives may specify additional oblique arguments.

(25) Direct transitive linking

$$\begin{bmatrix} \textit{lexeme} \\ \text{ARG-ST} \quad \left\langle \boxed{1}\,\text{NP}[\textit{core}], \boxed{2}\,\text{NP}[\textit{core}] \mid \boxed{3}\,\textit{list}\Big(\textit{XP[oblique]}\Big) \right\rangle \end{bmatrix}$$

$$\rightarrow \begin{bmatrix} \text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\,|\,\text{VAL} \begin{bmatrix} \text{SUBJ} & \left\langle \boxed{1} \right\rangle \\ \text{COMPS} & \left\langle \boxed{2} \mid \boxed{3} \right\rangle \end{bmatrix} \end{bmatrix}$$

(26) "Inverse" intransitive linking

$$\begin{bmatrix} \textit{lexeme} \\ \text{ARG-ST} \quad \left\langle \boxed{1}\,\text{NP}[\textit{core}] \mid \boxed{2}\,\textit{list}\Big(\textit{XP[oblique]}\Big) \right\rangle \end{bmatrix}$$

$$\rightarrow \begin{bmatrix} \text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\,|\,\text{VAL} \begin{bmatrix} \text{SUBJ} & \langle\rangle \\ \text{COMPS} & \left\langle \boxed{1} \mid \boxed{2} \right\rangle \end{bmatrix} \end{bmatrix}$$

3.2.2 Case assignment

Default case Brown (2001, 2005) has shown convincingly that unmutated case is both morphologically and functionally unmarked: apart from being used in citations, it is the case found in elliptical answers, on predicate nominals, and on non-initial conjuncts in coordinate structures Finally, Nias recognises at least two structural domains where case distinctions for core arguments are neutralised. Topicalised (pre-verbal) core arguments invariably surface in unmutated case, regardless of grammatical function. Similarly, core arguments of dependent predicates invariably appear in the unmutated case, including **O** and **S** arguments (see section 3.3 below). Systematic case alternation of the type described above is restricted to the canonical, postverbal position of finite verbs.

Given the heterogeneity of environments in which unmutated case can surface and its unmarked status, I shall adopt Brown's position and assume that unmutated case represents the default case marking in Nias.

In order to capture this intuition formally, we need to distinguish between morphosyntactic case and its morphological reflex (mutation).[4] The correspondence between the two will be captured by the following two implicational constraints, reminiscent of Feature Cooccurrence Restrictions (Gazdar et al., 1985):

(27) $\begin{bmatrix} \text{CASE} & \text{nom} \end{bmatrix} \rightarrow \begin{bmatrix} \text{MUT} & - \end{bmatrix}$

[4] Unless these two notions are represented as values of distinct features, purely morphological specifications will always be able to override the default constraint, without any syntactic licensing.

(28) $\left[\text{CASE} \quad \text{acc}\right] \rightarrow \left[\text{MUT} \quad +\right]$

Nominal inflectional rules merely register whether or not the noun is mutated. Nominative syntactic case is then specified as the default case in Nias:

(29) $\left[\text{SYNSEM}|\text{L}|\text{CAT}|\text{HD} \quad \textit{noun}\right] \rightarrow \left[\text{SYNSEM}|\text{L}|\text{CAT}|\text{HD}|\text{CASE} \quad \textit{/nom}\right]$

As depicted by the constraint above, default unmutated case is captured as a defeasible property of nominal signs: this is the case in which nominal expressions will surface, unless dictated otherwise by case assignment constraints.

Canonical case assignment Having established by way of linking constraints how core arguments are associated with grammatical functions, we can now restrict the assignment of structural case exclusively in terms of valence features.

(30) $\left[\begin{array}{l}\textit{word} \\ \text{SYNSEM}|\text{L}|\text{CAT}|\text{VAL}\left[\text{SUBJ} \quad \left\langle\left[\text{L}|\text{CAT}|\text{HD}|\text{CASE} \quad \textit{core}\right]\right\rangle\right]\end{array}\right]$
$\rightarrow \left[\text{SYNSEM}|\text{L}|\text{CAT}|\text{VAL}\left[\text{SUBJ} \quad \left\langle\left[\text{L}|\text{CAT}|\text{HD}|\text{CASE} \quad \textit{nom}\right]\right\rangle\right]\right]$

As depicted above, SUBJ valencies are indiscriminately assigned unmutated case, while core arguments on COMPS receive mutated case, as shown below.

(31) $\left[\begin{array}{l}\textit{word} \\ \text{SYNSEM}|\text{L}|\text{CAT}\left[\begin{array}{ll}\text{DEP} & - \\ \text{VAL} & \left[\text{COMPS} \quad \langle ...\boxed{1}\left[\text{L}|\text{CAT}|\text{HD}|\text{CASE} \quad \textit{core}\right]...\rangle\right]\end{array}\right]\end{array}\right]$
$\rightarrow \left[\text{SYNSEM}|\text{L}|\text{CAT}|\text{VAL}\left[\text{COMPS} \quad \langle ...\ \boxed{1}\left[\text{L}|\text{CAT}|\text{HD}|\text{CASE} \quad \textit{acc}\right]...\rangle\right]\right]$

Case assignment constraints apply to lexical signs of type *word*, i.e., maximal lexical signs. As a consequence, the case constraints will take into account the effects of valency-changing lexical rules.

Agreement As we have seen above, agreement patterns in Nias are sensitive to the major divide between Realis and Irrealis mood. Since Realis agreement is controlled by surface subjects, in line with unmutated case, we can straightforwardly constrain the verb's agreement feature to be reentrant with the INDEX feature of the SUBJ valency.

(32) Realis agreement (S-Subject)

$$\left[\text{SYNSEM}\,|\,\text{LOC}\left[\text{CAT}\left[\begin{array}{l}\text{HEAD}\left[\text{VFORM}\quad \textit{realis}\right]\\ \text{VAL}\,|\,\text{SUBJ}\,\langle\left[\text{LOC}\,|\,\text{CONT}\,|\,\text{HOOK}\,|\,\text{INDEX}\,\boxed{i}\right]\rangle\end{array}\right]\right]\right]$$
$$\rightarrow\left[\text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\left[\text{HEAD}\,|\,\text{AGR}\,\boxed{i}\right]\right]$$

Irrealis agreement, which is controlled by the thematically highest core argument is determined by the INDEX of the first member on ARG-ST, the A-subject.

(33) Irrealis agreement (A-subject)

$$\left[\text{SYNSEM}\,|\,\text{LOC}\left[\text{CAT}\left[\begin{array}{l}\text{HEAD}\left[\text{VFORM}\quad \textit{irrealis}\right]\\ \text{ARG-ST}\,\langle\left[\text{LOC}\,|\,\text{CONT}\,|\,\text{INDEX}\,\boxed{i}\right],\,\ldots\,\rangle\end{array}\right]\right]\right]$$
$$\rightarrow\left[\text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT}\left[\text{HEAD}\,|\,\text{AGR}\quad\boxed{i}\right]\right]$$

As can be easily verified, the set of constraints proposed thus far derive the basic case and agreement properties of Nias. What may not be so evident is that the current theory already covers case assignment to topicalised constituents, which appear in preverbal, rather than the canonical post-verbal position. Assuming a standard HPSG approach to Nias topicalisation in terms of lexical extraction rules, the relevant valency will have already been removed from either SUBJ or COMPS at the point where word-level case assignment rules apply. Thus, in the absence of local case assignment constraints, topicalised core arguments are free to receive default case.

3.3 Complex predicates

So far, we have only considered the case and agreement properties of basic finite verbs in the Realis and Irrealis. In this last section we will extend our approach to complex predicates used for the expression of progessives and purposives.

Imperfective constructions Besides the major system of Realis vs. Irrealis marking, verbs in Nias can also be inflected for Imperfective. As documented by Brown (2005), the language employs two distinct markers for this category, an infix *-um-* and the prefix *maN-*, the latter being used for transitives. Agreement in the Imperfective is always zero. Another peculiarity that sets the Imperfective apart from other verb forms is that both core arguments of transitive verbs appear with mutated case.

(34) Man-uri zawi ya
IPF-keep.alive MUT.cattle MUT.3SG
'He keeps cattle.' (Brown, 2005)

In the context of our approach, we can readily account for zero agreement and double mutation by means of a valence-changing lexical rule along the following lines:

(35)
$$\begin{bmatrix} \text{PH} & \boxed{0} \\ \text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT} & \begin{bmatrix} \text{VAL} & \begin{bmatrix} \text{SUBJ} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \boxed{2} \mid \boxed{3} \rangle \end{bmatrix} \end{bmatrix} \end{bmatrix}$$
$$\mapsto \begin{bmatrix} \text{PH} & \langle \text{maN} \rangle \oplus \boxed{0} \\ \text{SYNSEM}\,|\,\text{LOC}\,|\,\text{CAT} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \text{VFORM} & \textit{imperf} \end{bmatrix} \\ \text{VAL} & \begin{bmatrix} \text{SUBJ} & \langle\,\rangle \\ \text{COMPS} & \langle \boxed{2}, \boxed{1} \mid \boxed{3} \rangle \end{bmatrix} \end{bmatrix} \end{bmatrix}$$

The result of rule application will be a derived subject-less representation akin to that of experiencer verbs.

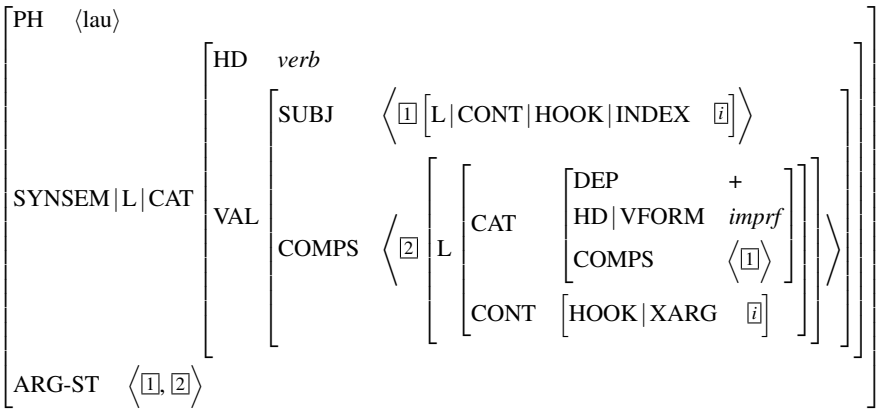
Progressive Alongside their independent use, imperfective verb forms also feature in two complex constructions, the progressive and the purposive (Brown, 2005). The progressive is formed by means of the verb *lau* 'do' typically taking an imperfective complement.

(36) *I*-lau t<um>ataro ba n-ora n-omo *ama-gu*
3.S.RLS-do IPF-sit LOC MUT-step MUT-house father-POSS.1.S
'My father is siting on the door step.' (Brown, 2001)

(37) *I*-lau ma-makha balale *ina-gu*
3.S.RLS-do IPF-weave basket mother-POSS.1.S
'My mother is weaving a basket.' (Brown, 2001)

In contrast to the Imperfective, the progressive "auxiliary" agrees with the raised **A** or **S** argument of the imperfective complement. Besides controlling agreement on the auxiliary, the raised argument exhibits further prototypical s-subject properties, namely unmutated case and (right-)peripheral surface position. Non-raised arguments receive default unmutated case, which is characteristic of dependent contexts (Brown, 2001, 2005).

I therefore propose the following lexical entry for the progressive raising verb *lau*:

(38)


As shown above, *lau* raises the unsaturated valency of its complement's highest argument onto its own SUBJ list. The restriction that raising can only target the highest argument of the verb is captured by reference to the XARG hook feature (Copestake et al., 2001), which points to the index variable of the verb's least oblique argument in the semantic representation (MRS; Copestake et al., 2005).

A brief note on the assignment of default case: as captured by the lexical entry of *lau* above (and, for that matter, that of purposive *möi* below), the feature structure of the dependent imperfective complement is restricted to be [DEP +]. Since our constraints on mutated case assignment given in the preceding subsection is conditioned on [DEP -], core arguments on the dependent verb's COMPS list will actually be exempt from structural case assignment, receiving default nominative case instead.

"Purposive clauses" The second complex predicate involving imperfective verbs as complements are so-called purposive clauses (see again Brown, 2001, 2005 for an overview of the construction).

(39) Möi **ndrao** ma-mili eu s=o-guna ba-omo
go 1.S.MUT IPF-choose wood REL=HAVE-use LOC-house
'I'm going to choose the wood for the house.' (Brown, 2001)

(40) *Gu*-möi manai böli-nia
1.S.IRR-go IPF.get price-POSS.3.S
'I'll go and get the money for it.' (Brown, 2001)

While non-raised complements of the dependent imperfective verb appear again with unmutated (default) case, the raised **A** or **S** argument is assigned mutated case. In addition to case, the raised argument in this construction displays all the other properties characteristic of surface objects, which clearly set it apart from the raised argument in the progressive: as illustrated by the examples above, the raised argument controls agreement in the Irrealis, but not in the Realis, suggesting that the argument is raised to COMPS, not SUBJ. Obligatory internal realisation further conforms the non-subject status of the raised argument.

As captured by the following lexical entry for *möi*, I suggest that this verb raises a distinguished argument of its imperfective complement onto its COMPS and ARG-ST list.

(41)
$$\left[\begin{array}{l}\text{PH}\quad\langle\text{möi}\rangle \\ \text{SYNSEM}\,|\,\text{L}\,|\,\text{CAT}\left[\begin{array}{ll}\text{HD} & \textit{verb} \\ \text{VAL}\left[\begin{array}{ll}\text{SUBJ} & \langle\,\rangle \\ \text{COMPS} & \left\langle \boxed{2}\left[\text{L}\left[\begin{array}{ll}\text{CAT} & \left[\begin{array}{ll}\text{DEP} & + \\ \text{HD}\,|\,\text{VFORM} & \textit{imprf} \\ \text{COMPS} & \langle\boxed{1}\rangle\end{array}\right] \\ \text{CONT} & \left[\text{HOOK}\,|\,\text{XARG}\quad \boxed{i}\right]\end{array}\right]\right]\right\rangle \\ & \boxed{1}\left[\text{L}\,|\,\text{CONT}\,|\,\text{HOOK}\,|\,\text{INDEX}\quad \boxed{i}\right],\end{array}\right]\end{array}\right] \\ \text{ARG-ST}\left\langle\boxed{1},\boxed{2}\right\rangle\end{array}\right]$$

To summarise our discussion of complex predicates, progressives exhibit the same clustering of S-subject properties characteristic of simple predicates, namely peripheral realisation (VOS word order), agreement in the Realis, and unmarked case. Likewise, raising to COMPS in the purposive construction replicates the clustering of non-subject properties already observed with experiencer verbs, namely internal realisation, lack of agreement in the Realis, and marked, mutated case.

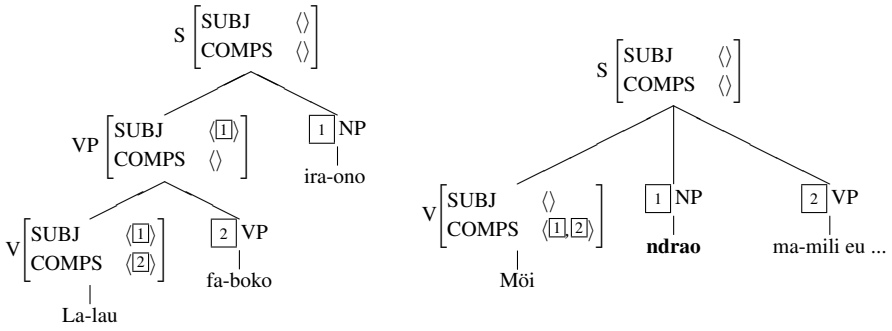


Figure 2: Peripheral vs. internal realisation of raised arguments

4 Conclusion

In this paper I have proposed an analysis of the Nias case and agreement system according to which transitives display a direct Nominative-Accusative linking pattern, whereas the sole argument of intransitives is mapped to direct object function (member of COMPS). Thus, unlike true ergative systems, which display an inverse linking of transitive core arguments, the alignment of **S** and **O** arguments in Nias is derived from an "inverse" intransitive linking. In contrast to most previous approaches,

which highlight the typological rarity of "marked absolutive" systems (Donohue and Brown, 1999; Corbett, 2006; Cysouw, 2005; Wichmann, 2005; Handschuh, 2008), the current analysis not only accounts for the superficially "ergative" alignment pattern, but also locates prototypical subject properties (agreement, unmarked case, external surface position) with the notion of grammatical subject. Under the alternative view, namely that of a Marked-Absolutive system, the apparent lack of subject properties of supposedly "absolutive" arguments remains a complete miracle.

On the basis of the Nias data, I have argued that the theory of argument structure-valence correspondence developed by Manning (1994); Manning and Sag (1999) should be extended with an alternative "inverse" linking patterns for intransitive verbs which assigns the sole core argument of intransitive verbs to COMPS valence list, rather than SUBJ. This move not only paves the way for a straightforward analysis of Nias case and agreement in terms of grammatical function, but was also shown to be independently motivated by Split-S systems like Acehnese, as well as lexical subject-less verbs in German.

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