The rise and fall of semantic alignment in North Halmahera, Indonesia

GARY HOLTON

10.1 Introduction*

Among the non-Austronesian languages of Eastern Indonesia one commonly finds pronominal systems which exhibit more than one morphological pattern for indexing single arguments of intransitive verbs. In such languages core arguments are semantically aligned. That is, the two patterns for marking the single argument of an intransitive verb are distinguished not only formally, but also semantically. Active or agentive arguments follow one pattern, while stative or patientive arguments follow another. As the chapters in this volume attest, such semantically aligned systems are clearly not restricted to Eastern Indonesia or even to non-Austronesian languages. However, they are common enough in the region to lead Donohue (2004b) to propose semantic alignment as an areal tendency in Eastern Indonesia. Within this region semantic alignment cuts across genetic boundaries, occurring in genetically unrelated languages and realized to differing degrees within closely related languages. This distributorial pattern begs the question of how semantically aligned systems arise, and vice versa, how non-semantically aligned systems arise from originally semantically aligned ones. Evidence of both types of evolutionary development is presented here.

The North Halmaheran languages of North Maluku provide an interesting laboratory in which to examine the evolution of semantic alignment. Although

* Where not indicated otherwise, North Halmaheran data cited in this chapter derive from the author’s field work in Halmahera in 1995, supported in part by the Henry Luce Foundation, grant P95280F348B164. The author was assisted by many people in Halmahera, but special thanks are due to Yohanis Labi, Matias Oga, Paltiel Oga and family, Bapak Guru Kukihi and family, Domingus Diba, Frans Diba, Paulina Tindagi, Tobias Tjileni, and Jason Moloku. The author also wishes to thank the participants in the 2005 workshop on the typology of stative-active languages for extremely productive comments on an earlier version of this chapter. All responsibility for any remaining errors of fact or interpretation remains with the author.
the North Halmaheran languages form a closely related genetic subgroup within West Papuan, semantic alignment is formally realized to varying degrees among members of this group. Some North Halmaheran languages show robust formal patterns of semantic alignment based on a distinct pronoun choice for active and stative intransitive verbs; others show little or no evidence for semantic alignment. Still other languages lie somewhere in between, reflecting systems which exhibit semantic similarities with semantically aligned systems but which lack formal instantiation of semantic alignment. This intra-family variation can provide insight as to the origin and evolution of semantic alignment. Further insights can be gleaned from the wealth of historical documentation of North Halmaheran languages, dating from the late 19th century. Combined with modern documentation, historical records can provide evidence of recent changes in alignment patterns. This evidence may help us to understand whether semantic alignment is a genetic feature of West Papuan or an areal feature acquired after North Halmaheran migration. More broadly, knowledge of the evolution of semantic alignment within North Halmaheran may contribute to a better understanding of the semantic motivations for semantically aligned systems and the diachronic pathways by which these systems arise.

In this brief survey I suggest that 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 North Halmaheran languages. Indeed, some of the North Halmaheran languages are already morphologically impoverished to the point that this type of formal semantic alignment cannot be realized. I argue here that the formal realization of semantic alignment seen in some modern North Halmaheran languages is an epiphenomenon resulting from: (i) our pre-theoretical insistence on using macro-roles to analyse grammatical relations; and (ii) an underlying semantic categorization of verbs based on lexical aspect which pervades the North Halmaheran languages.

The North Halmaheran 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. These languages form a closely related group first recognized by Robide van der Aa (1872) (see Figure 10.1). The pronominal prefix systems in North Halmaheran languages have been traditionally characterized as having nominative-accusative alignment (cf. van der Veen 1915). However, many North Halmaheran languages contain a distinct subclass of ‘stative’

---

1 Semantically aligned systems are also reported in the non-Austronesian Yapen languages, which may be much more closely related to North Halmaheran than has been thought previously (Donohue 2005c).
"objective" intransitive verbs which index their single argument via the "object" paradigm. In at least some North Halmaheran languages there is no syntactic evidence on which to distinguish a formal object relation which aligns P as opposed to S and A roles. This is perhaps most clear in Galela, in which both A and SA roles are aligned in opposition to the P and Sp roles. Thus, the first person singular to- is found with both transitive to-ni-doto 'I teach you' and intransitive to-tagi 'I go'; while the form i- is found with both transitive no-i-doto 'you teach me' and intransitive i-bole 'I am tired'. By this evidence Galela pronominal prefixes provide a clear example of semantic alignment in North Halmaheran languages.

From a functional perspective other North Halmaheran languages can also be argued to be semantically aligned, even though they lack the clear morphological evidence of semantic alignment evidenced by the Galela examples above. For example, Tobelo, though superficially accusative displays characteristic properties of semantically aligned systems (Holton 2003: 55ff.). The difference has to due with the structure of the person-marking paradigms in each language, as discussed in the following section. Furthermore, even in Galela the picture is not quite as clear as the previous examples would indicate, since the occurrence of person-marking prefixes is governed by pragmatic factors related to topicality (Shelden 1986). Other languages exhibit similar variation in constraints on the occurrence of pronominal prefixes which necessarily complicate the interpretation of alignment patterns encoded by pronominal prefixes.

These differences in the morphosyntactic constraints on pronominal prefixes lead to huge differences in the formal realization of grammatical relations. In some North Halmaheran languages the pronominal prefixes can be argued to be semantically aligned: stative intransitive verbs cross-reference their single argument via an undergoer pronominal prefix, while active intransitive verbs cross-reference their single argument via an actor pronominal prefix. In other North Halmaheran languages actor prefixes must be present even with stative verbs, so that such languages reflect a formally nominative-accusative system. Nevertheless, almost all of the North Halmaheran languages exhibit a clear semantic distinction between active and stative verbs, and it is precisely this distinction which underlies the Galela 'split' within the intransitive verbs. That is not to say
that all intransitive verb roots may be categorized as either active or stative; in fact, many verb roots may occur as either active intransitive or stative intransitive (or indeed transitive) forms, with corresponding pronominal morphology. Moreover, while stative-active distinction such as that in Galela is found in many North Halmaheran languages, the precise semantic criteria on which the split is based vary significantly from language to language. In spite of the close correspondence between lexical forms, active intransitive verbs in one language may be stative in another.

The remainder of this chapter is organized as follows. Section 10.2 describes the distribution of pronominal prefixes in the North Halmaheran languages and the formal realization of alignment patterns. Section 10.3 examines the constraints governing the occurrence of pronominal prefixes. The underlying semantics governing the distinction between active and stative verbs are discussed in section 10.4, while section 10.5 discusses possible pathways for semantic realignment through the reanalysis of these semantic distinctions. Finally, section 10.6 presents a possible pathway by which semantic alignment may have arisen—and eventually faded—in North Halmaheran languages.

10.2 Pronominal prefixes

All of the North Halmaheran languages exhibit some form of a person-marking prefix system which cross-references nominal arguments on verbs. However, a major distinction can be made between the person-marking system in the 'insular' languages Ternate, Tidore, and West Makian and that in the 'mainland' languages Sahu, Tobelo, Galela, Tabaru, Modole, Loloda, and Pagu. The mainland languages contain two distinct paradigms of verbal person-marking prefixes, which I refer to here as 'actor' and 'undergoer'. The insular languages exhibit only the actor set. When both prefixes are present on the verb, the actor precedes the undergoer according to the basic verb template shown in Figure 10.2. While the basic verb template is the same across the North Halmaheran languages, the constraints on the occurrence of pronominal prefixes vary across the languages. First, as noted above, some North Halmaheran languages lack undergoer prefixes entirely. Even among those which do have undergoer prefixes, only some languages permit undergoer prefixes to be used with semantically intransitive (i.e. 'stative') verbs. Finally, those languages which index stative verbs via the undergoer paradigm may be in turn divided into those in which stative verbs are formally intransitive and those in which stative verbs are formally transitive.

2 Ternate, Tidore, and West Makian communities do in fact exist on the Halmaheran mainland, though these generally represent migrant communities. Similarly, significant Tobelo and Galela communities exist on islands surrounding Halmahera. The terms 'insular' and 'mainland' are used here as heuristic labels rather than precise geographic descriptions.

3 The terms 'actor' and 'undergoer' are used here as purely structural labels to distinguish two distinct paradigms of person-marking prefixes.
The latter employ a pleonastic actor prefix to mark the presence of an 'experiencer' object (cf. contributions by Malchukov and Mithun to this volume for typological discussion).

On the basis of the distribution of actor and undergoer prefixes it is thus possible to recognize four types of North Halmaheran pronominal prefix systems, corresponding to a primary division between those languages without undergoer pronominal prefixes and those with undergoer pronominal prefixes, as in Table 10.1. This table lists examples of languages for each of the four categories in this typology; but not all languages fit so neatly into these categories. For example, Tabaru verbs sometimes behave like Galela (category B.b.ii) and sometimes like Tobelo (category B.b.i.).

10.2.1 Argument status

The North Halmaheran actor and undergoer person-marking prefixes are pronominal arguments, not cross-reference prefixes. In particular, these prefixes are bound forms which cannot occur independently. They function as pronouns so that a single verb may stand alone as a complete utterance, as in the following Tobelo example.

(1) Tobelo

\textit{no-mi-hi-honenge-oka}

\textit{2A-3SG.FEM.U-Caus-die-PERF}

'You have killed her.' (Hueting 1936: 329)

While they may co-occur with full nominal arguments, person-marking prefixes do not co-occur with independent pronouns except with a contrastive or emphatic

\begin{table}
\centering
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
\textbf{ACTOR} & \textbf{(UNDERGOER)} & \textbf{RECIP} & \textbf{CAUS} & \textbf{REDUP} & \textbf{ROOT} & \textbf{ASPECT} & \textbf{NEG} \\
\hline
\end{tabular}
\caption{North Halmaheran verb template}
\end{table}

\begin{table}
\centering
\begin{tabular}{|l|}
\hline
\textbf{Table 10.1. Typology of North Halmaheran pronominal prefix systems} \\
\hline
A. Languages without an undergoer pronominal prefix (Tidore, W. Makian) \\
B. Languages with an undergoer prefix: \\
\hspace{1em} a. those which index stative verbs via actor paradigm (Sahu); \\
\hspace{1em} b. those which index stative verbs via undergoer paradigm: \\
\hspace{2em} i. stative verbs formally transitive (Tobelo); \\
\hspace{2em} ii. stative verbs formally intransitive (Galela). \\
\hline
\end{tabular}
\caption{Typology of North Halmaheran pronominal prefix systems}
\end{table}
reading. The Tobelo example in (2) shows a typical contrastive usage. The third singular masculine independent pronoun *una* in the second line contrasts that referent with the one in the first line.

(2) Tobelo

\begin{align*}
i-mi-bol & \quad ma \ m\-ruba-ua \\
3A-IEXCL.U-tired \ but \ IEXCL.A-trip-NEG & \quad 'we \ were \ tired \ but \ we \ didn't \ trip',
\end{align*}

\begin{align*}
ma \ una \ & \quad i-wi-timono \ jadi \ i-wi-bol \ de \ wo-ruba \\
but \ 3M.PRO \ 3A-3SG.M.U-old \ thus \ 3A-3SG.M.U-tired \ and \ 3SG.M.A-trip & \quad 'but \ HE \ was \ old \ so \ he \ was \ tired \ and \ he \ tripped.'
\end{align*}

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

10.2.2 Pronominal prefixes as markers of grammatical relations

Pronominal arguments are the sole locus of grammatical relations in North Halmaheran languages. In particular, North Halmaheran nouns are not marked for core case roles, though nouns and pronouns may be marked for non-core oblique roles via adpositions (3) or directional suffixes (4).

(3) Tobelo

\begin{align*}
de \ ma-kakatama \ n-a-lye-ino \\
with \ ART-tongs \ 2SG.A-3SG.U-roll-ALL & \quad 'Roll \ it \ up \ with \ the \ tongs.'
\end{align*}

(4) Tobelo

\begin{align*}
o-lyoku-iha \ & \quad to-oiki \\
ART-mountains-LANDWARD \ 1SG.A-gO & \quad 'I'm \ going \ inland \ to \ the \ mountains.'
\end{align*}

Core arguments of both intransitive and transitive verbs are unmarked for case. The same independent pronouns are used to reference the S_A, S_P, A, and P macro-roles. This is exemplified by the first singular pronoun *ngohi* in the following Tobelo examples.

(5) Tobelo

\begin{align*}
ngohi \ & \quad to-tag \i \\
1SG \ 1SG.A-gO & \quad 'I \ am \ going.'
\end{align*}

(6) Tobelo

\begin{align*}
ngohi \ & \quad i-hi-tag \\
1SG \ 3A-1SG.U-tired & \quad 'I \ am \ tired.'
\end{align*}

(7) Tobelo

\begin{align*}
ngohi \ & \quad to-ni-gohara \\
1SG \ 1SG.A-2SG.U-hit & \quad 'I \ hit \ you.'
\end{align*}

(8) Tobelo

\begin{align*}
ngohi \ & \quad no-hi-gohara \\
1SG \ 2SG.A-1SG.U-hit & \quad 'You \ hit \ me.'
\end{align*}
Full nominals may occur with articles, which are obligatory in some North Halmaheran languages. However, these articles do not mark case: the choice of article is independent of macro-role. For example, the Tobelo article o- occurs with both S_A (9) and S_P (10) arguments.

(9) Tobelo
   o-nyawa wo-boa
   ART-man 3SG.M.A-arrive
   'A/The man arrived.'

(10) Tobelo
    o-nyawa to-wi-gohara
    ART-man 1SG.A-3SG.M.U-hit
    'I hit a/the man.'

Word order, another cross-linguistically common device for encoding grammatical relations, is also unexploited by North Halmaheran languages for this purpose. While the unmarked word order in the mainland languages Tobelo, Galela, Tabaru, Modole, Loloda, and Pagu is verb-final, alternate orders are frequent enough to cause this to be an unreliable criterion by which to assign grammatical relations. For example, in Tobelo both actor and undergoer nominal arguments may occur following the verb, with both intransitive (11) and transitive (12) verbs.

(11) Tobelo
    i-wi-magawe una
    3A-3SG.M.U-diligent 3M.PRO
    'He was diligent.'

(12) Tobelo
    wo-hi-tulung-oka una
    3SG.M.A-1SG.U-help-PERF 3MASC.PRO
    'he helped me.'

In Tidore, Ternate, Sahu, and West Makian, word order is typically more strictly SVO. Nevertheless, alternate word orders are frequently attested.

Given the lack of nominal case marking or rigid word order, pronominal prefixes are the sole domain for encoding grammatical relations in North Halmaheran languages. However, the patterning of pronominal prefixes with respect to S, A, and P macro-roles derives largely from distributional morphological constraints on the occurrence of particular prefixes. As a consequence, seemingly small differences in morphology across the languages lead to radical differences in alignment. Some languages exhibit nominative-accusative patterns; others exhibit clear stative-active patterns. Still other languages exhibit split patterns with nominative-accusative and stative-active subsystems occurring in different domains. These three types of North Halmaheran alignment system are discussed in more detail in the following subsections.

10.2.2.1 Syntactically aligned systems North Halmaheran languages which lack undergoer pronominal prefixes exhibit a nominative-accusative system of grammatical relations. These can be said to be syntactically aligned, since they organize pronominal prefixes on syntactic rather than semantic principles. The actor prefix indexes A arguments and S arguments of both active and stative verbs (S_A and S_P). The following examples are from Tidore, but Ternate behaves
simply.\textsuperscript{4} Intransitive verbs all employ the same pronominal prefix.

(13) a. Tidore  
\textit{mo-tagi}  
3SG.F-go  
\textquoteleft She is going.\textquoteright{} (van Staden 2001)

b. \textit{mo-rohe}  
3SG.F-pregnant  
\textquoteleft She is pregnant.\textquoteright{}

\begin{tabular}{l}
\textit{mina mo-jang lau}  
3F 3SG.F-beautiful too  
\textquoteleft She is very beautiful.\textquoteright{}
\end{tabular}

The same set of prefixes indexes A arguments of Tidore verbs, in this case the 3rd person singular feminine \textit{mo-}.

(14) Tidore  
\begin{tabular}{l}
\textit{muna mo-fuu nyao toma pasar}  
3F.PRO 3SG.F-sell fish LOC market  
\textquoteleft She sells fish on the market.\textquoteright{} (van Staden 2001)
\end{tabular}

As will be discussed in the following section, pronominal prefixes are not obligatory in Tidore. Hence, this nominative-accusative alignment is not apparent when the pronominal prefixes are omitted.

West Makian exhibits a similar but slightly different system. Pronominal prefixes are obligatory, and the same prefix is used for both active intransitive verbs and for the A argument of transitive verbs. The vowel of pronominal prefixes of shape CV harmonizes with the following vowel; however, with stative intransitive verb roots the vowel of pronominal prefix is always a high front vowel (Voorhoeve 1982).

(15) West Makian  
\begin{tabular}{l}
\textit{to-toba}  
1SG.A-bathe  
\textquoteleft I bathe.\textquoteright{}
\end{tabular}

\begin{tabular}{l}
\textit{to-co eme}  
1SG.A-see 3PL  
\textquoteleft I see them.\textquoteright{}
\end{tabular}

\begin{tabular}{l}
\textit{ti-bele}  
1SG.A-hungry  
\textquoteleft I am hungry.\textquoteright{}
\end{tabular}

\textsuperscript{4} Ternate resembles Tidore in having a single pronominal prefix paradigm referencing the actor. However, the precise characteristics of the pronominal systems may differ in these two very closely related languages (cf. van Staden 2001: 17). See Watuseke (1991) for additional details.
The non-harmonizing prefixes are also associated with other classes of verbs, including what Voorhoeve (1982) refers to as directional verbs, those expressing movement in a certain direction. Consequently the category of stative intransitive verbs is not uniquely delimited by morphological properties of the pronominal prefixes. Moreover, as seen in (15), there is no distinct undergoer prefix paradigm and hence no pronominal prefix indexing the P argument of transitive verbs. The West Makian system can be described as nominative-accusative with a subclass of verbs which includes but is not limited to stative verbs.

Nominative-accusative patterns are found also in North Halmaheran languages with distinct actor and undergoer person-marking paradigms. In Sahu, for example, both active and stative intransitive verbs employ the same person-marking prefixes as used for the more agent-like argument of a transitive verb. Thus, the Sahu prefix to-indexes first person singular S_A, S_P, and A arguments in examples (16), (17), and (18), respectively (from Visser and Voorhoeve 1987).

(16) Sahu
to-sapolo
1sg.a-arrive
'I arrived.'

(17) Sahu
to-malata
1sg.a-cold
'I am cold.'

(18) Sahu
to-ni-putulu
1sg.a-2sg.u-beat
'I beat you.'

A distinct prefix ri- indexes the P macro-role.

(19) Sahu
no-ri-putulu
2sg.a-1sg.u-beat
'You beat me.'

Sahu thus behaves formally like Tidore, except that the P macro-role is explicitly marked via a pronominal prefix.

A formally nominative-accusative alignment is found in Tobelo as well. Tobelo also has a distinct set of undergoer pronominal prefixes which index the P macro-role. However, Tobelo differs from Sahu in the treatment of stative verbs. A large class of stative verbs which are coded as intransitive in Sahu, such as

5 As hinted at by Voorhoeve (1982: 13), the high front vowel may have different historical sources in the directional and stative verbs. However, the morphology is synchronically indistinguishable.
malata ‘cold’ in (17) above, are in Tobelo represented formally as transitive. The actor prefix slot is occupied by the 3rd person non-human prefix i- (glossed 3A), and the verbal argument is indexed via an undergoer prefix, as in (21) below.

(20) Tobelo

(21) Tobelo

to-boa
1SG.A-arrive
‘I arrived.’

i-hi-maata
3A-1SG.U-cold
‘I am cold.’

The same undergoer prefix is used to index the P argument of transitive verbs.

(22) Tobelo

no-hi-tidingi
2SG.A-1SG.U-punch
‘You punched me.’

The i- prefix in Tobelo stative verbs is the same prefix used to index non-human (animate and inanimate) referents of active transitive verbs.

(23) Tobelo

(24) Tobelo

i-boa
3A-arrive
‘It (non-human) arrived.’

ma-kapa i-ma-idulu
ART-ship 3A-REFL-turn.over
‘The ship turned around.’

However, in the case of Tobelo stative verbs the i- prefix has no definite reference or antecedent. The i- prefix in Tobelo stative verb constructions functions as a non-referring pleonastic subject which marks the presence of an experiencer object. The Tobelo stative construction in (21) thus differs from the corresponding Sahu construction in (17) in that the Tobelo form is syntactically transitive, while the Sahu form is syntactically intransitive.

10.2.2.2 Semantically aligned systems Galela behaves very much like Tobelo except that stative verbs occur without the pleonastic i- prefix. Like Tobelo, Galela has a distinct set of actor and undergoer pronominal prefixes. Active intransitive verbs index S_A arguments via the same paradigm used to index the A argument of transitive verbs.

(25) Galela

(26) Galela

no-tagi
2SG.A-go
‘You are going.’

no-wi-doto
2SG.A-3SG.M.U-go
‘You teach him.’

Stative intransitive verbs index S_P arguments via the same paradigm used to index the P argument of transitive verbs.

(27) Galela

(28) Galela

ni-kiolo
2SG.U-asleep
‘You are asleep.’

wo-ni-doto
3M.SG.A-2SG.U-teach
‘He teaches you.’
Galela thus provides what might be called a textbook example of semantic alignment. The S role is split in that the pronominal prefix system does not treat all intransitive verbs in the same way. Rather, arguments of both intransitive and transitive verbs are coded as actor or undergoer according to the underlying verbal semantics, namely lexical aspect. There are certain complexities to the Galela system (to be discussed in the following section), but the basic pattern is quite clear and reflects what might be called the prototypical instance of a semantically aligned system. However, such clear morphological evidence of semantic alignment is difficult to find in the other North Halmaheran languages.

10.2.2.3 Mixed systems Other North Halmaheran languages show a split between syntactic and semantic alignment in different domains. For example, Pagu combines features of both Galela and Sahu. Some Pagu stative intransitive verbs may occur with a single undergoer prefix and no actor prefix. Wimbish (1991: 43) cites the following two examples.

(29) Pagu
oras gena ngoi ni-dogoli i-togu-togum-uwa
time that 1PRO 1SG.P-labour 3A-RED-stop-NEG
'At that time I was having labour pains that didn’t stop.'

(30) Pagu
o-panyakit wi-daen
ART-disease 3SG.M-P-experience
'He had a disease.'

Other apparently stative verbs behave as in Sahu, requiring an actor prefix.

(31) Pagu
ai-lokat wo-sawin
3SG.M-POSS-husband 3SG.M-A-hungry
'My husband is hungry.' (Wimbish 1991: 32)

In Tabaru we find a mixture of Galela and Tobelo systems. Tabaru pronominal prefix alignment is split based on person. First person plural inclusive arguments of stative intransitive verbs behave as in Tobelo, requiring a pleonastic i- prefix.

(32) Tabaru
po-okere po-maka-sano asa i-na-surugogo
1INCH.A-drink 1INCH.A-RECIP-ask FUT 3A-1INCH.U-choke
'If we drink and ask each other, then we’ll choke.'

Other persons behave as in Galela, employing only the undergoer paradigm.

(33) Tabaru
i-punusu-okau so to-odomo-uwau
1SG.U-satiated-PERF thus 1SG.A-eat-NEG
'I am satiated so will eat no more.'
These examples from Pagu and Tabaru demonstrate only a few of the many ways in which mixed alignment systems can arise in North Halmaheran languages. From a purely synchronic point of view, Pagu and Tabaru can be viewed as split systems with semantic alignment localized in one part of the pronominal prefix system. But such a synchronic analysis ignores a fundamental lexical semantics which underlies the system. Significantly, the existence of mixed systems as in Pagu and Tabaru may help to delineate a diachronic pathway by which semantically aligned systems as in Galela may have evolved from syntactically aligned systems as in Tobelo. In order to understand this evolution it is necessary to examine more closely the constraints on the omission of pronominal prefixes.

10.3 Omission of pronominal prefixes

The discussion so far has tacitly assumed that pronominal prefixes are obligatory. In fact, in most North Halmaheran languages the occurrence of pronominal prefixes is governed by discourse constraints including topicality, referentiality, and definiteness. However, the precise constraints governing the occurrence of pronominal prefixes differ significantly among the languages, and these differences in the obligatoriness of pronominal prefixes help to explain the apparent differences in the formal realization of alignment patterns.

Among those languages which index the P argument of transitive verbs via an undergoer prefix, the indexing of non-human 3rd person undergoer arguments is governed by referentiality. In the following Tobelo examples the referential definite argument goto 'wood' in (34) is referenced via a pronominal prefix on the verb, while the non-referential argument hilo 'resin' in (35) is not.

(34) Tobelo
    o-gota mi-a-tobiki de mi-a-bela-belaka
    ART-wood 1INCH.A-3u-break and 1INCH.A-3-RDP-split
    'We bucked and split the wood.'

(35) Tobelo
    jadi ngohi to-lye-ua o-hilo
    therefore 1PRO 1SG.A-get-NEG ART-resin
    'Therefore I didn’t get any resin.'

Discourse factors conditioning the omission of undergoer prefixes in Galela and Pagu are discussed in more detail by Shelden (1986) and Wimbish (1991), respectively.

More relevant to the discussion of alignment are the constraints on the occurrence of actor prefixes. In Tobelo, the actor prefix is obligatory with all verbs. This constraint holds even when an independent pronoun or nominal argument is present, as the following Tobelo examples demonstrate.
In Tobelo, actor pronominal prefixes are obligatory even in imperative constructions.

Furthermore, Tobelo actor prefixes cannot be omitted even when an undergoer prefix is present.

Crucially, actor prefixes are required in Tobelo even with semantically intransitive stative verbs which index their single argument via an undergoer pronominal prefix. In this case the actor prefix position is filled by the 3rd person non-human actor prefix i- (or at least a morpheme homophonous with this one) which functions as a pleonastic marker lacking any explicit argument.

Because of the presence of this pleonastic actor prefix, Tobelo stative verbs are formally transitive.

Among the North Halmaheran languages Tobelo is particularly strict in enforcing the constraint against omission of the actor prefix. In other languages it is possible to omit actor prefixes under certain conditions. As was noted above, Galela stative intransitive verbs index their single argument via an undergoer prefix, and no actor prefix is present.
Galela actor prefixes may be also omitted with transitive verbs under certain conditions. Deidre Shelden (1986) proposes that Galela actor prefixes may be omitted when the referent is non-topical, or at least less topical than the undergoer referent.

(42) Galela
\[ \text{o-nyawa ni-sano} \]
\[ \text{ART-person 2SG.U-ask} \]
\[ 'Someone asked you.' (Shelden 1986: 235) \]

The constraints on actor prefixes are similar in Modole. Certain stative intransitive verbs, such as the nominal predicate -to'ata 'be a witch' in (43), may occur without an actor prefix.

(43) Modole
\[ \text{ma-ngoa'a ge wo-temo, apu, bote ni-to'ata} \]
\[ \text{ART-child that 3SG.M.A-say granny surely 2SG.U-witch} \]
\[ 'The child said: “Granny, you must be a witch.”’ (Ellen 1916) \]

Transitive verbs, such as -dahe 'to court' in (44) and -dihiwa 'shine on' in (45), may also occur without an actor prefix when the actor is non-topical.

(44) Modole
\[ \text{o-nyawa moi w-a-ino mi-dahe} \]
\[ \text{ART-person one 3SG.M.A-VP-ABL 3SG.FEM.U-court} \]
\[ 'Someone came to court her.' (Ellen 1916) \]

(45) Modole
\[ \text{de gena'ade wi-dihiwa o-wange} \]
\[ \text{and then 3SG.M.U-shine.on ART-sun} \]
\[ 'And then the sun shone on him.' (Ellen 1916) \]

In Tabaru, actor prefixes other than the pleonastic i- actor prefix cannot be omitted. However, as noted in the previous section, the i- actor prefix can be omitted with stative verbs when the undergoer argument is other than 1st person plural inclusive.

(46) Tabaru
\[ \text{ni-tootasa} \]
\[ 2PL.U-angry \]
\[ 'You (pl.) are angry.' (Fortgens 1928: 362) \]

A similar situation arises in Pagu, where continued reference to less important referents may be omitted. For example, in the Pagu text excerpt in (47) the first token of the verb -ao 'carry' occurs with an actor prefix i-, while the second token, in the immediately following line, occurs without i-.
Modole, Tabaru, and Pagu thus behave in some respects like Tobelo, requiring the pleonastic $i$-prefix with stative intransitive verbs, and in other respects like Galela, without a pleonastic $i$-prefix. Yet in all of these languages the presence or absence of the pleonastic $i$-prefix is tied to more general constraints on the occurrence of actor prefixes. Tobelo and Galela fall at opposite ends of a continuum of obligatoriness of actor prefixes. The obligatory nature of the pleonastic $i$-prefix with Tobelo stative intransitive verbs is a consequence of the obligatory nature of Tobelo actor prefixes more generally. This variation in the obligatoriness of actor prefixes underlies the apparent variation in patterns of alignment in North Halmaheran languages.

Indeed, this variation extends to languages which lack undergoer pronominal prefixes. For example, Tidore active intransitive verbs may occur with actor prefixes, as in (48), or without actor prefixes, as in (49), with no apparent corresponding difference in pragmatic status of the referent (van Staden 2001).

(48) Tidore
\[ muna \ wo-sari \ wo-wako \]
\[ 3F \ be.about.to \ return \]
\[ 'She is about to go home.' \]

(49) Tidore
\[ muna \ sari \ wako \]
\[ 3F \ be.about.to \ return \]
\[ 'She is about to go home.' \]

Actor prefixes in Tidore thus appear to be entirely optional, provided the referent can be sufficiently identified via accompanying pronoun or nominal. Thus, Tidore differs from both Tobelo and Galela in freely permitting bare stem verbs. In fact, in some cases Tidore verbs may not admit actor pronominal prefixes, as in some serial verb constructions.

(50) Tidore
\[ ngofa \ ngge \ yo-peka \]
\[ child \ \text{3.DISTAL} \ \text{3A-fall} \]
\[ 'The child fell down.' \]

In contrast, actor prefixes are never omitted in serial verb constructions in Tobelo.
TABLE 10.2. Constraints on person-marking prefixes in North Halmaheran languages

<table>
<thead>
<tr>
<th>Language</th>
<th>A obligatory</th>
<th>U paradigm</th>
<th>U obligatory</th>
<th>U with stative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tidore</td>
<td>-</td>
<td>-</td>
<td>n. a.</td>
<td>n. a.</td>
</tr>
<tr>
<td>W. Makian</td>
<td>+</td>
<td>-</td>
<td>n. a.</td>
<td>n. a.</td>
</tr>
<tr>
<td>Sahu</td>
<td>(+)</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tobelo</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Galela</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Tabaru</td>
<td>(+)</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Modole</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Pagu</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>(+)</td>
</tr>
</tbody>
</table>

(51) Tobelo

\[ o-gaharu \ yo-ija \ yo-uti \]

\[ \text{ART-sandalwood 3PL.A-buy 3PL.A-descend} \]

'They came down to buy sandalwood.'

\[ *o-gaharu \ yo-ija \ uti \]

The omission of actor prefixes with active intransitive verbs has also been reported in some other North Halmaheran languages. For example, Visser and Voorhoeve (1987) report that 3rd person singular and plural prefixes may be omitted in modern Sahu by younger speakers. However, 1st person singular actor prefixes are never omitted in Sahu, even by younger speakers.\(^6\)

As is evident from the preceding discussion, the differences in the behaviour of pronominal prefixes in the North Halmaheran languages derive largely from the status of the prefix as optional or obligatory in the various languages, as well as the treatment of stative verbs. The behaviour of pronominal prefixes can be summarized along four parameters: obligatoriness of the actor prefix; presence of an undergoer paradigm; the obligatoriness of the undergoer prefix; and the use of undergoer prefixes with semantically stative verbs. Table 10.2 categorizes the eight North Halmaheran languages for which the best data are available according to these three parameters. Those entries listed in parentheses indicate a feature which has been reported to be inconsistent. For example, younger speakers of Sahu reportedly omit the actor prefix. As it happens, each of these eight North Halmaheran languages exhibits a different set of values for these four parameters. Cross-language variation in the obligatory nature of verbal person-marking prefixes has profound implications for differences in the nature of grammatical relations in the various North Halmaheran languages.

\(^6\) It is not entirely clear whether one can conclude that the omission of 3rd person actor prefixes in modern Sahu results in bare stem verbs, as Visser and Voorhoeve offer no explicit examples beyond the statement on the bottom of p. 30, which could be interpreted as applying equally to transitive as intransitive verbs.
The variation in constraints on the occurrence of pronominal prefixes tends to obscure underlying alignment patterns. Arguably, this is due to the fact that the locus of semantic alignment lies not in the prefix system, but in the lexicon.

10.4 Semantic alignment and the lexicon

We must be careful not to paint all semantically aligned systems with the same broad brush. The distinction between 'agentive' systems, which base case marking on semantic properties of the participant, and 'active' systems, which base case marking on the lexical aspect or Aktionsart of the situation, has been well established. But semantically aligned systems may also be sensitive to much subtler distinctions (cf. Mithun 1991). Such subtleties are apparent across the North Halmaheran languages.

While North Halmaheran languages code actor as distinct from undergoer, the choice of what counts as an actor is highly lexicalized, based on the dynamicity of the verb itself. North Halmaheran semantic alignment thus reflects a stative-active pattern based on lexical aspect rather than an agent-patient system based on agency of the actor. The notion of actor as 'the participant which performs, effects, instigates, controls the situation denoted by the predicate' (Foley and Van Valin 1984: 29) is not relevant to the choice of pronominal prefix. Both controlling (52) and non-controlling (53) agents of dynamic intransitive verbs are coded with actor prefixes.

(52) Tobelo controlling agents requiring actor prefix
  \begin{tabular}{ll}
  \hline
  bata & 'jump'  \\
  hioru & 'paddle'  \\
  hoho & 'fly'  \\
  oara & 'run'  \\
  ohiki & 'bathe'  \\
  olyomo & 'eat'  \\
  temo & 'speak'  \\
  dumunu & 'dive'  \\
  toimi & 'shoot'  \\
  \hline
  \end{tabular}

(53) Tobelo non-controlling agents requiring actor prefix
  \begin{tabular}{ll}
  \hline
  adono & 'reach'  \\
  ari & 'cry'  \\
  gegoto & 'worry'  \\
  gehanga & 'yawn'  \\
  gogere & 'live', 'dwell'  \\
  guroko & 'snore'  \\
  hangeru & 'sneeze'  \\
  iete & 'laugh'  \\
  wunenge & 'vomit'  \\
  \hline
  \end{tabular}
Even non-agents may be coded as actors in Tobelo provided they are participants in a dynamic event.

(54) Tobelo non-agentive verbs requiring actor prefix

\[ \text{honenge} \quad \text{‘die’} \]
\[ \text{lyahini} \quad \text{‘drift’} \]

On the other hand, participants can be grammatically encoded as undergoers even when they are semantically performing, effecting or instigating (in the sense of Mithun 1991), as with \text{gogama} ‘shivering’ and \text{kioko} ‘asleep’ above, and \text{magawe} ‘diligent’ in (55).

(55) Tobelo

\[ i\text{-wi-magawe} \quad \text{una} \]
\[ 3A\text{-3SG.M.U-diligent} \quad 3M\text{.PRO} \]

‘He was diligent,’

\[ de \quad ai\text{-hininga} \quad i\text{-rahai} \]

and \text{3SG.M.POSS 3A-good}

‘and his heart was good.’

The crucial factor for determining choice of pronominal prefix with Tobelo intransitive verbs is the dynamicity of the verb itself. Yet just which situations are construed as dynamic and which are construed as static can vary across the North Halmaheran languages. While Tobelo and Galela behave nearly identically in this respect, other languages differ.

For example, there are a number of Tabaru intransitive verbs which take actor prefixes but whose cognates in Tobelo and Galela take undergoer prefixes. Some Tobelo forms of these verbs are listed in (56) below.

(56) Tobelo stative intransitive verbs whose Tabaru cognates take actor prefixes

\begin{tabular}{ll}
\text{siri} & ‘sick’ \\
\text{piloko} & ‘blind’ \\
\text{potoono} & ‘healthy’ \\
\text{faro} & ‘feverish’ \\
\text{kuata} & ‘strong’ \\
\text{kakuru} & ‘long’ \\
\text{tebini} & ‘beautiful’ \\
\text{timono} & ‘aged’ \\
\text{pereki} & ‘old’ \\
\text{kudai} & ‘numerous’ \\
\end{tabular}

\begin{tabular}{ll}
\text{amoko} & ‘large’ \\
\text{tingoono} & ‘small’ \\
\text{pesaka} & ‘wet’ \\
\text{tiikiti} & ‘cough’ \\
\text{patilanga} & ‘stiff’ \\
\text{morene} & ‘happy’ \\
\text{pelelaka} & ‘thin’ \\
\text{pululunu} & ‘thick’ \\
\text{burere} & ‘fat’ \\
\end{tabular}

Thus, the verb ‘sick’ is coded as a stative verb with undergoer prefix in Tobelo and Galela, while the cognate form in Tabaru is coded as an active verb with actor prefix. On the other hand, there exist a number of other stative intransitive verbs in Tobelo and Galela whose Tabaru cognates do require undergoer prefixes, as in (57).
Gary Holton

(57) Tobelo stative intransitive verbs whose Tabaru cognates take undergoer prefixes

\[
\begin{array}{ll}
tootasa & \text{‘angry’} \\
eto & \text{‘drunk’} \\
tirine & \text{‘tremble’} \\
punusu & \text{‘satisfied’} \\
pelesoko & \text{‘brave’} \\
sowono & \text{‘sob’} \\
tuuduku & \text{‘bored’} \\
todokana & \text{‘frightened’} \\
sawini & \text{‘hungry’} \\
gogama & \text{‘shiver’} \\
tora & \text{‘alarmed’} \\
maeke & \text{‘ashamed’} \\
tuunisi & \text{‘constipated’} \\
sowono & \text{‘satisfied’} \\
tuuduku & \text{‘bored’} \\
\end{array}
\]

Thus, while Tabaru is semantically aligned (in at least part of the person marking paradigm), the semantics governing the distinction between the S_A and S_P roles differ from those in Galela. Tabaru and Galela differ in terms of what counts as ‘dynamic’. That is, dynamicity is lexicalized.

Nevertheless, semantics still plays an active role in the lexicon of North Halmaheran languages. Nearly all intransitive verb roots may occur in either ‘active’ or ‘stative’ form. That is, they may cross-reference their single argument by either the actor or undergoer paradigm, with concomitant change in lexical semantics. For example, the Tobelo verb eluku ‘lie, deceive’ may index a single core argument via the actor (58) or undergoer (59) paradigm.

(58) Tobelo

\[
\begin{array}{ll}
\text{wo-eluku-oka} & \text{3SG.M.A-lie-perf} \\
\text{i-wi-eluku} & \text{3A-3SG.M.U-lie} \\
\end{array}
\]

‘He lied.’

‘He is a liar.’

The division here is based on lexical aspect. The actor intransitive verb eluku is construed as a single telic action; the undergoer intransitive verb is eluku is construed as an atelic state, without a well-defined end point. Thus, (59) might be equally well glossed as ‘He continuously lies’ or ‘He is in a state of lying’. Additional examples from Tobelo are given in (60).

(60) Tobelo intransitive verbs which take actor or undergoer prefixes

\[
\begin{array}{ll}
\text{birahi} & \text{‘rejoice’} \\
hihanga & \text{‘go astray’} \\
kioko & \text{‘go to sleep’} \\
lhiti & \text{‘sprain’} \\
lmodongo & \text{‘fear’} \\
nismo & \text{‘quarrel’} \\
tikiti & \text{‘cough’} \\
tohata & \text{‘angry’} \\
\end{array}
\]

\[
\begin{array}{ll}
\text{‘be happy’} \\
\text{‘be lost’} \\
\text{‘be asleep’} \\
\text{‘have a sprain’} \\
\text{‘be afraid’} \\
\text{‘be quarrelsome’} \\
\text{‘cough continuously’} \\
\text{‘evil’} \\
\end{array}
\]

Whether or not one conceives of verbs such as those in (60) as having two distinct lexical entries corresponding to different lexical semantics, Tobelo alignment is ‘fluid’ in the sense that most intransitive verb roots can occur with either actor
or undergoer morphology, with concomitant difference in lexical semantics. In Tobelo, stative intransitive verbs are formally encoded as transitive, with a pleonastic *i-* prefix. In Galela, both active and stative intransitive verbs are coded as intransitive. There may be subtle variations in the semantics of the pronominal prefixes across the North Halmaheran languages, but the choice of actor vs. undergoer pronominal prefix is ultimately governed by semantics.

Indeed, the very fact that the split between $S_A$ and $S_P$ can be made in different ways by closely related languages can be said to be a hallmark of semantically aligned systems, which are much freer to make subtle adjustments to the semantic parameters which govern them. Such phenomena are not unknown in syntactically aligned systems, witness dative subject in European languages, for example; however, such variation in the formal realization of argument marking is arguably more common in semantically aligned systems. So it is that Tobelo and Galela treat stative verbs very differently from Tidore and Sahu, while Tabaru lies somewhere in between, with some stative intransitive verbs taking undergoer prefixes as in Tobelo and Galela, and others taking actor prefixes as in Tidore and Sahu.

10.5 Semantic realignment

While they may differ formally, semantically aligned systems like Galela are not so different from syntactically aligned systems such as Tobelo. Both types of system index the single argument of lexically stative, non-dynamic, atelic verbs using the undergoer paradigm. The difference lies in the presence of the pleonastic *i-* actor prefix in Tobelo. The formal realization of alignment depends crucially on the status of the *i-* prefix.

Most existing descriptions analyse stative verbs as a kind of passive (cf. van Baarda 1891). If *i-* were to be analysed as a passive marker, then this would be a non-promotional passive, since the passive ‘subject’ remains in situ as an undergoer. One might consider *i-* to be a detransitivizing morpheme which neutralizes the actor argument. Yet in Tobelo there is no formal difference between semantically intransitive (single-participant) undergoer constructions such as (61) and semantically transitive (two-participant) constructions with 3rd person singular non-human actors, as in (62).

(61) Tobelo  
*i-hi-bole*  
3A-1SG.U-tired  
'I am tired.'

(62) Tobelo  
*i-hi-goli*  
3A-1SG.U-bite  
'It bit me.'

That is, there is no evidence that the construction in (61) has been passivized. Some Tobelo verb roots can indeed occur as either formally intransitive or formally transitive, with either one or two pronominal prefixes, respectively. Yet most stative intransitive verbs do not occur as transitives. In particular, there is no corresponding transitive verb root *bole*. So if (61) is a passive then it has no
active transitive counterpart. Ultimately, the analysis of Tobelo stative intransitive constructions with *i*- as passives relies on an analogy with European languages. The *i*- prefix may indeed have a historic role as an actor marker, but it no longer functions synchronically in this way.

Tobelo and Galela represent two poles on a continuum of possibilities for undergoer cross-referencing in North Halmaheran languages. Tobelo requires the *i*- prefix with all semantically intransitive stative verbs; in Galela, the *i*- prefix is never present. Other languages fall somewhere in between. For example, in Tabaru the *i*- prefix occurs with some persons but not others. Comparative and historical evidence suggests that constraints on the occurrence of the pleonastic *i*- prefix have changed significantly in the recent history of North Halmaheran languages, leading to realignment of the pronominal prefix system in some languages.

The formal semantic alignment attested in Galela is clearly a recent phenomenon resulting from aphaeresis of the *i*- prefix. While modern Galela lacks the *i*- prefix in undergoer intransitive verbs, data from the late 19th century show a change in progress. Most Galela stative verbs cited by van Baarda (1891, 1895) and Kern (1891, 1892) include the *i*- prefix as in modern Tobelo. For example, the *i*- prefix is present throughout the paradigm for *toosa* 'angry' (Kern 1892: 118).

\[(63) \text{Galela} \]
\[
\begin{align*}
  i-i\text{-}toosa & \quad \text{‘I am angry’} \\
  i-ni\text{-}toosa & \quad \text{‘you are angry’} \\
  i-wi\text{-}toosa & \quad \text{‘he is angry’} \\
  i-mi\text{-}toosa & \quad \text{‘she is angry’}
\end{align*}
\]

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

\[(64) \text{Galela} \]
\[
\begin{align*}
  i-wi\text{-}pereki & \quad \text{‘he is old’} \\
  mi\text{-}pereki & \quad \text{‘she is old’}
\end{align*}
\]

Modern Tobelo shows evidence of a similar change in progress. While citation forms of stative verbs appear with initial *i*-, the prefix is frequently elided in fast speech. The *i*- prefix is never lost when it functions as an actor argument marker referencing non-human actors; aphaeresis is possible only when the *i*- is functioning as a pleonastic form with no argument status.

The use of constructions with ‘experiencer’ objects to code stative verbs is actually quite common in Eastern Indonesia and New Guinea. For example, Reesink (1998) identifies a set of ‘experiential verbs’ in Sougb (East Bird’s Head) which inflect via the undergoer (‘object’) paradigm. Actor pronouns are prefixes, while undergoer pronouns are suffixes. However, the 3rd person singular actor prefix is Ø-, and hence constructions such as the following are reminiscent of
Tobelo stative verbs.

(65) Sougb (East Bird's Head)
   (Ø-)areb-et
   (3SG.A-)sick-1SG.u
   'I am sick.'

The verb areb is actually a complex form consisting of ara 'something' and eb 'do'; thus, (65) is literally 'it did something to me'. It seems likely that these constructions have arisen from some sort of inanimate causer, as noted by Boelaars (1950) for Marind (Trans New Guinea).

If stative constructions in North Halmaheran languages arise from experiencer verb constructions, then languages such as Sahu must have undergone a reanalysis by which all intransitive verbs, including statives, were indexed via the actor paradigm, presumably by analogy with active intransitives. Yet in spite of this reanalysis, sensitivity to lexical aspect can still be detected in Sahu. It has been reported that certain Sahu stative verbs may occur without actor prefixes in certain contexts.

(66) Sahu
   wala (i-)lamo'o
   house (3A)-large
   'Large house'/'The house is large.'

(67) Sahu
   bele (i-)kiau
   banana (3A)-young
   'Young banana'/'The banana is young.'

Visser and Voorhoeve ascribe the difference between the presence or absence of the actor prefix in examples such as (66) and (67) to a difference between predication and attribution, respectively. In fact, either construction can be used either attributively or predicatively. Visser and Voorhoeve go on to acknowledge as much in noting that constructions involving the adverbial particle la 'very' may yield either meaning. Thus, ngo’om la i-tiara may mean 'the very long road' or 'the road is very long'.

The lack of a morphological distinction between attributive and predicative adjectival verb constructions has been reported also for Tobelo (Holton 1999). In Sahu the crucial point is that the bare-stem constructions without the actor prefix co-exist with pure nominal forms containing the article ma-, as in (68).

(68) Sahu
   wala ma-lamo'o
   house ART-large
   'The large house.'
Unlike the bare-stem forms above, these nominal forms do not admit a predicative interpretation. It seems plausible to interpret the bare-stem forms in (66) and (67) as verbs which lack pronominal prefixes. Thus, a class of Sahu stative intransitive verbs can be morphologically delineated by their ability to occur without an actor pronominal prefix. And this class consists precisely of those which in Tobelo and Galela occur with undergoer pronominal prefix.

Syntactically aligned North Halmaheran languages such as Tidore reflect a somewhat different path of evolution through which undergoer prefixes have been lost entirely. Other North Halmaheran languages appear to be presently evolving in that direction. For example, in Sahu the use of undergoer prefixes is currently giving way to the use of independent pronouns (Visser and Voorhoeve 1987: 30). Older speakers maintain the undergoer prefixes, as in (69):

\[(69) \quad \text{Sahu} \]

\[
\begin{align*}
goi & \quad ti-ni-elingi \\
1\text{PRO} & \quad 1\text{SG.A}-2\text{SG.U-think.of} \\
'I & \text{think of you.' (formal speech)}
\end{align*}
\]

while younger speakers tend to replace undergoer prefixes with independent pronouns or full nominals, as in (70):

\[(70) \quad \text{Sahu} \]

\[
\begin{align*}
goi & \quad ti-elingi \quad ngana \\
1\text{PRO} & \quad 1\text{SG.A}-\text{think.of} \quad 2\text{PRO} \\
'I & \text{think of you.' (informal speech)}
\end{align*}
\]

The loss of undergoer prefixes in Tidore, West Makian, and (eventually) Sahu is ostensibly due to contact with Austronesian languages, particularly the long-standing presence of Malay (Voorhoeve 1988). However, even those languages which have lost undergoer prefixes may show some evidence for a stative category. Although actor prefixes are optional in Tidore, van Staden (2001: 79) notes that actor prefixes occur less frequently on 'adjectives' (stative verbs in the other North Halmaheran languages) than on verbs. This trace of a stative category thus survives in Tidore in spite of the formal realignment of the pronominal system.

10.6 The rise and fall of semantic alignment

Given knowledge of the current synchronic variation in the formal alignment patterns, we can outline a possible scenario by which semantic alignment may have arisen in North Halmaheran languages. The internal comparative evidence suggests that proto-North Halmaheran probably reflected a syntactically aligned system much as in modern Tobelo. Experiencer object constructions gave way
to the use of a pleonastic subject prefix with stative verbs. The erosion of the now pleonastic subject prefix in such constructions led to a distinction between subjective and objective intransitive verbs, that is, a distinction in the marking of $S_A$ and $S_P$. This change is complete in Galela; nearly complete in Pagu and Modole; somewhat complete in Tabaru; and perhaps beginning in modern colloquial Tobelo. In contrast, in Tidore and West Makian, loss of the undergoer prefix has led to further realignment by which all intransitive verbs inflect via the single remaining (actor) paradigm. Sahu appears to be headed along a similar path. Sahu drops the undergoer prefix with stative verbs and is in the process of reanalysing them as active. These various stages in the evolution of alignment can be summarized along a cline from syntactic to semantic alignment. Erosion of the pleonastic actor prefix yields semantically aligned systems (right arrow in Figure 10.3), while further erosion of undergoer prefixes yields syntactically aligned systems (left arrow).

The return path of historical evolution from semantic alignment to syntactic alignment is somewhat speculative (hence the dashed arrow). Additional data may help to clarify whether languages like Tidore evolved through a previously semantically aligned stage or, alternately, directly from a syntactically aligned system through loss of undergoer prefixes. Nevertheless, the evidence for the cline from syntactic toward semantic alignment is substantial. The development of a pleonastic subject prefix and the subsequent reanalysis of object markers as undergoer markers may constitute an important mechanism in the rise of semantic alignment.

Even more striking is the degree to which the North Halmaheran languages share important semantic features in spite of differences in formal alignment patterns. As we have seen, both Tobelo and Galela exhibit nearly identical alternations between active intransitive and stative intransitive verbs, yet the requirement of a pleonastic subject prefix in Tobelo but not Galela renders the Tobelo system syntactically aligned and the Galela system semantically aligned. The modern multiplicity of formal alignment systems belies an underlying semantic unity. The formal analysis of alignment patterns in North Halmaheran 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 North Halmaheran languages may differ formally in the expression of alignment via verbal prefixes, all of the North Halmaheran languages can be said to exhibit semantic properties consistent with semantically aligned systems. In short, the North Halmaheran languages are semantically aligned in spirit, if not always in form.