

The emergence of stative-active systems in North Halmahera, Indonesia: The rise and fall of semantic alignment

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1. Introduction

The North Halmaheran (NH) subgroup of the West Papuan family comprises some ten languages spoken on the northern and eastern peninsulas of Halmahera, North Maluku, Indonesia, and some of the surrounding islands: Ternate, Tidore, Sahu, West Makian, Tobelo, Galela, Tabaru, Modole, Loloda, and Pagu.



The NH languages provide an interesting laboratory in which to examine the nature of semantic alignment.

- Semantic alignment is formally realized to varying degrees across the family. This intra-family variation can provide insight as to the origin and evolution of semantic alignment.
- Historical records can provide clues as to recent changes and changes in progress with respect to grammatical relations and semantic alignment.
- Within the West Papuan family, semantic alignment is evidenced most prominently in the NH languages.

The formal realization of grammatical relations vis-à-vis the alignment of semantico-syntactic macro-roles may be less relevant to understanding semantic alignment than the underlying categorization of intransitive predicates into active and stative classes. The formal realization of semantic alignment in terms of the assignment of distinct pronominal prefixes for active and stative intransitive verbs is likely to be a recent feature of NH languages, and some of the NH languages are already morphologically impoverished to the point that this type of formal semantic alignment can no longer be realized.

The formal realization of semantic alignment seen in some modern NH languages results from:

- a pre-theoretical insistence on using macro-roles to analyze grammatical relations
- an underlying semantic categorization of verbs based on lexical aspect which pervades the NH languages.

2. Pronominal prefixes

ACTOR	(UNDERGOER) RECIP REFLEX	CAUS	REDUP	ROOT	DIR	ASPECT	NEG
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Typology of NH person prefix systems

- A. languages without an undergoer pronominal prefix (Tidore)
- B. languages with an undergoer prefix
 - a. those which index stative verbs via actor paradigm (Sahu)
 - b. those which index stative verbs via undergoer paradigm
 - i. stative verbs formally transitive (Tobelo)
 - ii. stative verbs formally intransitive (Galela)

2.1 Argument status

The actor and undergoer prefixes are pronominal arguments, not cross-reference prefixes.

- (1) no-mi-hi-honenge-oka-ua
2A-3FEM:U-CAUS-die-PERF-NEG
'You didn't kill her'

While they may co-occur with full nominal arguments, pronominal prefixes do not normally co-occur with independent pronouns without a contrastive or emphatic reading.

- (2) mo-lio
3SG.FEM:A-return.home
'she went home'
- (3) ma-ngoheka mo-lio
NM-woman 3SG.FEM:A-return.home
'the woman went home'
- (4) muna mo-lio
3SG.FEM 3SG.FEM:A-return.home
'SHE went home'

Van Staden (2001) offers further arguments in favor of viewing actor and undergoer prefixes as pronominal arguments.

2.2 Actor prefixes

TABLE 1: NH ACTOR PREFIXES

	Ternate/ Tidore	Makian	Sahu	Tobelo	Galela	Tabaru	Modole	Loloda	Pagu
1SG	to	t	to	to	to	to	to	to	to
2SG	no	n	no	no	no	no	no	no	no
3SG:FEM	mo	i	mo	mo	mo	mo	mo	mo	mo
3SG:MASC	wo	i	o	wo	wo	wo	wo	o	wo
3SG	yo	i	i	i	i	i	i	i	i
1PL:INC	mo	a	wo	ho	po	po	po	wo	wo
1PL:EXC	fo	m	mi	mi	mi	mi	mi	mi	mi
2PL	no	f	ni	ni	ni	ni	ni	ni	ni
3PL	yo	d	a'di	yo	yo	yo	yo	i	yo

2.2.1 Semantics of the actor prefix

The semantic range of the actor prefix varies across the languages. Tobelo permits actor prefix with active intransitive verbs,

- (5) mo-lio
2A.FEM-return
'he went home'

but not with stative verbs,

- (6) *mo-tilibu
2A.FEM-pregnant

unless this verb is given the more dynamic inchoative interpretative 'became pregnant'. In Sahu actor prefix may be used with stative verbs as well.

- (7) ngowa'a la o-lamo'o
person very 3SG.MASC-big
'that person is very big'

2.2.2 Omission of actor prefix

In Tobelo the actor prefix is obligatory with all verbs.

- (8) una wo-lio
3MASC 3MASC:A-go.home
'HE went home'
- (9) *una lio
- (10) *Johanis lio

even in imperative constructions,

- (11) no-lio
2SG:A-go.home
'Go home!'

cannot be omitted even when an undergoer prefix is present,

- (12) ngohi to-ni-gohara
1PRO 1SG:A-2SG:U-hit
'Ihit you'

- (13) *ngohi ni-gohara

Actor prefixes are required in Tobelo even with semantically intransitive stative verbs which index their single argument via an undergoer pronominal prefix.

- (14) i-mi-tilibu
3A-3SG:U.FEM-pregnant
'she is pregnant'

Other NH languages less strict about this constraint against omission of the actor prefix, as in Galela,

- (15) ni-kiolo
2SG:U-asleep
'you are asleep'

also Modole

- (16) ma-ngoa'a ge wo-temo, apu, bote ni-to'ata
NM-child that 3SG.MASC-say granny surely 2SG:U-witch
'the child said: "Granny, you must be a witch"'

Modole transitive verbs may also occur without an actor prefix

- (17) o-nyawa moi w-a-ino mi-dahe
NM-person one 3SG:A-V-ABL 3SG.FEM:U-court
'someone came to court her'

- (18) de gena'ade wi-dihiwa o-wange
and then 3SG.MASC:U-shine.on NM-sun
'and then the sun shone on him'

Similarly, in Tabaru stative intransitive verbs may occur with an undergoer prefix and no actor prefix, as in the following example.

- (19) ni-tootasa
2PL:U-angry
'Y'all are angry'

However, in Tabaru the ability of stative verbs to occur without an actor prefix varies across the person paradigm.

- (20) i-na-tootasa
3A-1INC:U-angry
'We're angry'

In Galela actor prefixes may be also omitted with transitive verbs under certain discourse conditions.

- (21) o-nyawa ni-sano
 NM-person 2SG:U-ask
 ‘someone asked you’ (D. Sheldon 1986:235)

In all of the above languages, verbs must be inflected for at least one pronominal prefixes; no bare stem verbs occur. In Tidore Active intransitive verbs may occur with or without actor prefixes, with no apparent corresponding difference in pragmatic status of the referent (van Staden 2001).

- (22) muna wo-sari wo-wako
 3FEM 3FEM-be.about.to 3FEM-return
 ‘she is about to go home’

- (23) muna sari wako
 3FEM be.about.to return
 ‘she is about to go home’

In some cases Tidore verbs may not admit actor prefixes

- (24) ngofa ngge yo-peka (*yo-)tora
 child 3.DISTAL 3A-fall (*3A-)downwards
 ‘the child fell down’

In contrast, actor prefixes are never omitted in serial verb constructions in Tobelo.

- (25) o-gaharu yo-ija yo-uti
 NM-eagle.wood 3PL-buy 3PL-descend
 ‘the came down to buy eaglewood’

- (26) *o-gaharu yo-ija uti

The omission of actor prefixes has also been reported in some other NH languages. For example, Visser (1987) report that third-person singular and plural prefixes may be omitted in modern Sahu by younger speakers.

2.3 Undergoer

TABLE 2: NH UNDERGOER PREFIXES

	Sahu	Tobelo	Galela	Tabaru	Modole	Loloda	Pagu
1SG	ri	hi	i	i	i	d'i	i
2SG	ni	ni	ni	ni	ni	ni	ni
3SG:FEM	mi	mi	mi	mi	mi	mi	mi
3SG:MASC	u	wi	wi	wi	wi	i	wi
3SG	a	a	a	a	a	a	a
1PL:INC	na	na	na	na	na	na	na
1PL:EXC	mu'u	mi	mi	mi	mi	mi	mi
2PL	nu	ni	ni	ni	ni	ni	ni
3PL	a'u	a	a	ki	'i	d'a	ki

2.3.1 Semantics of the undergoer prefix

In Tobelo, Galela, Tabaru, Modole, etc., single participants of intransitive verbs are coded as undergoers when the verb codes a non-dynamic, atelic situation, as in Tobelo,

- (27) i-wi-magawe una
 3A-3MASC:U-diligent 3MASC:PRO
 ‘he was diligent’

What counts as “dynamic” varies from language to language. There are a number of Tabaru intransitive verbs which take actor prefixes but whose cognates in Tobelo and Galela take undergoer prefixes.

- (28)
- | | | | |
|----------------|-------------|------------------|---------|
| <i>siri</i> | ‘sick’ | <i>amoko</i> | ‘large’ |
| <i>piloko</i> | ‘blind’ | <i>tingoono</i> | ‘small’ |
| <i>potoono</i> | ‘healthy’ | <i>pesaka</i> | ‘wet’ |
| <i>faro</i> | ‘feverish’ | <i>tiikiti</i> | ‘cough’ |
| <i>kuata</i> | ‘strong’ | <i>patilanga</i> | ‘stiff’ |
| <i>kakuru</i> | ‘long’ | <i>morene</i> | ‘happy’ |
| <i>tebini</i> | ‘beautiful’ | <i>pelelaka</i> | ‘thin’ |
| <i>tiimono</i> | ‘aged’ | <i>pululunu</i> | ‘thick’ |
| <i>pereki</i> | ‘old’ | <i>burere</i> | ‘fat’ |
| <i>kudai</i> | ‘numerous’ | | |

While other stative verbs in Tabaru do require undergoer prefixes, as in Tobelo and Galela.

- (29)
- | | | | |
|-----------------|-------------|-----------------|---------------|
| <i>tootasa</i> | ‘angry’ | <i>todokana</i> | ‘frightened’ |
| <i>eto</i> | ‘drunk’ | <i>sawini</i> | ‘hungry’ |
| <i>tirine</i> | ‘tremble’ | <i>gogama</i> | ‘shiver’ |
| <i>punusu</i> | ‘satisfied’ | <i>tora</i> | ‘alarmed’ |
| <i>pelesoko</i> | ‘brave’ | <i>maeke</i> | ‘ashamed’ |
| <i>sowono</i> | ‘sob’ | <i>tuunisi</i> | ‘constipated’ |
| <i>tuuduku</i> | ‘bored’ | <i>modongo</i> | ‘afraid’ |

Distinction may be lexicalized, as in Tabaru

- (30) to-gogama (31) i-gogama
 1SG:A-have.a.fever 1SG:U-have.a.fever
 ‘I have a fever’ (“substitute”) ‘I have a cold’

In Tobelo and Galela nearly all verbs may occur either “active” or “stative”.

- (32) wo-eluku-oka (33) i-wi-eluku
 3MASC:A-lie-PERF 3A-3MASC:U-lie
 ‘he lied, told a lie’ ‘he is a liar’

(34)		ACTOR		UNDERGOER
	<i>birahi</i>	‘rejoice’		‘be happy’
	<i>hihanga</i>	‘go astray’		‘be lost’
	<i>kioko</i>	‘go to sleep’		‘be asleep’
	<i>lihiti</i>	‘sprain’		‘have a sprain’
	<i>modongo</i>	‘fear’		‘be afraid’
	<i>ngamo</i>	‘quarrel’		‘be quarrelsome’
	<i>tikiti</i>	‘cough’		‘cough continuously’
	<i>tohata</i>	‘angry’		‘evil’

2.3.2 Omission of undergoer prefix

Stative intransitive verbs which index their single argument via an undergoer pronominal prefix must retain that prefix

(35) *ngohi i-hi-bole* (**ngohi i-bole*) Tobelo
 1SG 3A-1SG:U-tired
 ‘I’m tired’

(36) *una wi-sapi* (**una sapi*) Galela
 3MASC 3MASC:U-hungry
 ‘he is hungry’

The most common domain for the omission of undergoer pronominal prefixes is with transitive verbs. Tobelo prefixes indexing non-referential undergoers may be omitted

(37) *o-pine t-a-ija*
 NM-rice 1SG:A-3U-buy
 ‘I bought the rice’

(38) *o-gota mi-a-tobiki de mi-a-bela-belaka*
 NM-wood 1INC:A-3U-break and 1INC:A-3-RDP-split
 ‘We bucked and split the wood’

(39) *o-pine to-ija*
 NM-RICE 1SG:A-buy
 ‘I went rice-shopping’

(40) *jadi ngohi to-lye-ua o-hilo*
 therefore 1PRO 1SG:A-get-NEG NM-resin
 ‘Therefore I didn’t get any resin’

In all languages undergoer prefixes do not co-occur with reflexive marking.

(41) *mi-wi-ohiki*
 1EXC:A-3MASC:U-bathe
 ‘we are bathing him’

(42) *mi-ma-ohiki*
 1EXC:U-RFLX-bathe
 ‘we are bathing (ourselves)’

In some languages undergoer prefixes appear to be in the process of being lost. In Sahu older speakers maintain the undergoer prefixes, while younger speakers tend to replace Undergoer prefixes with independent pronouns or full nominals (Visser & Voorhoeve 1987:30)..

(43) *ngoi ti-ni-elingi*
 1PRO 1SG:A-2SG:U-think.of
 ‘I think of you’ (formal speech)

(44) *ngoi ti-elingi ngana*
 1PRO 1SG:A-think.of 2PRO
 ‘I think of you’ (informal speech)

2.4 Summary

TABLE 3: CONSTRAINTS ON PRONOMINAL PREFIXES

Language	A obligatory	U paradigm	U obligatory	U w/stative
Tidore	-	-	n/a	n/a
Sahu	(+)	+	-	-
Tobelo	+	+	+	+
Galela	-	+	-	+
Tabaru	(+)	+	-	+
Modole	-	+	+	+

3. Formal realization of grammatical relations

Difficult to characterize using macro-roles S, A and P.

The NH languages lack nominal case marking for core argument roles.

Basic word order is AUV or AVU, but the frequency of alternate word orders renders word order an ineffective device for encoding grammatical relations.

(45) *wo-hi-tulung-oka una*
 3MASC:A-1U-help-PERF 3MASC:PRO
 ‘he helped me’

(46) *y-a-aiki-oka ma-buho de ipaha y-a-riri-oli*
 3PL:A-3U-remove-PRF NM-pandanus and then 3PL:A-3U-scrape-REP
 ‘Having removed the pandanus, they scrape it again’

y-a-riri,
 3PL:A-3U-scrape
 ‘they scrape it’

y-a-riri-oka,
 3PL:A-3U-scrape-PERF
 ‘having scraped it,’

y-a-woere.
 3PL:A-3U-dry
 ‘they dry it’

This leaves the pronominal prefix system as the primary resource for the formal marking of grammatical relations.

3.1 Tidore

Tidore lacks undergoer prefixes and follows nominative-accusative pattern.

- (47) mo-tagī
3FEM-go
'she is going'
- (48) mo-rohe
3FEM-pregnant
'she is pregnant'
- (49) muna mo-jang lau
3FEM:PRO 3FEM-beautiful too
'she is very beautiful'
- (50) muna mo-fuu nyao toma pasar
3FEM:PRO 3FEM:A-sell fish LOC market
'she sells fish in the market'

3.2 Sahu

Sahu has undergoer prefixes but still follows a nominative-accusative pattern

- (51) to-sapolo
1SG:A-arrive
'I arrived'
- (52) to-malata
1SG:A-cold
'I am cold'
- (53) to-ni-putulu (→ [tiniputulu])
1SG:A-2SG:U-beat
'I beat you'
- (54) no-ri-putulu (→ [niriputulu])
2SG:A-1SG:U-beat
'you beat me'

3.3 Tobelo

Tobelo can also be said to follow a nom-acc pattern, except that a large class of stative verbs which are coded as intransitive in Sahu are in Tobelo represented formally as transitive.

- (55) to-boa
1SG:A-arrive
'I arrived'
- (56) i-hi-maata
3A-1SG:U-cold
'I am cold'

- (57) no-hi-tidingi
2SG:A-1SG:U-punch
'you punched me'

The *i-* prefix is the same prefix used to index non-human (animate and inanimate) referents of active intransitive verbs,

- (58) i-boa
3A-arrive
'it (non-human) arrived'
- (59) ma-kapa i-ma-idulu
NM-ship 3A-RFLX-turn.over
'the ship turned around'

and thus functions as a non-referring pleonastic element—formal placeholder filling the subject position.

3.4 Galela

Clearest example of semantic alignment.

- | | | |
|--|---|---|
| (60) to-tagī
1SG:A-go
'I am going' | (61) ni-kiolo
2SG:U-asleep
'you are asleep' | (62) to-ni-doto
1SG:A-2SG:U-teach
'I teach you' |
|--|---|---|

3.5 Tabaru

A split system based on person.

- (63) i-punusu-okau so to-odomo-uwau
1SG:U-satiated-PERF thus 1SG:A-eat-NEG
'I am satiated so will eat no more'
- (64) po-okere po-maka-sano asa i-na-surugogo
1INC:A-drink 1INC:A-RECIP-ask FUT 3A-1INC:U-choke
'if we drink and ask each other, then we'll choke'

4. The rise and fall of semantic alignment

The formal realization of grammatical relations in Tobelo, Galela and Tabaru depends crucially on status of the *i-* prefix. No formal difference between Tobelo semantically intransitive undergoer constructions such as

- (65) i-hi-bole
3A-1SG:U-tired
'I am tired'

and semantically transitive constructions with 3rd sg non-human actor.

- (66) i-hi-goli
3A-1SG:U-bite
'it bit me'

No evidence of passivization. No corresponding transitive verb root *bole*.

The formal semantic alignment attested in Galela is clearly a recent phenomenon resulting from aphaeresis of the *i-* prefix (Kern 1892: 118).

- (67) i-i-toosa 'I am angry'
 i-ni-toosa 'you are angry'
 i-wi-toosa 'he is angry'
 i-mi-toosa 'she is angry'
 ...

However, other paradigms are defective, evidencing an erosion of the actor prefix (Kern 1892: 119).

- (68) i-wi-pereki 'he is old'
 mi-pereki 'she is old'

Modern Tobelo shows evidence of a similar change in progress.

Evidence that Sahu represents the decay of a formerly semantically aligned system (rather than preservation of original nom-acc system) is found in stative verbs not yet been completely reanalyzed as active intransitives.

- (69) wala (i-)lamo'o
 house (3A)-large
 'large houses/the house is large'
- (70) bele (i-)kiau
 banana (3A)-young
 'young bananas/the banana is young'

The loss of undergoer prefixes in Ternate, Tidore and West Makian is ostensibly due to contact with Austronesian languages, particularly the long-standing presence of Malay (Voorhoeve 1988). However, even Tidore shows some evidence for a stative category, in that actor prefixes occur less frequently on stative verbs than on active verbs (van Staden 2001: 79).

5. A possible scenario?

- Nominative-accusative systems with subject and object pronominal prefixes develop ways of marking stative "experiential" verbs via the object paradigm.
- Erosion of the now pleonastic subject prefix in such forms leads to a distinction between subjective and objective intransitive verbs.
- Loss of the undergoer prefix in Ternate, Tidore and West Makian leads to realignment by which all intransitive verbs inflect via the single remaining (actor) paradigm.
- Sahu drops undergoer prefix with stative verbs and is in the process of reanalyzing them as active.

Underlying the resulting multiplicity of formal systems is a semantic unity. The formal analysis of grammatical relations in NH languages is inherently unstable: even a slight change in a phonological or morphological feature can lead to complete reanalysis of the formal system for person-marking. And yet the underlying semantics of the systems remain consistent. While the NH languages may differ formally in the expression of grammatical

relations via verbal prefixes, all of the NH languages can be said to exhibit semantic properties consistent with semantically aligned systems. In short, the NH languages are semantically aligned in spirit, if not always in form. If indeed semantic alignment is an area feature, it is embodied more in this spirit than in the formal realization of grammatical relations.

Notes

Primary data sources used in this paper: Tidore (van Staden 2001); Sahu (Visser & Voorhoeve 1987); Galela (van Baarda 1891; H. Sheldon 1991); Tobelo (Holton 1999, 2003); Tabaru (Fortgens 1928); Modole (Ellen 1916). Additional data from van der Veen (1915) and from the author's field notes.

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