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The Wambon relator system
Lourens de Vries
Sentani, Irian Jaya, Indonesia

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L. de Vries

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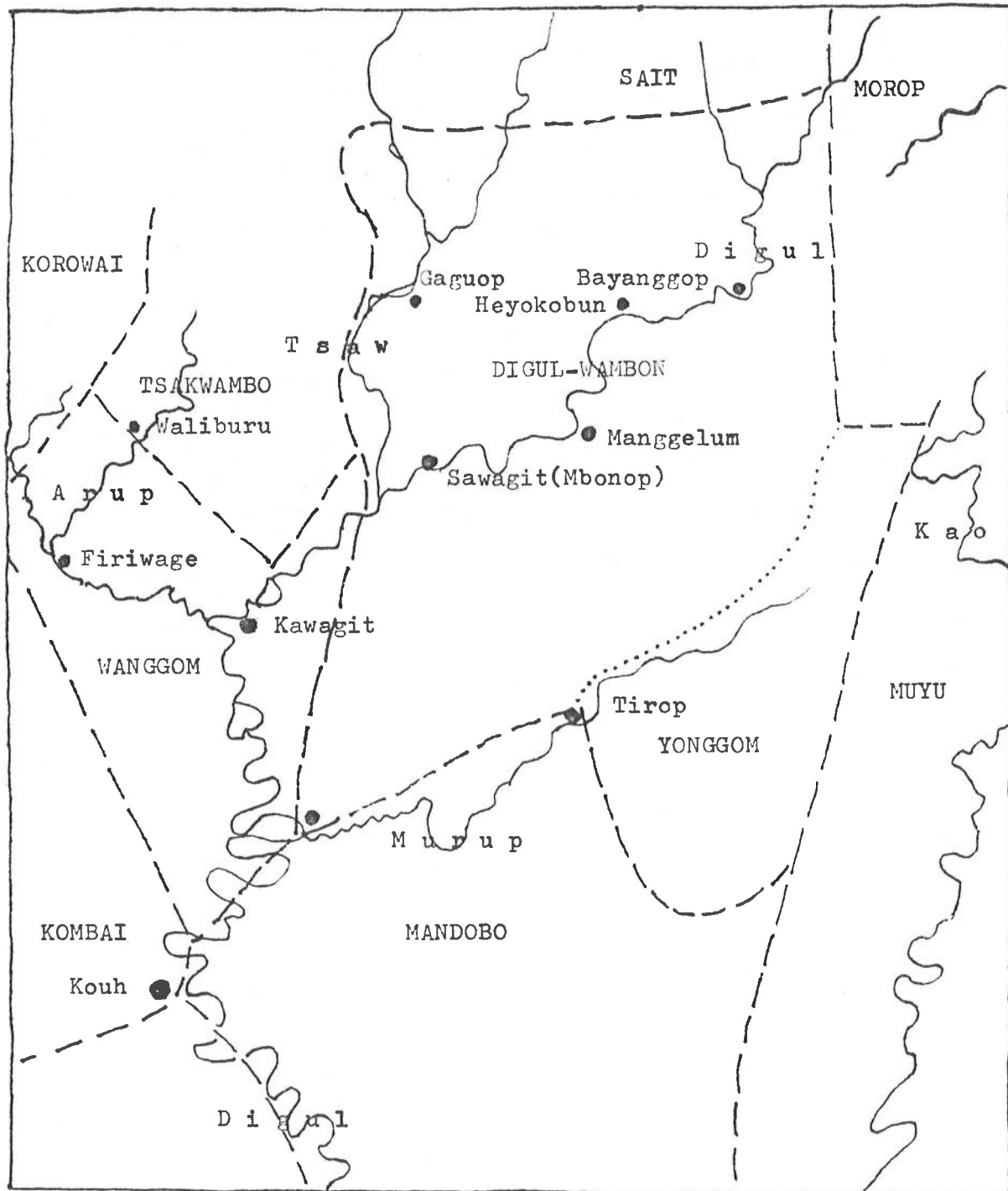
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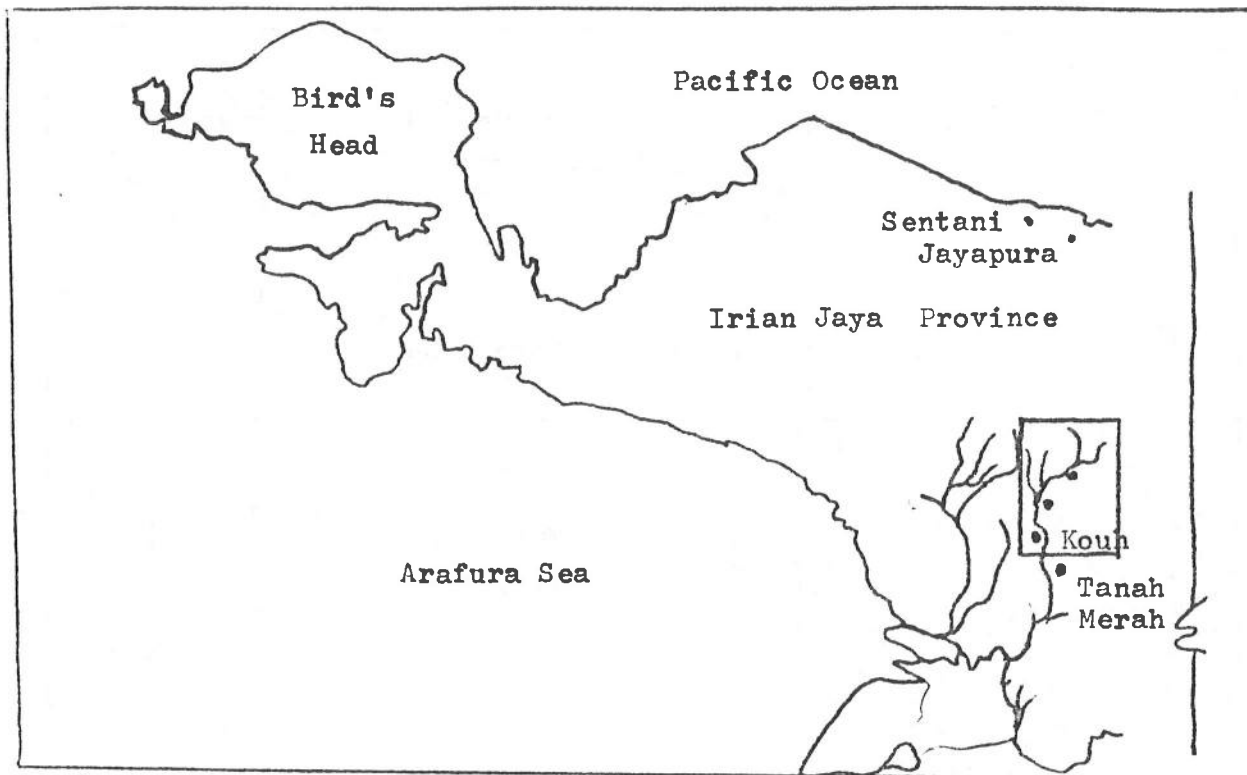
II. Maps

A. Wambon and neighbouring languages



- = language-border
- = dialect-border
- SAIT = language-name
- Kouh = village-name
- D i g u l = river-name

B. Irian Jaya Province of Indonesia
with Upper-Digul Area (Kouh subdistrict)



III. List of abbreviations

1	= first person
2	= second person
3	= third person
adhort	= adhortative
adj	= adjective
attr	= attributive
Circumst	= Circumstantial
Com	= Comitative
condit	= conditional mood
conn	= connective
coord	= coordinator
DS	= Different Subject following
fut	= future tense
genit	= genitive
imp/imperat	= imperative
Intent	= Intentional Mood
loc/locat	= locative
negat	= negative
NC	= nominal constituent
NP	= nominal phrase
nom/nominal	= nominalising suffix
non-fut	= non-future tense
past	= past tense
pl	= plural
pres	= present tense
R	= relator
RC	= 1. Relative Clause 2. Relative Clause marker
sg	= singular
simult	= simultaneity
SS	= Same Subject following
subord	= subordinator
tr	= transitional nasal
verb./verbal	= verbalising suffix

IV. Some frequent morphophonemic changes

When voiceless stops occur between vowels in morpheme sequencing the following changes occur:

- (i) /p/ → /v/
/k/ → /kh/ or /ngg/
/t/ → /l/

/v/ represents a voiced bilabial fricative phoneme, /kh/ a voiced velar fricative and /ngg/ a voiced prenasalised velar stop phoneme. Cf. (a)-(d):

- (a) Ahitup + -o : Ahituvo 'Ahitup!'
Ahitup + vocative
- (b) nuk + -e : nukhe 'I'
I + connective
- (c) Mboma + -ka : Mbomangga 'in Boma'
Boma + locative
- (d) simit + -e : simile 'cucumber'
cucumber + connective

With some morphemes /k/ changes into /kh/ and with others into /ngg/.

When two vowel phonemes become adjacent in morpheme sequencing the transitional nasal /n/ separates them to prevent vowel clusters:

- (e) na- + ap : nanap 'my house'
my + house

This transitional nasal is represented by the abbreviation tr in the transcription.

When a voiced prenasalised stop is preceded by an homorganic voiceless stop, complete assimilation of the voiced stop takes place:

- (f) simit + -nde : simite 'there is cucumber'
cucumber + copula

For more information on Wambon phonology cf. De Vries and De Vries-Wiersma 1986.

* The Wambon relator system

0. Introduction

In this paper I describe the relator system of the Wambon language, an Awyu-Ndumut language spoken by about 3000 people in the Upper-Digul area of South Irian Jaya, Indonesia.

Defined functionally and language-independently, relators are those elements of a language that serve to establish relationships between constituents, that link relata (cf. Dik 1983: 273). Defined categorially in terms of the grammar of Wambon, members of at least the following two categories are relators:

- (a) enclitical relator words: postpositions, subordinators, coordinators and modifier-head linkers;
- (b) medial verb suffixes: switch-reference and temporality relators.

The relators of (a) really form one distributional category. The set of postpositions also functions as subordinators and some postpositions function secondarily as coordinators. The relator -o functions as coordinator but also as modifier-head linker; in the Yonggom dialect the relator -e links arguments to the verb but also modifiers to the head noun.

The relators of (b) express interclausal relations whereas those of (a) express intraclausal and intraphrasal relations. The relators of (b) play a crucial role in creating discourse cohesion (cf. De Vries 1985). The relators of (a) have their functionality in expressing:

- (a) semantic functions;
- (b) pragmatic functions;
- (c) the syntactic relations of subordination, coordination and of modifier-head.

The Functional Grammar framework of Dik (1978, 1983) formed the theoretical basis for this study of Wambon relators (1). Dik (1983) formulates a relator theory in the context of a prefield and postfield constituent order typology (2). Two interesting and central hypotheses

within this theory are the two Relator Constraints. The first Relator Constraint states that the preferred position of a relator is at the periphery of its immediate relatum and the second states that the preferred position of a relator is in between *its* two relata (cf. Dik 1983: 274). This second Relator Constraint figures prominently in this paper and will be simply referred to as the Relator Constraint. Dik (1983) and Kahrel (1985) present evidence supporting these Relator Constraints.

Wambon is a prefield language. In clauses the predicate is the final constituent and in nominal phrases the ordering is basically modifier-head. Deviations from the basic prefield ordering may be explained as the result of independent ordering principles counter-acting the prefield ordering. An example of such a counter-acting principle is Principle V of Dik (1983: 272) which states: "The Prefield is less hospitable to complex material than the Postfield; we may thus expect Prefield languages to take measures to relieve the Prefield of excessive complexity." Principle V and other principles cause leaking of prefield constituents to the postfield, creating violations of the Relator Constraint. Violations of this type form an important but insufficiently studied class of counter-examples (cf. Dik 1983: 294). In this paper I give detailed data on a prefield language with postpositional phrases in the postfield. I hope to show that the behavior of Wambon relators in such conditions is the result of therapeutic measures which a prefield language may be expected to take when there are violations of the Relator Constraint (cf. Dik 1983: 295).

The field and centre notions of Dik (1983) enabled me to generalise over argument-verb and modifier-head relations. This made generalizations such as the following possible:

- (a) the Yonggom dialect relator -e expresses the prefield-centre relation in both the predication and the term domain, i.e. -e links both modifiers to heads in nominal phrases and arguments to verbs in clauses;
- (b) Wambon does not only have neutral coordinators but also neutral prefield-centre relators (cf. 3.2.3).

Among the factors which determine the Wambon relator system are:

- a. the Relator Constraint,
- b. prefield-centre relators form one constituent with their prefield relatum,

- c. the predicate-orientedness of Wambon grammar,
- d. the intrinsic topicality of subordinate clauses,
- e. the medial-final verb distinction,
- f. the Oblique NP Constraint.

The data presented in this paper confirm the hypotheses of Reesink (1984) about the relations between deictics, topicality and subordination in Papuan languages and about the relation between Focus and the coordination of nouns.

The distribution of coordinators and subordinators in Wambon forces us to recognize the cross-linguistically marked coordination of dependent to independent verbs. Thus clausal coordination in Wambon involves members which have unequal syntactic status.

The paper has this set-up. First some general information about Wambon is given. Then some key Functional Grammar notions are introduced. Finally we go into the relators.

1. Wambon

Wambon is spoken along the Upper-Digul and Upper-Tsaw rivers and in between the Murup, the Upper-Kao and the Upper-Digul rivers in the government subdistrict of Kouh (cf. IIB, Maps) in South Irian Jaya.

Wambon belongs to the Awyu-Ndumut family, which family belongs to the Trans-New Guinea Phylum (cf. classification by Voorhoeve (1975: 21). It has two main dialects: one dialect, which I label Digul-Wambon, is spoken by about 1500 people along the Digul and the Tsaw rivers (cf. IIA, Maps). This dialect is described here. We lived in Manggelum, the central village of the Digul-Wambon area, from February 1983 until September 1984 and from March 1985 until June 1985. The speakers of Digul-Wambon call their dialect simply Wambon; the other dialect they call Yonggom. Yonggom has been described by Drabbe (1959). It is spoken in the Upper-Murup and Upper-Kao area (see IIA, Maps). According to Versteeg (personal communication) there is a 47% lexical correspondence between the two main dialects of Wambon (3). Since the real lexical correspondence generally turns out to be higher than shown in initial surveys the percentage could be up to ten percent higher. Similarly initial research of De Vries (1985) overestimated the morpho-syntactical differences of the two dialects (cf. De Vries 1985: 180). Although there are indeed very many differences on the morphological surface, the basic build-up

of the forms is the same.

To the south the Murup river is the border of the Wambon language. On the other side of the Murup (see IIA) Mandobo (or: Kaeti, Ndumut) is spoken, a closely related Awyu-Ndumut language (cf. Drabbe 1959). To the east Wambon borders on the Muyu language, a Lowland Ok language. To the north Wambon extends into the foothills of the central ranges; between the mountains and the Wambon border there is a small zone where Sait is spoken (affiliation unknown). To the west Wambon has Wanggom and Tsakwambo as neighbours, both Awyu-Ndumut languages.

2. Some Functional Grammar notions

Language expressions are described in Functional Grammar on two levels. On the first level only the functional relations between constituents are described. On the second level also the form and order of the constituents are specified as determined by the functions specified on the first, more fundamental level. Three sets of functions are distinguished: semantic functions like Goal and Agent, syntactic functions like Object and pragmatic functions like Topic and Focus. Pragmatic functions have to do with the informational relations between constituents.

Functional Grammar tries to relate the description of language expressions to their function in verbal communication. Thus the term 'functional' in Functional Grammar points to both the fundamental position of functions (Agent, Topic, Subject, etc.) in the model as determining form and order of constituents and the functionalistic approach underlying the model. When a notion from this model is first introduced in this paper it is either defined or a relevant reference to Dik (1978) is given. In this section I will define some notions which are crucial to the analysis of the relators.

Terms (cf. Dik 1978: 55) are expressions with referential potential and they can be used to refer to entities in some world, e.g. that old man, beauty, they, something you never forget. Predicates designate properties of or relations between such entities, e.g. cold, to give. Predications are formed when terms are inserted in the slots of predicates, e.g. Mary is cold, John gave him a book. The notion of

term has the same reference as 'nominal constituent' (but not the same sense). 'Predication' corresponds to both 'clause' and 'underlying representation of clause'. Similarly 'term' may refer to an underlying form for a nominal constituent.

Head nouns of terms and predicates within predications we will call the centre of terms and predications (cf. Dik 1983: 271). The area in front of a given centre we will call the prefield and the area after a given centre the postfield (cf. Dik 1983: 271). Cf. the Wambon term (1) and the predication (2):

(1) Ev-o kap kaimo-mbalin
 that-conn man good-very
 'That very good man'

(2) Nuk oi takhima-lepo
 I pig buy-1sg.past
 'I bought a pig.'

In (1) kap 'man' is the head of the term, its centre. The demonstrative evo 'that' is a prefield constituent and the adjective kaimo-mbalin 'good' occurs in the postfield of the term. In (2) the verb takhimalepo 'I bought' is the centre of the predication with the AgentSubject nuk 'I' and the GoalObject oi 'pig' as prefield constituents.

Languages make a basic choice between prefield and postfield ordering (cf. Dik 1983). In prefield ordering all constituents of a given domain are in principle ordered before the centre and in postfield ordering after the centre. Wambon is a prefield language: in predications the verb is final and in terms the ordering is basically modifier-head.

Independent ordering principles may counteract the basic prefield or postfield ordering of a language (cf. Dik 1983). Adjectives for example have a strong tendency towards postnominal position in very many languages including Wambon (cf. (1)), (Cf. Dik 1983: 272).

3. Relators

3.1 The term-domain

3.1.1 Prefield-centre relators

Within terms the general connective clitic -o links all types of

prenominal modifiers (prefield) to the head noun (centre) in a semantically and pragmatically neutral way, functioning as a sort of syntactic glue expressing the modifier-head relation. Consider the following examples.

- (3) Ev-o lan
 that-conn woman
 'that woman'

In (3) the connective -o links the deictic ep- 'in the proximity of the listener' as a demonstrative operator to the head noun lan 'woman' (Cf. IV for morphophonemic changes). In (4) -o links the attributive noun modifier Ahitup to its head noun ap 'house':

- (4) Ahituv-o -n- ap
 Ahitup-conn -tr- house
 'Ahitup's house'

(Cf. IV for transitional nasals (tr)).

The general connective -o in (4) can be replaced by the attributive relator -ko which occurs only with attributive noun modifiers. Cf. (5).

- (5) Ahitup-ko -n- ap
 Ahitup-attr -tr-house
 'Ahitup's house'

-o and -ko are the only relators I have found expressing the modifier-head relation. The relation between the general connective -o and the more specific relator -ko has its parallel in the relation between the general connective -e and more specific relators like -ka in the predication domain (cf. 3.2.3).

In (6) -o links the numeral hitulopkup 'four' to its centre enop 'tree':

- (6) hitulopkuv-o -n- enop
 four-conn -tr- tree
 'four trees'

In (7) we see -o linking a prefield relative clause modifier to its head noun:

- (7) Nuk oy-a tem-ke-n-o kav-e hetak-nok-ndep
 I pig-RC shoot-3sg.pres-tr-conn man-conn see-negat-1sg.pres
 'I don't see the man who shot the pig.'

-o on temke in (7) relates the RC oya temke to its head kave.

-a is a relative clause marker, a delineating clitic signalling the relative clause domain in (7) (cf. 3.2.5). The examples (3)-(7) suffice to show the function of -o as a general connective linking prefield constituents (demonstrative, attributive noun, numeral, RC) to the centre (head noun) within the term domain.

Above we indicated that Wambon terms basically have a modifier-head ordering, i.e. prefield ordering. Now certain independent ordering principles counteract this prefield pattern. Principle VII of Dik (1983) for example states that terms prefer the ordering N - Adj. Indeed we find Wambon adjectives in the postfield:

- (8) ev-o lan kolamop
 that-conn woman tall
 'that tall woman'

The other modifier category that I have found occurring in the postfield is the category of the numerals. They also occur in the prefield, but they leak to the postfield when there is already another pronominal modifier. This leaking is due to principle V of Dik (1983) stating that prefield languages may be expected to take measures to relieve the prefield of excessive complexity. According to Wambon standards the presence of more than one pronominal modifier is complex; this is also true for the predication domain: there are seldom more than two terms before the verb. This prefield simplicity is related to the fact that Wambon, like many other Papuan languages, is very much predicate oriented. There is a clear predominance of predicates over terms (cf. Reesink 1984: 152). The morphology of the verb is very complex contrasting with a marginal nominal morphology (cf. De Vries and De Vries-Wiersma 1986). The internal syntactic structure of terms is kept very simple.

Now interestingly the general connective -o which occurs with all prefield modifiers never occurs with postfield modifiers. Cf. (8) and (9):

- (9) a. ev-o kap ambalopkup
 that-conn man five
 'those five men'
- b. ambalopkuv-o kap
 five-conn man
 'five men'

- c. *ev-o kap ambalopkuv-o
that-conn man five-conn
'those five men'

This distribution of -o follows from the Relator Constraint. In (9b) -o occurs in between its two relata. In (9a) the numeral modifier has leaked to the postfield, there being already a modifier in the prefield (principle V of Dik (1983) in combination with Wambon complexity standards for nominal terms). In (9a) -o has been dropped. In (9c) -o on the postfield numeral is retained; (9c) is unacceptable.

3.1.2 Term coordinators

Coordination of terms is not very frequent in Wambon. This has been observed for other Papuan languages as well (cf. Reesink 1984: 152 for Usan). This is connected with the predominance of predicates over terms in many Papuan languages. At least two things are related to the infrequency of term coordination in Wambon. In the first place there are no specific coordinators, i.e. relators which function only as coordinators. All three coordinating devices in Wambon fulfill several functions, one of which is coordination. For two of the three devices there is evidence that the coordinating function is a secondary usage, developed from a more basic function. In the second place the saliency of coordinated terms. Term coordination being an infrequent phenomenon it is not surprising that "in those instances where coordination of terms does occur, it concerns terms that are more salient than others." (Reesink 1984: 152). In Wambon this saliency expresses itself in intonational prominence of coordinated nouns; furthermore one of the coordinators is a Focus relator secondarily used as coordinator. (Cf. Dik 1978: 149 for the Focus notion). I will now treat the coordinators in more detail.

3.1.2.1 -kup

The relator -kup basically means 'also', 'added', 'with the addition of'. It functions within clauses relating terms to the predicate with the 'also' semantic value:

- (10) Nu-kup ndave-lepo
 I-also come-1sg.past
 'I also came.'

Out of this basic usage the following functions developed. The Comitative function:

- (11) Nekhev-e nda-khe-n-e nekho-wanonambat-kup
 he-conn come-3sg.pres-tr-conn his-family-with
 'He comes with his family.'

With bodyparts -kup forms numerals:

- (12) a. ambalop
 thumb
 'thumb'
 b. ambalop-kup
 thumb-added
 'five'

In State predications -kup functions as predicative element supporting nominal predicates:

- (13) Nuk junop-kup
 I ulcer-with
 'I have an ulcer.'

In (14) and (15) -kup is used as coordinator:

- (14) Mbelanda-n-o kav-e loti-nggup susu-nggup en-em-mo-knde
 Dutch-tr-conn man-conn bread-coord milk-coord eat-eat-verbal-3pl.pres
 'Dutchmen usually consume bread and milk.'

- (15) Ahitup-kup Sanop-kup
 Ahitup-coord Sanop-coord
 'Ahitup and Sanop'

Notice two things with respect to -kup as coordinator. In the first place -kup as coordinator is a secondary usage of a relator with the basic meaning 'also'. Secondly, -kup is attached to both members of the coordination. A term coordinator has as its two relata the coordinated terms; according to the Relator Constraint the second -kup in (14) and (15) does not occupy the preferred position in between the two relata. We will return to these two points after we have discussed the other two term coordinators of Wambon, -o and -nde.

3.1.2.2 -nde

-nde functions basically as copula. Cf. (16) and (17):

(16) Nggup Manggelum-o kap-nde ?
you(sg.) Manggelum-conn man-copula
'You are from Manggelum ?'

(17) Ev-o lan-e kaimo-nde
that-conn woman-conn good-copula
'That woman is good.'

-nde is an invariable and optional predicative element supporting nouns and adjectives when they function as head of predicate.

Secondarily, -nde functions as marker of Focus. Cf. (18) and (19):

(18) Nggup keno-nde hetakhe ?
you(sg.) what-Focus see.2sg.pres
'What do you see ?'

(19) Oi-nde hetakndep
pig-Focus see.1sg.pres
'I see a pig.'

Below we will return to -nde as Focus marker and to its relation with -nde as copula (cf. 3.2.2.2).

The third function of -nde is to express coordination of terms. Cf. (20) and (21):

(20) nuk-nde Kulop-nde
I-and Kulop-and
'I and Kulop'

(21) oi-nde anggai-nde
pig-and dog-and
'a pig and a dog'

Just like -kup the coordinator -nde is attached to all members of the coordination. Above (cf. 3.1.2) I indicated that coordinated terms in Wambon generally are in Focus and that the Focus marker -nde developed a secondary usage as coordinator.

3.1.2.3 -o

The last term coordinator to be dealt with is -o. Wambon has two

general connectives, -e and -o, which function as a purely syntactic linking device (cf. 3.2.3). In 3.1.1 I discussed one function of -o, viz. as modifier-head linker in terms. In this section we meet -o again, this time as head-head linker (coordination). Confusion of these two roles is prevented because -o as term coordinator always functions within the general Wambon term coordination pattern we saw already with -kup and -nde: attached to all members of the coordination. Schematically (R= relator):

(22) coordination: relatum-R relatum-R
 (centre-centre) anggay-o kav-o
 dog-and man-and
 'the dog and the man'

(23) modifier-head relatum-R relatum
 (prefield-centre) anggay-o kap
 dog-conn man
 'the man with the dog'

Some more examples of -o as coordinator:

(24) ndu-n-o savukh-o ande-n-o
 sagu-tr-and tobacco-and bananas-tr-and
 'sagu and tobacco and bananas'

(25) Ahituv-o Sanov-o Wemba-n-o
 Ahitup-and Sanop-and Wemba-tr-and
 'Ahitup and Sanop and Wemba'

-o is a non-exhaustive enumerator and may occur with enumerations of any length, which are open-ended; -o may have the inclusive disjunction reading 'and/or' (cf. (47) in 3.1.2.4). In these respects -o contrasts with -kup which has an exhaustive (and never disjunctive) meaning.

3.1.2.4 Wambon coordination and the Relator Constraint

The coordination pattern (22) we find in all languages of the Awyu-Ndumut family studied so far. This pattern is here repeated:

(26) Awyu-Ndumut coordination: relatum-R relatum-R

In Pisa (cf. Drabbe 1950: 106, 107) we have the coordinator -a attached to all members of the coordination:

- (27) ran-a ghobisin-a
 woman-and man-and
 'women and men'

In Sjiagha (cf. Drabbe 1950: 107) -ko occurs as coordinator:

- (28) no-ko go-ko
 I-and you-and
 'you and me'

This Sjiagha -ko corresponds to Jenimu -ka and Pisa -kini, -ku and -kuma (cf. Drabbe 1950: 107):

- (29) nu-kini gu-kini
 I-and you-and
 'you and me'

- (30) nu-kuma gu-kuma
 I-and you-and
 'you and me'

- (31) nu-ku gu-ku
 I-and you-and
 'you and me'

In Jair or Aghu (cf. Drabbe 1957: 42) -ko functions as coordinator attached again to all members of the coordination:

- (32) nu-ko eke-ko
 I-and he-and
 'I and he'

In Mandobo (cf. Drabbe 1959: 19) -te functions as coordinator. It functions also as predicative element; probably -te corresponds to Wambon -nde. Mandobo -te again is attached to all members of the coordination. In Yonggom, the Wambon dialect described by Drabbe (1959), we find -kup, -o and -nde functioning as they do in Digul-Wambon (cf. Drabbe 1959: 144, 145). Yonggom also uses -erek as coordinator which we do not find in Digul-Wambon. Again -erek "is usually repeated after every member of the enumeration..." (Drabbe 1959: 143, my translation). When, however, the term coordination develops

into the direction of a compound noun, the first or the second occurrence of -erek is dropped (cf. Drabbe 1959: 143). Below we will return to these compound nouns. In Korowai (De Vries 1984, MS), spoken along the Upper-Becking river, we find the coordinator -fekho:

- (33) nu-fekho gu-fekho
I-and you-and
'me and you'

The Awyu-Ndumut coordination pattern (26) conflicts with the Relator Constraint. Compare (26) with the preferred pattern for term coordination (34):

- (34) relatum R relatum

The second relator in (26) violates the Relator Constraint since it does not occur in between its two *relata*, the coordinated terms.

As a tentative explanation for the deviation of the Awyu-Ndumut pattern from the preferred pattern I suggest the following. As we stated above term coordination is rather infrequent in Wambon. Connected with this is the fact that Wambon does not have specific coordinators but relators that function basically in other capacities than as coordinators. Basically they function within predications relating terms to the clause-final predicate. Cf. (35):

- (35) Sanop-kup ka-tmbo
Sanop-also go-3sg.past
'Sanop went also.'

In (35) -kup relates Sanop to katmbo and via this predicate to the predication as a whole. Consider now (36).

- (36) Sanop-kup Ahitup-kup ka-lembo
Sanop-and Ahitup-and go-3pl.past
'Sanop and Ahitup went.'

In (36) -kup is used within the term domain, relating Sanop and Ahitup. In (35) -kup is used within the predication, relating Sanop and katmbo. Thus the secondary usage is in fact a domain shift: within predications -kup means 'also' (and -nde marks Focus) but within (compound) terms they mean 'and'. The second, non-preferred

occurrence of -kup in (36) has its origin in its primary function within predications.

The Relator theory of Dik (1983) would predict a restructuring of the Awyu-Ndumut pattern in the direction of the preferred pattern (34), which conforms to the Relator Constraint. However, I have found no evidence for such a development. Notice that for -nde and -kup the dropping of the second occurrence would imply the loss of the opposition between primary usage in predications (one occurrence) and secondary usage in terms (repeated occurrence). Similarly for -o the dropping of the second occurrence would imply the loss of the opposition between prefield-centre linkage (one occurrence, cf. (23) in preceding section) and centre-centre linkage (repeated occurrence, cf. (22)).

If these suggestions make sense, we would expect dropping of relators in non-preferred positions in those cases where the repetition of the coordinators has lost its relevance in maintaining the above mentioned oppositions. When term coordinations have developed into noun composita, the opposition between term coordination ('the man and the dog') and term modification ('the man with the dog') has lost its importance since noun composita are no longer term coordinations; they have become nouns, denoting single concepts. Consider the following examples from Yonggom (cf. Drabbe 1959: 117).

(37) itir-o-kurup
cassowary-and-pig
'big game'

(38) ngin-o-kerop
head-and-eye
'face'

(39) tenor-o-kajok
gnemon-and-karjok
'vegetables'

Notice that the second occurrence of the coordinator -o has been dropped in the composite nouns (37)-(39). Even if one wants to see (37)-(39) as idiomatic and petrified term coordinations and not as composite nouns, then still the semantic clues preventing (37)-(39) to be interpreted as modifier-head sequences

are so strong that the second relator can be dropped without any danger for (37)-(39) to be misinterpreted as modifier-head combinations.

Sometimes in such cases both relators are dropped. Cf. the Digul-Wambon example (40) and the Yonggom-Wambon examples (41) and (42). (Yonggom examples from Drabbe (1959: 117)).

(40) nayo-mbap
woman-man
'audience' or: 'ladies and gentlemen'

(41) jasarip-jakopari
wife-husband
'couple'

(42) janoi-janati
mother-father
'parents'

The Yonggom coordinator erek is also dropped in this kind of idiomatic combinations, but it is generally the second occurrence that is retained (cf. Drabbe 1959: 143):

(43) jasarip jakopari erek
wife husband and
'couple'

I take (43) to be a real counter-example against the Relator Constraint. It is, of all relators, the one in the non-preferred position that is retained, reminding us of Latin coordinations with -que:

(44) amicae amici-que
female.friends male.friends-and
'friends'

We find the coordination pattern (26) with coordinators attached to all members also in other Papuan languages. In Hua for example (cf. Haiman 1980: 251) there are two term coordinators, -ve and -ki, both of which occur attached to all members of the coordination. Just like in Wambon these relators are multifunctional, primarily

functioning within the predication domain and secondarily within compound terms as coordinators.

In several languages it is the Comitative relator that is used secondarily as coordinator. The Wambon coordinator -kup has the meaning 'also' and may express the Comitative (cf. 3.1.2.1). The Hua coordinator -ki similarly means 'also' and expresses the Comitative function (cf. Haiman 1980: 236).

Wambon -kup and Hua -ki both are restricted to exhaustive lists of maximally three members when they are used as coordinators (cf. Haiman 1980: 251). Cf. (45) and (46):

(45) kutip-kup sat-kup
night-and day-and
'day and night'

(46) Sanop-kup Ahitup-kup
Sanop-and Ahitup-and
'Sanop and Ahitup'

The referents of the enumerated Wambon terms of (45) and (46) form a closed set: 'Ahitup and Sanop (and no others)'. Hua -ki contrasts with -ve. -ve is non-exhaustive; it marks open-ended enumerations and it may have the inclusive disjunction reading 'and/or' (cf. Haiman 1980:250).

The Hua -ki and -ve contrast is nicely mirrored by the Wambon opposition of -kup and -o; -kup is exhaustive and never disjunctive, whereas -o is non-exhaustive, may occur with enumerations of any length which are open-ended and may have the inclusive disjunction reading 'and/or'. Cf. the following example from the Yonggom dialect (cf. Drabbe 1959: 145):

(47) ui-o itir-o ragae-o ramandonanin-e tagimojip
pig-or cassowary-or fish-or they.bring-if I.will.buy
'If they bring pig, cassowary or fish, I will buy it.'

3.2 The predication domain

Wambon is an S O V language. Given the Relator Constraint we would expect adpositions to be postpositions and not prepositions as

relators which relate terms to the clause-final predicate. Indeed Wambon has a small set of postpositional enclitics attached to its terms establishing semantic, pragmatic and syntactic relations with the predicate. These phrasal clitics are mutually exclusive.

Only Subjects and Objects may occur without relator. The Agent is always assigned Subject function and the Patient always Object. Thus the possibilities for syntactic function assignment are maximally restricted. The Subject notion in Wambon grammar derives its relevance from such processes as switch-reference and person-number agreement. Since there are no alternative Subject and Object assignments in Wambon, the notions of Subject and Object should be interpreted as 'first argument' and 'second argument'.

3.2.1 Relators expressing semantic functions

3.2.1.1 -ka

-ka marks the following semantic functions: Location (cf. (48)), Source (cf. (49)), Time (cf. (50)), Manner (cf. (51)) and Instrument (cf. (52)).

(48) Kikhup-ka okima-levambo
Digul-in take.bath-1pl.past
'We took a bath in the Digul.'

(49) Nekhep Mboma-ngga nda-khe
he Boma-from come-3sg.pres
'He comes from Boma.'

(50) Alip-ka koma-tmbo
yesterday-on die-3sg.past
'He died yesterday.'

(51) Wasi-ngga nda-khe
quick-Manner come-3sg.pres
'He comes quickly.'

(52) Ndu-n-e li-khe-n-e wakhi-ngga
sagu-tr-conn cut-3sg.pres-tr-conn knife-with
'He cuts the sagu with a knife.'

To the connective -e on likhe and ndu in (52) and to the violation of the Relator Constraint by -ngga in (52) we will return in 3.2.3.

With the set of nouns in (53) -ka forms complex locational relators.

- (53) wamip 'inside'
hitop 'bottomside'
kuk 'frontside'
linggit 'backside'
palip 'topside'

Cf. (54)-(57).

- (54) a. ap wamip-ka
house inside-in
'in the house'
b. jandit wamip-ka
road inside-in
'on the way'

- (55) ap palip-ka
house top-on
'on top of the house'

- (56) ap kuk-ka
house front-at
'before the house'

- (57) ap linggit-ka
house back-at
'behind the house'

3.2.1.2 -sikhi

-sikhi or -si marks the following semantic functions: Beneficiary (cf. (58)), Recipient (cf. (59)), Addressed (cf. (60)), Purpose (cf. 61)) and Reason (cf. (62)).

- (58) Ev-a nuk-sikhi si-khe-n-eve
that-RC me-for make-3sg.pres-tr-Topic
'What he makes for me,.....'

- (59) Andemop ndakhet ev-o kap-sikhi ndakha-lembo
food much that-conn man-to give-3pl.past
'They gave much food to that man.'
- (60) Ev-e nuk-sikhi lokha-tmbo
that-conn me-to say-3sg.past
'He said that to me.'
- (61) Oi hetko-mop-sikhi nda-kndep
pig see-nominal-to come-1sg.pres
'I come to see the pig.'
- (62) Aliv-e kenop kok-sikhi ep-ka la-lepo
yesterday-conn foot sore-because there-locat sleep-1sg.past
'Yesterday I slept there because of sore feet.'

3.2.1.3 -kot

-kot marks Cause and Reason. Generally it goes with clausal terms (subordinate clauses):

- (63) Nukh-e jambolokmo-kndep-kot nekhev-e nda-no-khe
I-conn ill-1sg.pres-Reason he-conn come-negat-3sg.pres
'Because I am ill, he does not come.'

Since -kot is rare with nominal terms we will return to this relator in the section about subordination (cf. 3.2.4.2.1).

3.2.1.4 Emic interpretation of -ka and -sikhi

Because Wambon has a very small set of relators it is not surprising to find at least some of them express more than one semantic function. In the sections about -ka and -sikhi we have simply listed the semantic functions that each of these two relators expresses. Do we really need to distinguish all these functions in the grammar of Wambon or can we say that -ka and -sikhi each express only one semantic function ?

Let us first discuss -ka. The functions that -ka marks (cf. (48)-(52)) have in common that they concern inanimate entities which play a role as peripheral circumstances; -ka marks satellite terms

(cf. Dik 1978: 26), constituents which do not belong to the obligatory nucleus of the predication and which give a further specification of the state of affairs denoted by the nucleus of the predication.

It seems then that we may cluster the etically distinguishable roles of Time, Location, etc. into one emic function Circumstantial, expressed by -ka. Notice that the listed etic functions are not independently needed in the grammar of Wambon.

What about -sikhi ? According to Reesink (1984: 215) functions like Beneficiary, Recipient and Purpose share a basic semantic characteristic of being 'goals' of actions. In giving something to someone, the Recipient is the 'goal' of the giving; in doing something for someone's benefit, the Beneficiary is the 'goal'. With verbs of motion the Destination is the 'goal'. Similarly Purposes are the entities at which the action is aimed, the 'goals' of such actions.

Destination is not expressed in Wambon by -sikhi but as Object of motion verbs. Cf. (64):

(64) Kui ka-tmbo
Kouh go-3sg.past
'He went to Kouh.'

Reesink (1984: 215, 216) does not mention the role of Addressed as a possible 'goal' but this role (cf. (60)) clearly falls under the 'goal' notion: the Addressed is the entity at which the speaking or asking is directed.

Reason cannot so easily be considered a 'goal' in Reesink's sense. For example in (62) the sleeping is not directed or aimed at the sore feet. The other functions expressed by -sikhi can be subsumed conceptually under the 'goal' heading.

When we cluster Beneficiaries, Recipients, Addresseds and Purposes into one emic function of Goal, we might say that -sikhi expresses two functions: Goal and Reason. To prevent confusion with the notion of Goal of Dik (1978), I will use the term Patient in this paper for Goals in the sense of Dik (1978). (4)

Notice that in 4.1 it is argued that -sikhi developed from a noun meaning 'reason, affair, cause'. If -sikhi is indeed a relationally used noun which became a Reason relator, how came -sikhi to be used for the roles of the Goal cluster (Purpose, Beneficiary, etc.) ?

Heine and Reh (1982) speak of a diachronic process of Expansion when grammatical elements expand the grammatical functions they have. Such an expansion, however, presupposes 'routes' or 'channels' along which the expansion took place. In the case of -sikhi the 'route' may have been as follows. According to Reesink (1984: 215) "purpose is a subcategory of the psychological concept 'reason'". A question like 'Why did you do that?' may be answered by referring to some preceding event (cause or reason) or to some following event (purpose).

This conceptual connection between Reason and Purpose may have been the 'route' for the expansion of -sikhi from Reason to Purpose constituents. Once -sikhi marked Purpose, one of the Goal cluster roles, the common 'goal' nature of Beneficiaries, Recipients, etc. formed the 'route' or 'channel' for the further expansion of -sikhi into the Goal domain.

Notice that a diachronic expansion analysis undermines our analysis of -ka as expressing one and of -sikhi as expressing two emic semantic functions in the synchronic grammar of Wambon. It could very well be that the above described conceptual similarities, viz. the circumstantial nature of the -ka marked roles and the goal nature of the -sikhi marked roles, only formed 'channels' in diachronic expansion processes without being relevant in the synchronic grammar of Wambon. If expansion processes do not reflect synchronic psychological realities, then an analysis in which etic roles are clustered into one emic function would be an economic but not a realistic one. (cf. for the distinction between emic and etic Pike 1967: 37-72).

3.2.2 Relators expressing pragmatic functions

3.2.2.1 (-)eve

The deictic ep- means 'in the proximity of the addressee'. With the connective -e (cf. 3.2.3) this deictic forms the demonstrative eve 'that' which is often used as resumptive pronoun, e.g. in (65):

(65) Ev-o kap ev-e na-mbav-e
 that-conn man that-conn my-father-conn
 'That man, that is my father.'

In (65) there is a pause between the Theme evo kap 'that man' and the

resumptive eve. This pause, sometimes accompanied by the pause marker na, separating the Theme from the following predication, is the main formal difference between Themes and Topics in Wambon.

In Functional Grammar Topics are clause internal constituents presenting the information about which the speaker wants to say something whereas Themes are clause external constituents presenting the domain of discourse with respect to which the following predication is relevant (cf. Dik 1978: ch.6).

When Themes become intonationally and otherwise integrated in the following predication, they develop into Topics. Wambon has a construction, the Strong Topic construction, where this has happened (cf. De Vries 1985: 168).

When the resumptive eve becomes closely associated with the constituent it points back to, it develops into a Theme and Topic marker. Often but not always (cf. (66)) this leads to cliticizing of eve to the Theme or Topic constituent (cf. (67) and (68)). When eve is integrated as Theme marking clitic, the need for an anaphoric deictic is generally filled by a new eve (cf. (67)).

(66) Ev-o kav-e eve na nekhev-e jambolokup
that-conn man-conn Theme pause-marker he-conn ill
'That man, he is ill.'

(67) Ko mba-khe-n-o kav-eve ... ev-e na-mbap-nde
there stay-3sg.pres-tr-conn man-Theme that-conn my-father-is
'The man who is staying there, that is my father.'

(68) Jakhov-eve kapkum ndakhet ande-lenggekkel-eve
they-Topic spinach much eat-3pl.condit-Topic
jakhov-e met-ke-namalepke
they-conn strong-become-3pl.fut
'If they eat much spinach, they will become strong.'

In (68) (-)eve occurs twice as Topic marker. To the second occurrence of (-)eve with the conditional clause as Topic we will return in 3.2.4.2.2. The first occurrence of (-)eve in (68) concerns the Topic-hood of jakhop 'they' about which entity the speaker wants to say something. In (67) the first (-)eve marks the Theme ('as regards the man over there...') whereas the second eve resumes the Theme in the main predication. Again in (67) there is a pause separating the Theme from the main predication.

Sometimes (-)eve clusters with the first person deictic nombo- to form the Topic/Theme relator nomboneve:

- (69) Nombo-n-o buku gambar nomboneve ev-e kanetop kayana
this-tr-conn book picture Theme that-conn in.the.beginning
kav-e tembet
man-conn not.be
'This picturebook here, it (shows how) in the beginning man
did not exist.'

Reesink (1984: 198, 199) points out that in many Papuan languages there are deictic based relators expressing topicality. Wambon exemplifies this tendency.

In De Vries (1985) it is extensively argued that a distinction should be made between Strong Topics and Weak Topics. Strong Topics, marked by (-)eve and nomboneve, occur in the phase of establishing topicality and require strong identification in the sense of Grimes (1975: 92). Weak Topics, monitored by medial verb switch-reference suffixes, occur in the phase of maintaining previously established Topics and require only minimal identification.

3.2.2.2 -nde

-nde is primarily a copula:

- (70) Nggup Gaguov-o kap-nde ?
you(sg.) Gaguop-conn man-copula
'You are from Gaguop ?'
(71) Nekhev-e nggulu-nde ?
he-conn teacher-copula
'Is he a teacher ?'
(72) Ev-o lan-e kolamop-nde
that-conn woman-conn tall-copula
'That woman is tall.'

Secondarily -nde marks Focus terms, i.e. terms which present information which is relatively salient or important in a given context or situation. Cf. (73) and (74):

(73) Jakhov-e keno-nde takhimo-knde ?
they-conn what-Focus buy-3pl.pres
'What do they buy ?'

(74) Ndu-nde takhimo-knde
sagu-Focus buy-3pl.pres
'They buy sagu.'

Informationally the crucial constituent in (73) is the question-word kenonde 'what' and in (74) ndunde 'sagu' which presents the requested information. Dik et al. (1981: 61) have labelled the type of Focus exemplified by (74) 'Completive Focus'. In De Vries (1985) it is shown that -nde also marks the other types of Focus distinguished by Dik et al. (1981). Here we will limit our examples to one more context type which creates informational saliency, viz. Corrective Focus. Cf. (75) and (76):

(75) Ndu-n-e takhimo-knde
sagu-tr-conn buy-3pl.pres
'They buy sagu.'

(76) Woyo, lakhai-nde takhimo-knde
No, fish-Focus buy-3pl.pres
'No, they buy fish !'

(76) presents the correction of (75); in the context of (75) the constituent lakhainde 'fish' in (76) is informationally salient since it presents the correct information, replacing the wrong information 'sagu' from (75).

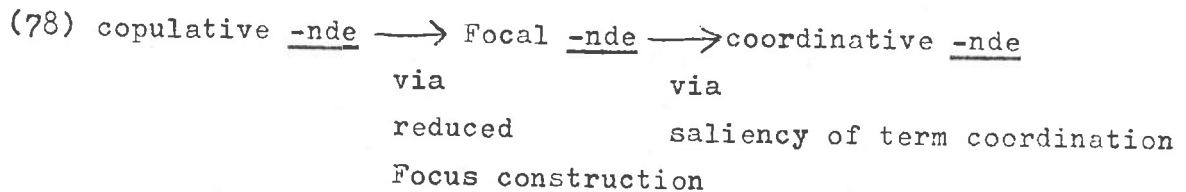
What is the relation between the primary copulative use of -nde and its secondary Focus usage ? In many languages there are Focus constructions (Clefts and Pseudo-Clefts) which employ relative clauses and copulas in the framework of an identifying predication (cf. Dik 1980: 21). Cf. the English Focus construction (77):

(77) It is sagu that they bought.

Notice that (74) could be rendered literally as 'sagu is (what) they buy'. Thus the Focus marker -nde has its origin in the copula -nde. (74) cannot be synchronically analysed as an identifying Focus construction containing a relative clause and a copula, since (74) lacks essential characteristics of Wambon relative clauses, viz. the RC marker -a

(cf. 3.2.5) and the Topic marker (-)eve or the connective -e which sometimes replaces (-)eve (cf. 3.2.4.2.3).

In 3.1.2.2 we saw -nde in its tertiary capacity as term coordinator. There we explained the development from -nde as Focus marker to -nde as coordinator in terms of the informational saliency of term coordination in verb-oriented Papuan languages. The relations between the three usages of -nde we can now represent as (78):



Notice that the notion of Focus is essentially involved in both steps of (78).

There is a predication-external type of Focus in Wambon which is not expressed by -nde but by -o. This -o is presumably not related to the connective -o of 3.1.1 and 3.1.2.3. Whereas -nde marks informational saliency within predications, -o marks Focus outside the predication, in vocative and exclamative contexts. Both in vocative and exclamative contexts the -o marked constituent is pronounced with extra intonational prominence. Consider the following examples:

(79) Ahituv-o, Ahituv-o, ndok !
 Ahitup-conn Ahitup-conn come.imperative
 'Ahitup, Ahitup, come !'

(80) Alev-o Kikhup alev-o Sakhup alev-o
 canoe-Focus Digul canoe-Focus Tsaw canoe-Focus
 ngga-n-ok Kikhup niluv-e
 your-tr-river Digul descend.imp-conn
 'O canoe, the Digul, o canoe, the Tsaw, o canoe, are your
 rivers, the Digul, descend !'

(80) is a magic formula which the Wambon sing when a new dug-out canoe is put into the water for the first time to ensure that the canoe will function properly. The constituent alevo 'canoe', representing the focal point in the dedication ceremony, has Vocative Focus.

In all sorts of exclamations the -o clitic must also be used on the term involved:

- (81) Ndu-n-o !
sagu-tr-Focus
'Sagu !'

(81) can be used in contexts of surprise, irritation, joy and other emotions.

3.2.3 The general connective -e

Wambon has two general connectives, -e and -o. They have the same function in different domains. This function is to express the prefield-centre relation. -o expresses this relation in the term domain (cf. 3.1.1): it relates pre-nominal modifiers (prefield) to the head noun (centre). -e relates pre-verbal terms (prefield) to the predicate (centre) in predications.

If -e indeed has this function, we would expect -e to occur on all types of terms, irrespective of their structural and functional specification. This prediction is confirmed. Consider the following examples:

- (82) Nukh-e ndu-n-e takhima-lepo
I-conn sagu-tr-conn buy-1sg.past
'I bought sagu.'

In (82) -e occurs on the AgentSubject and on the PatientObject and on a pronominal constituent and on a nominal one.

- (83) Ahituv-e av-e tembet
Ahitup-conn house-conn not.be
'Ahitup is not at home.'

In (83) -e occurs on a proper name and on a common noun; and it occurs on a Topic (Ahitup) and on a Location (ave).

- (84) Aliv-e nekhev-e koma-tmbo
yesterday-conn he-conn die-3sg.past
'Yesterday he died.'

In (84) -e occurs on a Time term and on a pronominal Subject. In (85) -e occurs on a term that consists of a head-internal relative clause with Topic function:

- (85) Ev-o tum-a sokholey-e ut-no-khe-n-e
that-conn boy-RC school-conn enter-not-3sg.pres-tr-conn
ev-e mbondo-ke-malepke
that-conn stupid-verbal-3sg.fut
'That boy that does not go to school will stay uneducated.'

Similarly, if -e is a general prefield-centre relator, we would not expect it to express any term operator such as definiteness. Cf. (86):

- (86) ...jandit wamip-ka kav-e nggaluma-lepo
road inside-in man-conn meet-1sg.past
'...on the way I met a man.'

Ev-o kav-e ne-mbel-o....
that-conn man-conn say-SS.sequence-coord
'That man said....'

(86) shows -e on both an indefinite term (kave 'a man') and a definite one (evo kave 'that man').

If -e is indeed the prefield-centre relator in predications, we would not expect to find -e outside this domain (e.g. in vocatives) or within another domain (e.g. with terms that function as genitival modifier within another term). Cf. (87) and (88):

- (87) *Ahituv-e !
Ahitup-conn
'Ahitup !'

- (88) *Ahituv-e -n- ap
Ahitup-conn tr house
'Ahitup's house'

In (87) -e occurs on a vocative term, outside the predication domain, and this makes the expression unacceptable. In (88) -e occurs on a term in genitival position, causing that expression to be unacceptable.

The term domain relator -o may occur instead of other markers:

- (89) Ahituv-o -n- ap
Ahitup-conn tr house
'Ahitup's house'

- (90) Ahitup-ko -n- ap
Ahitup-attr tr house
'Ahitup's house'

In (89) -o substitutes for -ko of (90). If -e is indeed the analogue of -o in the predication domain, we would expect to find -e substituting for more specific relators. Now consider (91) and (92):

(91) Alip-ka koma-tmbo
yesterday-on die-3sg.past
'Yesterday he died.'

(92) Aliv-e koma-tmbo
yesterday-conn die-3sg.past
'Yesterday he died.'

In (92) the general connective -e occurs instead of the more specific Circumstantial relator -ka which we find in (91).

Oblique terms (non-Subjects, non-Objects) cannot occur without a relator: they must have either a specific relator (e.g. -ka in (91)) or the general connective -e. Subjects and Objects may occur without any relator at all. Cf. (93) and (94):

(93)* Alip koma-tmbo
yesterday die-3sg.past
'Yesterday he died.'

(94) Nuk ndu takhimo-p
I sagu buy-1sg.Intent
'I want to buy sagu.'

In (93) the oblique term alip 'yesterday' occurs without relator and this makes the expression unacceptable. In (94) the Subject nuk 'I' and the Object ndu occur without relator but the expression is perfectly acceptable. I will call the constraint which allows only Subjects and Objects to occur without any relator the Oblique Term Constraint. Although -e is optional with Subjects and Objects, it generally does occur.

The Oblique Term Constraint prevents dropping of relators in the postfield when they occur in a non-preferred position. Cf. (95):

(95) Aliv-e nekhep ndu takhima-tmbo-n-e nekho-mbap-sikhi
yesterday-conn he sagu buy-3sg.past-tr-conn his-father-for
'Yesterday he bought sagu for his father.'

To relieve the prefield of excessive complexity (cf. Dik 1983: 272) the Goal term with -sikhi occurs in the postfield. -sikhi in (95)

does not occur in between its relata, the predicate takhimatmbone 'he bought' and the Goal term nekhombapsikhi 'for his father'. Thus -sikhi in (95) violates the Relator Constraint.

The functional motivation for the Oblique Term Constraint is no doubt to keep track of semantic relations. Notice that in very many languages Subjects and Objects occur with their semantic functions unexpressed (cf. Dik 1978: 74). When -sikhi in (95) would have been dropped the Goal relation would have been unexpressed and the formal difference between the PatientObject ndu 'sagu' and the Goal nekhombapsikhi 'for his father' would have been obliterated.

Notice that in the term domain the dropping strategy is applied to bring terms with postfield modifiers into line with the Relator Constraint (cf. 3.1.1, examples (8) and (9)). In the predication domain this dropping strategy cannot be applied because of the Oblique Term Constraint. Since violations like in (95) occur systematically in Wambon, we would expect the language to have other strategies resulting in constructions which conform, after all, to the Relator Constraint (cf. Dik 1983: 295).

This brings us to the second function of the connective -e: the function of 'therapeutic relator' (cf. for this notion also Kahrel 1985). In all cases of postfield positioning of constituents in predications -e occurs on the predicate. Cf. (96) and (97):

(96) Nekhev-e oi talema-tmbo-n-e wakhi hivi-ngga
he-conn pig cut-3sg.past-tr-conn knife big-with
'He cut the pig with a big knife.'

(97) Aiktov-e matulo linda-lepo-n-e
in.the.morning-conn go.up.SS hear-1sg.past-tr-conn
malin-e lokha-tmbo
morningbird-conn speak-3sg.past
'In the morning I went up when I heard the morningbird sing.'

In (96) -ngga 'with' cliticizes to the post-verbal Instrument term (or: Circumstantial term, following the analysis of 3.2.1.4) and -e to the predicate. In (97) the clausal Object term maline lokhatmbo occurs without relator. Clausal terms being complex, they occur in the postfield and this causes -e to appear on the predicate. Thus -e on the predicate signals the presence of constituents in the postfield.

The first function of -e is to relate prefield terms to the predicate, the centre of the predication. The second function of -e is closely connected with the first one: to relate the predicate to postfield terms in a way conforming to the Relator Constraint. Thus -e on predicates has an additional value which -e on terms lacks, the therapeutic value: it signals the presence of terms in the postfield and it occurs in a preferred position when the relator of the term in the postfield occupies a non-preferred position. For example -e on talematmbo 'he cut' in (96) occurs in between its relata, the predicate and the postfield Circumstantial wakhi hivinnga 'with a big knife'.

Wambon is not the only language of the Trans-New Guinea Phylum with syntactic connectives which express the prefield-centre relation. In Hua for example there occurs an element -mo which might be interpreted as a prefield-centre relator. According to Haiman (1980: 279), who described the Hua language, -mo is a "potential topic suffix".

Just like Wambon -e Hua -mo does not occur with vocatives and attributive nouns. According to Haiman (1980: 279) the absence of -mo with attributive nouns follows from the restriction that -mo may occur only with immediate constituents of the clause. This restriction also holds for Wambon -e. For example -e may not occur with terms that function as modifier within another term. Such modifying terms are not 'immediately dominated by S' in the terminology of Haiman (1980). (Cf. Wambon example (88)).

Vocatives are also NP's that are immediately dominated by S in the analysis of Haiman (1980: 279, 280). Haiman (1980: 288) explains the absence of -mo with vocatives in terms of informational constraints. Vocatives cannot be possible topics of the sentence since they present only new information. And, according to Haiman (1980: 288), -mo marks only 'potential topics' and 'potential topics' must present old information.

However, one does not need to invoke pragmatic notions to explain the absence of -mo with vocatives. If -mo is seen as a prefield-centre relator in the predication domain, this absence follows from the syntactic function of -mo. Vocatives function outside the predication domain and do not have a direct syntactic relation with the predicate of the following predication. Compare (98) and (99):

(98) As for Paris, I like the Eiffel tower.

(99) Harry, come !

Vocatives, like Harry in (99), are syntactically independent with respect to the following predication. In this regard vocative terms resemble Theme terms, like as for Paris in (98) , which are also predication external (cf. Dik 1978: 134, 135).

According to Haiman (1980: 280) vocative NP's have predication potential: they can stand on their own as complete utterances. If one would analyse vocatives as predications or predicates, the absence of -mo with vocatives would also follow from the syntactic function of -mo as prefield-centre relator in predications: vocative predicates and predications are not possible relata for relators which link terms to the predicate.

Notice that I could not find any restriction of -mo to constituents of a special pragmatic status in the texts of Haiman (1980). For example the term bgotva' a' mamu-mo 'a woman' (cf. Haiman 1980: 480) clearly presents new information ('A woman saw this and...').

Many languages have neutral syntactic coordinators, i.e. relators which express purely syntactic relations. For example English 'and' expresses the relation of coordination in a semantically and pragmatically neutral way.

Wambon also has neutral prefield-centre relators. Notice that neutral connectives are not vague or meaningless: e.g. Wambon -e expresses a very specific syntactic relation, the prefield-centre relation in predications.

We often find that neutral coordinators express both coordination of terms and coordination of predications. Interestingly, the Yonggom dialect has a connective -e which expresses the prefield-centre relation in both predications and terms (cf. Drabbe 1959: 118, 119, 121). Cf. (100)-(103):

(100) Enanow-e mbagen
mother-conn stay.3sg.pres
'Mother stays here.'

(101) Katir-e mbitip
Katit-conn house
'the house of Katit'

(102) Juw-e megen
he-conn come.3sg.pres
'He comes.'

(103) Mbir-e ragae
feast-conn fish
'fish for the feast'

In (100) and (102) -e links terms to the predicate and in (101) and (103) -e links modifiers to the head. In terms -e does not only link attributive nouns to the head but also other types of pronominal modifiers, for example demonstratives (cf. Drabbe 1959: 121):

(104) ew-e mun
that-conn boy
'that boy'

Since -e in Yonggom also links terms to the predicate, -e also goes with demonstratives which function as head of term:

(105) Ew-e rawojip
that-conn take.1sg.fut
'I will take that.'

In Digul-Wambon, where -e functions in predications and -o in terms, these two usages of demonstratives are formally distinct:

(106) Ev-e lan
that-conn woman
'That is a woman.'

(107) Ev-o lan
that-conn woman
'That woman'

3.2.4 Complex and compound predications

When a predication functions as term within another predication, the result I will call a complex predication. Coordination of predications leads to compound predications. To understand the processes of subordination and coordination we will need a short sketch of the Wambon verb system.

3.2.4.1 Medial verb suffixes as relators

Final verbs are the only verb forms which may occur in final clauses. In certain conditions they also function medially (cf. De Vries and De Vries-Wiersma 1986: 70). If this is the case, they function generally in Same Subject following conditions. In subordinate clauses we always find final verbs.

Medial verbs only occur in medial clauses. The usage of medial verbs implies a coordinate relationship with the next verb (see following section). Medial verbs carry suffixes which express switch-reference relations and temporal relations. Because medial verbs express these interclausal relations, medial verb suffixes are discussed in this paper as relators.

With medial verbs the opposition between finite and infinite forms has been grammaticalised into the opposition of Same Subject following or Different Subject following. When medial infinite forms are used, then the following clause does not constitute a break in topical Subject continuity (Same Subject verbs). When finite medial verbs are used, the following clause has a different topical Subject (Different Subject verbs) (cf. De Vries 1985).

There are four types of Same Subject verbs. The first one consists of the verb stem only. This type of Same Subject form is temporally neutral with respect to the following clause but this type is always used when the conceptual distance between the consecutive actions is minimal. Cf. (108):

(108) Matulo ka-tmbo
go.up.SS go-3sg.past
'He went up.'

In (108) the SS form matulo 'going up(SS)' specifies the direction of the next motion verb. Together the two verbs express one concept, that of 'ascending'. Often the stem only SS verbs are used as adverbial verbs, specifying the direction (cf. (108)) or the manner of the next verb.

The second type of SS verbs consists of the stem + -lo. This formation is also temporally neutral but the usage of the -lo forms implies a considerable conceptual separateness of two consecutive actions. They are never used as adverbial verbs.

Cf. (109):

- (109) Kutipke-lo odo ip-kim-ka la-levambo
 night.become-SS and earth-surface-on sleep-1pl.past
 'The night fell and we slept in a temporary shelter.'

In (109) there is a change of Subject. Nevertheless we find an SS form kutipke-lo 'the night fell'. In De Vries (1985: 164) I have explained such 'false' SS markings in terms of the functionality of the Wambon switch-reference system: to maintain Topics in the on-going narrative. In (109) there is no change of Weak Topics (cf. De Vries 1985) and that is why we do not find a DS form preceding lalevambo.

In opposition to the above discussed temporally neutral SS forms stand two temporally marked types of SS forms, which express the temporal distinction of sequence and simultaneity. Simultaneity forms consist of stem + -o and sequence forms of stem + -mbet with the optional addition of the coordinator -o; -mbet is the sequence marker. When -mbet is followed by -o, the /t/ of -mbet changes into /l/ (cf. IV). In (110) kono 'going' is a simultaneity form and in (111) takhimombelo 'having bought' is a sequence form.

- (110) Jakhov-e ko-n-o nggom li-knde
 they-conn go-tr-SS.simult. song sing-3pl.pres
 'While travelling they are singing.'

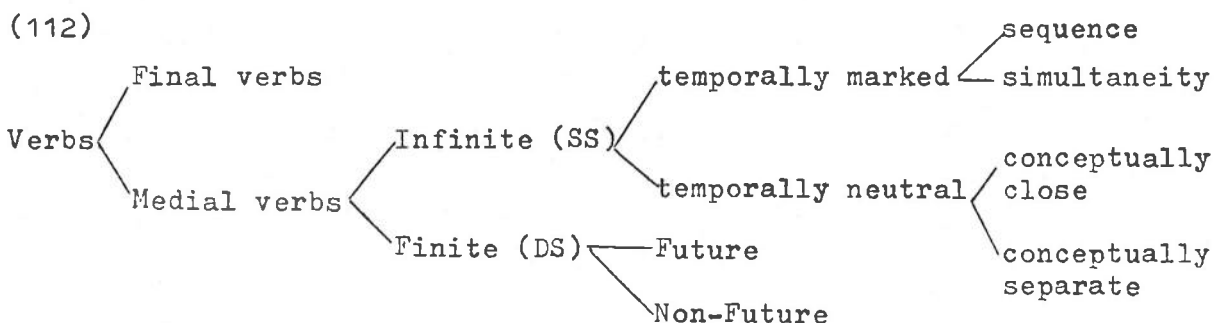
- (111) Ndu-n-e takhimo-mbel-o ande-levambo
 sagu-tr-conn buy-SS.sequence-coord eat-1pl.past
 'We bought sagu and we ate it.'

(Cf. De Vries and De Vries-Wiersma 1986 for an interpretation of the relations of sequence and simultaneity.)(5)

Different Subject forms stand in between final verbs and medial SS verbs in terms of dependence. In terms of tense and mood DS forms are dependent on the final verb of the sentence but in terms of Subject person and number they are independent. Depending on the tense and mood of the final verb Future DS forms or Non-Future DS forms are used. Future DS forms consist of stem + person-number + -o (coordinator). Non-Future DS forms consist of stem + -t + person-number + -o (coordinator).

Final verbs are independent: they can stand on their own and express freely the whole range of tense, mood, person and number distinctions.

(112) presents a summary of Wambon verb types (cf. De Vries and De Vries-Wiersma 1986 for a more detailed discussion of the Wambon verb morphology).



3.2.4.2 Subordination and coordination

Subordinate clauses in Wambon have the following characteristics:

- (a) subordinate clauses function as term within another predication;
- (b) the relators which link nominal terms to the predicate (post-positions) also link clausal terms to the predicate (as subordinators);
- (c) subordinate clauses take final verbs;
- (d) the *distinction* between medial and final clauses is irrelevant in the case of subordinate clauses.

Consider the following examples:

(113) Alip-ka koma-tmbo
 yesterday-Circumst die-3sg.past
 'Yesterday he died.'

(114) Nukh-e ande-lepo-ngga ev-o kav-e nde-tmbo
 I-conn eat-1sg.past-Circumst that-conn man-conn come-3sg.past
 'When I ate, that man came.'

In (114) the clause nukhe andeleponnga 'I ate' functions as term with semantic function Circumstantial in the main predication which has ndetmbo 'he came' as its predicate. Just like in (113) -ka relates a nominal term to the verb, the centre of the predication, in (114) the same relator (-ngga after morpheme-final vowels, cf. IV) links the clausal term to its centre. In Wambon postpositions and subordinators belong to the same category.

andelevo in (114) is a final verb. The linear ordering of subordinate clauses, like nukhe andelepongga in (114), should take the predicate of the main predication as point of reference: subordinate clauses function as term in another clause and as such they are postverbal or preverbal rather than final or medial. Coordinate clauses are adjacent. They are immediate constituents of the compound predication. Their ordering can be usefully discussed in terms of the distinction between final and medial.

Medial clauses have these characteristics:

- (a) they never function as terms;
- (b) accordingly the postpositions/subordinators which link nominal and clausal terms to the predicate never go with medial clauses;
- (c) medial clauses take medial verbs or, in certain conditions, final verbs;
- (d) medial clauses have a coordinate relationship to the next medial or final clause.

Cf. (115):

(115) Nukh-e ande-lev-o ev-o kav-e nde-tmbo
I-conn eat-1sg.Non-Future.DS-coord that-conn man-conn come-3sg.past
'I ate and that man came.'

(115) exemplifies the second basic clause type of Wambon, the medial clause. The medial DS verb andelevo is the centre of the medial clause, which is linked by the coordinator -o on the predicate to the next clause, the final clause evo kave ndetmbo.

Final clauses are the 'third basic clause type of Wambon. They have these characteristics:

- (a) they always take final verb forms;
- (b) they are the last clause of the sentence;
- (c) they can stand on their own.

In (115) evo kave ndetmbo is a final clause. The usage of medial verb forms implies coordination but final forms occur in final clauses, in medial clauses and in subordinate clauses. When final forms occur in medial clauses, they behave like medial verbs: they always take the coordinator -o to express the coordinate relationship with the next clause, they are integrated in the switch-reference system as SS verbs and their tense selection or tense interpretation (when tense neutral forms are used) depends on the next final verb.

Notice that the distribution of relators in Wambon forces us to interpret the relationship between a medial verb clause and the next clause as a coordinate one: medial verb clauses never take subordinators but they do take coordinators. In De Vries (1985) I interpreted the relation of medial verbs to the next final verb as a subordinate one on the grounds that medial verbs are dependent or neutralised verb forms. Cross-linguistically dependent verb forms typically occur in subordinate domains. Cf. (116) and (117):

(116) Having bought the pig, he went away.

(117) Oi takhimo-mbelo ka-tmbo
pig buy-SS.sequence.coord go-3sg.past
'He bought the pig and went away.'
or: 'Having bought the pig, he went away.'

In both (116) and (117) we have dependent verb forms. In the English example (116) the dependent verb form having bought occurs in a subordinate domain. It was the analogy of (117) and (116) which led me into thinking about medial verb-final verb relations in terms of subordination.

If in (117) there is a coordinate relationship between the medial verb clause and the final one - and the above mentioned distribution of Wambon relators strongly points into that direction - then such coordinations do not satisfy a central condition for coordination: that the coordinate conjuncts be of equivalent status, making syntactical reversal possible. Of course, reversal has almost always semantic and pragmatic consequences but the point is that coordinate conjuncts should allow syntactic reversal. Cf. (118) and (119):

(118) Mary did the shopping and John did the paying.

(119) John did the paying and Mary did the shopping.

The two coordinate clauses of (117) do not allow reversal and the dependent clause oi takhimombelo has an entirely different status than the independent final clause katmbo.

Following Olson (1981), Foley and Van Valin (1984) speak of 'co-subordination' to capture the unexpected combination of dependency and non-embeddedness which we find in medial verb clauses of many Papuan languages.

3.2.4.2.1 Semantic subordinators

In the preceding section we saw already examples of -ka as post-position (cf. (113)) and as subordinator (cf. (114)). In both cases -ka expresses a semantic function, the Circumstantial function.

When -ka goes with negated verbs, the 'before A, B' temporal relation is expressed:

- (120) Kinum la-no-khe-ngga ko-knde
 sleep lay.down-negat-3sg.pres-Circumst go-3pl.pres
 'Before he sleeps, they go away.'

The semantic relator -sikhi which expresses Goals and Reasons (cf. 3.2.1.2) requires nominalization:

- (121) Oi hetko-mop-sikhi nda-khe
 pig see-nominal-Goal come-3sg.pres
 'He comes to see the pig.'

The nominalising suffix -mop is attached to the stem hetko- 'to see'.

The semantic relator -kot which expresses the functions Cause and Reason, occurs primarily with clausal terms:

- (122) Nukh-e jambelokmo-kndep-kot nekhev-e nda-no-khe
 I-conn be.ill-1sg.pres-Reason he-conn come-negat-3sg.pres
 'Because I am ill, he does not come.'

According to Reesink (1984: 213) a combination of a subordinator meaning 'because' and a coordinator "seems to be a general feature of Papuan languages". Indeed we find the coordinator -o (and sometimes also -nde) often co-occurring with -kot:

- (123) Nekhev-e ot numbumo-khe-nggol-o
 he-conn stomach be.hungry-3sg.pres-Reason-coord
 nukh-e ande-n-e tavi-p
 I-conn bananas-tr-conn cut-1sg.Intent
 'Because he is hungry, I want to cut bananas.'

-kot is used for both human motivations for doing or not doing something (Reasons, cf. (123)) and for 'natural' deterministic causes (cf. (124)).

- (124) Kaiv-e mutke-nggol-o jandil-e okmake-khe
rain-conn come.down.3sg.pres-Cause-coord road-conn be.muddy-3sg.pres
'Because it rains, the road is muddy.'

-sikhi, which expresses Goal and Reason, I have never found with Cause terms.

3.2.4.2.2 Pragmatic subordinators

Reesink (1984) and Haiman (1978) have shown that many Papuan languages have subordinate clauses which function as Topic or Theme. In Wambon the Topic and Theme marker (-)eve goes with several types of subordinate clauses.

Conditionals almost always take (-)eve:

- (125) Kikhuv-e nde-tkekkel-eve ev-e
Digul-conn come-3sg.condit-Theme that-conn(then)
Manggelum ko-nok-siva
Manggelum go-negat-1pl.Intent
'If the Digul river rises, then we do not want to go to Manggelum.'

The clausal term Kikhuve ndetkekheleve in (125) has the semantic function Condition, expressed by the conditional verb form, and the pragmatic function Theme, expressed by the pragmatic subordinator (-)eve.

The occurrence of anaphoric free eve after the bound Topic and Theme marker (-)eve in (125) we also find with nominal Themes:

- (126) Ev-o kav-eve ... ev-e na-mom-de
that-conn man-Theme that-conn my-uncle-copula
'As regards that man, he is my uncle.'

The informational set-up of (125) and (126) is the same. In both cases the Theme, separated intonationally from the following predication, is the informational starting point of the expression ('With respect to the rising of the Digul I want to say..').

One type of conditionals, counterfactuals, never take (-)eve. Instead, they take the neutral subordinator -e (cf. 3.2.4.2.3). All other conditionals, whether past, present or future, may take and generally do take (-)eve.

The second type of subordinate clauses which has its topicality overtly expressed, is the Resultative clause. Cf. (127):

- (127) Wano-n-e moke-knde-n-eve nggulum-e
child-tr-conn be.afraid-3pl.pres-tr-Topic teacher-conn
koyomke-khe
be.angry-3sg.pres
'The children are afraid, because the teacher is angry.'

In (127) the semantic function of the Resultative clause is not explicitly indicated. The pragmatic function of the Resultative clause, however, is expressed by the Topic marker (-)eve. (127) could be paraphrased as: 'About the children being afraid I want to say that (this is because) the teacher is angry'.

The last type of subordinate clauses which takes (-)eve is the head-internal relative clause. Cf. (128):

- (128) Aliv-a ndu-n-e takhima-lepo-n-eve kaimo-nde
yesterday-RC sagu-tr-conn buy-1sg.past-tr-Topic good-copula
'The sagu which I bought yesterday is good.'

(Cf. 3.2.5 for relative clauses).

3.2.4.2.3 The syntactic subordinator -e

The general connective -e links terms to the centre of predications (cf. 3.2.3) without specifying the pragmatic or semantic function of the terms. When -e relates a clausal constituent to the predicate, the term status of that clause is expressed. Thus -e functions as neutral subordinator. Cf. (129):

- (129) Jakhov-e wasi ndave-lenggekhele-e alipkēhetop-ka
they-conn quickly come-3pl.condit-subord afternoon-Circumst
Manggalum nda-namat
Manggalum come-3pl.fut
'If they come quickly, they will arrive in Manggelum in the afternoon.'

-e may occur instead of semantic or pragmatic subordinators; in (129) -e replaces (-)eve, the pragmatic subordinator which generally expresses the Theme-hood of conditionals (cf. (125)).

In (130) -e replaces the semantic subordinator -ka:

- (130) Ndave-lepo-n-e ev-o sal-e nokhop Mboma
 come-1sg.past-tr-subord that-conn day-conn we Boma
 nda-kndeva-n-o
 come-1pl.pres-tr-coord
 'When I came, that day we returned from Boma and...'

The Circumstantial function of the clausal term ndavelepone in (130) remains unexpressed.

Counterfactuals I have never found with other relators than -e:

- (131) Oi tambo-lepo-nggoy-e ndakha-lepo-nggoi
 pig shoot-1sg.past-counterfact-subord give-1sg.past-counterfact
 'If I had shot the pig, I would have given it.'

-nggoi in (131) is the modal suffix which expresses counterfactuality.

3.2.4.2.4 Coordinators

The term coordinators -o and -nde also function as clausal coordinators. -nde is only in certain constructions in use as clausal coordinator; -o is the normal clausal coordinator. -o occurs cliticized to medial clauses. Its behaviour is determined by the type of verb which occurs in the medial clause.

With DS verbs and with medially occurring final verbs -o is obligatory. With conceptually close SS verbs -o never occurs:

- (132) Matulo ka-tmbo
 go.up.SS go-3sg.past
 'He went up.'

Haiman (1983: 788) gives examples from several Papuan languages showing that the absence of coordinators may correlate with the conceptual closeness of the conjuncts, supporting his iconicity principle that the linguistic distance between expressions corresponds to the conceptual distance between them. With sequence SS forms -o is optional and with simultaneity SS forms -o is obligatory.

Notice that -o helps to distinguish the different types of medial verbs. For example SS simultaneity forms (stem + -o) contrast with SS conceptually close forms (stem). This suggests that -o has become at least partially integrated in the medial verb morphology.

There is evidence that Wambon is not the only Trans-New Guinea Phylum language where this is happening. Haiman (1980: xlvii) for example points to the fact that in Hua the medial suffixes could be cognate with the phrasal coordinator. Scott (1973: 10) draws attention to the fact that in Fore a part of the SS marking could be the coordinator gi. Just like adpositions may develop into case affixes when they occur systematically in a position contiguous to the noun (cf. Kahr 1976), independent coordinators (belonging to category (a) relators, cf. O. Introduction) may develop into medial verb suffixes (belonging to category (b)) when they occur contiguous to medial verbs.

With SS conceptually separate forms (stem + -lo) -o never occurs. These forms contrast with the SS conceptually close forms (stem). Notice that the increase of conceptual separateness corresponds to the increase of linguistic distance: the conceptual close form is the shorter one (cf. Haiman 1983). (6)

3.2.4.2.5 Verbs as relators

Very often we find medial verbs or medially occurring final verbs used as relators. Some of the verb forms which function relationally seem to have lost their verb status; others still seem to function as verbs. It is not easy to find evidence bearing on this distinction.

The relational medial verbs are generally preceded by a final form in the present tense, with the coordinator -o connecting this final form to the relational verb. Often the relational verb also conveys aspectual meanings. Cf. (133):

- (133) Oi takhimo-kndeva-n-o kitmo-mbel-o
pig buy-1pl.pres-tr-coord be.finished-SS.sequence-coord
ap ka-levambo
house go-1pl.past
'After we had bought the pig, we went home.'

In (133) kitmombelo is a relational verb expressing the 'after' meaning with the aspectual notion of 'completion'.

(134) exemplifies the relational verb kokheno 'until':

- (134) Nda-kndeva-n-o ko-khe-n-o kutipke-lo
come-1pl.pres-tr-coord go-3sg.pres-tr-coord become.night-SS

Kui matalevambo
Kouh arrive.1pl.past

'We travelled on until the night fell and we arrived in Kouh.'

The usage of kokheno with the 'until' meaning implies that the event denoted by the verb preceding kokheno has a prolonged duration.

The usage of motion verbs as relators we find in several Papuan languages (cf. Reesink 1984: 168). Some of the motion verbs have become relators with discourse-connective meanings. This concerns the SS simultaneity forms of ko- 'to go' and nda- 'to come'. These forms, kono, ndano and ndakono, are no longer restricted to contexts of simultaneity and express meanings like 'next', 'and', 'furthermore'. Cf. (135):

- (135) Ndano la-levambo-n-o jatke-lo kono
next sleep-1pl.past-tr-coord become.day-SS and

enov-andil-e li-n-o ...
tree-trunk-conn cut-tr-SS.simult.coord
'Next we slept until the day and cutting tree trunks...'

(Cf. 3.2.4.1, example (109), for 'false' SS markings as in (135) with jatkelo).

The -lo form of ke- 'to happen', -kelo, also has become a relator. -kelo is a clitic and verbs never cliticize. -kelo has a syntactic function: it occurs with medially occurring complex predications, marking the transition from the complex predication into the on-going sequence of coordinate predications. Cf. (136):

- (136) Kono heta-khe-n-e lava-tmbo-nggelo odo
and see-3sg.pres-tr-conn trap-3sg.past-happen.SS and

uto tamja-l-o
go.in.SS shoot-3sg.Non-Fut.DS-coord
'And he saw that he had trapped (it) and he moved in and shot (it) and...(DS)..'

-kelo in (136) signals the end of the complex predication in which lavatmbo functions as term with Object function. The centre of this complex predication, the verb hetakhene, is coordinated to uto.

The relational verb halombelo is used with about the same sense as kitmombelo:

(137) Ndakono ev-e nggelemo-kndeva-n-o halo-mbel-o
 and that-conn collect-1pl.pres-tr-coord do-SS.sequence-coord

lap-ko-tulo ...

take-go-go.up.SS

'And having collected that, we brought it up...'

halo- is a verb meaning 'to put', 'to cause' or 'to do'; as relational verb it means 'after'.

3.2.5 Relative clauses

Thusfar I have found two main types of relative clauses in Wambon. The first type is the pre-nominal one:

(138) Nuk oy-a temke-n-o kav-e hetak-nok-ndep
 I pig-RC shoot.3sg.pres-tr-conn man-conn see-negat-1sg.pres
 'I do not see the man who shot the pig.'

In this type the relative clause (oya temkeno) precedes the head noun (kave) as modifier, linked to its head by the modifier-head connective -o (cf. 3.1.1).

The second type of relative clauses is the head-internal RC in which the head nominal is part of the relative clause:

(139) Aliv-a ndu-n-e takhima-lepo-n-eve setelepkekhe
 yesterday-RC sagu-tr-conn buy-1sg.past-tr-Topic be.delicious.3sg.pres
 'The sagu which I bought yesterday, is delicious.'

The function of the relative clause marker -a, which occurs cliticized to the first constituent of every relative clause, whether prenominal or head-internal, is to signal the beginning of the RC domain and not to relate the RC to its head, because in pre-nominal RC's -o takes care of that (cf. (138)) whereas in head-internal ones like (139) -a does not occur on the head noun or the RC but on the first constituent of the RC. Notice that in (139) context and situation must indicate which noun is relativized. Head-internal RC's function as Topics, marked by (-)eve (cf. 3.2.4.2.2). The relative term in which pre-nominal RC's function as modifier, takes either the neutral relator -e or the pragmatic relator (-)eve.

3.3 Relational elements in discourse

As in many other Papuan languages, the normal way to connect sentences in discourse is by Tail-Head linkage in the sense of Thurman (1975). In cases of Tail-Head linkage the verb of the last clause of the sentence is repeated in the first clause of the next sentence; sometimes an argument of the verb is also included in the repetition. Cf. (140) and (141):

(140) La-lepo-n-o wesatmalo ndave-lepo
sleep-1sg.past-tr-coord become.day.SS come-1sg.past
'I slept until the day and returned.'

(141) Nda-kndev-o jandit wamip-ka kav-e
come-1sg.pres-coord road inside-Circumst man-conn

nggalumbelo
meet.SS.sequence.coord
'I returned and on the way I met a man and....'

The last verb of the final clause (Tail) of (140), ndavelepo, is repeated in the first clause of the next sentence (Head).

Another way to connect sentences in discourse is by relational generic verbs:

(142) Kono Kikhup-ka okima-levambo
next Digul-Circumst take.a.bath-1pl.past
'Next we took a bath in the Digul.'

(143) Jamo-mbel-o ap ka-levambo
thus.do-SS.sequence-coord house go-1pl.past
'Having done so, we went home.'

Both ways to connect sentences have the effect of starting the new sentence with old information.

In 3.2.4.2.5 we discussed already the relators kono, ndano and ndakono which connect clauses within compound predications (cf. kono in (135)) but also sentences in discourse (cf. ndano in (135) and kono in (136)). The discourse from which (142) and (143) are taken, has (144) as the next sentence after (143), with kono as discourse-connective relator:

- (144) Kono la-levambo-n-o
and sleep-1pl.past-tr-coord
'And we slept....'

We may conclude that verbs play a crucial role in connecting sentences in discourse. In Tail-Head linkage there is repetition of verbs, the jamo- forms are relational verbs and kono, ndano and ndakono have a verbal origin.

This does not mean that verbs or verb-based relators are the only categories involved in connecting sentences. We also find for example anaphoric elements in that role:

- (145) Kui mata-levambo
Kouh arrive-1pl.past
'We arrived in Kouh.'

- (146) Ep-ka la-levambo-n-o
there-Circumst sleep-1pl.past-tr-coord
'There we slept and...'

(146) starts with epka 'there' pointing back to Kui 'Kouh' in the preceding sentence (145).

Another non-verbal relator in discourse is odo expressing discourse-internal 'and' ('and the next thing I want to tell') (cf. (109), (136)).

4. Conclusions

4.1 Relators and relational usage of other categories

Throughout this article we have distinguished relators from relationally used nouns and verbs. Relators share with these relational elements of other categories the function of establishing relationships between constituents but they differ from them in the following respects.

Semantically, relators have a grammatical meaning which can be defined only in terms of a grammatical meta-language. Furthermore they cannot be used to refer to entities in some world or to denote relations between these entities or properties of these entities (cf. Dik 1978: 54 for the notion of referring).

Syntactically, relators cannot function as centre of a constituent or as modifier whereas relational elements from other categories retain the syntactic possibilities of the category they belong to.

Let me illustrate these points with an example from Wambon.

In the Yonggom dialect of Wambon the semantic function of Reason may be expressed by a relationally used noun (cf. Drabbe 1959: 148):

- (147) Ran-e tigin-de Katit pitip undarin-de
 woman-conn reason-copula Katit house they.burned-and
 'Because of a woman they burned down Katit's house and...'

Tigin in (147) is a relational noun and not a relator because:

- (a) syntactically, tigin functions as head of the term rane tigin; in this term ran 'woman' functions as modifier, connected to the head tigin by the modifier-head connective -e; relators cannot have modifiers.
(b) semantically, tigin has the lexical meaning 'cause, affair, reason'. The term rane tigin refers to an affair in which a woman is involved. Relators do not have referential potential.

In Digul-Wambon -sikhi is the cognate of tigin. The phoneme /s/ from Digul-Wambon is initially realised as the affricate [ts]; the Digul-Wambon velar voiced fricative /kh/ is closely related to the Yonggom velar voiced stop /g/. -sikhi expresses the semantic functions Goal and Reason (cf. 3.2.1.4). Cf. (148):

- (148) Ev-o lan-sikhi ka-lembo
 that-conn woman-Reason go-3pl.past
 'Because of that woman they went away.'

-sikhi in (148) is a relator and not a relationally used noun because:

- (a) syntactically, -sikhi cannot be the head of the term evo lansikhi because in that case lan 'woman', as modifier, would take the modifier-head connective -o (cf. 3.1.1); -sikhi has cliticised to the head lan. Relational nouns never cliticize.
(b) semantically, -sikhi has lost its specific lexical meaning; to describe the meaning of -sikhi we need meta-language notions such as Goal and Reason (cf. 3.2.1.4); this loss of lexical specificity makes it possible for -sikhi to occur with e.g. Beneficiaries and Recipients (cf. (58) and (59)).

The diachronical development from relational noun to relator which took place in Digul-Wambon with -sikhi reminds us of similar developments in other languages, for example in English with the relator because and the relationally used noun cause in by cause of.

4.2 Factors determining the relator system

4.2.1 Positioning of relators

The positioning of prefield-centre relators is determined by the Relator Constraint, the fact that prefield-centre relators take the prefield relatum as their immediate relatum (cf. Dik (1983: 274) for the notion of immediate relatum) and by the Oblique Term Constraint.

In the term domain the Relator Constraint determines the distribution of modifier-head relators: they occur never with postnominal modifiers (cf. 3.1.1); instead, they occur cliticised to the prenominal modifiers.

In the predication domain the Oblique Term Constraint demands the presence of relators on terms in the postfield, i.e. in unpreferred positions (cf. (95)). In such situations the connective -e functions as therapeutic relator: attached to the predicate, it signals the presence of terms in the postfield and it occurs in a preferred position when the relator on the term in the postfield occupies a non-preferred position (cf. 3.2.3; examples (95), (96) and (97)). The presence of therapeutic relators in cases of violations of the Relator Constraint we also find in a number of other unrelated languages: Kobon, Basque, Nama Hottentot, Ngiyambaa and Luisēno (cf. Kahrel (1985)).

The positioning of coordinators (centre-centre relators) is in accordance with the Relator Constraint when they coordinate clauses but when they coordinate terms the Awyu-Ndumut coordination pattern (cf. 3.1.2.4; (26)-(32)) determines their positioning. In this pattern the relators occur on all members of the coordination. The Awyu-Ndumut pattern is the result of the fact that the coordinators are basically term-predicate relators in the predication domain which are used secondarily in the term domain as coordinators (cf. 3.1.2.4; (35), (36)).

4.2.2 Predicate-orientedness of Wambon grammar

Wurm (1982: 36) notes as general Papuan characteristic "an often very high level of morphological complexity of the verb system". Contrasting with this complexity of the verbal component of the grammar is the relatively simple nominal morphology (cf. for Wambon: Drabbe 1959 and De Vries and De Vries-Wiersma 1986).

This predicate-orientedness co-determines the Wambon relator system. The term component of the grammar being very simple, the number of relators per term is limited to one and there is only a very small set of term relators.

Reesink (1984: 152) has connected the saliency of terms involved in coordination with the dominance of predicates over terms. The informational saliency of coordinated terms explains why in Wambon the Focus relator -nde functions with terms as coordinator (cf. 3.1.2).

The predicate-orientedness of Wambon grammar is also very clear in the way in which interclausal relations are expressed: by medial verb suffixes (cf. 3.2.4.1) and by relationally used verbs (cf. 3.2.4.2.5). In discourse verbs play a crucial role in connecting sentences: generic relational verbs (cf. 3.3; example (143)), Tail-Head linkage (cf. (141), the verb-based relators kono, ndano and ndakono (cf. (144)).

4.2.3 Medial and final verbs

The presence of medial verbs is characteristic for languages of the Trans-New Guinea Phylum and perhaps for Papuan languages in general (cf. Wurm 1982: 36). In Wambon the usage of medial verbs implies coordination. The postpositions/subordinators of Wambon never go with medial verb clauses. Subordinate clauses always take final verbs. Medial verb suffixes express interclausal relations of switch-reference and temporality (cf. 3.2.4.1).

4.2.4 The topicality of subordinate clauses

Wambon subordinate clauses function as Topics and Themes. Since (clausal) terms in Wambon cannot take more than one relator, a subordinate clause cannot have both a semantic and a pragmatic relator. This means that when there is a semantic subordinator expressing the semantic function of the clause (cf. 3.2.4.2.1), the pragmatic function of the clause remains unexpressed. This is the case for example with temporals (cf. (114), (120)). Conditionals, head-internal RC's and Resultative clauses generally take the pragmatic subordinator (-)eve (cf. 3.2.4.2.2). This (-)eve is a deictic based relator (cf. 3.2.2.1).

These findings confirm the claims of Reesink (1984) that subordinate clauses in Papuan languages function as Topics and that deictics in these languages function as pragmatic relators expressing topicality. (Cf. also Haiman 1978 and Reesink 1983).

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6. Notes

- * I would like to thank Simon Dik, Machiel Limburg and Peter Kahrel for their critical comments on earlier versions of this paper.
1. To make the paper readable for descriptively oriented readers I do not presuppose knowledge of the Functional Grammar terminology.
 2. See section 2 for the notions of prefield, postfield and centre.
 3. H. Versteeg is a ZGK missionary in Manggelum. Using S.I.L. wordlists designed for lexical correspondence research in Irian Jaya, he established the percentages given in this paper.
 4. Goals in the sense of Dik (1978: 41) are "those entities which are affected (or effected) by the operation of some Controller ... or a Force". Thus Goals in Dik's sense are entities undergoing the actions, processes or positionings of Agents, Positioners and Forces. In Wambon Patients (or Goals in Dik's sense) are clearly distinguished from Goals (in the sense of Reesink (1984)): Patients are always expressed as Object and Goals as oblique terms with -sikhi (with the exception of Destinations which are expressed as Object of motion verbs (cf. (64))).
 5. The preceding picture of SS verbs is much more complicated than the sketch in De Vries 1985 suggests. The SS forms stem, stem + -lo, stem + -o and stem + -mbet are all in semantic-pragmatic opposition.
 6. The preceding analysis of -o as clausal coordinator which has been integrated in the medial verb, makes it necessary to reformulate some statements in De Vries (1985: 160). In the first place -o with medially occurring final forms is not an SS suffix (although indeed such 'medialised' final forms generally function in SS conditions) but a coordinating suffix. In the second place the suffix -mbelo can now be analysed as -mbet + -o (cf. rule (i) of section IV for the change of /t/ into /l/).

7. Appendix

In the appendix I give some illustrative text material. For more texts cf. Drabbe (1959) and De Vries and De Vries-Wiersma (1986).

7.1 Savanop and the pig

1. Savanop ko-khe-n-o kavat hetokho-p
Savanop go-3sg.pres-tr-coord trap see-1sg.Intent

ne-mbel-o kono hetakhe-n-e lava-tmbo-nggelo
say-SS.sequence-coord and see.3sg.pres-tr-conn take-3sg.past-and

odo uto tamja-l-o odo oy-e ndano
and go.in.SS shoot-3sg.non-fut.DS-coord and pig-conn next

inande-tmbo
bite-3sg.past

'Savanop went to inspect his trap and he saw that he had caught a pig and he approached the trap and shot the pig and the pig bit Savanop.' (Cf. Reesink (1984: 216) for a discussion of purposive constructions in Papuan languages in which intention is expressed as quoted thought.)

2. Jama-l-o et-mbel-o ap
thus.do-3sg.non-fut.DS-coord leave-SS.sequence-coord house

nde-tmbo
come-3sg.past

'Thus he (the pig) did and he(Savanop) left and went home.'

3. Ap nda-khe-n-o kit-mbel-o
house come-3sg.pres-tr-coord be.finished-SS.sequence-coord

nekho-salip lokha-l-o ndano kap kap
his-wife speak-3sg.non-fut.DS-coord next man man

lokha-l-o lap-ka-lembo
speak-3sg.non-fut.DS-coord take-go-3pl.past

'Having come home, he informed his wife and she informed the men and they went (to kill the pig).'

7.2 Travel narrative (part of story)

1. Ev-o sal-e nuk-nde Kulop-nde Timotiu-te
that-conn day-conn I-coord Kulop-coord Timothy-coord

nokhop ilumtakhemo Mboma nda-kndeva-n-o jandit
we three Boma come-1pl.pres-tr-coord road

wamip-ka kutip-ke-lo odo ip-kim-ka
inside-Circumst night-become-SS and earth-surface-Circumst

la-levambo
sleep-1pl.past

'That day I and Kulop and Timothy, the three of us, we returned from Boma and on the way the night fell and we slept in a shelter.'

2. La-levambo-n-o jat-ke-lo aiktop-ka mulo
sleep-1pl.past-tr-coord day-become-SS morning-Circumst descend.SS

ndave-levambo
come-1pl.past

'We slept and the day came and in the morning we left (the shelter) and travelled on.'

3. Nda-kndeva-n-o kokheno kutip-ke-lo Kui
come-1pl.pres-tr-coord until night-become-SS Kouh

mata-levambo
arrive-1pl.past

'We travelled on until the night fell and we arrived in Kouh.'

4. Ep-ka la-levambo-n-o jat-ke-lo
there-Circumst sleep-1pl.past-tr-coord day-become-SS

aiktov-e matulo ande-n-e sapmo
morning-conn go.up.SS bananas-tr-conn prepare.food.in.the.fire.SS

en-nggendevea-n-o kitmo-mbel-o kono
eat-1pl.pres-tr-coord be.finished-SS.sequence-coord next

Kikhup-ka okima-levambo
Digul-Circumst bathe-1pl.past

'There we slept until the day came and in the morning we went up
and prepared bananas in the fire and after that we took a bath in
the Digul.'

5. Jamo-mbel-o ap ka-levambo
thus.do-SS.sequence-coord house go-1pl.past

'Thus we did and then we went home.'

6. Kono la-levambo-n-o kokheno kutipke-lo
and sleep-1pl.past-tr-coord until night.become-SS

mba-kndev-o kutip wamip-ka moto jakho-n-alep-ka
stay-1sg.pres-coord night inside-Circumst go.out.SS their-tr-canoes-Circumst

si-n-o ndave-lepo
row-tr-SS.simult.coord come-1sg.past

'And we slept until the night came and I stayed (in the house) and
and in the middle of the night I went out and using their canoe
I travelled on.'