

# IRIAN

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## IRIAN

### BULLETIN OF IRIAN JAYA DEVELOPMENT

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P A R T    I

INTERMEDIATE GRAMMATICAL LEVELS

## AN OVERVIEW OF THE BAUZI VERB PHRASE

Joyce Briley  
Summer Institute of Linguistics

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  - 1.1 Equative clauses
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### 0. Introduction

This paper<sup>1</sup> presents the initial investigations of the verb structure in Bauzi<sup>2</sup>. The title of this paper suggests that no attempt is made to present a complete analysis of predication in Bauzi. Further research will be needed before this goal is attained.

This paper has as its theoretical basis the grammatical hierarchy developed by K.L. Pike (1967). Studies thus far have led to the discovery of three levels of this hierarchy: the clause, the phrase, and the word levels. Starting at the clause level provides a useful means for describing the lower levels.

The overview begins with a look at the clause level constituents.

### 1. Clause types

The basic clause types of Bauzi are Equative (Eq), Possessive (Poss), Adjectival (Adj), and Verbal (Verb), each being characterized by the kind of predicate which it contains. The structure of these clause types may be briefly described as follows:

#### 1.1 Equative clauses

The equative clause is summarized as:

$$(1) \text{ Eq Cl} = S_{NP} + EQ_{NP}$$

That is, an equative clause is constituted of a Noun Phrase (NP) function as subject and a following NP as identification or equative but with no overt relation or verb marker. The following examples show the equative clause type:

- (2) Tomat dubu Boligo.  
Tomat older brother Boligo  
'Tomat's older brother is Boligo.'
- (3) Materi aia Sigoaia.  
Materi father Sigoaia  
'Materi's father is Sigoaia.'

#### 1.2 Possessive clauses

Possessive clause may be described in the following equation:

$$(4) \text{ Poss Cl} = S_{NP} + \text{Poss}_{NP} + P_{ex}$$

This expression is read as: a NP with a grammatical rule Subject precedes a NP with the function Possessed items and followed finally by an existensive possession Predicate. Consider the following example:

- (5) Isak lahi deda.  
Isak wife exists  
'Isak has a wife.'

### 1.3 Adjectival Clauses

Adjectival clauses have the following structure:

$$(6) \text{ Adj Cl} = S_{NP} + \text{State}_{Adj}$$

That is, an adjectival clause presents a NP functioning as Subject and adjective used to express a descriptive state. The following sentences illustrate this clause type:

- (7) Fem fai -de.  
banana bad -state  
'The banana is rotten.'
- (8) Na abo nea -de.  
food very good -state  
'The food is very good.'

Note that an adjective is followed by the state suffix -de. This -de also turns up on stative verb construction (see Section 2.71). Another suffix which may be added to adjectives is -le (literally 'come') which means 'inceptive state', i.e. 'coming to be adjective'. Notice the following examples:

- (9) Fem bozi -le.  
bananas red -come  
'The bananas are ripe.'
- (10) Zino zu -bu -le.  
Zino belly -large -come  
'Zino is pregnant.'

### 1.4 Verbal clauses

Verbal clauses have the following basic structure:

$$(11) \text{ Verb Cl} = \pm T_{tw} \pm S_{NP} \pm O_{NP} \pm L_{NP} \pm \text{Inst}_{IO_{NP}} + P_{VP}$$

Time and subject order may be reversed, but subject normally precedes the object. Instrument and indirect object are mutually exclusive in the same clause.

This basic expression (11) yields the familiar clause types Intransitive, Transitive, and Bitransitive, as illustrated in the sentences below:

- (12) em la. Intransitive  
I go

'I go.'

- (13) em ubo ä. Transitive  
I ubi eat

'I eat sweet potato.'

- (14) em ubo oba lo. Bitransitive  
I ubi you give

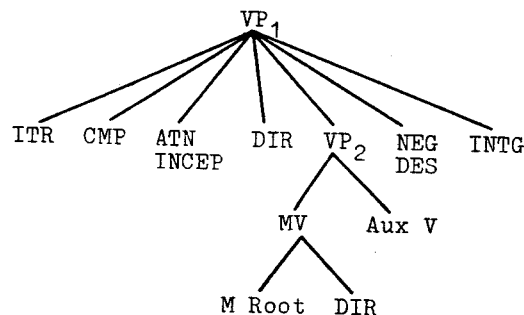
'I give you the sweet potato.'

The Verb Phrase (VP), which is manifested as the predicate in the Verbal clause, is taken up next as the focal problem of this paper.

## 2. The verb phrase

The structure of the VP may be summarized in the following tree (15):

(15)



This tree is to be read as: a Verb Phrase (VP<sub>1</sub>) is realized in its fullest form as an Iterative (ITR) followed consecutively by a Completive Aspect (CMP), Attenuative (ATN), Inceptive (INCEP), Directional (DIR), an embedded verb phrase (VP<sub>2</sub>), Negative (NEG), Desiderative (DES) and Interrogative (INTG). The embedded verb phrase is realized as a Main Verb (MV) plus an Auxiliary Verb (Aux V). The Main Verb (MV) is realized as a Main Root (M Root) plus a Directional (DIR).

### 2.1 Iterative: fa

The Aux fa indicates a return action or motion to a location previously visited or where one's residence exists. The following examples illustrate the use of this form.

- (16) Fesao fa le.  
airplane ITR come

'The plane is returning.'

- (17) Fesao fa neo le.  
airplane ITR already come

'The plane has already returned.'

- (18) Em Jayapura fa la.  
I Jayapura ITR go

'I am going to return to Jayapura.'

### 2.2 Completive Aspect: neo

- (19) Em sue neo kike.  
I clothes CMP wash

'I have already washed the clothes.'

- (20) Zino data neo fa.  
Zino children CMP born

'Zino has already borne children.'

- (21) Fesao fa neo le.  
airplane return CMP come

'The plane has already returned.'

2.3 Attenuative: gi

The Aux gi signifies a decreased emphasis or attenuation of an event. It usually translates as something like 'just, only'. Often it is the answer to the question: Ana mode? 'What are you doing?' The following examples illustrate gi:

- (22) em gi la lo.  
I ATN go doing  
'I'm just going.' (nothing special in mind)
- (23) em gi gago.  
I ATN talk  
'I'm just talking.' (saying nothing in particular)
- (24) im gi gohate.  
we ATN walk about  
'We're just walking about.' (going nowhere in particular)

2.4 Inceptive Aspect: nas

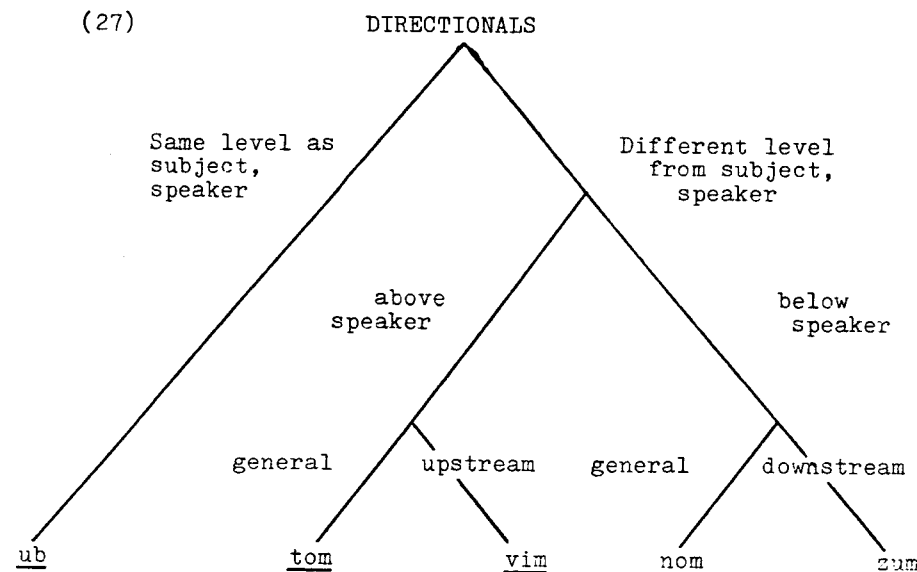
The Aux form nas has the meaning of an action recently begun, i.e. either in the immediate past or in the present, or immediate future. The following sentences exemplify nas:

- (25) Dau nas la.  
Daud INCEP go  
'Dave just left.'
- (26) em nas a.  
I INCEP eat  
'I'm just now eating.'

## 2.5 Directional Aspect

Events may be specified as to directions in Bauzi as is frequently the case in the languages of Irian Jaya. Direction, we shall see later, also shows up in the verb morphology (-su, -to). As Aux components, the following directions occur in which the speaker or subject orients himself along the parameters

indicated in the following feature tree (27):



The following examples illustrate the uses of Directional Auxiliaries:

- (28) em deke ub esu.  
I netbag DIR put  
'I put the netbag on the shelf (same level as you, the speaker).'
- (29) em tom gago.  
I DIR talk  
'I pray.'
- (30) em kelibusi vim la.  
I Kelibusi DIR go  
'I am going to Kelibusi (located upstream).'

- (31) ke bake bumat nom du -su.  
 stone earth hole DIR put -on, in  
 'He put the stone in the hole.'

- (32) om Kusela zum la.  
 you Kusela DIR go  
 'You are going to Kusela (located downstream).'

The DIR Aux VP may cluster with another VP to add a directional aspect to a clause, i.e.

- (33) VP + VP  
 (DIR + V)

Consider the following examples:

- (34) em ut odosi u you la.  
 I wood push DIR bring go  
 'I pushed the wood away.'

- (35) em ut odosi nem you le.  
 I wood push DIR bring come  
 'I pulled the wood toward me.'

## 2.6 Main verb

The verb is the head constituent of the VP and may be summarized in the following equation:

- (36) MV = + M Root ± DIR

This is to be read as: The main verb is realized as a main root suffixed by a directional.

### 2.61 Main root

The main root may occur with suffixes or independently in the VP. The lexical classes of the verb to which the main root belongs dictates the kinds and number of underlying 'cases' and surface NPs that a clause possesses (see Fillmore, 1968).

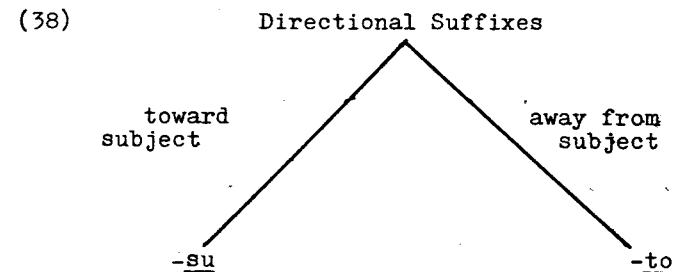
The main root follows the basic phonological constraints (see David Briley, 1976) and has the following canonical shapes:

- (37) V i 'to sleep'

CV	la	'to go'
CV.V	nau	'to smell'
V.CV	ohe	'to breathe'
CV.CV	nabi	'to look for'
CV.CV.V	sabau	'to smoke'

### 2.62 Directional suffix

Directionals occur immediately following the main root. They reflect a basic contrast of 'toward an object' versus 'away from the object'. The following diagram summarizes these features:



Notice the following examples:

- su (39) data em bamahaba nu -su.  
 child my lap sit -DIR  
 'The child sits on my lap.'

- (40) em data ou -su.  
 I child place -DIR  
 'I lay the child down.'

- (41) em sue du -su.  
 I clothes put -DIR  
 'I put my clothes on.'

- to (42) em sue vihi -to.  
 I clothes take -DIR



'I take my clothes off.'

- (43) em kohu su -to.  
I breadfruit cut -DIR

'I cut the breadfruit down.'

- (44) em doho naobu deke va -to.  
I pig leg netbag take -DIR

'I take the pig's leg out of the netbag.'

## 2.7 Auxiliary verb

The auxiliary verb (Aux V) is a limited class of verbs which lend an aspectual or motion component to the main verb. The common auxiliary verbs are discussed next.

### 2.71 Stative: de

The verb de in its auxiliary function means that a state has been achieved, exists, or that a product has been produced. The following examples show the use of the auxiliary de:

- (45) Tulisi numa mo -de.  
Tulisi house build Aux V

'Tulisi built a house.'

- (46) em ubo ā de.  
I ubi eat Aux V

'I cooked up the sweet potato.'

- (47) om do baguam de.  
you door to cover Aux V

'You closed the door.'

### 2.72 Incompletion: da

The Aux V da has the meaning 'continuing', i. e. incompleted action, as in the following sentences:

- (48) lahi sue kike da.  
woman clothes wash Aux V

'The woman is washing the clothes.'

- (49) data vao ehu da.  
child water bathe Aux V

'The child is bathing.'

- (50) dam emoe da.  
man run Aux V

'The man is running.'

### 2.73 Completion: ho

The Aux V ho means 'completed action' and may be observed in the following examples:

- (51) em nā ā ho.  
I food eat Aux V

'I ate the food.'

- (52) Tulisi Agoiogo esu ho.  
Tulisi Agoiogo stay Aux V

'Tulisi stayed in Agoiogo.'

- (53) Ahidede ut sie ho.  
Ahidede wood garden Aux V

'Ahidede made a garden.'

### 2.74 Extrovert motion: la

The Aux V la means 'motion away' and is used as a main verb with the meaning 'go'. Illustrated here is the auxiliary sense in the following example:

- (54) em na yuba vou la.  
I item there bring Aux V

'I take it to there.'

### 2.75 Introvert motion: le

The Aux V le means 'motion towards' or 'becoming', i.e. inceptive or inchoative, though the latter sense turns up more in adjectival clauses with le. The verb le is used as a main verb as well meaning 'come'. Consider the following examples

which illustrate the auxiliary function:

- (55) Tomat ubo vahu le.  
Tomat ubi roast Aux V  
'Tomat roasted the sweet potato.'
- (56) vem eho vou le.  
dog I bring Aux V  
'I bring the dog.'

#### 2.76 Performance: lo

The Aux V lo supports a main verb and means 'doing' the action of the verb. The form lo is probably derived from the main verb form lo 'to give'. The following sentences illustrate lo as an auxiliary verb:

- (57) em nusu toe lo.  
I sit write Aux V  
'I sit writing.'
- (58) dam elo lo.  
man die Aux V  
'The man is dying.'
- (59) em tate vie lo.  
I grass cut Aux V  
'I cut the grass.'

The auxiliary verbs described above appear following main verbs in the basic VP. However, these auxiliaries can, in recursive fashion, build on each other to expand the VP. Consider the following sentences:

- (60) lahi sue kike da lo.  
woman clothes wash INCOM PER  
'The woman is washing the clothes.'
- (61) lahi le da lo.  
woman come INCOM PER  
'The woman is coming.'
- (62) Biloli numa vou le ho.  
Biloli house bring INT AT CMP

'Biloli brought it to the house.'

In example (60) above, the main verb is kike 'to wash' which is modified by the Aux V da 'incomplete'; however, notice that da in turn is modified itself by another Aux V lo 'performance'. Thus the process of Aux V recursion expands the Aux V to the right, each subsequent Aux V being dependent on each directly preceding verb (whether main verb or Aux V). Notice further sentence (61) in which in similar fashion to (60) the da and lo are added to the right, but the main verb is le 'come'. This use of le is to be carefully distinguished from the use of le as an Aux V. Finally, in sentence (62) the main verb vou 'to bring' takes an Aux V le 'to come', which in turn takes an Aux V ho 'completed'. The Auxiliary expansion process is a recursive one.

#### 2.8 Negation: -m { ka / vabo }

The action of the verb can be negated in two basic ways. In each case the morpheme -m is suffixed to the final verb from either main or auxiliary and is followed by the free forms ka and vabo. The latter form vabo can be used as a one word negative response 'no', but ka can never occur independently. Notice these examples:

- (63) em doho tate.  
I pig cut  
'I cut up the pig.'
- (64) em doho tate -m ka.  
I pig cut -negation  
'I didn't cut the pig up.'
- (65) em ubo oba vou le -m vabo.  
I ubi you bring Aux V -negation  
'I didn't bring the sweet potatoes to you.'

2.9 Desiderative: moh, mozo

The form mozo conveys the meaning of 'intention' or 'desire' by the subject; moh on the other hand negates that desire. For example:

- (66) em Kusela la lo mozo.  
I Kusela go PER DES

'I'm going (desire) to Kusela.'

- (67) em Kusela la moh.  
I Kusela go DES

'I don't want to go to Kusela.'

2.10 Interrogative: he

The form he appears in VP final position. It is used to ask a yes-no question. Some examples are:

- (68) om ut vahe he?  
you wood stack QUEST

'Did you stack the wood?'

- (69) om ke nuzuba esu he?  
you stone floor put QUEST

'Did you put the rock on the floor?'

- (70) om Jayapura la he?  
you Jayapura go QUEST

'Are you going to Jayapura?'

Notes

<sup>1</sup> Field work on which this description is based was carried out under the auspices of the Summer Institute of Linguistics in cooperation with Cenderawasih University. My husband, Dave, and I began work on the Bauzi language in the early part of December 1975, and have continued to the present. The data upon which this paper is based was collected over a five month period using monolingual methods of elicitation. I want to express my appreciation to Isak and Tomat for being our main language teachers. I wish to express my deep gratitude to Ken Gregerson for reading

early drafts and making helpful suggestions.

<sup>2</sup> Bauzi is spoken by an estimated 1000 people living in approximately twelve villages located north of Buremeso on the Mamberamo River to Bili in the south.

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## A STUDY OF SENTANI VERB STRUCTURE

Dwight Hartzler  
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- 0. Introduction
- 1. Main verb
  - 1.1 Root
  - 1.2 Negatives
  - 1.3 Tense
  - 1.4 Subject and object
  - 1.5 Aspect
  - 1.6 Modality
- 2. Auxiliary verb
  - 2.1 Directionals
  - 2.2 Negatives

## 0. Introduction

The Sentani verb is a very complex structure. It is not unusual to have a string of at least seven morphemes in one verb. The order of these morphemes is subject to numerous changes. Such morphemes as person subject morphemes can change considerably when going from past or present tense to future. An attempt will be made in this paper not to give an analysis of the entire verb structure but rather to clearly lay out the types of changes one can expect to find. This paper will deal solely with indicative verbs. However, once indicative verbs are understood it is not a great task to go on to other moods.

This analysis<sup>1</sup> is taken from the Central Sentani dialect. The Sentani people live around Sentani Lake in the North-eastern part of Irian Jaya, Indonesia.

The first study of the language was done by H.K.J. Cowan

(1965). His analysis was of the Eastern dialect of Sentani. The Eastern dialect is closely related linguistically to the Central dialect. There is a third, Western, dialect which is also mutually intelligible with the Eastern and Central dialects.

The basic clause structure in Sentani is:

- (1) CLAUSE = SUBJECT + (OBJECT) + VERB PHRASE

The basic verb phrase is:

- (2) VERB PHRASE = MAIN VERB + (AUXILIARY VERB)

The basic morphological order within any verb is:

- (3) MAIN VERB = ROOT + (NEG) + TENSE + (SUBJECT PERSON)  
+ (OBJECT PERSON) + (ASPECT) + (MODE)

Although this is the basic order for the verb there is frequent morpheme reordering, which will be discussed in the pertinent sections.

In the remainder of the paper the subject person-number morpheme will be simply referred to as subject, and the object person-number morpheme as object.

The form  $x \longrightarrow y / z$  will be used with the meaning 'x becomes y in the context of z' to indicate morphophonemic changes.

## 1. Main verb

The main verb (abbreviated hereafter as simply V) can exist with as few as two morphemes and with at least as many as seven. Root, tense, subject, object, negative, aspect, mode, and agreement are all functions of the verb morphology. All morphemes within the verb can undergo reordering, insertion, and deletion,

except the root, which undergoes only reordering. All verb affixes are subject to phonological change by contraction with other morphemes. The contraction usually occurs when the final vowel of one morpheme is deleted before the initial vowel of the next morpheme.

The present tense verbs tend to use the fewest number of morphemes. They usually occur with only root and subject morphemes. No modes occur with this tense form, and the occurrence aspect is deleted as well.

The past tense tends to occur with more morphemes than the present, but not as many as the future. The future tense can occur with all types of morphemes, which makes it the most complex and most interesting tense.

In this study no more than seven morphemes occurred in one verb form. However, there exist much less frequent complex verb forms (not dealt with here) in which the possibility exists for strings longer than seven.

The following morpheme combination rules will apply throughout this paper:

(4) 1. Vowel Contraction Rule:

$-V_1 + V_2 \rightarrow V_2$ , except  $-\acute{e} + \underline{a} \rightarrow /æ/$

When one vowel final morpheme cooccurs adjacent to a vowel initial morpheme, the final vowel of the first morpheme is deleted. This is true unless the first vowel final is  $\acute{e}$  and the first vowel initial is  $\underline{a}$ . In this case they contract to the single phoneme  $/æ/$ .

(5) 2. Consonant Assimilation Rule:

$\left\{ \begin{matrix} \underline{re} \\ \underline{h(V)} \end{matrix} \right\} \rightarrow \left\{ \begin{matrix} \underline{se} & /n-, i-; \\ \underline{s(V)} & \underline{fe} & /u- \end{matrix} \right\}$

In morpheme  $\underline{re}$  or  $\underline{h(V)}$ ,  $\underline{r}$  or  $\underline{h}$  becomes  $\underline{s}$  when preceded by  $\underline{n}$  or  $\underline{i}$ , and they become  $\underline{f}$  when preceded by  $\underline{u}$ .

### 1.1 Root

The root never occurs without affixes. It is often changed by contraction and sometimes changes to agree with tense or object number.

The root is most easily identified in the non-negative, past tense, first person singular subject form. It is the first morpheme and occurs preceding either the past tense morpheme  $-\underline{k(e)}$ - or the discontinuous occurrence aspect morpheme  $-\underline{u} \dots -\underline{bo}$ ,  $-\underline{ko}$  (see Section 1.51), for example:

(6)  $\underline{Reyæ} \quad \underline{ere} \quad -\underline{k} \quad \quad \quad -\underline{alé}$ .  
I root-past tense-subject  
see

'I saw.'

(7)  $\underline{Weyæ} \quad \underline{ere} \quad -\underline{u} \quad -\underline{fe} \quad \quad -\underline{bo-k} \quad \quad -\underline{æ}$ .  
you root-OA -object-OA-past tense-subject  
see

'You see me.'

There are six possible phonological forms for the root, as follows:

(8) V	e-	'to go'
CV	ko-	'to spit'
V.CV	oro-	'to walk'
CV.CV	hiko-	'to swim'
V.CV.CV	isæye-	'to learn'
CV.CV.CV	habele-	'to run'

### 1.2 Negative

The negative is formed by a morphological change to the root plus the addition of an auxiliary verb  $\underline{nege}$ - 'to stay'.  $\underline{Nege}$ - is inflected to fit the context while the negative root stays the same.

The root is changed to a negative by the suffix  $-\underline{i}$ , and the prefix  $\underline{e} \sim \underline{o}$ -. In roots that begin with a vowel, assimilation takes place whereby the prefix  $\underline{e}$ - ( $\sim \underline{o}$ -) assimilates to the

beginning vowel, and that vowel is slightly lengthened. Examples:

- (9) Neyæ a-ane -i negelé.  
 he root-neg he stays  
 eat

'He is not eating.'

- (10) Neyæ e-hiko-i negelé.  
 he root-neg he stays  
 swim

'He is not swimming.'

### 1.3 Tense

Sentani has past, present, and future tense. In Cowan's analysis he postulates five tenses, adding habitualis and imperfect to the tenses already mentioned above. This analysis, however, treats habitualis as an aspect, since it occurs in the past, present, and future tenses. No true imperfect tense was found. The tenses are marked morphologically in all instances, the present being unambiguously marked by zero.

#### 1.31 Past tense: -k(é)-

The past tense is marked by the morpheme -k(é)-, which directly precedes the person marker unless there is an occurrence aspect morpheme present (see Section 1.51). Notice in the following example how the é in the past tense morpheme has been deleted because it precedes another vowel (see Rule 1, Section 1). The morpheme order for the past tense verb is:

- (11)  $V_{\text{past}} = \text{ROOT} + (\text{OA}) + \text{TENSE} + \text{SUBJECT}$

Examples:

- (12) Reyæ ere -k -alé.  
 I root-past tense-subject  
 see

'I saw (it).'

- (13) Reyæ ane -uko-k -alé.  
 I root-OA -past tense-subject  
 eat

'I ate (it).'

In Section 1.51 it will be shown that in the above case, if there had been a plural subject, the subject morpheme would be reordered to occur before the aspect. However, even when that occurs the tense morpheme still follows the aspect morpheme.

#### 1.32 Present tense: $\emptyset$

The present tense is marked by zero. Notice that both past and present tense use the same subject morpheme, but future tense takes its own unique subject morphemes. The present tense form cannot occur with an OA morpheme. Notice that a contraction occurs in the root and the final é is deleted in eré-. The morpheme order for present tense is:

- (14)  $V_{\text{present}} = \text{ROOT} + \text{TENSE} + \text{SUBJECT}$

Example:

- (15) Reyæ er - $\emptyset$  -alé.  
 I root-present tense-subject  
 see

'I see (it).'

#### 1.33 Future tense

The future tense is the most complex of the three tenses. It has a different set of person markers from the other tenses. It usually occurs with the OA, although that is optional. It can also occur with a modal morpheme, which none of the other tenses allow (see Section 1.6). The morpheme order for future tense is:

- (16)  $V_{\text{future}} = \text{ROOT} + \text{SUBJECT-TENSE} + \text{ASPECT} + \text{AGREEMENT}$

The following charts demonstrate the unique subject markers and

agreement, with and without the occurrence aspect.

$V_{\text{future}}$	=	<u>ROOT + SUBJECT-TENSE + OA + AGREEMENT</u>			
'to eat'					
1s		<u>ane-</u>		fe	ko
2s		"	u*	Ø	"
3s		"		N	"
1du		<u>an-</u>		a	"
2du		<u>ane-</u>		Ø	be
3du		"		nei	nde
1pl		"		ma	"
2pl		"		N	mbe
3pl		"		nai	nde

Figure 1. Future Tense Morphemes

\* See Section 1.51

$V_{\text{future}}$	=	<u>ROOT + SUBJECT-TENSE + OA + AGREEMENT</u>			
'to go'					
1s		e-		re	Ø
2s		"		Ø	Ø
3s		"		N	Ø
1du		"		a	Ø
2du		"		Ø	Ø
3du		"		ne	Ø
1pl		"		ma	Ø
2pl		"		N	Ø
3pl		"		na	Ø

Figure 2: Future Tense Morphemes

The above charts are examples of the future tense with the OA in the verb 'to eat', and without the OA in the verb 'to go'. The purpose of displaying both forms is to demonstrate the different agreement morphemes.

To read the chart, start in the left column with the root

and build the verb by adding morphemes to the right. The Subject-Tense morphemes refer to the person of the subject as well as the verb tense. The aspect morpheme is the occurrence aspect which in this case refers to multiple occurrence (see Section 1.51) of the verb. No discrete meaning has yet been discovered for the agreement particle. One set of agreement particles occurs if there is an occurrence aspect and the other set is used if there is no OA. For example, among other differences, notice that the second person dual and plural agreement tend to differ from the others. Notice also the third person dual and plural morphemes have allomorphs, the final *i* being deleted if there is no occurrence aspect. The N refers to a nasal which assimilates to its environment. Other variations can be observed from the chart.

Two examples derivable from the chart are:

Second person dual ane- becomes:

(17) ane -ko-bé. = anekobé.  
 root-OA-agreement  
 eat

'You two will eat (it).'

First person plural e- becomes:

(18) e -ma -lé. = emalé.  
 root-subject-agreement  
 go

'We will go.'

#### 1.4 Subject and object morphemes

The verb is inflected to deal with person and number for both subject and object. Both subject and object morphemes may undergo reordering. The subject morphemes in non-future tense verbs differ from those in future tense verbs. As stated above, the uniqueness of future tense subject morphemes is the main signal of future tense. I discuss these person morphemes next.

## 1.41 Subject person-number

Subject person-number morphemes for the future tense have already been demonstrated in Section 1.33. Therefore, this section will deal with past and present tense only. Person-number morphemes for these two tenses are very similar. For non-future verbs the morpheme order is:

$$V_{\text{present}} = \text{ROOT} + \text{TENSE} + \text{SUBJECT} + (\text{AGREEMENT})$$

past

The following charts compare the past and present tense of the verb root e- 'to go'. Notice the root for first person singular subject is contracted to  $\emptyset$  by the subject morpheme -alé. Notice too that the subject morphemes are the same for past and present tense. Once again the verbs can be formed by starting with the root on the left and building it up with morphemes to the right, e.g.

Third person plural past tense e- becomes:

$$(19) \quad \begin{array}{cccc} e & -k & -a & -té. \\ \text{root-past tense-person-agreement} & & & \end{array} = \text{ekaté.}$$

go

'They went.'

Notice once again that the past tense morpheme k(é) contracts to k before a vowel.

$V_{\text{past}}$	= ROOT + TENSE + PERSON + AGREEMENT			
'to go'				
1s	e-	k	alé	
2s	"	k	æ	
3s	"	ke	$\emptyset$	
1du	"	k	en	dé
2du	"	k	eu	bé
3du	"	k	e	té
1pl	"	k	an	dé
2pl	"	k	au	bé
3pl	"	k	a	té

Figure 3. Past Tense Markers

$V_{\text{present}}$	= ROOT + TENSE + PERSON + AGREEMENT			
'to go'				
1s	$\emptyset$	$\emptyset$	alé	
2s	e-	"	yæ	
3s	"	"	$\emptyset$	lé
1du	"	"	en	dé
2du	"	"	eu	bé
3du	"	"	e	té
1pl	"	"	an	dé
2pl	"	"	au	bé
3pl	"	"	a	té

Figure 4. Present Tense Markers

## 1.42 Object person-number

Not only is the verb inflected to agree with the subject person-number, but it must also be inflected to agree with the object person-number. The most common order for these morphemes is:

$$(20) \quad V = \text{ROOT} + \text{SUBJECT} + \text{OBJECT}$$

However, for first and second singular subject there is a



reordering to:

$$(21) V = \text{ROOT} + \text{OBJECT} + \text{SUBJECT}$$

Not only is the ordering different but different object morphemes are used in these cases. The charts below will help to demonstrate these phenomena. An explanatory note will follow.

V <sub>present</sub>	= ROOT + TENSE		+ OBJECT						+ SUBJECT	
	1s	2s	3s	1du	2du	3du	1pl	2pl	3pl	
'to see'										
1s	<u>er(e)</u>	- aw an	-	ab amé	-	am amé			alé	
2s	"	ar - an	am	- amé	am	- amé			æ	

Figure 5. Object Person-Number Morphemes

The above chart can be used only for first and second singular subjects. Notice the morpheme order is different from the chart below where the subject morpheme appears preceding the object morpheme. An example from the above chart reads:

$$(22) \text{er} \text{ -ar } \text{ -æ} = \text{eraræ}.$$

root-object-subject  
see

'You see me.' (2nd sing subj, 1st sing obj, present)

Notice in this example the morphemes are simply added from left to right, and the past tense morpheme k is inserted in the tense slot.

When a third person plural object is used with a first person subject a contraction occurs with the final é in amé and the initial a in alé, to become æ, e.g.

$$(23) \text{er} \text{ -ame } \text{ -alé} = \text{eramælé}.$$

root-object-subject

'I see them.'

When the third person plural object is used with a second person subject the final é in amé is deleted and the verb becomes

eramæ. The remainder of the chart is straightforward, and can be read by simply combining morphemes as already demonstrated in (22) and (23). It should be pointed out that only one object morpheme would ever be used in one verb form.

V <sub>present</sub> past	= ROOT + TENSE+ SUBJECT		+ OBJECT						+ ASP		+ AGRMT	
	1s	2s	3s	1du	2du	3du	1pl	2pl	3pl		2s	2du/pl
'to see'												
3s	<u>er(e)</u> -		eu*	fe	e ne me	e mi me	em mi			Ø	té	bé
1du	"		eW**	-	e ne -	e mi -	em mi			Ø	té	bé
2du	"		eu	fe	- ne me	- mi me	- mi			Ø	té	bé
3du	"		ei	se	e ne me	e mi me	em mi			Ø	té	bé
1pl	"		aN**	-	e ne -	e mi -	em mi			Ø	té	bé
2pl	"		ax	fe	- ne me	- mi me	- mi			Ø	té	bé
3pl	"		ai	se	e ne me	e mi me	em mi			Ø	té	bé

Figure 6. Object Person-Number Morphemes

\* eu occurs before continuant consonants

\*\* N → y / \_\_\_ Vowel

The above chart is valid for the remainder of past and present verbs. The major difference is the addition of the agreement morphemes and the aspect slot, and, as mentioned before, the morpheme order changes. With this particular verb, ere-, the aspect marker does not occur. It does occur, however, in the past tense of certain other verbs.

As has been noted in rules marked with \*, \*\* above, the exact shape of the subject morpheme is dependent upon the shape of the object morpheme. Phonetic changes also occur in the third singular Object morpheme, which assumes the shape m before b, the shape ng after u, and ny after i. For a fuller explanation of these changes, see Hartzler (1976).

An example of morpheme combination is:

Third person plural subject, present tense, with third person plural object, becomes:

$$(24) \text{er} \text{ -ai } \text{ -mi} = \text{eraimi}.$$

root-subject-object  
see

'They see them.'

If this same form were to occur in past tense, the tense morpheme k would be inserted in the tense slot, to become:

- (25) ere -k -ai -mi. = erekaimi.  
 root-past tense-subject-object  
 see  
 'They saw them.'

V <sub>future</sub> = ROOT + TENSE + SUBJECT			+ OBJECT									+ ASP +		AGREEMENT*			
			1s	2s	3s	1du	2du	3du	1pl	2pl	3pl		2s	2du	2pl	Other	
'to see'																	
1s	<u>ere</u>		r(e)	-	e	m-	-	e	mi	-	e	m	bo	té	bé	mbe	nde
2s	"	u	Ø	fe	-	ne	me	-	mi	me	-	mi	bo	?	?	-	nde
3s	"		N	se	e	ne	me	e	mi	me	e	mi	bo	té	bé	mbe	nde
1du	"		a	-	e	ne	-	e	mi	-	e	m	bo	té	bé	mbe	nde
2du	"		Ø	se	-	ne	me	-	mi	me	-	mi	bo	?	?	-	nde
3du	"		nei	se	e	ne	me	e	mi	me	e	mi	bo	té	bé	mbe	nde
1pl	"		ma(y)	-	e	m-	-	e	mi	-	e	m	bo	té	bé	mbe	nde
2pl	"		N	se	-	ne	me	-	mi	me	-	mi	bo	?	?	-	nde
3pl	"		nai	se	e	ne	me	e	mi	me	e	mi	bo	té	bé	mbe	nde

Figure 7. Object Person-Number Morphemes

\* Agreement is applicable to 2nd person subject and object

The above chart is read by starting from the left and adding morphemes. The agreement constituent must be determined from the person-number of the object. For instance, from the chart note that a first person plural subject used with a second person plural object would need a te suffix.

It will be noticed in the second singular subject form that u follows the root. This is part of the discontinuous (OA) bo which is dealt with in Section 1.51. Notice also the m- in the third singular object column. This is phonemically ne, the e having been elided and the n having assimilated to the next consonant b (see M. Hartzler, 1976).

The blank sections on these charts indicate that the combin-

ation of subject and object does not logically occur or involve reflexive forms. When a reflexive form occurs, the subject only is marked in the verb and a reflexive pronoun precedes the verb to show such action is reflexive, e.g.

- (26) Renæijæ folo-uko -k -alé.  
 reflex pronoun cut -aspect-tense-subject  
 'I cut myself.'

#### 1.42 Object morpheme--special

Although the object number is generally handled in the manner previously described, that is, to use the third person singular object in forms having only one object and the third person dual or plural for objects that fit these categories, there are exceptions. Many forms specify the number of the object outside the verb morphology. When present tense is used and the number of objects is one, the verb is inflected to agree with the third person singular object. However, if the object number is more than one the number is often specifically stated before the verb and no object morpheme occurs in the verb, e.g.

- (27) Reyæ yoku-ne p -an -alé.  
 I dog - hit-3 sg object-subject

'I am hitting a dog.'

- (28) Reyæ yoku helen p -alé.  
 I dog many hit-subject

'I am hitting the dogs.'

In addition to specifying the number of the object outside the verb, in past and future tense it is not uncommon for the root itself to change. The root for plural objects remains the same as for present tense roots. For singular objects a root change may occur for certain verbs, e.g.

- (29) Reyæ yoku helen po -ukokalé.  
 I dog many hit-multiple occurrence, past tense,  
 first person

'I hit many dogs.'

- (30) Reyæ yoku embai u -kalé.  
 I dog one hit-past tense, first person  
 'I hit a dog.'

### 1.5 Aspect

There are three aspects reflected in the verb morphology. They are occurrence, habitualis, and completion.

#### 1.51 Occurrence aspect

The occurrence aspect (OA) appears only in past or future tense. It is manifested by the morphemes ko, bo, hi, and ha. Hi and ha have allomorphs as described by Rule 2, Section 1. There are two types of OA but their precise meanings are somewhat elusive. They seem, though, to involve at least a contrast of single action versus multiple action. All four OA morphemes have a discontinuous allomorph u. The u occurs following the root for singular person past tense forms and in second person singular future tense, e.g.

- (31) Weyæ ere-u -fe -bo-nde.  
 you see-OA-object-OA-agreement

'You will see me (one time).'

The ko form is used in cases where there is a multiple occurrence of the verb, while bo is used for singular occurrence. There are a few cases where if the two morphemes are interchanged the meaning of the verb changes completely, but this is rare. Usually if a bo aspect is used, ko can be used also. However, the reverse is not true. Many forms that take ko will not accept bo.

The OA morphemes occur before the tense morphemes in past tense verbs and before the agreement morphemes in future tense, e.g.

- (32) Reyæ ane-uko-k -alé.  
 I eat-OA -tense-subject

'I have eaten (many times).'

- (33) Reyæ ane-re -ko-nde.  
 I eat-subject-OA-agreement

'I will eat (many times).'

The OA morphemes cause reordering in past tense forms. The usual order of morphemes for past tense is:

- (34) V = ROOT + TENSE + SUBJECT

However, when an OA appears, reordering takes place in plural person subject forms, and the order is:

- (35) V = ROOT + SUBJECT + OA + TENSE

e.g.

- (36) Meyæ ere-k -ande.  
 we see-tense-subject

'We saw (it).'

- (37) Meyæ er -ande -ko-ke.  
 we see-subject-OA-tense

'We saw (it) (many times).'

#### 1.52 Habitualis aspect

Another quite commonly used aspect morpheme is the habitualis. This is used for cases when the speaker is referring to something that happens very frequently, e.g.

- (38) Reyæ ane-y -alé.  
 I eat-habitualis-subject

'I am always eating.'

The habitualis aspect can be used with past, present, and future tenses appearing in different forms for each tense. The present tense habitualis aspect morpheme, illustrated above, is (y)é and directly precedes the subject morpheme. Once again it follows the contraction Rule 1, Section 1, the final é being dropped

before a vowel.

The past tense form goes to we which becomes de for first person plural. It appears in the same slot as the OA morpheme, i.e., directly preceding the tense morpheme, e.g.

- (39) Reyæ ere-we -k -alé.  
I see-habitualis-tense-subject

'I was always looking.'

The habitualis aspect in the future tense is marked by a zero morpheme in the aspect slot, and used with the agreement morpheme nde or (for second person plural) mbe. These always occur directly following the subject morpheme, e.g.

- (40) Reyæ ane-re -Ø -nde.  
I eat-subject-habitualis-agreement

'I will always be eating.'

### 1.53 Completion aspect

The aspect morpheme mo is a suffix used in reported completed action events. This is accompanied by the infix wo in present tense, and preceded by the infix re in future tense. Although it refers to reported, completed action, it is not the only form used in stories. However, this form never seems to occur outside reported completed action, e.g.

- (41) Reyæ e -k -alé -mo.  
I go-past tense-subject-completion aspect

The event 'I went' is being discussed.

- (42) Reyæ e -w-alé -mo.  
I go- -subject-completion aspect

'I am going.' (as referred to in reported speech)

- (43) Reyæ e -re -lé -remo.  
I go-subject-agreement-completion aspect

'I will be going.' (as referred to in reported speech)

### 1.6 Modality

The two modal morphemes, desiderative and necessity, appear in the verb structure. Both of them require the future tense form of the verb, even though they occur in the other tenses. Both appear word final with the necessity mode being a discontinuous morpheme occurring with verb prefixation as well.

#### 1.61 Desiderative mode: re

The desiderative mode is manifested by the morpheme re which occurs word final with the future tense form. Although it seems to be used sometimes in the same sense as the Indonesian mau to mean future tense, its primary purpose is to indicate a desire to do a certain action, e.g.

- (44) Reyæ e -re -lé -re.  
I go-subject-agreement-desiderative

'I want to go.'

Notice that in this case the same morpheme is used for two different purposes. The reoccurrence of the re morpheme happens only in the first person singular position.

If desire is to be expressed in the past or present tense a special tense word must be added. This word occurs preceding the verb. It is not common to use this mode with present tense since it is logically difficult to want to do something with the event happening in the present tense. The following example shows desiderative in the past tense:

- (45) Reyæ ninae erele -re.  
I finish go-future tense form-desire aspect

'I wanted to go.'

#### 1.62 Necessity mode: n...hele

The necessity mode is also used exclusively with the future

tense form of the verb. If one wishes to say he has had to do something in the past or present, another word must precede the verb to indicate past or present tense. It is rather difficult logically to have this mode occur in the present tense.

The necessity morpheme is the only morpheme that uses a prefix with the future tense form of the verb, e.g.

- (46) Reyæ eraman n-ane-re -ko-nde -hele.  
 I food eat-subject-OA-agreement-necessity

'I have to eat.'

- (47) Reyæ ninae n-ane-re -ko-nde -hele.  
 I past eat-subject-OA-agreement-necessity

'I had to eat.'

## 2. Auxiliary verbs

In Sentani, auxiliary verbs frequently appear as supporting elements in the VP. While in many cases only one of these verbs is inflected, it is usual for both to be inflected. Two major auxiliaries are directionals and negatives.

### 2.1 Directionals

The basic verb of motion is the verb root e- 'to go'. This has counterparts me- 'to come', o- 'to go down', i- 'to go up' and fo- 'to go across'. These verbs may all be used independently and inflected normally. However, they may also be used as auxiliary verbs to give direction to other verbs, e.g.

- (48) Reyæ hagaubokale mekale.  
 I I ran I came

'I came running.'

In this case both verbs are inflected normally. Another example involves two different actors with an interesting causal logic.

- (49) Reyæ wokale oke.  
 I I threw it went down

'I threw it down.'

Tenses do not have to be the same for each verb. A past tense verb can be used with a present tense auxiliary to form a present tense event, e.g.

- (50) Reyæ hagaubokale male.  
 I I ran I come

'I come running.'

Other examples of directionals are:

- (51) Weyæ poukokæ egaté.  
 you you threw it went

'You threw it.' (no definite direction)

- (52) Neyæ hagambonde yende.  
 he he will run he will go up

'He will run (up a hill).'

- (53) Neyæ hagaikoke ogaté.  
 they they ran they went down

'They ran (down a hill).'

### 2.2 Negatives

Although negatives have been mentioned above (Section 1.2), they need to be discussed in this section as well. Negatives are examples of the use of an auxiliary verb in which one of the verbs is not inflected. The negative uses the negated form of the verb root plus the inflected auxiliary verb nege- 'to stay'. A description was given in Section 1.2 regarding the way a root was made negative. Examples will be given here to show that the verb in focus does not change. Notice past and present tense use the same form of the auxiliary. Past tense must be marked by a tense word preceding the negated root, e.g.

- (54) Reyæ a -ane-i negale.  
 I not-eat-not I stay

'I am not eating.'

- (55) Reyæ ninæ a -ane-i negalé.  
 I past not-eat-not I stay  
 'I did not eat.'
- (56) Reyæ a -ane-i negerele.  
 I not-eat-not I will stay  
 'I will not eat.'

### Notes

<sup>1</sup> The data in this paper were gathered at a six week workshop sponsored by Cenderawasih University and the Summer Institute of Linguistics in April - May, 1976. Rudi Sekoi and Beris Monim, both from Puyo Besar, were my language teachers. The expert advice of Dr. Kenneth Gregerson, consulting linguist for the workshop, is gratefully acknowledged.

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### SOME INTER-CLAUSAL RELATIONS IN KEMTUK

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 Summer Institute of Linguistics

- 0. Introduction
- 1. Existential relations
  - 1.1 Simultaneous
  - 1.2 Conjunction
  - 1.3 Succession
  - 1.4 Contrast
  - 1.5 Disjunction
- 2. Causal relations
  - 2.1 Preempting cause
  - 2.2 Efficient cause
  - 2.3 Final cause
  - 2.4 Contingency

### 0. Introduction

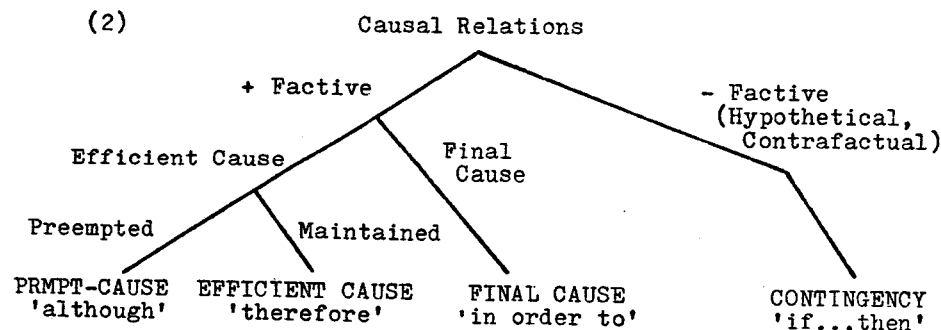
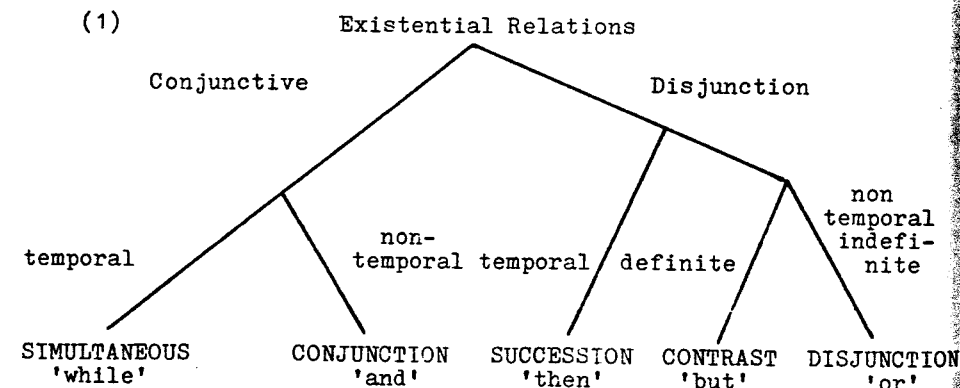
The purpose of this paper<sup>1</sup> is to present some basic inter-clausal relations types in the Kemtuk language.<sup>2</sup> The analysis is based on data from texts and examples given by my language teachers<sup>3</sup>.

The approach to interclausal relations here is a semantically based one. I first specify the semantic ('logical') relationship between two major propositions by constructing abstract trees which associate PREDICATES (PRED) and ARGUMENTS (ARG) in PROPOSITIONS (PROP). These structures are then related to surface syntax with discussion and appropriate illustrations. The terms PRED, ARG, and PROP are familiar from linguistic work on semantics (Bach, 1968; McCawley, 1968; Fillmore, 1971; Lakoff, 1971, etc.).

Briefly PRED includes such semantic aspects as function, relations, state, ARG involves the notions referent, term, entity, and 'thing', while PROP is the construction in whose domain a PRED and its ARGs are associated. The assumption is that these constitute the primitive elements of semantic tactics.

### 1. Existential relations

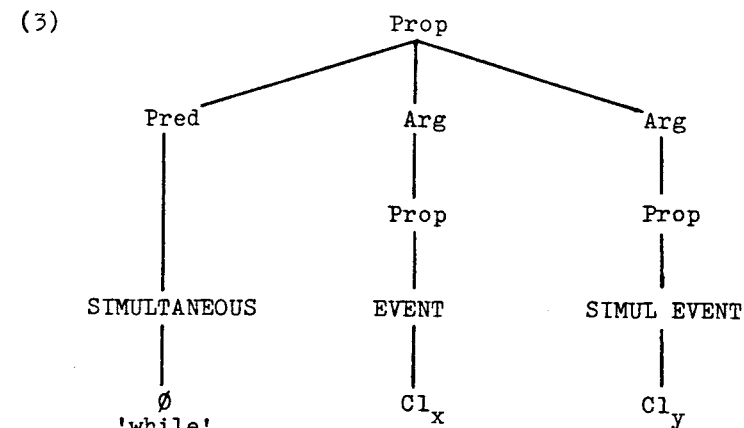
The basic inter-clausal relations discussed in this paper may be outlined in the following pair of feature trees:



For a full treatment of the sub-varieties of these and other relations in a sentential logic model, see Longacre (1972).

### 1.1 Simultaneous

The temporal relation SIMULTANEOUS can be represented by the following semantic tree:



This diagram expresses the idea that a proposition with a role function EVENT occurs at the same time as another proposition SIMULTANEOUS EVENT with the semantic relation SIMULTANEOUS. As indicated in the feature tree (1), this relation is one of temporal conjunction, i.e. it involves a real overlap of time. I distinguish this from the non-temporal overlap CONJUNCTION which is discussed in the next section. Consider the following examples:

- (4) Mia Camat usre wata dali, negui seguygo itigo  
ibu Camat dansa juga, tambur kecil yang pegang  
tano.  
tangan-dia

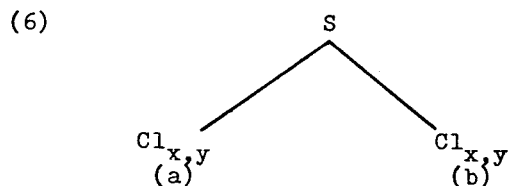
'The district officer's wife is dancing too, while she

is holding a little drum in her hand.'

- (5) Wim mia-go kebung blono sesuing, mia sam ke klik.  
Wim ibu-punya paha diatas duduk ibu surat tulis.  
 'Wim is sitting on his mother's lap, while his mother is writing a letter.'

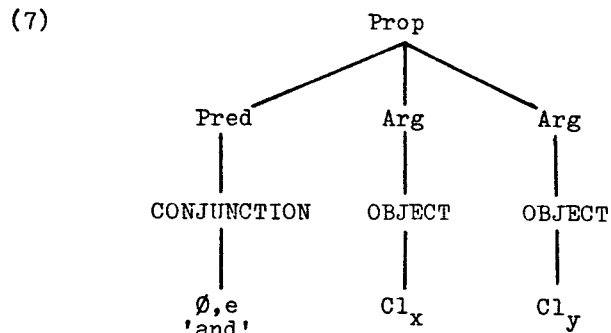
The above examples reflect the following syntactic requirements which express the relation SIMULTANEOUS:

- (a) Clause ordering: Either  $Cl_x$  or  $Cl_y$  can be fronted.  
 (b) Relation expression: SIMULTANEOUS is realized syntactically as  $\emptyset$ , where there is no overt morpheme, i.e.  $Cl_x$  and  $Cl_y$  are simply juxtaposed. These conditions result in the following tree:



## 1.2 Conjunction

The non-temporal CONJUNCTION relation may be represented by the following semantic tree:



The above diagram expresses the fact that two propositions (OBJECT

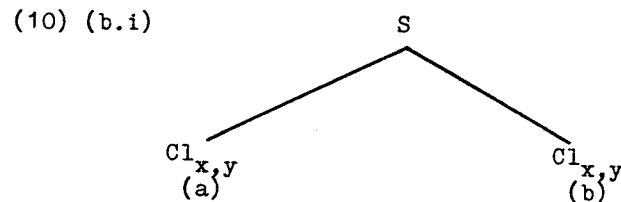
are joined in an abstract non-temporal way by CONJUNCTION. To illustrate this relation, notice the following examples:

- (8) Genamgo ususo kankung gemang, ningkoy gemang.  
saya punya kebun kankung ada ubi ada.  
 'In my garden there is kankung (type of vegetable) and there are sweet potatoes.'
- (9) Wabedonggo imotnang nasi ayam ulum dam, kim  
pada waktu siang kita nasi ayam sayur makan dan  
bu drop.  
kelapa minum.  
 'At noon we eat rice, with chicken and vegetables, and drink coconut juice.'

Surface conditions are met for CONJUNCTION by observing the following rules:

- (a) Clause ordering: Either  $Cl_x$  or  $Cl_y$  may be fronted.  
 (b) Relation expression: CONJUNCTION is: (i) Clausal conjunction realized in simple juxtaposition of  $Cl_x$  and  $Cl_y$  with no overt morpheme relation marker (10); (ii) Phrasal conjunction (11).

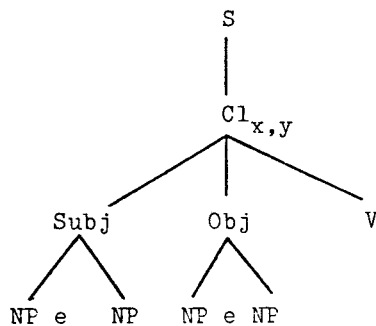
These conditions produce the following tree:



- (c) When two propositions are reduced to one surface clause, repetition of underlying identical referents is suppressed and non-identical material is listed as NP<sub>e</sub>NP in any relevant grammatical relation (i.e. Sub, Obj, Ind. Obj, etc.). Thus:



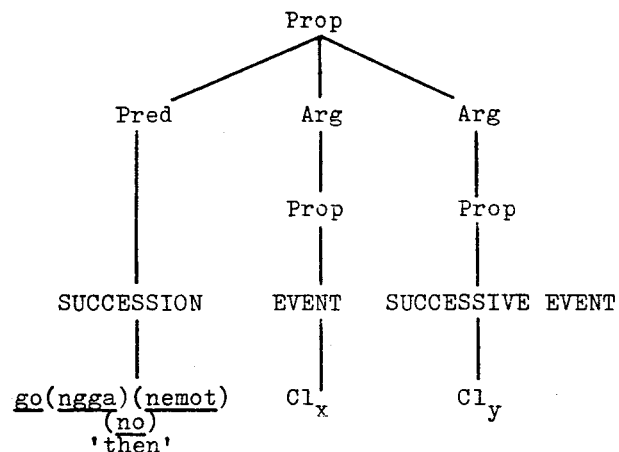
(11) (b.ii)



## 1.3 Succession

The temporal SUCCESSION relation may be represented by the following semantic tree:

(12)



The above diagram expresses the fact that a proposition with a role function EVENT precedes logically or temporally (or both) another proposition SUCCESSIVE EVENT with a semantic relation SUCCESSION. To illustrate this relation, notice the following

examples:

- (13) Imotnang ten yamso dam -go, ngganemotno imotnang  
kami makanan sudah makan terus kami  
usne nemu mea srek.  
tidur nanti tidur  
'When we have finished eating, we will go to sleep.'
- (14) Nebo dasinggo, nggano imot mea dam.  
babi sudah masak terus kita nanti makan  
'When the pig is cooked, we will eat.'
- (15) Imotnang yakenano punggo(no) imotnang usne nemu mea  
kami kampung tiba terus kami tidur nanti  
srek.  
tidur  
'When we have arrived at the village, we will go to sleep.'
- (16) Imot yakenano punggo, nevo duikko dasinggo, imot  
kami kampung tiba babi bakar sudah masak kami  
mea dam.  
nanti makan  
'When we have arrived in the village, when we have roasted the pig, when the pig is ready, we will eat.'

Referring now to the predicate SUCCESSION in the above tree, note that a fully expanded surface manifestation is found in the form go ngganemotno. This material occurs in sentence (13) above. To understand how this marks SUCCESSION it is important to know that the form go is syntactically an aspectual suffix on the verb with the meaning 'completed event', e.g. in (13) damgo means 'finished eating' (go is the allomorph used after voiced sounds, ko after voiceless). ngga is a deictic meaning 'that'. nemot is a clause final aspect marker which means 'sufficiently complete'. no is a postpositional particle signifying roughly 'in, at, on'.

It does not make much sense to attempt a translation which literally reflects each of these parts, but the overall effect is 'after completion of  $Cl_x$ , then  $Cl_y$ '. There is a range of variants which signal this relation as follows:

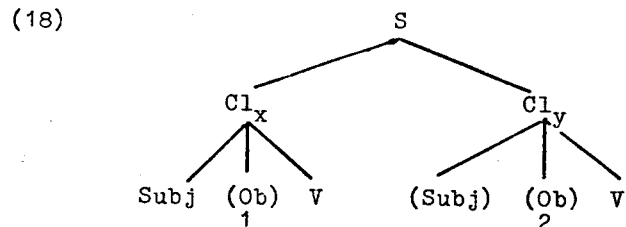
- (17) a. go ngganemotno  
 b. go nggano  
 c. go no  
 d. go

Sentences (13) - (16) above provide examples of these syntactic variations in which the same semantic relation SUCCESSION is expressed.

The semantic tree above (12) is given syntactic form in the following way:

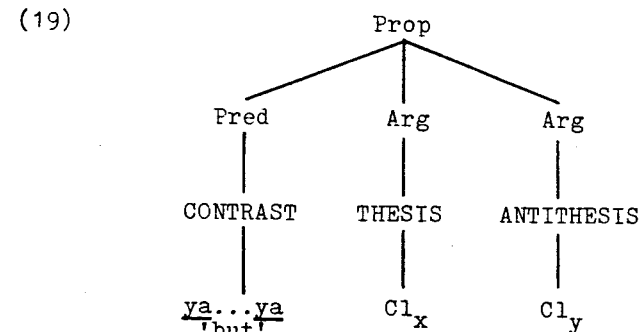
- (a) Clause ordering:  $Cl_x$  must be fronted ( $Cl_x$ ) to precede both the interclausal relation marker and  $Cl_y$ .  
 (b) Relation expression: SUCCESSION is realized syntactically as an overt relation marker go engganemotno (and its variants listed above (17)) between  $Cl_x$  and  $Cl_y$ .  
 (c) If discourse  $Cl$  requires  $Cl$ ,  $Cl$  may optionally delete the subject which is co-referential to subject of  $Cl$ . This familiar discourse process, cf like-subject reduction, may occur between all  $Cl$  pairs and will be assumed to apply to examples discussed throughout the rest of this paper. I will therefore not repeat the rule in each section.

These conditions produce the following tree:



#### 1.4 Contrast

The CONTRAST relation may be represented by the following diagram:



The above diagram expresses the fact that a semantic relation CONTRAST links a THESIS with an ANTITHESIS proposition. To illustrate CONTRAST in Kemtuk, consider the following examples:

- (20) Biap denok ya klong, genam ya kua klong.  
 Tanah Merah anak pergi saya tetapi tidak pergi  
 'The child from Tanah Merah goes, but I don't go.'

- (21) Genam ya kua klong, biap denok ya klong.  
 saya tidak pergi Tanah Merah anak tetapi pergi  
 'I don't go, but the child from Tanah Merah goes.'

- (22) Genam bu ya hua sue, genam bola voli ya me  
 saya tidak mau berenang saya bola voli tetapi  
 main.

main

'I don't want to swim, but I want to play volley ball.'

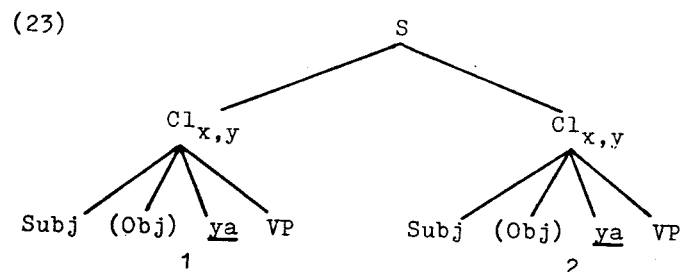
Requirements on the surface form of the CONTRAST relation may be stated as:

- (a) Clause ordering: Either  $Cl_x$  or  $Cl_y$  may be fronted

(Cl<sub>x,y</sub>).

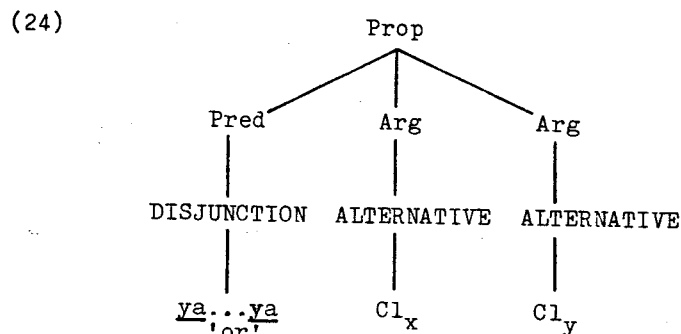
- (b) Relation expression: CONTRAST is realized syntactically by the relation marker ya, which is preposed in the VP in both Cl<sub>x</sub> and Cl<sub>y</sub>.

These conditions produce the following tree:



### 1.5 Disjunction

The DISJUNCTION relation may be represented by the following diagram:



To illustrate this relation, notice the following examples:

- (25) Yoram not kopi-ya ya drop, teh-ya ya drop.  
 Yoram engkau kopi-atau minum teh-atau minum  
 'Do you (Yoram) want to drink coffee or tea?'

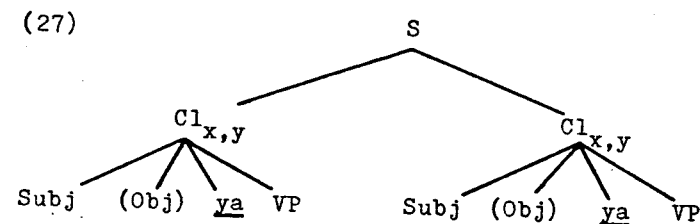
- (26) Nggea sui ya klong, utep ya klong yakena nogo  
 sekarang atau pergi besok atau pergi kampung ke  
genam kua senong.  
 saya tidak tahu.

'Today or tomorrow we will go back to the village.'

Requirements on the surface from the DISJUNCTION relation may be stated as:

- (a) Clause ordering: Either Cl<sub>x</sub> or Cl<sub>y</sub> may be fronted (Cl<sub>x,y</sub>).
- (b) Relation expression: DISJUNCTION is realized syntactically by the relation marker ya, which is preposed ahead of the VP in both Cl<sub>x</sub> and Cl<sub>y</sub>.

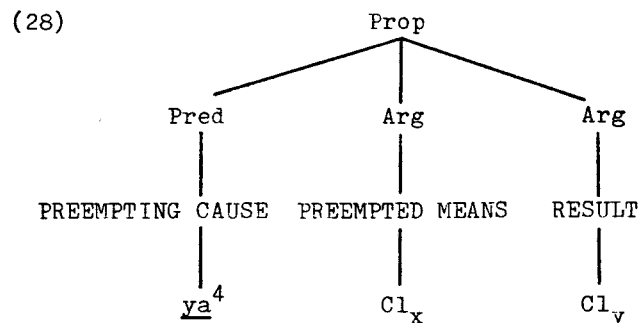
These conditions produce the following tree:



## 2. Causal relations

### 2.1 Preempting cause

The PREEMPTING CAUSE relation and its associated propositions may be represented by the following diagram, which states that a proposition expressing a certain RESULT is caused contrary to expectation and despite the MEANS proposition which would be expected to lead to a different RESULT. This proposition is therefore called PREEMPTED (overruled) MEANS.



The following examples illustrate the point:

- (29) Amos ten na tetra, Amos ten dam moyso.  
 Amos makanan walaupun lapar Amos makanan tidak mau  
 'Although Amos feels hungry, he does not want to eat.'

- (30) Imot ya ten tetra, imot ten dam moyso.  
 kami walaupun makanan lapar kami makanan tidak mau  
 'Although we feel hungry, we don't want to eat.'

- (31) Genam ya ten tetra, genam ten dam moyso.  
 saya walaupun makanan lapar saya makanan tidak mau  
 'Although I feel hungry, I don't want to eat.'

- (32) Imotnang ya ten tetra, imotnang ten dam moyso.  
 kita walaupun makanan lapar kita makanan tidak

mau

'Although we feel hungry, we don't want to eat.'

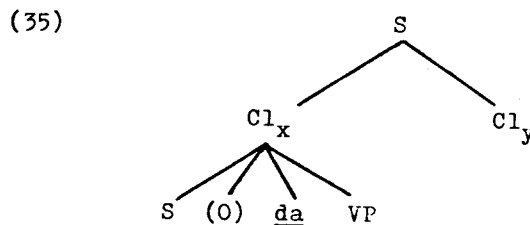
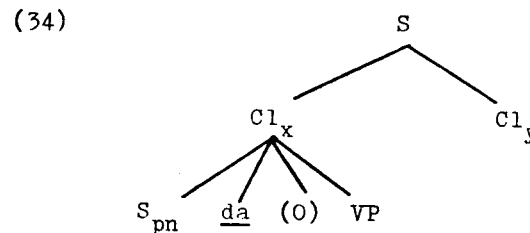
- (33) Amos bu ya tetra, Amos bu drop moyso.  
 Amos air walaupun haus Amos air minum tidak mau  
 'Although Amos feels thirsty, he doesn't want to drink.'

As revealed in sentences (29) - (33) the following conditions pertain in the syntax of PREEMPTING CAUSE:

- (a) Clause ordering: PREEMPTED MEANS  $Cl_x$  precedes RESULT  $Cl_y$ .

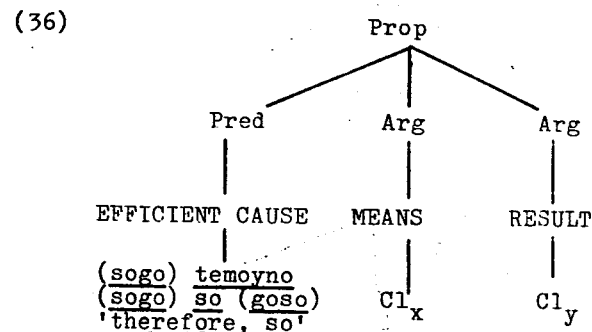
- (b) Relational expression: the form da is preposed in  $Cl_x$ , with the exception that it follows the subject when the subject is a pronoun.

Syntactically diagrammed, we get:



## 2.2 Efficient cause

The semantic relation EFFICIENT CAUSE may be represented by the following diagram:



The above diagram conveys the information that two propositions with role functions MEANS and RESULT bear to each other a semantic relation of EFFICIENT CAUSE. The following examples illustrate this relation:

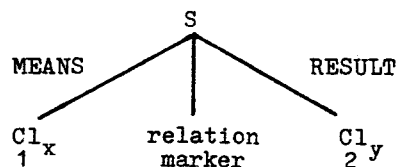
- (37) Mia sadui sogoso, mia usu nogo kua klong.  
ibu sakit sebab ibu kebun ke tidak pergi  
'Mother is sick; therefore she did not go to the garden.'
- (38) Martina Wim yayso go so Martina keballi kua semu.  
Martina Wim jaga sebab Martina tidak kerja  
'Martina is taking care of Wim; therefore she can't work.'

The EFFICIENT CAUSE relation is given surface form in the following way:

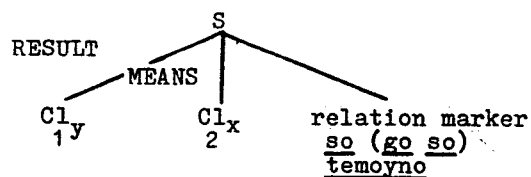
- (a) Clause ordering: MEANS  $Cl_x$  is fronted to precede the interclausal relation marker and RESULT  $Cl_y$ . A varying order allows RESULT  $Cl_y$  to be fronted before MEANS  $Cl_x$ , which is followed by the interclausal relation marker.
- (b) Relation expression: EFFICIENT CAUSE is realized syntactically by the relation marker (sogo)so 'therefore', temoyno '(emphatic) therefore', sogo sogoso 'wherefore', sogo temoyno '(emphatic) wherefore'.

These conditions produce the following trees:

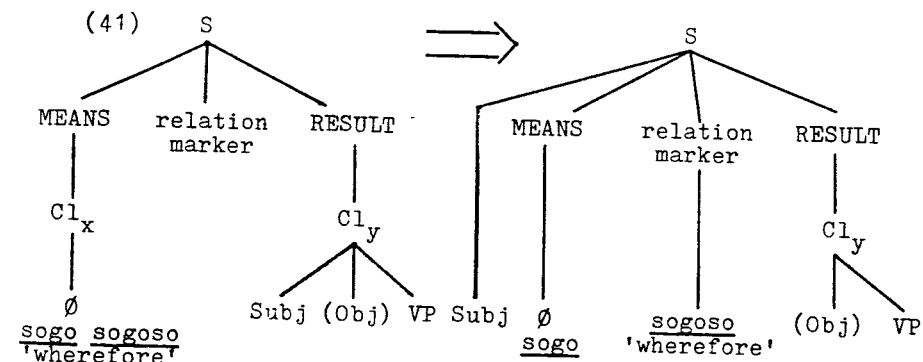
(39)



(40)



The EFFICIENT CAUSE relator may be expanded to interrogative as well as declarative contexts. Notice sentence (42) below, in which the content of the MEANS clause is unknown to the speaker and remains therefore unexpressed. The abstract relation EFFICIENT CAUSE is, however, signalled in sogo and following normal topicalization processes the subject of the RESULT Clause is fronted ahead of all predicates in the string. We may diagram the general process as:



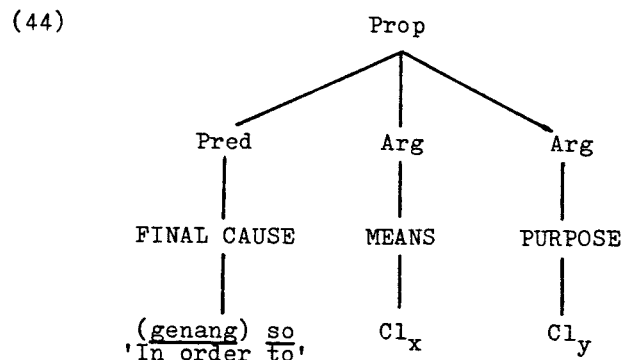
The relator temoyno is apparently derived from temoy 'sufficient' and is used only in questions as an interclausal relation in the sense of 'sufficient cause'. That is, in sentence (42) the speaker asks what is reason enough for the result 'You didn't come.' In effect then the addressee is being asked by the speaker to fill in the blank in a 'why' or 'wherefore' question. It is not surprising then that Kentuk simply uses the MEANS Clause blank to express such a question.

- (42) Mot sogo temoyno kua weng?  
engkau apa sebab tidak datang  
'Why did you not come?'

- (43) Mot sogo sogoso kua dam?  
 engkau apa sebab tidak makan  
 'Why did you not eat?'

### 2.3 Final cause

The FINAL CAUSE relation is diagrammed as follows:



The above tree expresses the fact that a FINAL CAUSE relation joins two propositions with the semantic roles MEANS and PURPOSE. This is ultimately manifested in two clauses and a relation signalling suffix (genang) so.

To illustrate this relation, notice the following examples:

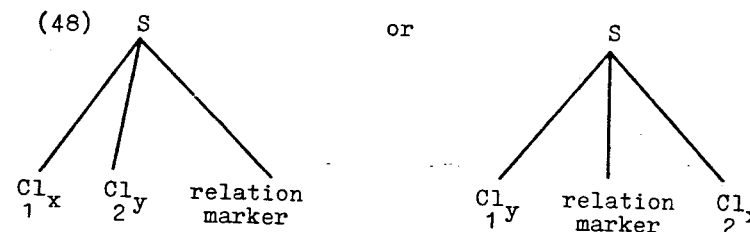
- (45) Genam ulum iti so (genam) pasar no klongo.  
 saya sayur bawa saya pasar ke pergi  
 'I get vegetables in order to go to the market.'
- (46) Pendeta nemotlo pugo genamey biap denokey  
 pendeta dia oleh bilang saya tanah merah anak  
Meyno klong genangso sekola gulu Meyno degutgenangso  
 Mey pergi untuk sekolah guru Mey masuk untuk  
 'The pastor said, "You and a child from Tanah Merah, go to Miey, to the teachers' college in Miey."'

- (47a) Genam ten dam so.  
 saya makanan mau  
 'I want to eat.'
- (47b) Ngge genam ten dam genang.  
 ini saya makanan untuk  
 'This is my food.'

The semantic tree above may be converted to syntactic form by the following rules:

- (a) Clause ordering: The basic order is MEANS  $Cl_x$  followed by PURPOSE  $Cl_y$ . Under the appropriate discourse conditions PURPOSE  $Cl_y$  can be fronted.
- (b) Relation expression: The relation marker (genangso) must follow RESULT  $Cl_y$  when in  $Cl_1$  or  $Cl_2$  position.

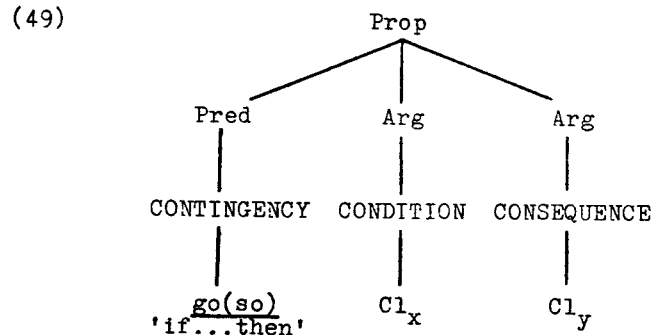
These conditions produce the following trees:



The form so functions as a desiderative modal in the VP as in sentence (47a). It also functions in a not unrelated way as purpose marker relating two clauses as in (45). This semantic relation may be strengthened by the fuller form genang so as in (46). It should be noted that genang alone only turns up in phrasal purpose constructions like (47b) where the underlying semantic relationships are a FINAL CAUSE type, but the encoding is not inter-clausal.

## 2.4 Contingency

The CONTINGENCY relation may be represented by the following tree:



The above diagram expresses the fact that a semantic predicate CONTINGENCY relates a pair of propositions with the semantic role functions CONDITION and CONSEQUENCE. To illustrate this relation the following examples are offered:

(50) Genam mo klong goso, ningkoy nemot se iti.  
 saya sudah pergi petatas engkau kasih  
 'If I go, I will fetch the potatoes for you.'

(51) Martin mot kebali suey so semugo aya motnogo doy  
 Martin kau kerja baik mulai ayah engkau uang  
 mea klak.  
 nanti naik  
 'Martin, if you will work well, I will raise your salary.'

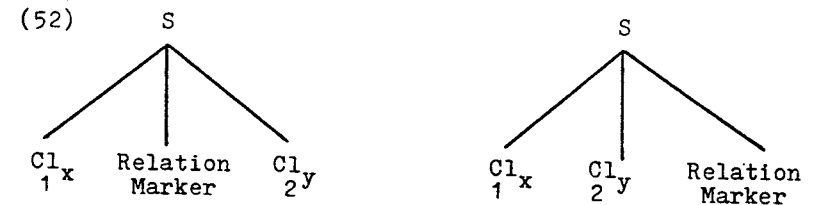
The semantic tree is given syntactically in the following form:

- (a) Clause ordering: The basic order is CONDITION Cl<sub>x</sub> followed by CONSEQUENCE Cl<sub>y</sub>. This order can be reversed, however.
- (b) Relation expression: CONTINGENCY is realized syntac-

tically by the relation marker go(so) with allomorph ko(so) following voiceless sounds. The relation marker must be postposed directly following the CONDITION Cl<sub>x</sub>.

Referring to sentence (51) notice that the two clauses are joined only by go which superficially appears identical with the SUCCESSION construction (Section 1.3), but the difference is that with the CONTINGENCY relation the content of the clause is hypothetical and/or future in nature.

These conditions produce the following trees:



## Notes

<sup>1</sup> This paper was written during a six week workshop of the Summer Institute of Linguistics, working in cooperation with Cenderawasih University and under the direction of Dr. Kenneth Gregerson. The workshop was held from April 2 - May 12, at the UNCEN-SIL center at Danau Bira, Irian Jaya, Indonesia. I wish to acknowledge Dr. Gregerson's invaluable help in English styling and to express my gratitude for his many hours of consultation in teaching me the basics of a semantic approach.

<sup>2</sup> Kentuk is spoken by approximately 2,500 people living in 15 villages immediately south-west of Lake Sentani. It is part of sub-district Kentuk/Gressi, Jayapura district. Kentuk is a non-Austronesian language, and is classified as a member of the Nimboran language family by Voorhoeve (1971).

<sup>3</sup> My husband, J.J. van der Wilden and I began the study of Kemtuk in February, 1975, and have continued to the present (May, 1976), with seven of those months actually resident in the village of Merem. I also wish to acknowledge the willing collaboration of Yoram Ke and Martina Yewi, both Kemtuk speakers from the village of Merem. Previous study of the Kemtuk language may be found in van der Wilden (1975).

<sup>4</sup> Ya has allomorphs da ~ na ~ ya with ya as basic form and the stop and nasal initial variants occurring following alveolar stops and nasals.

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#### SIMPLICITY AND DETAIL IN KEMTUK PREDICATION

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- 0. Introduction
- 1. Clause types
  - 1.1 Equative clauses
  - 1.2 Adjectival clauses
  - 1.3 Verbal clauses
- 2. The verbal phrase
  - 2.1 Existence
  - 2.2 Modality
  - 2.3 Negation
  - 2.4 Detail adjunct

#### 0. Introduction<sup>1</sup>

The first impression one gets, hearing and analyzing texts in the Kemtuk<sup>2</sup> language, is that one is dealing with very simple clause and phrase structures. Mainly 'simple' verb roots seem to appear in the flow of the discourse, preceded by an occasional gabe or gemang or regularly by one of the suffixes go and so. Only once in a while is one confronted with a more complex structure like:

- (1) Mothang gemang mea pen kle -l -o.  
you pl existence fut/mod talk plural-future-2nd per  
'You there certainly can talk.'

Clearly, this has its effects on the information load in the total discourse, but the basis is to be found in the verbal phrase. It is this structure which I explore below.



## 1. Clause types

Although the clause is not the main focus in this paper, it seems wise to first sketch some basic clause types, since the verb phrase (VP) functions in that grammatical context.

These clause types may be derived from the following formula:

$$(2) \quad CL = NP + NP_{\alpha}^* + V_{\alpha}$$

(where  $NP_{\alpha}^*$  = optionally as many (non-subject) NPs as a given verb type ( $VP_{\alpha}$ ) dictates)

This expression, constrained by the requirements of  $V_{\alpha}$ , generates the following basic CL types:

- (3) (a) Equative CL:  $NP + NP + V_{ex}$   
 (b) Adjectival CL:  $NP + V_{adj}$   
 (c) Verbal CL:  $NP + VP_{intrans}$   
 $NP + NP + VP_{trans}$   
 $NP + NP + NP + VP_{bitrans}$

I discuss and illustrate these clauses below.

## 1.1 Equative (EQ) clauses

The following formula summarizes this clause type:

$$(4) \quad EQ \text{ CL} = S_{np} + EQ_{np} + (PR_{ex})$$

For example:

- (5) Genam Markus gabe.  
 I Markus exist here  
 'I here am Mark.'  
 (6) Martin Camat gemang.  
 Martin district chief exist there  
 'Martin there is district chief.'

- (7) Maria genam go kabung.  
 Maria I poss wife  
 'Maria (is) my wife.'

As the Kemtuk clauses above demonstrate, a  $S_{np}$  may be identified or equated with another  $EQ_{np}$  by an existential predicate  $PR_{ex}$ . This situation is shown in examples (5) and (6) above, where gabe and gemang appear as overt existence predicates (with the additional presuppositions 'near/far' respectively from the speaker in space and time).

Note now that in example (7) the  $PR_{ex}$  may be deleted, leaving two NPs juxtaposed for a very common Equative clause surface structure. It should be noted also that an EX-predication can not be affixed in the way a true verb is (see Section 1.3). See also Section 2.1 where gabe and gemang are further discussed.

## 1.2 Adjectival (AD) clauses

AD CL may be described as:

$$(8) \quad AD \text{ CL} = S_{np} + PR_{adj}$$

Consider the following examples:

- (9) Yap ngge seguay go.  
 house this small possess  
 'This house is small.'  
 (10) Ngge suey.  
 this good  
 'This is good.'  
 (11) Sedue ngga kateba.  
 man that quick  
 'That man is quick.'

These clauses present a qualitative, descriptive predication about a single referent (NP). The center of the clause is an ADJ predicate ( $PR_{adj}$ ), which accepts no affixation.

## 1.3 Verbal clauses

The VERB CL basis may be summarized as follows in terms of its full set of pure grammatical relation (Johnson, 1975):

$$(12) \text{ VERB CL} = S_{np} (+ O_{np}) (+ IO_{np}) + P_{vp}$$

In line with the universal dependency which exists between verb type and NP function, various subsets of the above relations occur in the usual intransitive, transitive and bitransitive clauses, e.g.

- (13) Genam klong-go.  
I go -completed

'I had gone.'

- (14) Nemot kopi bu drop so.  
he coffee water drink desiderative

'He wants to drink coffee.'

- (15) Martin udui ngga mia no iti.  
Martin banana that mother to give

'Martin gives that banana to mother.'

The imperative mood forms of the VERB CL involve an optional (though frequent) reduction of overt NP constituents such as Subject and Object, and the use of the simple verb root (usually) stripped of all other affixes, but marked by a following ya 'moderative imperative', or preceding se 'strong imperative marker'. If se is used the subject normally is retained. Consider the following examples:

- (16) Klong ya!  
go emphatic

'Come on, go!'

- (17) Mot se klong.  
you must go

'You must go.' (in the near future)

- (18) Klong!  
go

'Go, right now!'

- (19) Sam iti!  
book give

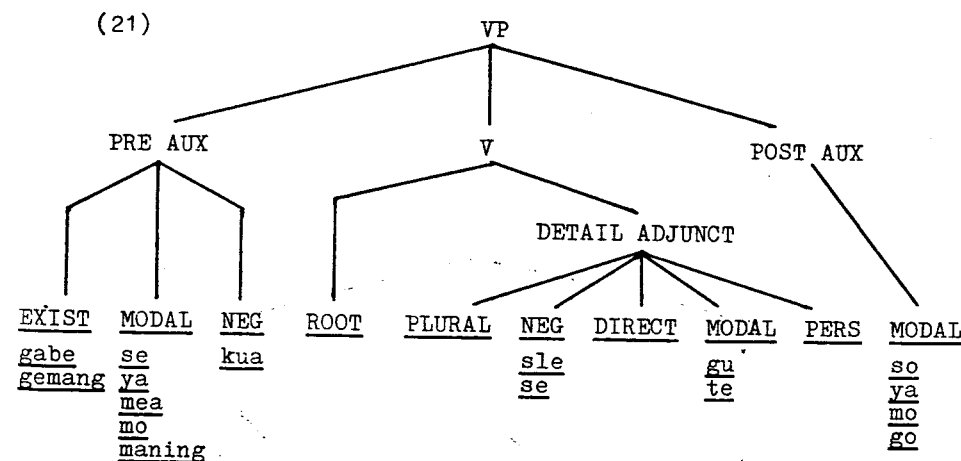
'Give the book!'

- (20) Ba!  
give it (to him/her/them)

'Give it!'

## 2. The verbal phrase

An overview of the VP and its constituents is provided by the following tree:



## 2.1 Existence

The preverbal Auxiliary 'Existence (EX) consists of the following two forms:

- (22) gabe: 'exists, comes to exist (near speaker)'

- (23) gemang: 'exists, come to exist (far from speaker)'

The same form functions as main verb predication in sentences like:

- (24) Martin Camat gabe/gemang.  
 Martin district chief here/there is

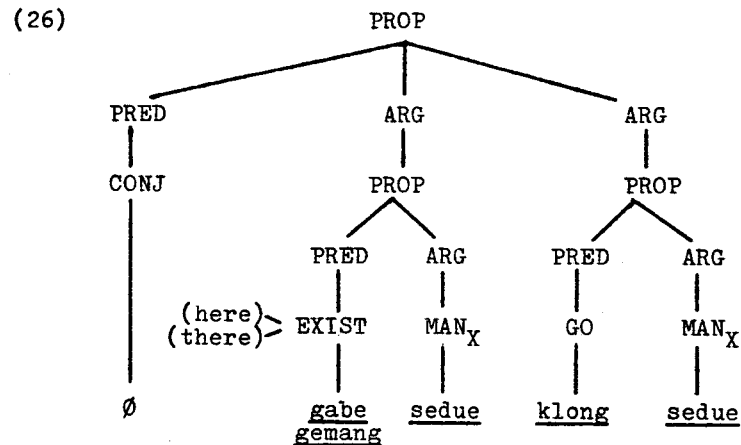
'Martin here/there is district chief.'

That is, gabe and gemang form Equative Existential clauses (see Section 1.1). In similar existential sense, the following typical use of gabe or gemang turns up:

- (25) Sedue gabe/gemang klong.  
 man here/there exists go

'There/here is a man who is going.'

It is suggested that their preverbal EX forms are to be related to an underlying semantic structure, something like the following (where propositions (PROP) are abstract constructions in which arguments (ARG), i.e. 'terms', 'entities', 'referents' are associated with a predicate (PRED), i.e. a semantic 'relation', 'function', or 'state'):



cover them all.

Consider Figure 1:

	ABSOLUTE	NON-ABSOLUTE
VOLITION	<u>se-</u> (necessity, strong imperative) <u>-ya</u> (mild imperative)	<u>-so</u> (desiderative) <u>ya-</u> (interrogative, comment to inform the speaker)
POSSIBILITY	<u>mea-</u> (certain future; permission)	<u>-mo</u> (uncertain future; possible)
COMPLETION: present	<u>ya-</u> (present incomplete)	
past	<u>mo-</u> (definitive past completed)	<u>maning-</u> (not yet begun)
DURATION	<u>-go</u> (past durative)	(C)V- ( <u>-gu</u> , <u>-te-</u> ) (present durative)

Figure 1. Modal components of the Verb Phrase

Comparing Figure 1 with (21), note that the forms that occur in the PRE AUX are followed by a hyphen and those that occur in POST AUX are preceded by a hyphen, though they are not really affixal forms, strictly speaking. The forms that occur in the DET Adjunct however are affixal (-gu, -te-).

I now take up their modals, category by category.

## 2.21 Volition

The volitional forms involve features often associated with speech act phenomena. Necessity and strong imperative are assoc-

The following informally stated syntactic conditions will get the actual surface form:

- (i) Co-referential arguments are deleted in non-initial (i.e. second) occurrences.
- (ii) One NP Argument is fronted as sentence Subject or Topic.
- (iii) Semantic elements are 'spelled out' as morphemes in accordance with language-specific lexicalization conditions.

Thus, repeating the semantic string (minus tree) and applying conditions (i - iii) we have:

- (a) CONJ ((EXIST (MAN<sub>X</sub>), GO(MAN<sub>X</sub>)))  
i.e. 'the conjunction of: a certain man<sub>X</sub> exists and a certain man<sub>X</sub> goes.'
- (b) Now by applying Condition (i), the co-referential terms MAN<sub>X</sub> are reduced to zero (∅) in one of their instances,  
i.e. CONJ ((EXIST (MAN<sub>X</sub>), GO ∅))
- (c) Next, by applying Condition (ii), the only NP argument present MAN<sub>X</sub> is fronted as subject,  
i.e. MAN<sub>X</sub> CONJ (EXIST, GO)
- (d) Condition (iii) spells those abstract elements out, as in Kentuk:

sedue ∅ gemang/gabe klong

'There is a man there/here, who is going.'

## 2.2 Modality

The modal component of the VP can appear in either of the three elements, PRE AUX, VERB, and POST AUX, as indicated in the earlier general tree (21). I will now bring them together and suggest a notional system which interrelates a wide variety of phenomena, such as tense, aspect, mood. I use the term modal to

iated in se-, while the desiderative so- signals absolute speaker or subject volition ('wish', 'want' versus 'must').

In contrast with -se the mild imperative -ya occurs and is to be distinguished from the other mild command ya- which, as an interrogative, is interpreted here as a 'command to inform the speaker of...'. The interrogative has to be distinguished from the present incomplete ya-. To illustrate their forms, notice the following examples:

- (27) Genam klong so.  
I go desiderative less absolute (direction  
action is anticipated)  
'I want to go.'
- (28) Mot so klong!  
you must go (desiderative and absolute action is  
expected)  
'You must go!'
- (29) Klong ya!  
go mild imperative  
'Come on, go!'
- (30) Genam ya klong.  
I present incomplete go  
'I am already going.'
- (31) Mot ya klong?  
you command go (ya = command to inform the speaker)  
'Are you going?'

## 2.22 Possibility

Possibility is one of the logically expected modals. It comes out in Kentuk with heavy overtones of 'futurity' (not so surprisingly), which results in the tendency to view it as 'tense' but this only points up how illusory are such neat distinctions.

I view 'certain possibility' mea- as contrastive with the non-absolute mo- 'uncertain possibility or intention'. Consider

the following examples:

- (32) Genam mea klong.  
I certainly go  
'I certainly will go.'
- (33) Mot (mo) klong mo.  
you go maybe  
'Do you really go?'

### 2.23 Completion

Completion could be viewed as aspect and distinguished from modals, but it seems a needless separation in an overall system with so many interpenetration features. Here I differentiate 'definite past completed event' mo- from an 'event not completed and in fact not even begun yet', i.e. maning. This latter form always takes a negative kua (except in the instance of a one word occurrence: maning 'not yet').

Completion involves a present 'in process' aspect which is marked by ya-, which is to be distinguished from ya- 'interrogative'. The following examples illustrate these forms:

- (34) Mot ya klong.  
you present go (just started)  
'You are going.'
- (35) Mot ya klong?  
you interrogative go  
'Are you going?'
- (36) Genam mo klong.  
I definite past go  
'I already went.'
- (37) Genam maning kua klong.  
I not yet negative go  
'I have not gone yet.'

### 2.24 Duration

Distinct from completed (past) events with mo- are those that focus on 'continued' or 'durative' action. Events that are finished are marked with -go. More recent events are marked by reduplication of the first two (C)V- of the verb root, or are marked for continuation in the DET Adjunct. If the event happens 'now' and 'here', it is marked by -gu (-goy, -ton, -gun); if the event happens elsewhere, by -te. There may also be a fluctuation of time: recent past, present, or near future. (This is in contrast to the reduplication of the verb root, which occurs only in recent past or present.)

The following examples illustrate these forms:

- (38) Genam pen -t -u -gu.  
I talk-present-1st person-recent durative here, now  
'I am talking here.'
- (39) Genam pen -t -u- -go.  
I talk-present-1st person-past durative  
'I have been talking.'
- (40) Genam bo -betok.  
I repetition-cutting

(bo- is influenced by extra stress and assimilates with the vowel of the last stressed syllable.)

- (41) Genam ko -klong.  
I repetition-go  
'I am going.'
- (42) Genam i -iti.  
I repetition-take  
'I am taking.'
- (43) Genam mea pen -te -na -l -u.  
I future talk-duration-there-future-1st person  
'I will talk over there.'
- (44) Nemot pen -te -ba -won.  
he talk-durative-up there-present/3rd person masc  
'He is talking over there.'

## 2.3 Negation

Negation is a special enough topic to be given separate status from modality (although it is not unconventional for linguists to view it as a kind of modal).

Negation is signalled by kua and appears directly preceding the verb root ahead of every other modal form, e.g. ya- and mea-. It is obligatory following maning. In fact, in general, kua seems to be used with forms of a 'tense or aspect' nature, or when not used with a modal, it bears 'tense' in itself (see (47) below).

The form moyso means 'not willing'. It is an absolute refusal to perform some action. It appears analyzable into two modal forms combined with a transition vowel: mo-i-so, where mo- is 'finished' and -so is 'desiderative'. In fact it acts as a verb phrase in itself (see (45) below).

The form -sle/se- occurring in the DET Adjunct signals 'not being there'. This form never occurs alone, but always in combination with kua or maning kua before the verb root.

Consider the following examples:

- (45) Genam moyso ya kua klong.  
I not willing present negative go  
'I don't want to go now.'
- (46) Genam ya kua klong.  
I present negative go  
'I am not going.'
- (47) Genam mo klong vs. Genam kua klong.  
I finished go I not(past) go  
'I went.' 'I did not go.'
- (48) Genam mea kua klong.  
I absolute future negative go  
'I definitely will not go.'

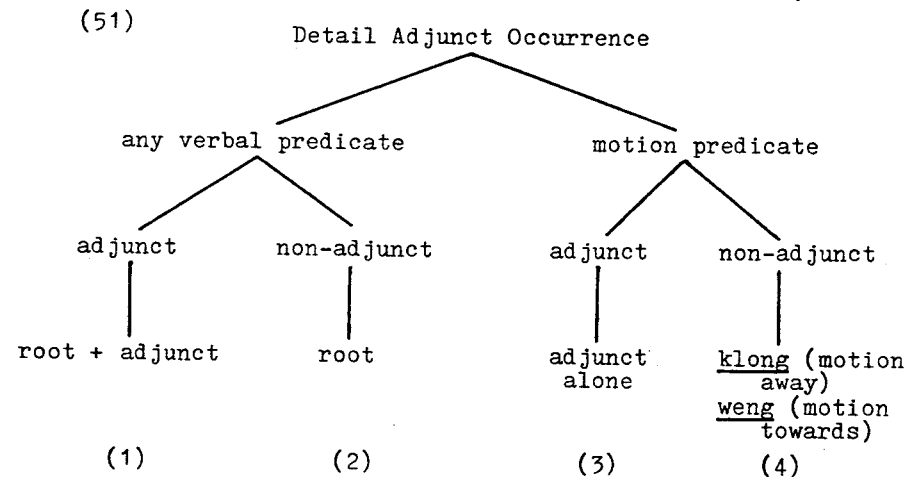
- (49) Nemotnang Kemtuik nebutso kua pen ne -sle  
they Kemtuk language not talk plural-there are not  
-te -na -won.  
-duration-direction-present completed/3rd person  
'There are no people over there who can speak Kemtuk.'
- (50) Genam kua ikum sle -t -u.  
I negative see it is not there-present-1st person  
'I have looked for it, but it is not there.'

## 2.4 Detail adjunct

The Detail Adjunct (DET ADJ) in the verb may occur in two ways:

- Independently of the root
- As an elaboration of the root

The following tree shows the occurrences of the DET ADJ.



Each of these four possibilities are illustrated as follows:

- (52) Genamnang mea pen e -sa -l  
 we exclusive possessive talk plural-direction-future  
-u.  
 -1st person  
 'We can go over there and tell it.'
- (53) Genam mea iti so.  
 I possessive take desiderative  
 'Some time later I will take it.'
- (54) Genam mea se -l -u.  
 I possessive direct-future-1st person  
 'I will go over there.'
- (55) Genam weng.  
 I come back  
 'I come back.'

Note that if the adjunct occurs alone as in (54) above, it carries only a motion meaning. Similarly the very general motion verb klong 'go' and weng 'come' may function as substitutes for the verb but never take the DET ADJ.

The constituents of the DET ADJ may be summarized as follows:

- (56) DET ADJ = PLURAL + NEGATION + ASPECT + DIRECTION  
 + TENSE/PERSON

Each of these six components is described below:

#### 2.41 Plural marker

When a DET ADJ occurs in VP, this plural (PL) category is obligatory. There are two somewhat different sets of PL markers that are used depending on whether the DET ADJ occurs. These are:

- (a) with the root
- (b) independently of the root

These are summarized in Figures 2 and 3 below (shown in concord

with their pronoun):

Singular	Dual		Plural		Person
genam/at  (a-)	genamnamon atnamon (1+3-2) <u>kle-</u>	imotnamon (1+2-3) <u>me-</u>	genamnang atnang (1+3-2) <u>e-</u>	imotnang (1+2+3) <u>e-</u>	1st
mot  (a-)	motnamon <u>kle-</u>		motnang <u>kle-</u>		2nd
nemot  (a-)	nemotnamon <u>ke/kle-</u>		nemotnang <u>ne-</u>		3rd

Figure 2. Plural Markers in Root and DET ADJ

genam/at  -	genamnamon atnamon (1+3-2) <u>ke-</u>	imotnamon (1+2-3) <u>m-</u>	genamnang atnang (1+3-2) <u>i-</u>	imotnang (1+2+3) <u>i-</u>	1st
mot	motnamon		motnang		2nd

-	<u>ke-</u>	<u>ke-</u>	
nemot	nemotnamon	nemotnang	3rd
-	<u>ke-</u>	#	

Figure 3. Plural Markers in DET Constructions only

Note that in singular position in ROOT + DET ADJ a- may occur. However, the occurrence is restricted to verbs ending with -n, and it may be best to describe it as a transition vowel.

Consider the following example:

- (57) Genam pen a -l -u so.  
 I talk transition-future-1st person desiderative  
 'I want to talk now.'

Note too that in the 1st person pronoun, there are two dual and two plural occurrences:

- (a) Speaker + 3rd person - addressee = genamnamon or atnamon ] Dual  
 (b) Speaker - 3rd person + addressee = imotnamon  
 (c) Speaker + 3rd person - addressee = genamnang or atnang ] Plural  
 (d) Speaker + 3rd person + addressee = imotnang

Consider the following examples:

- (58) Genamnamon ulum iti kle -l -u  
 we two (excl) vegetables take plural-future-1st person  
so.  
 desiderative  
 'We want to buy vegetables now.'

- (59) Imotnamon ulum iti me -y -o -n  
 we two (incl) vegetables take plural-future-person-non  
so.  
 past desiderative  
 'We want to buy vegetables now.'
- (60) Genamnang ulum iti e -l -u so.  
 we (excl) vegetables take plural-future-1st person des.  
 'We want to buy vegetables now.'
- (61) Imotnang ulum iti e -y -o -n  
 we all (inc) vegetables take plural-future-person-non  
so.  
 past desiderative  
 'We want to buy vegetables now.'

#### 2.42 Negation

Since negation in the DET ADJ only occurs if preceded by kua before the verb root, it has been discussed already under that section (see Section 2.3).

#### 2.43 Aspect

The occurrence of aspect in the DET ADJ has also been discussed before (see Section 2.24. Duration). However, for the sake of a clear overview and to show the interrelationship between the elements of the DET ADJ, I will discuss it in more detail now.

The duration aspect is related to both tense and direction. All four tenses (remote past, past, present, future) can be expressed both in single action as in durative action. In remote past and past tense, aspect and tense are combined (see Section 2.45. Tense).

In the present tense and future tense, however, aspect is signalled by a separate morpheme: -te-, -gu (-goy, -ton, -gun). These morphemes are distributed as follows:



- (a) -gu is used to express duration in the present tense only, here and now.
- (b) -te- is used to express duration in the present (recent past), future, but only in combination with a directional indicating low or high far away from the speaker. In the case of a movement away from the speaker at the same level, no duration indicator is used at all.

The position of the aspect is different as well: -te- is located before the directional and -gu (-goy, -ton, -gun) are placed at the end of DET ADJ. (Note that the 3rd person masculine -ton may be described as a contraction of togon or by the fact that its counterpart (single action) in the present tense, has not the regular form -ton, but -won.)

Consider the following examples:

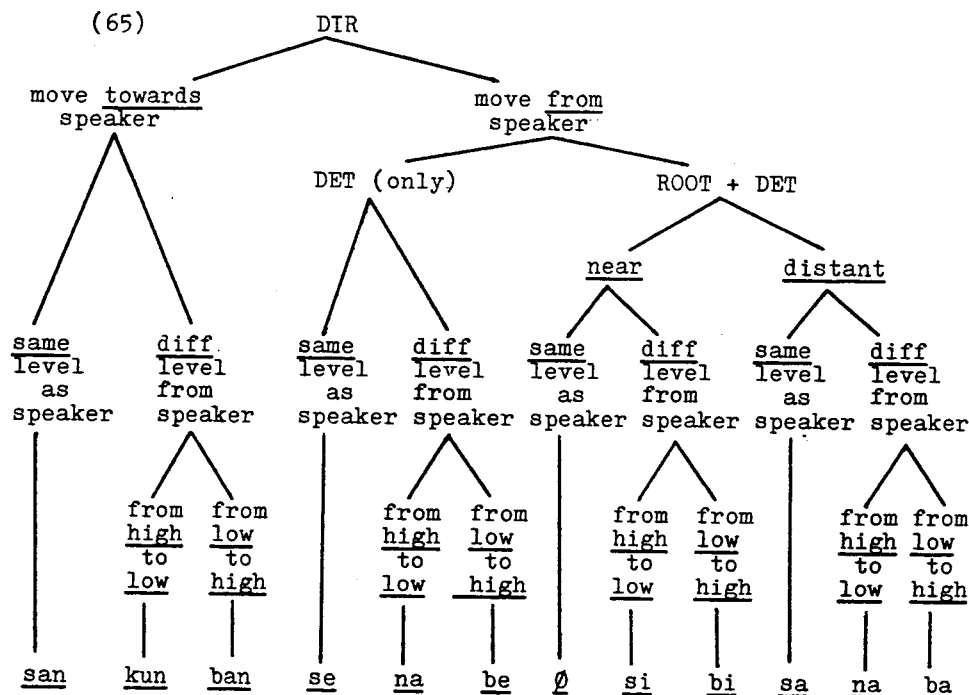
- (62) Genam pen tu -gu.  
I talk present/1st person durative (here and now)  
'I am talking.'
- (63) Genam pen te -na -l -u.  
I talk durative-direction low-future-1st person  
'I will talk over there.'
- (64) Genam pen te -na -t -u.  
I talk durative-direction low-present-1st person  
'I just talked.'

## 2.44 Directionals

Kemtuk, like many languages of this linguistic area, may optionally specify a high degree of detail as to direction of motion in the verb. The main features that distinguish the directionals are:

- (a) move towards or from the speaker
- (b) far move vs. close or no move
- (c) the height of the direction compared with the level of the speaker.

These I summarized in the following feature tree of directionals:



Consider the following examples:

### (A) Movement towards the speaker

#### 1. DET only

- (66) Genam mea san -d -u.  
I fut/mod location-future-1st person  
'I will come (to you, who are on the same level as I am).'
- (67) Genam mea kun -d -u.  
I fut/mod location-future-1st person  
'I will come (to you, from higher to lower level).'

(68) Genam mea ban -d -u.

I fut/mod location-future-1st person

'I will come (to you, from lower to higher level).'

## 2. ROOT + DET

(69) Genam mea iti san -d -u.

( I fut/mod get/give return-future-1st person

'I will get (it) and give (it to you) (close and at the same level).'

(70) Genam mea iti kun -d -u.

I fut/mod get/give return-future-1st person

'I will get (it) and give (it to you) (close, from high to low).'

(71) Genam mea iti ban -d -u.

I fut/mod get/give return-future-1st person

'I will get (it) and give (it to you) (close, from low to high).'

Note that if distance is involved, the utterance has to be changed into the following:

(72) Genam mea iti-go san -d-u. (same level)

(73) Genam mea iti-go kun -d-u. (from high to low)

(74) Genam mea iti-go ban -d-u. (from low to high)

I get/give from there

'I will get it from there.'

The fact that the sentence is broken up into two clauses is caused by the difference in time between the two actions of 'getting' and 'coming back'. This is indicated by the durative go. When the two actions can be done at the same time and place, go is not needed (see above).

## (B) Movement away from the speaker

### 1. DET only

(75) Genam mea se -l -u (same level)

(76) Genam mea na -l -u. (from high to low)

(77) Genam mea be -l -u. (from low to high)

I fut/mod to there-fut-1st person

'I will go over there.'

## 2. ROOT + DET

### (A) movement nearby

(78) Genam mea iti # -l -u. (same level)

(79) Genam mea iti si -l -u. (from high to low)

(80) Genam mea iti bi -l -u. (from low to high)

I fut/mod get/give loc-fut-1st person

'I will give (it to you) from here.'

### (B) movement further away

(81) Genam mea iti sa -l -u. (same level)

(82) Genam mea iti na -l -u. (from high to low)

(83) Genam mea iti ba -l -u. (from low to high)

I fut/mod get/give loc-fut-1st person

'I will give (it to you) over there.'

Note too that the categories 'same', 'higher', and 'lower' are not just geographical features, but depend heavily on the ideas of the Kemtuk people about what is 'high', 'low', and 'same'.

These ideas are based upon the following:

(a) Their general impression concerning the geographical elevations.

(b) The status of certain towns and villages.

Thus:

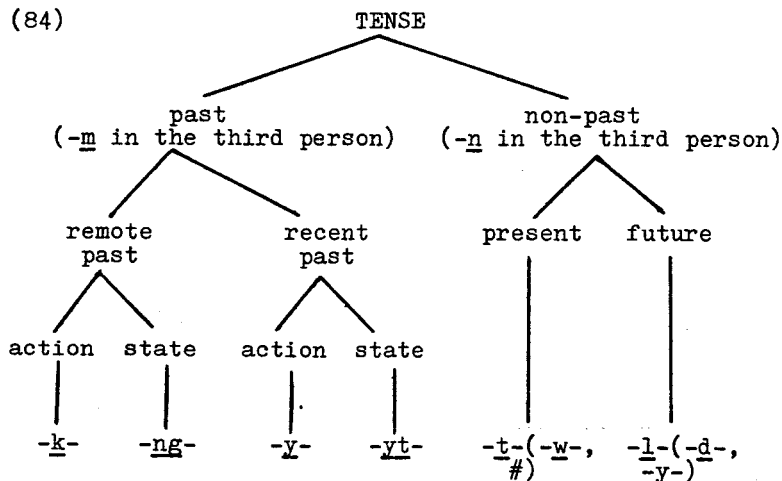
(a) The Kemtuk area is divided into a higher part (the eastern villages), a lower part (the western villages), and a neutral part (the villages alongside the road from Buruway to Genyem). The Gresi area, of which the main important village, Yansu, is located on top of a low mountain range, is considered to be 'high', although quite a few villages are located in the

valley behind the range and are on a lower altitude than Merem, the author's residence (65 meters). The Nimboran area is considered neutral (same level), as are other places in Irian Jaya, e.g. Mamberamo, Wamena (high in the mountains), etc. The coastal area (including Jakarta, the Netherlands and America, etc.) is considered to be low.

(b) The status of certain towns is another important factor. The whole of Jayapura, which is the provincial capital of Irian Jaya, is 'high' area. One goes 'up' to Jayapura and 'down' to the Kentuk/Gresi villages (although Yansu is on a higher location than Jayapura). It is interesting that the Kentuk side of Lake Sentani is still 'low', but Yoka at the other side of the lake is already 'high', being in the Jayapura area.

#### 2.45 Tense

The tense component of the DET ADJ may be summarized in the following tree:



This tree indicates that tenses are divided into two types: those that are past and those that are non-past. These two groupings are reflected in, among other things, the suffixing of -m in the third person, past and -n in non-past. Remote and recent past are distinguished, remote being the ancestors' time, and recent being anytime before today.

Action versus state predications are distinguished. Although this should be covered by aspect (see Section 2.43), I will discuss it together with tense since in some cases aspect and tense are unified into one symbol. The difference between state and action can only be seen in the phonetic shift from voiceless velar stop to velar nasal. Note also that in recent past the state aspect is expressed by -yt- if it occurs in ROOT + DET ADJ with the directional away from the speaker, and by -ty- if it occurs following the directional towards the speaker.

Non-past is distinguished in present, that is 'what happened today' and 'what is happening', and future, 'what is going to happen.' All these features will be displayed in Figure 5, showing how tense, aspect, and person can interact.

#### 2.46 Person

Person is a category which matches only two major distinctions as far as morphemic form is concerned.

See the chart (Figure 5) in Section 2.47 and note that the vowels may be abstracted to reveal a contrast between first person, third person feminine as -u, versus second person and third person masculine as -o. These contrasts are in singular, dual and plural. However, imotnamon 'we two inclusive' and imotnang 'we all inclusive', use the 3rd person masculine indicator -o. So, if both speaker and addressee are included, neither a first or second person (and tense) indicator are used, but a 'neutral' third person masculine and tense have to be used. The following figure shows these contrast

1st person	u
2nd person	o
3rd person/1st person dual and plural male inclusive	o
3rd person female	u

Figure 4. Contrast in Person Markers

The following examples show minimal contrasts between these person markers:

- (85) Genam bu lu l -u so.  
I water wash future-1st person desiderative  
'I want to go wash myself.'
- (86) Mot bu lu l -o so?  
you water wash future-2nd person desiderative  
'You want to go for a wash?'
- (87) Nemot bu lu y -o -n.  
he water wash future-3rd person-non-past  
'He will wash himself.'
- (88) Nemot bu lu y -u -n.  
she water wash future-3rd person-non-past  
'She will wash herself.'
- (89) Imotnang bu lu e -y -o -n.  
we all water wash plural-future-1st person-non-past  
'We all want to wash ourselves.'

2.47 Chart of grammatical obligatory combinations of aspect, direction, tense, and person

TENSE	FUTURE	FUTURE	PRESENT	PRESENT	PAST	PAST	REMOTE PAST	REMOTE PAST
ASPECT	SINGLE	DURATIVE	SINGLE	DURATIVE	SINGLE	DURATIVE	SINGLE	DURATIVE
DIRECTION Going Coming		there +++ from there		there +++ from there		there +++ from there		there +++ from there
1st Person	lu	te-ba-lu te-na-lu +++ sa-lu kun-du ban-du san-du	tu	te-ba-tu te-na-tu +++ sa-tu kun-tu ban-tu san-tu	yu	ytu	ku	ngu +++ kun-a-ku ban-a-ku san-a-ku
2nd Person	lo	te-ba-lo te-na-lo +++ sa-lo kun-do ban-do san-do	to	te-ba-to te-na-to +++ sa-to kun-to ban-to san-to	yo	yto	ka	nga +++ kun-a-ka ban-a-ka san-a-ka
3rd Person masculine	yon	te-ba-yon te-na-yon +++ sa-yon kun-yon ban-yon san-yon	won	te-ba-won te-na-won +++ sa-won kun-on ban-on san-on	yom	ytom	kam	ngam +++ kun-a-kam ban-a-kam san-a-kam
3rd Person feminine	yun	te-ba-yun te-na-yun +++ sa-yun kun-yun ban-yun san-yun	tun	te-ba-tun te-na-tun +++ sa-tun kun-tun ban-tun san-tun	yum	ytum	kum	ngum +++ kun-a-kum ban-a-kum san-a-kum

Figure 5. Chart of grammatical combinations of tense and person

### Notes

<sup>1</sup> Study of the Kemtuk language was begun by my wife Jelly van der Wilden and me in January 1975 under the auspices of Cenderawasih University in Abepura and the Summer Institute of Linguistics, Indonesia Branch.

I wish to express my gratitude to Dr. K. Gregerson, SIL consultant, who gave valuable advice on both content and form, and to our Kemtuk teachers, Miss Martina Yewi and Mr. Yoram Ke, both of Merem village.

<sup>2</sup> The Kemtuk language is spoken by 2,500 people according to the last census in the area, but this does not count the Kemtuk speakers presently living in the Jayapura area.

According to Anceaux (1965) Kemtuk is part of the Nimboran language family. The Nimboran language proper, while lending its name to the entire family, is mutually unintelligible with the genetically related Kemtuk.

The Sabron-Dosay (Mekwey), Kuansu and Gresi dialects are part of a close-knit sub-family, of which Kuansu is intelligible by Nimboran speakers as well.

To which phylum Kemtuk belongs is uncertain. It shows some relationship to languages of the 'border stock', as with the Tor languages.

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### FORM AND MEANING IN THE ISIRAWA NOUN PHRASE

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- 0. Introduction
- 1. The structure of the noun phrase
  - 1.1 Notional structure
  - 1.2 Syntactic structure
- 2. The components of the noun phrase
  - 2.1 Referential core
  - 2.2 Association
  - 2.3 Qualification
  - 2.4 Quantification
  - 2.5 Orientation
- 3. Pronominalization

#### 0. Introduction<sup>1</sup>

The purpose of the paper is to summarize the Isirawa<sup>2</sup> noun phrase from syntactic and semantic perspectives. I begin in 1.1 with a semantic view of the noun phrase and relate this to surface form in Sections 1.2 and 2. Pronominalization of the noun phrase is summarized in 3.

The following abbreviations and symbols appear in the paper:

A	association noun	NP	noun phrase
ADJ CL	adjectival clause	obj m	object marker
anim	animate	ORIENT	orientation
ASSOC	association	pl	plural
assoc m	associative marker	pn	pronoun
dl	dual	QUAL	qualification
fut inter	future interrogative	QUANT	quantification
ID EQ CL	identificational equat- ional clause	REFCO	referential core
inanim	inanimate	rel m	relative marker
N	noun	sbj	subject
NH	noun head	sbj m	subject marker
		sg	singular





be replaced by a pronoun.

While the associative marker -y can optionally be deleted, it is obligatory when the possessed noun head is pronominalized as -a (see Section 3). This is illustrated in the following noun phrases:

- (7) kurano -v -a  
village chief-assoc m for sg -3rd pn  
'kurano's thing/one'

Other examples of associated noun and noun head are:

- (8) avi (-v) afo  
woman (-assoc m for sg) clothes  
'a woman's clothes'
- (9) ef sao  
his house  
'his house'
- (10) orowa Saticana (-v) awa  
son boy's name (-assoc m for sg) bone  
'the son Saticana's bone'
- (11) Mariya (-v) upre  
girl's name (-assoc m for sg) husband  
'Mariya's husband'
- (12) wepë (-v) krou  
pig (-assoc m for sg) foot print  
'foot prints of a pig'

## 2.22 Noun head and associated inanimate noun

An inanimate noun is associated with a noun head as whole to part, material to object, location to object and other general associations. The following examples reflect these relationships:

- (13) wanabe apa  
thumb finger nail  
'a finger nail of a thumb'
- (14) Sarme -sonef tëra  
city name -from boy

'a boy from Sarimi'

- (15) nanau sisira  
bamboo comb  
'a bamboo comb'
- (16) warara sao  
wood house  
'a shed for wood'
- (17) Isirawa rarara  
language name talk  
'Isirawa language'

## 2.3 Qualification

By qualification I mean a backgrounded predication of the type which many languages express explicitly as a relative clause. In Isirawa only true verbal qualification has an overt relative clause marker pä-. In this relative clause, any referent which is obvious to the listeners can be deleted, though no referent (even the referent which is coreferential with the noun head) has to be deleted.

Other backgrounded propositions receive no relative clause marker, but are manifested by the subordinated qualification predicate and any noun which participates in that embedded proposition. As usual the subordinate clause referent which is coreferential with the noun in the main clause to which it is attached, is not expressed again overtly.

There are three types of qualifications: adjectival, equational, and verbal. These are discussed next.

## 2.31 Noun head and an adjectival predicate

The adjectival predicate states an attribute of the noun head. This is viewed as an embedded stative clause with an adjective as a predicate, in which the coreferential subject is deleted.



Adjectival predicate qualifications may be repeated in the same noun phrase and there is no restriction on the ordering of adjectives according to any semantic types as there would be in, say, English size and color: 'big black dog'. The following sentences illustrate this type of qualification:

- (18) apre avāca-n etavranāē  
bird good-sbj m sg-fly  
'A good bird is flying.'
- (19) onowara akira-n enēāē  
cloud white-sbj m sg-come  
'A white cloud comes.'
- (20) ē sao vise sri -v enasuneisē  
man house big very-obj m pl-build  
'Men are building a very big house.'
- (21) nani vise kafora tātāfa poenēāē  
dog big black cruel sg-come  
'A big black cruel dog is coming.'

To illustrate the interpretation of adjectival predicate qualification or a backgrounded proposition (relative clause in syntactic terms) consider sentence (18) which may be displayed as:

- (22) Main proposition: apre -n etavranāē  
bird sbj m sg-fly  
Backgrounded proposition: apre avāca  
bird (is) good

It can be seen that by this account there is a main proposition and a backgrounded proposition that share a coreferential subject. To achieve surface form this subject is deleted in its second occurrence and the subordinate proposition (clause) is incorporated into the subject noun phrase of the higher clause.

## 2.32 Noun head and an equational predicate

The equational predicate modifies the noun head by identifying the noun head with another noun. Usually the equational

predicate gives a more specific idea than the noun head. Two types may be observed: the similarity equational and the identificational equational. Both are embedded clauses in which the subject has been deleted by the usual process of reducing overt markers of coreferential material (see Section 2.31 for example).

When the equational embedded clause occurs with an adjectival embedded clause the identificational equational clause has to precede the adjectival clause, while the similarity equational clause has to follow the adjectival clause. The following examples show this order (the relevant noun phrase being underlined):

- (23) ID EQ CL ADJ CL  
e ef takē Piter tavitofa-v ewariye  
I his father man's name tall -obj m saw  
'I saw his father, Peter, who is tall.'
- (24) ADJ CL SIM EQ CL  
e tēra aroama Franse -rari-v ewariye  
I boy red boy's name-like-obj m saw  
'I saw a light colored boy who is like Franse.'

Both types of the equational embedded clauses can occur in a single noun phrase. In that case the similarity equational has to follow the identificational equational as in the following example:

- (25) ID EQ CL SIM EQ CL  
ef etopia Ansrope Boas -rare-n enēāē  
his brother boy's name boy's name-like-sbj m come  
'His brother, Ansrope, who is like Boas, is coming.'

Some other examples of the equational predicate are:

- (26) tēra ma -rari-v episeimi  
boy this-like-obj m hit  
'I hit a boy like this one.'
- (27) vā sao tānāina -sona poewetei  
my house mountain-from listened  
'I (bird) listened from my mountain house.'
- (28) Siwanorowa avi Tamurike -v enatumomi  
village name woman woman's name-obj m gave in marriage

'They gave a Siwanorowa woman, Tamurike, in marriage.'

### 2.33 Noun head and a verbal predicate

The verbal predicate modifies the noun head by stating an event in which the noun head is involved. This verbal predicate represents an embedded proposition in which the coreferential noun which both main clause (proposition) and subordinate proposition share is reduced in its second (subordinate proposition) occurrence. This coreferential constituent is reduced to the relative pronoun pā- 'which, who'. The subordinate verb carries the suffix -na. Consider for example sentence (29) which gets incorporated as a verbal predicate qualification into a higher noun phrase in sentence (30):

- (29) kānan tāte sacana -v e -sekāsāmi  
child father kind of arrow-sbj m sub sg-sharpened

'The child's father sharpened arrows.'

- (30) kānan tāte porimaaveipoi sacana pā -Ø  
child father came near kind of arrow rel m-sbj sg  
-sekāsāmi -na -wavaē  
-sharpened-sub verb m-with

'The child's father came near with the arrows which he had sharpened.'

Now notice these further sentences.

- (31) efoare cawerāfa pe pā -purumi  
he egg that mentioned previously rel m-cooked  
-na maienetorēmi  
-sub verb m ate

'He ate eggs which the one mentioned previously cooked.'

- (32) ē vise maē pe -n pā  
men big this that mentioned previously-sbj m rel m  
-anavrāumai-na pēmararausāunai  
-lived -sub verb m told stories

'These great men (previously mentioned) who lived long ago told stories.'

- (33) avā me ave mara pā -tiaimi-na -vase  
bone this mother tree type rel m-hit -sub verb m-in  
pesekasimi  
wrapped

'The mother wrapped the bone in a mara tree which she hit.'

Sentence (31) introduces a previous-discourse-referent demonstrative pe which glosses roughly as 'the one mentioned previously'. Pe may occur with the relative pronoun pā- as in (31) and (32). One reordering possibility should be mentioned, although it is not too frequent, and that is that the relative clause may be extraposed to follow orientation (see Section 2.1). Sentence (33) illustrates simple subordinate qualification with no pe.

### 2.4 Quantification

Quantification has two aspects: general quantification and numeral quantification. I take these up separately below.

#### 2.41 General quantification

General quantification refers to expressions of general quantity of the following kind: sowek 'all', warofa 'many', vise 'much', arsokānana 'few, a little', minama 'other, one more', mri 'another, one more'.

These are illustrated in the following sentences:

- (34) tēra sowek pina -vas evinanaē  
child all ocean-at were going  
'All the children were walking on the beach.'

- (35) ē warofa sri pes anavrāu  
men many very here are

'Very many men are here.'

- (36) pu vise-vo sire  
water much-obj m bring

'Bring much water!'

- (37) pu arsokānana enāisane  
water a little drank  
'I drank a little water.'
- (38) sao minama-v enesuneisē  
house other -obj m are building  
'They are building another (or one more) house.'
- (39) ē mri arinēa  
man another will come  
'Another (or one more) man will come.'

## 2.42 Numeral quantification

Numeral quantification refers to the number of the noun head. The morpheme -e is attached to a word preceding the number word. For example:

- (40) avi viso-e kokra ewasiye  
woman big four saw  
'I saw four big women.'
- (41) ami -e nausra ewafriya  
banana three ate  
'He ate three bananas.'

The Isirawa number system is based on the unit five which derives from counting on the fingers of a hand. Counting from six to ten, another hand is counted, eleven to fifteen, a foot is included, and sixteen to twenty, another foot is added, i.e. 'six' is

ca -mre -mri 'one on the other hand'  
hand-another-one

and 'twelve' is

teni-e-napnē 'two on the foot'  
foot two

etc. The following chart shows the cardinal numbers of Isirawa up to twenty.

- |      |   |               |   |        |   |           |
|------|---|---------------|---|--------|---|-----------|
| (42) | 1 | mri           | 3 | nausra | 5 | wanav     |
|      | 2 | napnē (navkē) | 4 | kokra  | 6 | camre-mri |

- |    |               |    |               |    |                 |
|----|---------------|----|---------------|----|-----------------|
| 7  | camre-napnē   | 11 | tenie-mri     | 16 | tenimre-mri     |
|    | (camre-navkē) | 12 | tenie-napnē   | 17 | tenimre-napnē   |
| 8  | camre-nausra  |    | (tenie-navkē) |    | (tenimre-navkē) |
| 9  | camre-kokra   | 13 | tenie-nausra  | 18 | tenimre-nausra  |
| 10 | camre-wanav   | 14 | tenie-kokra   | 19 | tenimre-kokra   |
|    | (wanav-wanav) | 15 | tenie-wanav   | 20 | tenimre-wanav   |
|    |               |    |               |    | (afo-wewev)     |

A larger Isirawa number unit is based on twenty, which is one person, e.g.

- (43) afo-wewev  
me finished  
'twenty (all of me finished)'
- (44) afo-wewev, ē -mre -wewev  
me -finished man-another-finished  
'forty (all of me finished, another man finished)'
- (45) afo-wewev, ē -mre -wewev, ē -mre -wewev  
me -finished man-another-finished man-another-finished  
'sixty (all of me finished, another man finished, another man finished)'

Counting from twenty one to thirty-nine, another person's hands and feet are added, and so on past forty-one. Though basic numbers have no can- 'hand', over twenty it is included. See the following examples:

- (46) afo-wewev, (ē) mri-e can(e) wanav  
me -finished man other hand five  
'twenty-five (all of me finished, five on the other man's hand)'
- (47) afo-wewev, ē mr(i)e wewev, (ē) mr(i)e ca -mre  
me -finished man other finished man other hand-other  
-nausra  
-eight  
'forty-eight (all of me finished, other man finished, eight on other man)'

The ordinal numbers are based on the cardinal numbers with suffixes. Over 'sixth', suffixes are the same as 'first' to

'fifth' according to the last morpheme of the number. Basic ordinal numbers, 'first' to 'fifth', are listed beside the cardinal numbers:

(48)	one	mri	first	mri-ava-ofa
	two	napnē (or navkē)	second	napnē-ofa (or navkē-ofa)
	three	nausra	third	nausra-va-ofa
	four	kokra	fourth	kokra-va-ofa
	five	wanav	fifth	wanav-e-ofa

## 2.5 Orientation

The expected element of deixis relates the noun head to the speaker's location. There are three demonstratives which serve to orient the referential core as follows:

- (49) maē (me,ma) Near the speaker, usually in a spatial sense, though a discourse use of 'this person' is also found.
- pe Near the speaker, usually in a discourse reference sense of 'the aforementioned', though a spatial-temporal sense turns up in pe-so 'now present'.
- ce Distant from the speaker in space.

These sentences illustrate orientation:

- (50) Estera maē poenisinē wetāti-vo  
Estera this was looking back -obj m  
'This Estera was looking at (our) back.'
- (51) nenfēvo pēmārēmaēto of apre avāca ce -ōpoē  
us have been watching your bird good that-with  
'You (God) have been watching us with that angel (good bird) of yours.'
- (52) kānan tāte pe sao me porimaaveipoi  
child father the aforementioned house this came near  
'The child's father that I mentioned before came near this house.'

These demonstrative pronouns are also used as location and time when suffixed by -so, -vao, or -vaso, i.e.

- (53) ma-so, ma-vao, ma-vaso 'here, at (in) this place'  
pe-so, ae-vao, pe-vaso 'now present, at aforementioned time'  
ce-so, ce-vao, ce-vaso 'there, at that time'

## 3. Pronominalization

The process of reducing nominal reference to its minimal surface form as pronouns depends on the grammatical relation the nominal bears to the verb. In what follows, I will summarize the pronouns in the nuclear relations subject and direct object; associative pronouns (see Section 2.2) are also discussed.

Consider first the subject pronouns:

(54)

	pronoun			demonstrative pn		
number/person	first	second	third			
sg	e	mē	(efoare)	maē	ce	pe
dl	ne	mē	(efonafoare)	maē	ce	pe
pl	ne	mē	(efēare)	maē	ce	pe

For the third person subject, efoare, efonafoare, and efēare are usually not freely used. They may only be used for the main character in a story. These third persons on pronouns are displaced by the demonstrative pronouns.

Some examples of subject pronominalizations are the following:

- (55) maē maierterapao  
this sg-came back  
'This one came back.'

- (56) mē Sarme-ya ānsuwe-faro  
you Sarmi-to dl-go -fut inter  
'Will you two go to Sarmi?'
- (57) ne era -v entowauwe  
we seed-obj m pl-planted  
'We planted seeds.'

Direct object pronouns are charted as follows:

(58)

(58)

	pronoun			demonstrative pronoun		
number/person	first	second	third			
sg	afo	ofo	efo	mavo	cevo	pevo
dl	nenfo	ofnafo	efnafo	manfo	cenfo	penfo
pl	nenfêvo	ofêvo	efêvo	mavêvo	cevêvo	pevêvo

Some examples of object pronominalizations are the following:

- (59) afo pu -n ecaipao  
me rain-sbj m soaked  
'The rain soaked me.'
- (60) manfo episekauwa  
these-two sg-hit  
'He hit these two people.'
- (61) tēra cevēvo emarimano  
child those sg-watched  
'The child watched those people.'

The associative pronouns (possessor etc.) are:

(62)

	pronoun		demonstrative pronoun			
number/person	first	second	third			
sg	wā	of	ef	mav	cev	pev
dl	nenef	ofnaf	efnaf	manaf	cenaf	penaf
pl	nenfē(v)	ofē(v)	efē(v)	mavē(v)	cevē(v)	pevē(v)

Some examples of associative pronominalizations are the following:

- (63) wā kakane u -v ecari  
my child cry-obj m cry  
'My child is crying.'
- (64) mav tawa nie eri  
this case there is  
'The case of this (ukulele) is there.'
- (65) cenaf krou -v ewasiye  
those two foot print-obj m sg-saw  
'I saw those two people's foot prints.'
- (66) ofēv take -n enēāē  
your (pl) father-sbj m sg-come  
'Your (pl) father is coming.'

The noun head may be linked with preceding associated noun which carries the semantic force of true possession. Pronominalization of the noun head can take place in this case only and is signalled by -a '(possessed) one'. The noun head cannot be pronominalized in construction with any other associated noun.

Notice the following examples:

- (67) ASSOC noun noun head  
(true possessive)
- a. tēra -v mumurasica  
child-assoc m knife  
'the child's knife'
- b. tēra -v -a  
child-assoc m 3rd pn  
'the child's thing/one (=knife)'
- (68) ASSOC noun noun head  
(whole-part)
- a. tēra -v cana  
child-assoc m hand  
'the child's hand'
- b.\* tēra -v -a  
child-assoc m 3rd pn  
'the child's one/thing (=hand)'

The sentences in (67) above reflect true possessed noun pronominalization. On the other hand comparing this process with the forms in (68), notice that in the case of a whole-part (i.e. not true possession) relation between a noun and a noun head, pronominalization if the noun head is possible, is ungrammatical (\*).

### Notes

<sup>1</sup> The study of Isirawa on which this paper is based was carried out intermittently from October 1973 through March 1976. I wish to acknowledge the contribution of Filipus Mamawiso from Amsira, kabupaten Jayapura, who has taught me his language. I also want to thank Dr. Ken Gregerson for suggestions both on general approach and English styling in writing this paper.

<sup>2</sup> Isirawa is a language spoken by about 2,000 people who live on the north coast of Irian Jaya in the Jayapura district. J.C.

Anceaux and C.L. Voorhoeve (1974) classify Isirawa as a member of the Kwerba stock.

For other work done on Isirawa see Erickson and Pike (1976), Oguri and Cochran (1976) and Oguri and Erickson (1975).

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P A R T    II

DISCOURSE AND COMMUNICATION ACTS

# DISCOURSE CONSIDERATIONS IN BAHASA INDONESIA

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## 0. Introduction

Although Bahasa Indonesia (BI) has been studied by many linguists, both national and expatriate, the discourse structure is a relatively new area for investigation. The purpose of this paper<sup>1</sup> is to present some hypotheses on the four aspects of BI discourse, namely: grouping, cohesion, prominence, and information.

### 0.1 Discourse types

Various discourse types can be discovered by the application of certain universal principles of discourse structuring.<sup>2</sup> These procedures can be of a surface structure or deep structure nature.



## 0.11 Surface structure discourse considerations

On the basis of surface structure, various discourse genre may be distinguished. These surface considerations include such things as clause types and length, tenses of verbs,<sup>3</sup> sentence length, phonological grouping, person orientation, tagmemes<sup>4</sup> presented, etc. Discourse types found in this study include Narrative, Expository, Hortatory, and Procedural<sup>5</sup> (Longacre, 1968).

	(1)	Accomplished Time or Time not Focal	Projected Time
+ Sequence in Time		Narrative (declarative)	Procedural (imperative)
- Sequence in Time		Expository (declarative)	Hortatory (imperative)

Surface Structure Discourse Types

The chart above (1) shows how surface structure considerations distinguish at least four discourse types on the basis of time orientation (either accomplished/not focal or projected), and sequence of time.

Narrative: sequential accomplished time, declarative.

- (2) Ia masuk lalu duduk  
he enter then sit

'He entered and then he sat down.'

Expository: non-sequential non-focal time, declarative.

- (3) Bahasa adalah milik kolektif, milik seluruh  
language is property collective property all  
masyarakat. Ucapan adalah milik individu,  
society expression is property individual  
milik orang se-orang.  
property person a -person

'Language is the collective property of the whole

society. Expression is the individual property of a person.'

Hortatory: non-sequential projected time, imperative.

- (4) Hayo... jangan lupa. Pekerjaan-pun kita bagi.  
hey don't forget work -also we-inc divide

'Hey, don't forget! We should also divide our work.'

Procedural: sequential projected time, imperative.

- (5) Pertama sedialah bahan2 dan bumbu2 dan alat2nya.  
first prepare ingredients and spices and utensils

Untuk bahannya bisa kita pilih... Kemudian untuk  
for ingredients can we-inc choose later for

bumbu2nya...  
spices

'First prepare your ingredients, spices, and utensils. For ingredients we can choose.... Then for spices....'

The surface structure consideration of person orientation also helps distinguish BI discourse types, as outlined as follows:

(6)

Person Orientation	DISCOURSE TYPES			
	Narrative	Expository	Hortatory	Procedural
1st	(X)		X	(X)
2nd			X	X
3rd	X	X		X

Person Orientation in Discourse Types

In (6), the four discourse types are marked. Narrative discourse (left side) is usually third person oriented, but occasionally has first person orientation added (e.g. in autobiography). Expository, to the right of Narrative, is only third person oriented in the material we examined. Hortatory, with many imperatives, is gener-

ally second person oriented, but may also have surface forms of first person plural inclusive (kita). Procedural, in written material, tends toward a non-specific person orientation which has second or third person forms, but first person was also seen.

Halim (1969:110) focuses on the number of participants as a criterion for surface structure distinctions between discourse types. He distinguished three discourse types: monologue, dialogue, and polylogue. While this broad focus is useful, we have paid attention to other surface structure criteria here. Thus, for example, a monologue may be further divided into Hortatory, Expository, and Procedural discourses on the basis of person orientation, time sequence, etc.

#### 0.12 Deep structure discourse considerations

Whereas surface structure considerations involved surface manifestations, deep structure considerations deal with underlying structure in the semantic realm. The tagmemes presented may differ from surface level tagmemes. The surface structure Peak, for example (marked by such things as sentence length, speed, intonation), may occur after the deep, plot-related peak or Dénouement.<sup>6</sup> (See Section 1.2.)

The underlying tagmemes of discourse may differ from one genre to another. Thus, for example, Procedural discourse has the following structure:

- (7) Procedural Discourse =  $\pm$  Introduction + Procedure<sup>n</sup>  
+ Product/Goal

This formula for Procedural discourse shows that an Introduction tagmeme may be present and that a Procedure and a Product tagmeme have to be present. The Expository discourse, on the other hand, consists of Points<sup>n</sup> with optional Introduction and Conclusion, i.e.:

- (8) Expository Discourse =  $\pm$  Introduction + Point<sup>n</sup>  
 $\pm$  Conclusion

#### 0.2 Discourse aspects

While a discourse is made up of sentences and paragraphs, it is not an undifferentiated stream of sound. The component sentences and paragraphs are related to one another in many ways. K. Callow (1974) proposes four aspects of discourse which provide the organization for a discourse. These four aspects--grouping, cohesion, prominence, and information--will each be discussed in the following sections.

#### 0.3 Generalizations on BI discourse

The following language-specific principles have been discovered for BI which seem also to tie into universals constraining language in general. They are put forth as informal working hypotheses for further examination as to their validity and precise formulation for BI. The outworking of these principles will be found in Sections 1-4 of this paper.

##### 0.31 Grouping

- I. Discourse tends to begin with existential statements and to continue with developmental statements; exceptions to this rule are for dramatic effect (see Section 1.12f).
- II. Information tends to be arranged in a generic-specific order (1.13f).

##### 0.32 Cohesion

- III. Discourse development tends to reflect normal chronological and logical sequence; exceptions to this principle stand out as rhetorical devices for dramatic or emphatic effect (2.32f).

## 0.33 Prominence

- IV. Elements that are topicalized as a link with immediately preceding information or referents tend to be fronted to the head of their immediate predicate (3.13f).

## 0.34 Information

- VI. Known information tends to appear in the topic of a sentence and new information in the comment, except in opening stage setting (often existential) parts of discourse where topic constituents may encode new information also (4.21f).
- VII. The degree to which a referent is fully specified by name, title, descriptive phrase, etc. (in contrast to reduced forms such as pronouns and  $\emptyset$ ) varies:
- in proportion to the number of (more or less) simultaneously interacting characters in a discourse section
  - with major shifts of time and space setting. Thus, fuller reference forms are expressed at the beginning of new paragraphs and episodes.

## 1. Grouping

Discourse may be differentiated from an undifferentiated string of words by the process of grouping. This grouping may be of a grammatical (surface structure) or of a plot-related (semantic) nature.

## 1.1 Grammatical grouping

## 1.11 Paragraph

In the analysis of written literature, such as the present one, sentences and paragraphs are already established. It was

observed, however, that BI paragraphs may have marked boundaries consisting of opening and/or closing topic sentences. These sentences refer to the main theme of the paragraph and thus, by their initial or final position, delimit the paragraph borders.

In the following narrative paragraph, the main theme of why a certain man has only one eye is referred to in both the opening and closing sentences:

- (9) Ada-pun mata-nya yang satu itu, ada cerita-nya.  
is -emphatic eye -his that one that is story -his
- Mata itu rusak bukan dari kecil-nya, tetapi sesudah  
eye that damaged not from small-his but after
- dia besar juga. Menurut kissah orang tua itu  
he big also following story person old that
- sendiri, begini cerita-nya... sejak itu tinggal-lah  
alone like this story -his since that stay -emph
- mata-nya satu.  
eye -his one

'There is a story about his one eye. The eye wasn't damaged when he was little, but rather when he was already big. According to the story told by the old man himself, this is what happened... Since then he has had only one eye.'

## 1.12 Episode

Some discourses were made up of several episodes. While the episode boundaries were not always overtly marked, they tended to be defined by a shift in time or location<sup>7</sup>. In the novel Si Doel: Anak Jakarta 'Doel: a child from Jakarta', the majority of larger groupings (marked as chapters) began with a statement of temporal orientation: keesokan harinya 'the next day', dua hari sesudah itu 'two days after that', bulan Ramadan sudah datang 'the month of Ramadan had already come', sebulan sudah lepas Lebaran 'a month after the last day of fasting'.

When episodes are separated by time shifts, such words as

telah 'already', kemudian 'later', ketika 'when', and sesudah 'after' may also be used to introduce the new episode.

In addition to these time separations, there tend also to be locational shifts. The following sentence is the first line of a new episode in a narrative discourse. The previous episode had taken place in Jakarta:

- (10) Ketika aku pergi ke Yogyakarta...  
       when I go to Yogyakarta  
       'When I went to Yogyakarta...'

### 1.13 Total discourse

As was mentioned in Section 0.12, the internal constituent structure of a discourse may also distinguish a certain genre from other genre. Within all the discourse types, however, certain overriding principles are evident, which we take up next.

These overriding principles of existential-developmental and generic-specific are summarized as follows:

(11)

	Narrative	Expository	Hortatory	Procedural
Setting	Existential	Generic		
Body	Developmental	Specific		

The chart in (11) shows the similarities among the four discourse types under consideration in regard to grouping principles. Narrative tends to begin with existential forms and then moves to developmental. Expository, Hortatory, and Procedural tend to begin with generic statements and to move to specific statements later on.

#### 1.131 Existential introductions

The general method of introducing a narrative discourse is to

set the stage in some way. This setting may be evidenced in forms such as ber-V, ter-V, or  $\emptyset$  forms.

The third chapter of Si Doel: Anak Jakarta demonstrates the principle of existential introductory paragraphs:

- (12) Di bawah se-pohon... terdiri sebuah rumah beratap  
       in under a -tree stand a house roofed  
genting. Dinding-nya buluh beranyam dan lantai-nya  
       thinly wall -its bamboo woven and floor -its  
 $\emptyset$  dari tanah saja. Keliling pekarangun-nya  $\emptyset$  bersih,  
       from dirt only around yard -its clean  
sehingga se-helei sampah-pun tiada kelihatan.  
       so that a -sheet waste -emphatic is not seen  
Di langkan sebelah kiri terletak sebuah balai<sup>2</sup> bambu.  
       in balcony side left located a cot bamboo  
       'Beneath a tree stood a poorly-roofed house. Its walls  
       were made of woven bamboo and its floor was made of  
       dirt. It was so clean around the yard that not even  
       one piece of waste could be seen. On the left side  
       balcony was a bamboo cot.'

Following this introduction the action continues in developmental sentences.

Exceptions to the existential-developmental principle (0.31, I) appear to be used for special dramatic effect. In several narrative discourses studied the authors begin with developmental material, but later introduce the characters with existential material. Si Doel: Anak Jakarta begins as follows:

- (13) "Doel!"

Tak juga menyahut.  
       not also answer

..."Eh, ke mana lagi dia? Barusan di sini."  
       to where more he just at here

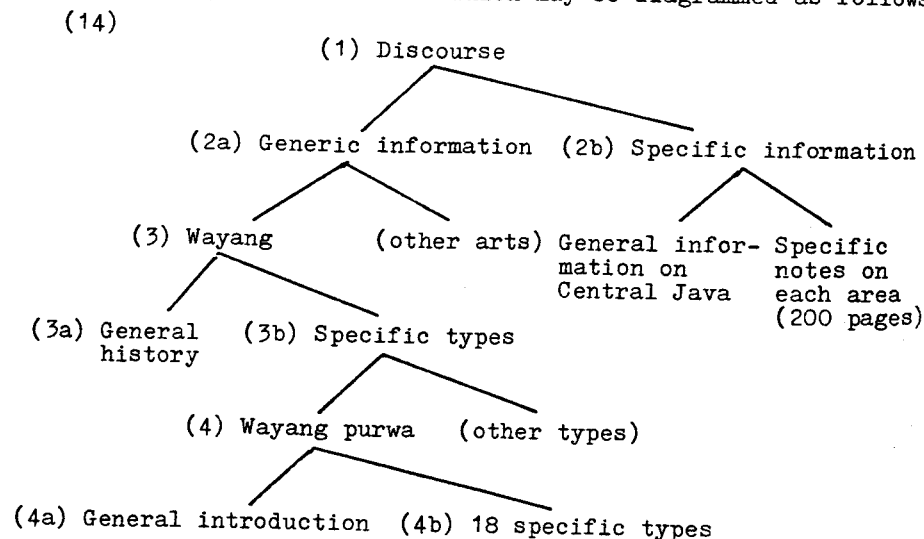
Se-orang perempuan yang masih muda kelihatan menjenguk  
       a -person woman who still young is seen look

dari pintu belakang sebuah rumah...  
from door behind a house

"Doel!" No one answered..."Now where is he? He was just here." A woman who was still quite young could be seen looking out of the back door of a house...'

### 1.132 Generic-specific orientation

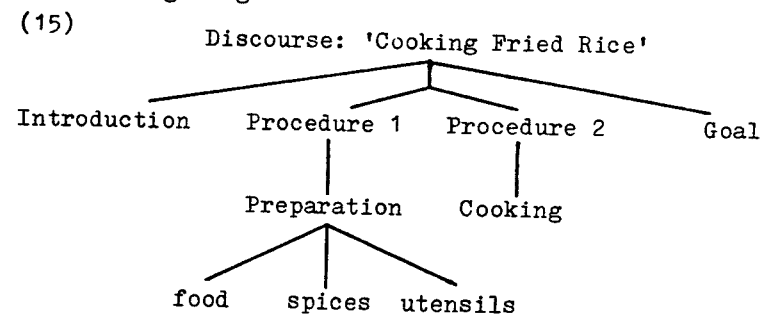
In non-narrative discourse, there is a logical sequence of generic to specific reference (0.31.II). A number of examples of this principle may be seen in the book Pedoman Tamasya Jawa Tengah 'A guidebook to the sights of Central Java' by Simatupang, an expository work, the content of which may be diagrammed as follows:



The tree diagram (14) above shows various examples of a generic-specific orientation in an expository discourse. At the top of the diagram is the discourse as a whole (1). This discourse consists of two main parts which in turn handle generic information

about Indonesian culture (2a) and specific notes on various areas of Central Java (2b). Within each of these two larger divisions are many smaller units with the same generic-specific ordering. Under the generic information (2a) are several articles about specific arts. Of these arts, the wayang 'puppet play' (3) has both a general section (3a) and a section on specific types of wayang (3b). The discussion of these specific types of wayang also follow the generic-specific orientation as seen in the wayang purwa '[a type of] puppet play' (4). This specific type of puppet play is also introduced by a general section (4a) and is further explained with a discussion of eighteen specific plays (4b).

Procedural discourse may also exhibit this generic-specific orientation if an overt Introduction tagmeme is evidenced. In a procedural discourse on how to make fried rice, the Introduction tagmeme states the general goal of preparing fried rice and then the Procedure tagmemes state the specific steps necessary to make the end product. This generic-specific orientation can be seen in the following diagram:



### 1.2 Plot-related grouping

Plot-related grouping does not always match the grammatical grouping mentioned in the previous sections. These deep structure

considerations relate to such tagmemes as Climax and Dénouement as opposed to surface level grammatical Peak. These Climax and Dénouement tagmemes are tied not to the grammatical structure of the discourse, but to the theme of the story. Longacre (1972:135) talks about the Climax as 'drawing the story to a head' and Dénouement as 'working out the problems this posed'. Peak, on the other hand, may turn up in some languages marked by changes in tense, a 'crowded stage', extra-long sentences, etc. (Longacre, 1972:135-136).

An example of the skewing of surface and deep structure discourse tagmemes is found in the anecdote Panjang Uratnya 'The Long Nerve' by Mohammed Kasim. The structure of this story may be diagrammed as follows:

(16)

Surface	Title	Episode 1 Paragraph 1-5	Episode 2 *6-10	Episode 3 *11-23	Episode 4 *24-27	
Deep	Aperture	Stage		Cli- max	Dénoue- ment	Clos- ure

Surface vs. Deep Discourse Structure  
\*Location shift

The surface structure of this story was divided into Title and four Episodes (signalled by a location shift). The deep structure consists of Stage, Climax, Dénouement, and Closure tagmemes. The Stage consists of the actions leading up to the Climax. The Climax then occurs in paragraph 22 (the tooth was pulled). Following the Climax comes the Dénouement consisting of a final Episode. The Closure also occurs within this final Episode. The two levels of discourse bear no particular structural parallelism except that Title and Aperture are coextensive. That is, each kind of struc-

ture has its own structure building principles.

## 2. Cohesion

In addition to the grouping of sentences, paragraphs, and episodes in certain ways within a discourse, each BI discourse also demonstrates cohesion. This second aspect of discourse binds a discourse unit together internally, whereas grouping (Section 1) marks boundaries of a unit, separating it from another unit. That is, impressionistically, cohesion is 'inward looking' and grouping is 'outward looking'. Cohesion includes lexico-semantic cohesion, character cohesion, and event cohesion.

### 2.1 Lexico-semantic cohesion

Callow (1974:31) observes that "if many of the words in a paragraph come from the same semantic domain they contribute to the unity of that paragraph and hence to the ease with which it is understood." This is lexico-semantic cohesion, a feature very evident in BI discourse. The degree to which it is accomplished depends on the skill of the author.

An expository discourse entitled: Akronim: Narkotika Bahasa 'Acronym: the opiate of language' by Sularto makes use of various lexico-semantically similar phrases as a cohesion device. In the nineteen paragraphs of this article, for example, the narcotic effect of acronyms (name abbreviations) in a language is described in the following metaphorical ways, all of which are tied to the idea of harmful drugs:

(17) muak  
penyakit kanker  
keyataan rawan  
persoalan  
mariyuana  
mematikan...BI  
narkotika

'nauseating'  
'cancer' (mentioned two times)  
'alarming fact'  
'problem' (two times)  
'marijuana'  
'kill BI' (three times)  
'opiate, narcotic' (three times)

This portrayal of acronyms as dangerous and harmful drugs binds the discourse together very effectively.

Lexico-semantic cohesion is also used in Narrative discourse to tie units together. The example given below is part of the opening paragraph of the Narrative discourse Panjang Uratnya:

- (18) ...tiada yang menolong...Jampi<sup>2</sup> telah banyak  
not is which help magic formulas already many  
kali dicoba -nya, tetapi tiada mujurab. Sampai ia  
time be tried-he but not is effective until he  
mengomel, "...jampi<sup>2</sup> -pun turut pula  
complain magic formulas-emphasis follow again  
meleset tidak ada yang mustajab."  
depression not is which effective  
'...none helped...Magic formulas were already tried  
many times by him, but none were effective. Finally he  
complained, "...even the magic formulas are declining.  
There aren't any that are effective."'

Thus the notion of 'ineffectualness' binds this section together.

Lexico-semantic cohesion in both of the above examples is a device using words from a similar semantic set to bind a unit (in these cases a discourse and a paragraph) together.

## 2.2 Character cohesion

Once a character in BI discourse is introduced, further references to this same character provide cohesion for the whole discourse. Recurring references to a character provide a tracking device for various spans of the discourse. Once fully specified, the reference reducing process of pronominalization comes into effect, but still effectively signals this character cohesion. We now discuss various aspects of such cohesion.

The various methods used in character cohesion may be summarized in chart form as seen in the following (19):

(19)

SENTENCE		PARAGRAPH		DISCOURSE
one character	two character	one character	two character	
∅	∅	∅	-	-
pronoun	pronoun	pronoun	-	-
-	descriptive phrase	-	descriptive phrase	descriptive phrase
-	-	name	name	name
-	-	-	itu	itu
-	-	-	-	tadi

Character Cohesion

In the chart above (19) on character cohesion we see that different methods are used to tie character references together across different spans. These spans are sentence, paragraph, and discourse. The sentences and paragraph references are further divided into one character and two (or more) character types. We see then that the zero form '∅' provides character cohesion within a sentence and within a one-character paragraph. Moving down one line, we see that pronouns (e.g. -nya, dia, mereka) also function in these same spans. Descriptive phrases (line 3) have been seen to function as cohesive elements only when there is more than one character. Name references and itu 'that' function above the sentence and tadi 'just now' has only been found between paragraphs on the discourse level.

## 2.21 Sentence level

## 2.211 One character

Sentence level cohesion of a character is maintained by a repetition of references to that character. The second occurrence of a reference is usually reduced to a pronominal form or to a zero form 'Ø' in 'like-subject' deletion processes. Notice how the character is traced through the following examples with the pronoun -nya and Ø.

- (20) Sapii terdorong ke belakang, muka-nya meringis-ringis..

Sapii was pushed to back face-his have sour look

'Sapii was pushed back. His face had a sour look.'

- (21) ...kata Malin Sabar sambil Ø memegang pipi -nya yang  
say Malin Sabar while hold cheek-his which

sakit itu, lalu Ø pergi ke rumah sakit.  
sick that then go to house sick

'...said Malin Sabar as (he) held his sick cheek and (he) went to the hospital.'

## 2.212 Two characters

In the above examples (20-21) with only one character, the pronominal form and the zero form were used to trace the character. A second character effects the forms used in cohesion, since ambiguity is possible.

When a second character is introduced, pronominal reference may still be used, but only if no ambiguity is introduced. Consider the following fragment. (Single line refers to the doctor; double line refers to Malin Sabar.):

- (22) '...tuan dokter-pun menghampiri Malin Sabar dengan

Mr. doctor-emphasis approach Malin Sabar with

sebuah perkakas pada tangan-nya.  
an instrument in hand -his

'...the doctor approached Malin Sabar with an instrument in his hand.'

In (22) the reader has to be able to disambiguate the reference tangannya 'his hand'. Due to the semantic connection between 'doctor' and 'instrument', the ambiguity is easily resolved (the patient does not usually have any instruments in his hand). Also from a syntactic point of view, the propositional phrase in which tangannya is embedded is controlled by the subject of the main verb (the doctor), not by the Object-Goal.

- (23) Sudah berpikir ia hendak meninggalkan rumah sakit itu,  
already think he want leave house sick that  
tetapi...tuan dokter memanggil dia...  
but mister doctor call him

'He has already thought about leaving the hospital, but ...the doctor called him.'

In (23) the final referent dia 'he' cannot be ambiguously taken to refer to the doctor because the verb memanggil 'call' necessitates a non-reflexive reference. In any case dia is a non-reflexive form. The semantic anomaly of a reflexive reading here is also obvious.

A zero form may also be used in character cohesion within a sentence with two characters. In the pair of sentences stated below, in fact, a zero form seems to be less ambiguous than a pronominal form:

- (24) Ali memukul Sapii, lalu Ø lari.  
Ali hit Sapii, then run

'Ali hit Sapii, then he (Ali) ran away.'

- (25) Ali memukul Sapii, lalu ia lari.  
Ali hit Sapii, then he run

'Ali hit Sapii, then he (Ali or Sapii) ran away.'

In the above examples (24 - 25) the zero form makes the reference to the agent 'ali' unambiguous. The addition of a pronominalized form in (25) introduces a slight ambiguity, although the most probable referent is still Ali.



Character cohesion may also be maintained within a sentence with two characters by the use of a synonymous or identificational descriptive phrase to refer to one of the characters. In the following example Sapii (single underlining) is interacting with Doel (double underlining). A second reference to Sapii is made using the descriptive phrase lawannya 'his opponent'.

- (26) Sapii mau mengulang se-kali lagi, tetapi si Doel sudah  
 Sapii want repeat a -time again but Doel already  
 mendahului meninju perut lawan -nya.  
 precede hit stomach opponent-his  
 'Sapii wanted to hit (him) one more time, but Doel  
 already hit his opponent (Sapii) in the stomach first.

## 2.22 Paragraph level

Above the sentence level character cohesion has several possible patterns, all of which effectively trace characters through the particular unit involved.

### 2.221 One character

When only one character (as will be contrasted with 2.222 concerning two characters) is involved in a paragraph, pronominal forms or zero forms of reference may be used, as well as the character's name to provide cohesion.

Reduced forms such as pronouns and zero forms may be used within a paragraph to provide cohesion. The following Narrative paragraph begins with the full forms of a descriptive phrase seorang guru 'a teacher' and the character's name. The remainder of the paragraph uses reduced forms (nya, ia, dia,  $\emptyset$ ) to trace this character.

- (27) Tersebut se-orang guru menaji bernama  
 is told a -person teacher recite the Holy Koran named

Malin Bungsu. Konon ilmu -nya tak berapa dalam,  
Malin Bungsu they say science-his not very deep  
 akan tetapi kaji -nya baik. Dia kuat beribadah  
 but recitation-his good he strong worship  
 $\emptyset$  selalu merendahkan diri dan pada waktu yang  
 always lower himself and during time which  
 terluang ia selalu tafakur dan zikir.  
 free he always meditate and repeat a religious

formula.

'Once there was a teacher of the Holy Koran named Malin Bungsu. It is said that his knowledge was not very deep but that his recitation of the Holy Koran was good. He worshipped devoutly and (he) always humbled himself. In his free time he always meditated and repeated a religious formula.'

When only one character occurs in a paragraph, references after the initial mention may also be name forms. Notice the third and fourth references to Doel in the following paragraph.

- (28) Si Doel tiada menjawab...Di hadapan-nya terletak  
 Doel not answer at front -his located  
 se-piring nasi...Si Doel makan-lah dengan sedap  
 a -place rice Doel eat -emphasis with pleased  
 -nya ... Banyak benar makan Si Doel.  
 -his much true eat Doel  
 'Doel didn't answer..In front of him was a dish of rice  
 ...Doel ate as much as he wanted...Doel really ate a lot.'

It is suspected that this frequent repetition of the name form may be used for emphasis. Reduced forms would appear to be just as understandable.

### 2.222 Two characters

When more than one character is mentioned in a paragraph, more use of full forms such as proper names is made to keep characters separate. Within the sentences, however, the principle

of pronominalization applies. The interaction of characters forces the writer to identify each character more fully to avoid ambiguity.

Full name forms may be used to distinguish referents. In the following paragraph the proper name form is used in each sentence. (Single underlining refers to Sapii; double underlining refers to Doel.)

- (29) Sapii membulatkan tunjun-nya, lalu ditinju -nya rumpun  
Sapii make round fist -his then be boxed-his group  
telinga si Doel...Si Doel menundukkan kepala-nya,  
ear Doel Doel duck head -his  
sehingga ia terluput dari tunju Sapii ...  
so that he escape from fist Sapii  
'Sapii made a fist and tried to hit Doel's ears...Doel  
ducked his head and escaped Sapii's fist...'

Notice how pronominal forms were used in (29) until the second character was mentioned. The character name was then repeated to avoid ambiguity or misunderstanding.

The word itu 'that' may also be used within a paragraph to refer back to a character or an object. This reference ties the first and the second occurrences of the referent together. Notice how itu is used in the following example:

- (30) ...diambil -nya beberapa sayat rujak -nya  
be taken -she several slice [type of] food-her  
lalu dilemarkan-nya ke muka Sapii. Se-sayat rujak itu  
then be thrown -she to face Sapii a -slice food that  
mengenai mata-nya.  
hit eye -his  
'She took several pieces of food and threw them at  
Sapii's face. A piece of that food hit his eye.'

The rujak '[type of] food' in the first sentence of (30) is identified as the same rujak in the second sentence by the use of itu 'that'.

A descriptive phrase may also be used to provide cohesion in a two-character paragraph. The following paragraph is basically about some prisoners, but when a new character is introduced the prisoners are reidentified with a descriptive phrase orang<sup>2</sup> itu 'those men':

- (31) ...mereka itu lengah sudah dibentak oleh  
they that inattentive already be snapped at by

serdadu itu. Bapak -nya bercerita, orang<sup>2</sup> itu  
soldier that father-his tell persons those

akan dimasukkan ke dalam kamar gelap...  
will be caused to enter to in room dark

'...they were inattentive (although) they had already  
been snapped at by the soldier. His father said that  
these men would be put in a dark room.'

## 2.23 Discourse level

As a character crosses paragraph boundaries, he is referred to in more complete terms. These terms include proper name references, tadi 'just now', itu 'that', and descriptive phrases such as yang kita sudah kenal 'whom we already know'.

The term tadi 'just now' is used to refer back to elements from a preceding paragraph. The following example is taken from two consecutive paragraphs:

- (32) ...ambil kompot dan wajan.  
take stove and frying pan

Sekarang mulai-lah dengan memanaskan wajan diatas  
now begin-imp with make hot frying pan on top

kompot tadi...  
stove just now

'...take a stove and a frying pan.

Now begin by heating the frying pan on that stove.'

The form itu 'that' is used in the Narrative discourse Si Doel: Anak Jakarta to refer back to characters and events in

previous paragraphs. The example below refers back several paragraphs:

- (33) Demi dilihat-nya dua orang jago kecil itu berkelahi  
when seen -he two persons leader small those fighting  
(rooster)

'When he saw the two young leaders fighting...'

After a break of several paragraphs, one of the main characters in the narrative discourse Cara Chicago 'Chicago-style' is referred to with a descriptive phrase, thus providing cohesion within the discourse:

- (34) ...perempuan yang sudah kita kenal di-setasiun Medan  
woman who already we know at-station Medan

tadi...  
just now

'...the woman whom we already know from the Medan station  
...'

After paragraph breaks a character is often referred to by his name. Such a name reference also provides character cohesion within the discourse. The following example shows this principle:

- (35) "Ai, baik<sup>2</sup>, Doel!"...seru ibu -nya  
good Doel call mother-his

Si Doel tiada menjawab...  
Doel not answer

"Nicely, Doel,"...called his mother...  
Doel didn't answer...'

While the form dia 'he/she' may have been sufficient in the context, the name form was used after the paragraph break to keep the character reference unambiguous.

## 2.3 Event cohesion

### 2.31 Reference

Events may be tied to other parts of a certain discourse similarly to characters. Thus, an event in one paragraph may be referred to as itu 'that' in the next paragraph or by some generic term such as kejadian 'event'.

In the example below, itu 'that' refers to the previous mention of Sapii's rubbing his eyes:

- (36) Tiada jauh berdiri Sapii menggosok-gosok mata-nya.  
not is far stand Sapii rub eye -his

Melihat itu, si Doel sudah tahu apa yang terjadi.  
see that Doel already know what which happen

'Not far from there Sapii stood rubbing his eyes.  
Seeing that, Doel knew what had happened.'

### 2.32 Time line

A second part of event cohesion is the pattern of chronological reference in BI discourse. This pattern reflects the real-world order of events. Thus, the beginning of a discourse usually refers to events that occur previous to later statements. Sentences or sentence clusters which are sequential and those which are not sequential exhibit surface markers which provide clues as to their chronological relationship.

#### 2.321 Sequential

Sequential events may or may not have an overt marker to indicate their relationship.

Note the ways that the following clauses or sentences are temporally related and the surface-level signals of this relationship. The clause marked '1' occurs first in real time and the one marked '2' occurs second.

No marker

- (37) 1. Lonceng berbunyi  
bell ring  
2. Keréta berangkat.  
train leave  
'The bell rang, (then) the train left.'

lalu 'then'

- (38) 1. Mpok As tersenyum saja.  
As smile only  
2. lalu ditambah-nya beberapa sayat kedondong.  
then added -she several pieces type of fruit  
'As only smiled. Then she added several pieces of fruit.'

baru 'only then'

- (39) 1. Mendengar itu  
hear that  
2. baru -lah senang hati si Doel.  
only then-emph happy heart Doel  
'After hearing that, Doel was happy.' or 'Doel heard that, then he was happy.'

setelah 'after'

- (40) 1. Setelah si Doel pergi  
after Doel go  
2. ia berkata kepada suami -nya...  
she say to husband-her  
'Doel left, then she (Doel's mother) said to her husband...'

jika 'when'

- (41) 1. Jika ia datang  
when he come  
2. bersembunyi-sembunyi-lah ia duduk di meja  
hidden -emph he sit at table  
sebelah ke kanan...  
side to right  
'He came. Then he stealthily sat at a table on the right side.'

terus 'directly'

- (42) 1. Tuan dokter-pun memasukkan perkakas -nya  
mister doctor-emph cause to enter instrument-his  
2. terus mencabut gigi...  
directly pull out tooth  
'The doctor put his instrument in and then pulled out the tooth...'

kemudian 'then'

- (43) 1. ...kata tuan dokter...  
say mister doctor  
2. kemudian menyediakan perkakas -nya.  
then prepare instrument-his  
'...said the doctor. Then he got his instruments ready.'

dan 'and'

- (44) 1. Sebuah auto tiba di muka setasiun  
a car arrive in front station  
2. dan se-orang perempuan...keluar dari auto itu.  
and a -person woman get out from car that  
'A car arrived in front of the station. Then a woman got out of the car.'

## 2.322 Simultaneous

Simultaneous events cannot, due to the linear nature of speech and writing, be manifested simultaneously. This relationship is, rather, signalled by surface markers or by semantic components of the propositions in question.

Notice how the following simultaneous actions are linked. Both clauses are marked by the same number, indicating simultaneity.

No marker

- (45) 1. Tetapi mpok ini tidak berbaju...  
but child this not have shirt  
1. Rambut-nya kusut masai menutupi dahi -nya.  
hair -his all a tangle cover forehead-his  
'The child didn't have a shirt on and his hair was

all tangled covering his forehead.'

sambil 'while'

(46) 1. kata si Doel...  
say Doel

1. sambil menganga-nganga kepedasan.  
while open mouth wide suffering from something  
spicy

'...said Doel as his mouth dropped open from the  
spiciness of the food.'

ketika 'when'

(47) 1. ...terpaksa mengambil daun-daunan...  
forced get various kinds of leaves

1. Ketika itu harus awas benar.  
when that have to be careful true

'...forced to gather leaves. When one does that  
he had to be very careful.'

### 2.323 Exceptions/Reversals

The usual chronological pattern can be reversed by the use of certain overt markers. Since this reversal involves a suspension of the general rule, it must be marked to communicate the proper sequence of events.

The following pairs of clauses demonstrate some of the possible markers for a reversal of chronological time. The clause marked '1' occurs first in real time and the one marked '2' occurs second.

setelah 'after'

(48) 2. "Ah, pedas amat mpok," kata si Doel  
hot very say Doel

1. setelah dikecap-nya beberapa sayat...  
after taste -he several pieces  
'"Wow, that's hot!" said Doel after tasting  
several pieces...'

sebelum 'before'

(49) 2. Sebelum gelas itu sampai ke atas meja,  
before glass that arrive to top table

1. si Kari melompat mengimbau polisi tadi.  
Kari jump call police just now

'Before the glass even reached the table, Kari  
jumped up to call the police.'

karena 'because'

(50) 2. Sudah lama terniat di dalam hati -nya...  
already long intended in heart-his

1. karena sepanjang cerita yang didengar-nya...  
because as far as story which be heard-he

'He had already intended in his heart a long time  
...because according to the stories he had heard  
(before that)...'

Exceptions to chronological sequence also occur in flashbacks.

An example of this device is found in Si Doel: Anak Jakarta. In this example the flashback refers to a group of events previous to the current story line. The words acap kali 'often' seem to be the marker for this flashback.

(51) Ia takut akan jadi orang rantai. Di setasiun acap  
he fear of become person chain at station often

kali dia melihat berpuluh-puluh orang hukuman...  
he see ten ten person judged

'He was afraid of becoming a prisoner. He had often  
seen dozens of prisoners at the station...'

This flashback (51) is marked by the words acap kali 'often' and by a semantic causal relationship (unmarked) which gives a previously occurring event as the reason for Doel's fear.

Dahulu 'formerly' also marks a flashback. This same section referred to above continues with a further flashback about an earlier childhood experience:

(52) Dahulu si Doel sudah tahu dimasukkan ke  
formerly Doel already know he caused to enter to

dalam kamar gelap...  
in room dark

'Doel already knew what it was like to be put in a dark room...'

Other flashbacks observed are marked by such words as: dulu pada suatu kali 'formerly, at one time', and pada suatu malam 'one night'.

### 2.33 Change of time orientation

Time references create cohesion until a new time referred is introduced. This new referent is then the binding element until a further change is made. Thus, as was seen in the section on grouping, new sections (e.g. Episode in Narrative) are introduced by a shift in time. Each section is then bound together by a common unit of time.

In the novel Si Doel: Anak Jakarta, chapter one ends with the following sentence:

(53) Si Doel tertidur dengan nyenyak.  
Doel fall asleep with soundness  
 'Doel fell sound asleep.'

Chapter two begins with a new cohesive time keesokan harinya 'the next day' which unifies all of that chapter.

### 3. Prominence

Callow (1974:52) divides prominence into three categories: theme, focus, and emphasis. In an informal fashion, she defines theme as saying to the hearer, "This is what I'm talking about." Focus involves saying to the hearer, "This is important, listen." Emphasis is defined as saying to the hearer, "You didn't expect that, did you?" However, Callow states that these are not always clearly distinguishable in all languages.

This is the case in BI discourse. We have divided prominence into two main categories which we shall label topicalization and emphasis. Topicalization is similar to Callow's theme, while our emphasis takes on the characteristics of both focus and emphasis as Callow defines them.

#### 3.1 Topicalization

In Fillmore's (1968:57) words, "Topicalization processes are devices for isolating one constituent of a sentence as a 'topic'." We distinguish further between lexical topicalization and discourse topicalization.<sup>8</sup> In lexical topicalization the underlying roles determine the selection of the NP to be fronted as topic. In discourse topicalization the choice of which NP gets topicalized is strictly controlled by the part played by that same NP (or a semantically equivalent one) in the immediately previous sentences. That is, a kind of 'stochastic process' goes on such that prior choices limit subsequent ones.

Thus, lexico-semantic conditions of the kind first suggested by Fillmore (1968:33) select a particular role type (e.g. AGENT) to be topicalized for each verb type: a verb and its associated NPs is then inserted into the discourse where it must automatically obey the overriding requirements of preceding discourse reference. At the beginning of a discourse or if no other discourse requirements obtain, the underlying lexico-semantic topic asserts itself as Subject.

Each grammatical clause in BI discourse contains a topic and a comment, normally in that syntactic order.<sup>9</sup> The topic is what has been referred to already, what is considered 'known', 'given', or 'assumed to be known' by the speaker.<sup>10</sup> Topic can also be described as the "major participants who occur as subjects of the events of the narratives and whose actions move the story along."<sup>11</sup>

The comment is anything predicated of the topic, as well as any background information.<sup>12</sup>

There are two main types of relationships<sup>13</sup> that exist between topic-comment clauses: developmental (main clause) relationship and supportive (relative clause) relationship.<sup>14</sup>

In the next sections we shall look at the various types of topicalization in BI. Two of these are Developmental Topicalizations, and two are Supportive Topicalizations. Within each type there are a Topic-Topic Binding type and a Comment-Topic Binding type. These four types of topicalization are outlined in (54):

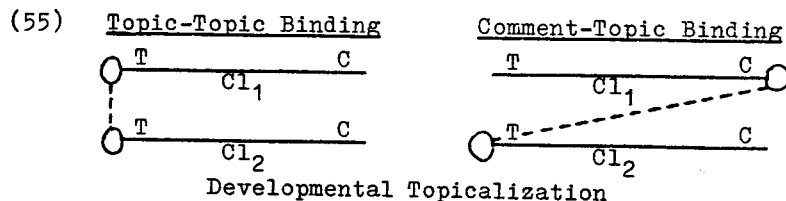
(54)

	Developmental Topicalization	Supportive Topicalization
Topic-Topic Binding		
Comment-Topic Binding		

Topicalization Types

### 3.11 Developmental topicalization

There are two types of developmental topicalization: Topic-Topic Binding and Comment-Topic Binding. These can be diagrammed as in (55):



The Topic-Topic type developmental topicalization occurs when there are two clauses which are juxtaposed and in which the second clause develops or moves the discourse along while holding the original topic constant.

- (56)
- | <u>TOPIC</u>               | <u>COMMENT</u>   |
|----------------------------|--|
| jampi2<br>magic formulas   | telah banyak kali dicoba -nya<br>already many time be tried-he |
| (jampi2)<br>magic formulas | tiada mujarab.<br>is not effective                             |
- 'The magic formulas were already tried many times by him, (the magic formulas) were not effective.'

Developmental Topicalization  
Topic-Topic Binding

In (56) the topic of clause 1 is 'the magic formulas' and the comment is 'were already tried many times by him'. The topic of clause 2 is not overt, but implied. Both clauses share the same topic, and clause 2 moves the discourse along, so these clauses are called Topic-Topic Binding.

The Comment-Topic type developmental topicalization occurs when there are two clauses which are juxtaposed where something in the comment of clause 1 becomes topicalized in clause 2. Clause 2 also develops or moves the discourse along, but 'in series' rather than 'in parallel'. This type of binding is diagrammed in (57):

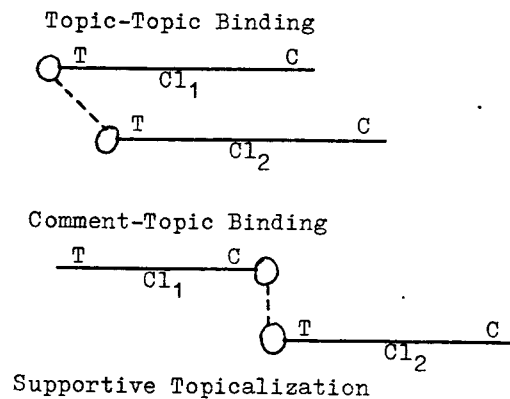
- (57)
- | <u>TOPIC</u> | <u>COMMENT</u>   |
|--------------|--|
| (ia)<br>he   | mendengar jerit orang<br>hear scream person                                  |
| yang<br>who  | sedang diobati dokter di-bilik sebelah<br>was be treated doctor in-room side |
- '(He) heard the scream of the man who was being treated by the doctor in the side room.'
- Developmental Topicalization  
Comment-Topic Binding

The topic in clause 1 of (57) is ia 'he' although it is not overt. The comment of clause 1 is 'heard the scream of the man'. The yang 'who' is the topic in clause 2 and refers back to the man who was screaming and not to the man who was hearing the scream. The comment of clause 2 is 'was being treated by the doctor in the side room'. The topic of clause 2 then refers back to part of the comment in clause 1. It also develops the discourse, so is therefore labelled Comment-Topic Binding type of Developmental Topicalization.

### 3.12 Supportive topicalization

There are two types of Supportive Topicalization: Topic-Topic Binding and Comment-Topic Binding. These can be diagrammed as follows:

(58)



The Topic-Topic type of Supportive Topicalization occurs when there are two clauses which have the same topic, but clause 2 does not move the discourse forward, but rather adds background information. The diagram in (59) gives an example of this type of discourse binding.

- (59) TOPIC COMMENT
- |                              |                               |
|------------------------------|-------------------------------|
| <u>air</u> <u>kali</u> ..... | sekarang sudah jadi merah     |
| water river                  | now already become red        |
|                              | <u>yang</u> memang keruh juga |
|                              | which really muddy also       |
- 'The river water which was also really muddy has already become red.'

Supportive Topicalization  
Topic-Topic Binding

The relative clause 'which was also really muddy' in (59) is embedded within the first clause. The word yang 'which' refers back to the topic of clause 1 air kali 'river water'. The comment of the main clause is sekarang sudah jadi merah 'now already has become red'. The comment of the embedded clause is memang keruh juga 'really muddy also'. The relative or embedded clause does not advance the story, but rather adds background information. The Comment-Topic type of Supportive Topicalization occurs when a NP in the comment of the preceding (main) clause is co-referential with the NP topic of the following clause. In these cases the second clause does not move the discourse forward, but rather adds background information. The second clause may also be an embedded clause<sup>15</sup>, although parenthetical clauses are also included in this supportive clause function, but are not usually viewed as embedded. This type of discourse binding is diagrammed as follows (60):

- (60) TOPIC COMMENT
- |                            |                     |
|----------------------------|---------------------|
| ( <u>air</u> <u>kali</u> ) | bercampur kotoran   |
| water river                | mix with dirt       |
|                            | <u>yang</u> hanyut. |
|                            | which wash away     |
- '(The river water) is mixed with dirt which was washed away.'
- Supportive Topicalization  
Comment-Topic Binding



In (60) the topic in clause 1 is the 'river water' which is not overt. The comment is '(to mix with) dirt' in which 'mix with dirt' is not overt, but implied from the preceding sentence. The word yang 'which' in clause 2 is the topic of 'was washed away' which is the comment of clause 2. However, in this type the topic in clause 2 is not the same as in clause 1, but rather the yang 'which' in clause 2 refers to 'dirt' which is the comment of clause 1. Clause 2 adds background information and is therefore labelled a supportive Comment-Topic Binding Topicalization.

### 3.13 Aspects of the topicalization process

#### 3.131 Introduction

Fronting<sup>16</sup> and pronominalization are two major aspects of Topicalization in BI discourse. To illustrate these aspects, suppose we describe a basic clause as  $X-V_1-Y$ , where X is the topic, and  $V_1-Y$  are verb plus object. To the basic clause  $X-V_1-Y$  we shall juxtapose another basic clause  $Q-V_2-Y$ . Q is another topic that is different from X, while  $V_2-Y$  is another verb and the same object.

(61)

X	$V_1$	Y
Ali	beli	buku itu.
Ali	buy	book that
'Ali bought that book.'		
Q	$V_2$	Y
Tuti	jual	buku itu.
Tuti	sell	book that
'Tuti sold that book.'		

#### 3.132 Fronting

To these basic clauses we can apply the following informally

stated rule for fronting:

A term that is coreferential with a term in an immediately preceding developmental (main) clause is fronted to the head of the backgrounded clause.

Thus we get:  $X V \underline{Y}$  and  $Q V \underline{Y} = X V \underline{Y}$  and  $\underline{Y} V Q$

(62)

X	V	Y
Ali	beli	buku itu.
Ali	buy	book that
'Ali bought that book.'		

Y	V	Q
buku itu	dijual	Tuti
book that	be sold	Tuti
'That book was sold by Tuti.'		

#### Application of the Fronting Rule

Notice that the form of the verb in the second clause became prefixed when it was 'passivized'<sup>17</sup>. When the semantic object buku itu 'that book' gets topicalized, it is fronted, and the verb is marked with the prefix di-<sup>18</sup>. Thus the agent NP Tuti as the normal 'unmarked' lexico-semantic topic is relegated to a post-verbal position becoming a 'subject-chômeur' (a 'laid off subject') in Relational Grammar terms (Johnson, 1975), while the initial object buku 'advances' to become a derived 'cyclic' subject.

#### 3.133 Pronominalization

After the fronting rule has been applied, the following pronominalization rule can be applied:

The second instance of a coreferential constituent is pronominalized.

$X V_1 Y$  and  $Y V Q = X V_2 Y$  and yang VQ

- (63) X        V<sub>1</sub>        Y  
       Ali    beli    buku itu  
       Ali    buy    book that  
       'Ali bought that book,  
       yang    V<sub>2</sub>        Q  
       yang dijual    Tuti.  
       that be sold Tuti  
       which was sold by Tuti.'

#### Application of the Pronominalization Rule

Rather than having buku itu overtly repeated, the second identical constituent is pronominalized becoming yang 'which'. The above two rules can be displayed as follows:

#### (64) Basic Clauses:

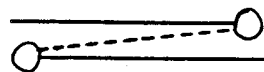
- (A) XV<sub>1</sub>Y and QV<sub>2</sub>Y. Apply fronting rule.  
 (B) XV<sub>1</sub>Y and YV<sub>2</sub>Q. Apply pronominalization rule.  
 (C) XV<sub>1</sub>Y and yang V<sub>2</sub>Q.

#### Application of Fronting and Pronominalization Rules

#### 3.14 Semantic topicalization

Topicalization operates not only on the syntactic level, but also on the semantic level.

- (65) Clause 1: ia hendak meninggalkan rumah sakit itu...  
                   he want    leave    hospital    that  
       Clause 2: pintu terbuka.  
                   door    open  
       'He wanted to leave the hospital...the door opened.'



Developmental Topicalization  
 Comment-Topic Binding on the Semantic Level

The topic 'door' in clause 2 is the topicalization of 'hospital' which is the comment of clause 1. 'Door' is not previously mentioned explicitly but being in the semantic domain of 'hospital building' the discourse binding of topic to comment between them in a natural one. This shows that topicalization operates not only on the syntactic level, but also (and perhaps more often) on the semantic level.

#### 3.2 Emphasis

Emphasis in BI seems to take on the characteristics of Callow's definition for both focus and emphasis, i.e. saying to the hearer, "This is important, listen", and "You didn't expect that, did you?"

There are three main ways to indicate emphasis<sup>19</sup>. They are syntactic order change, syntactic markers, and repetition. These may occur alone or in combination with each other.

#### 3.21 Order change

Emphasis may be shown by change of normal syntactic order. This perhaps is a feature of fronting as emphasized items are also fronted. However, three types of order change have been observed so far: (a) order change within a comment that is topicalized (66) and (67); (b) fronting of part of the comment which is not topicalized (68) and (69); and (c) fronting of a whole clause (70).

- (66) Banyak-lah sudah obat2.  
       many -emph already medicines  
       'Already lots of medicine (was used).'

The normal word order is:

- (67) Obat2 sudah banyak.  
       medicines already many  
       'Already lots of medicines.'

The part of the clause sudah banyak 'already lots' is the normal order, but when that is emphasized, the word order changes to banyak sudah, adding extra emphasis with the attachment of the emphatic particle -lah. This fronting occurs along with order change within the comment that is emphasized<sup>20</sup>.

- (68) Dengan tangkas tuan dokter memasukkan perkakas -nya.  
with skill Mr. doctor cause to enter instrument-his  
'Skillfully the doctor entered his instruments (into the patient's mouth).'

The normal word order is:

- (69) Tuan dokter memasukkan perkakas -nya dengan tangkas.  
cause to enter instrument-his with skill

'The doctor entered his instruments skillfully.'

The phrase dengan tangkas 'with skill' is part of the comment that is fronted for emphasis. By placing it in front, it emphasizes the manner in which the doctor acted.

- (70) Clause 1: ujar orang agak marah  
answer person rather angry

karena  
because

Clause 2: ia merasa diper-main2kan  
he feel be played around with

'The person answered rather angrily because he felt (he) was being played around with.'

In sentence (70) the chronological order would be clause 2 and then clause 1. However, when the connector karena 'because' is used, it signals a non-chronological sequence (see Section 2.323) which is used to emphasize clause 1 which is the result of clause 2.

### 3.22 Syntactic markers

In our limited study, we have found three emphatic markers:

-lah, -pun, and betapa. The enclitic -lah tends to emphasize elements of the comment, whereas -pun tends to emphasize the topic.

- (71) Malin Sabar-pun duduk-lah menunggu di-atas sebuah  
Malin Sabar-emph sit -emph wait on-top a  
bangku.  
bench

'Then Malin Sabar sat waiting on a bench.'

In the above example, both emphatic particles are used. The topic Malin Sabar is emphasized as well as the verb which is marked with the particle -lah.

Betapa 'how' initiates an emphatic phrase.

- (72) Betapa takjub-nya memandang isteri-nya masih macam  
how amazed-he see wife -his still as  
biasa...  
usual

'How amazed he was to see his wife still the same...'

The actor here expected to see his wife and newborn child, but she was still expecting. The use of betapa 'how' emphasizes his amazement.

### 3.23 Repetition

Repetition as a means of emphasis appears in different forms. In one form, semantically related words are repeated, and synonyms or idioms are also used.

- (73) tetapi tiada mujarab.... 'but isn't effective...'  
but is not effective  
yang meleset... 'that didn't work...'  
that not work  
tiada yang mustajab... 'it isn't effective...'  
is not which effective

These three clauses were found in the same paragraph all referring to a remedy which wasn't effective. The repetition emphasizes the

ineffectiveness, and at the same time, as mentioned earlier, contributes to the cohesion of the section.

Repetition of synonyms and idioms also indicate emphasis.

- (74) terbit takut-nya, kecut hati -nya.  
 rise fear -his shrink liver-his

'...he became frightened and his liver shrunk (he became frightened).'

Thus we see that emphasis in BI can be marked by order change, syntactic markers, and repetition.

#### 4. Information

Information, interacting with the other discourse aspects--grouping, cohesion, and prominence--seems to be communicated at varying rates in different languages. The distinction between old and new information is also relevant in this section. Clearly what is involved here is the whole question of perceptual strategy in sending and receiving messages. We now discuss information rate and new versus old information.

##### 4.1 Information rate

The rate of information flow through a given discourse may be described in terms of the polar oppositions rapid versus slow. In the following section we will discuss some elements of BI discourse which either accelerate or decelerate the rate of information.

##### 4.11 Acceleration of information flow

###### 4.111 Ellipsis

The use of ellipsis in BI discourse accelerates the flow of

information. By omitting a certain unit (e.g. noun, verb), an author packs the remaining information more closely. Alternatively, if every ellipsis were filled out, the resulting redundancy would decelerate the rate at which information flows through the discourse.

As already seen above in Section 2.2 on cohesion, reference to a character within a sentence or paragraph may undergo ellipsis.

- (75) Malin Sabar-pun duduk-lah ... sambil Ø meng-erang2..  
 Malin Sabar-emph sat -emph while groan

'Malin Sabar sat...while (he) groaned...'

The elliptical form of the subject 'Ø' speeds the flow of information.

Answers to questions reflect elliptical reductional forms, which accelerate information flow (bracketed words supplied):

- (76) "...tolong-lah obati gigi saya," kata-nya.  
 help -imp treat tooth my say -he

"[Saya] boleh [menolong obati gigi kamu], tapi tunggu  
 I may help treat tooth your but wait

sebentar," jawab tuan dokter.  
 a moment answer mister doctor

"Please treat my tooth," he said.

"(I) may (treat your tooth), but wait a moment," the doctor answered.'

- (77) "Tuan mau makan?" bertanya yang empunya kedai.  
 sir want eat ask who own shop

"Ya [saya mau makan]," sahut si Kari...  
 yes I want eat answer Kari

"Do you want to eat, sir?" the shop owner asked.

"Yes, (I want to eat)," Kari answered...'

In (76) and (77) a non-elliptical form would have been unnaturally redundant.

In a series of similar items the common element may be omitted to accelerate the flow of information. In the following

example the main verb mau minum 'want to drink' is stated only once and is then omitted in the process of 'gapping' (Postal, 1968:129-131). Notice the three questions following the first clause:

- (78) "Tuan [mau] minum apakah? [Mau minum] kopikah?  
 sir want drink what want drink coffee  
 [Mau minum] air batukah?..."  
 want drink water stone  
 "What do you want to drink, sir? (Do you want to  
 drink) coffee? (Do you want to drink) ice water?..."

#### 4.112 Pronominalization

The use of pronominalized forms also speeds the flow of information through a discourse. Rather than refer to a character in a full form on each occurrence, for example, a pronoun may be used: (Bracketed information is supplied from context.)

- (79) ...soal hidup ini bagi para mahasiswa yang  
 problem life this for plural students who  
kurang berada, namun ia [mahasiswa yang  
 insufficient wealthy nevertheless he student who  
kurang berada] harus tobah...  
 insufficient wealthy has to determined  
 '...problem in the life of students who aren't wealthy  
 enough; nevertheless, he (the student who isn't  
 wealthy enough) has to be determined...'

#### 4.12 Deceleration of information flow

The rate at which information is presented may also be slowed down by various means. An author may choose to decelerate the rate of information to reinforce his message (Amplification) or to help the reader understand the connections between various units of the discourse better (Linking).

#### 4.121 Amplification

One method of slowing down the information flow is to use repetition for amplification of an idea. This use of repetition also ties in with emphasis (3.2).

An example of repetition of similar ideas to amplify is seen in the following sentences:

- (80) "Ayo, ayo! Mana yang jagoan? Mana yang  
 come come where who champion (rooster) where who  
berani!"  
 brave  
 "Come on, come on! Where's the champion? Where's  
 the brave one?"

#### 4.122 Linking

The flow of information may also be decelerated by linking one unit to another. These links help to reinforce the connection between two units of discourse (cohesion) and to signal breaks within a discourse (grouping). Linking may be in either preview or review position.

##### 4.1221 Preview

As was seen in Section 1.132, expository discourse tends to begin with generic material and to progress with more specific material. This preview of the entire topic functions as a link between the parts and reinforces the central message. In example (14) cited in Section 1.132 concerning Central Java, we saw that each section has a preview followed by the specific details.

##### 4.1222 Review

A review or summary of preceding events also functions as a linkage between units in a discourse which slows information flow. A review may be within a paragraph, between paragraphs, or within

a total discourse.

A review may function within a paragraph to bind it together. This linkage was seen in Section 1.11 (Example 9) on paragraph grouping, where the paragraph had an overt summary sentence. The paragraph following the one mentioned in 1.11 has a similar use of review to link the paragraph together:

- (81) Demikian-lah kisah-nya  
thus -emph story-his

'That's his story.'

Linking may also occur between or across paragraphs. The first clause of a new paragraph may function as a link with previous paragraphs. This review linkage is often marked by the word demikian 'thus'.

- (82) Demikian hal si Jamal dimasukkan ke-dalam sekolah  
thus matter Jamal be entered to-in school

itu.  
that

'That's how Jamal happened to be put into that school.'

- (83) Demikian-lah kami berkenalan...  
thus -emph we get to know one another

'That's how we got to know each other...'

Within a total discourse a review linkage may also be used to decelerate the flow of information. The following sentences are taken from the closing paragraph of a discourse concerning higher education in Indonesia and serve to summarize the author's ideas:

- (84) Segala persoalan ini tentu memerlukan penyelesaian  
all problem this certainly needs settlement  
yang bijaksana. Pemecahan persoalan ini harus  
which wise solution problem this has to  
segera dicari...  
immediately be sought

'This whole problem certainly needs a wise solution.  
A solution to this problem needs to be sought immediately.'

#### 4.2 Old versus new information

All information in a discourse is either old (known) or new (previously unknown). In BI these types of information can be distinguished by their position in either the topic or the comment of a sentence. There are also certain markers which indicate that information is either old or new.

##### 4.2.1 Topic-comment position

Position in either the topic or the comment of a sentence indicates whether information is treated as known or previously unknown within the discourse. The chart in (85) shows how these positions may be interpreted with reference to placement in the discourse (i.e. in existential vs. developmental contexts):

(85)

	Old	New
Existential/Introductory	(T)	T,C
Developmental	T	C

Position of Old and New Information

##### 4.2.1.1 Old information

The chart (85) shows that old information occurs in the topic of a sentence whether that sentence is of an existential or of a developmental nature. Following our findings in Section 1.1 on grammatical grouping, these existential sections function as introductory setting material. Thus, if old information were to occur in this introductory material, it would be in the topic. An example of this occurrence of old (i.e. known to both speaker and addressee) information would be a reference to some famous person" 'President Suharto said...' Here the president is the topic of the sentence, but his identity is also commonly known



se-buah 'a-thing', etc. This reference is only made once, however, and then the referent is old information, for example:

- (89) Tersebut se-orang guru mengagi, ...  
is told a -person teacher recite the Holy Koran

Dia kuat beribadah  
he strong worship

'Once there was a teacher of the Holy Koran... He worshipped devoutly...'

- (90) Di bawah se-pohon...terdiri se-buah rumah...  
in under a -tree stand a -thing house

'Beneath a tree... stood a house...'

#### 4.222 Old information

Lexical markers also show that some information is old or known within a discourse. The reader is referred back to Section 2.2 where this was discussed. Pronominal forms, by referring back to an antecedent, show that a referent is known information. Demonstrative forms such as itu 'that' and tadi 'just now' also signal old information.

#### Notes

<sup>1</sup> The findings of this paper are based on analysis of twenty-five published texts of various genre which numbered over 300 pages in printed form. While the field of BI discourse can hardly be seen as a whole by a non-native investigator, it is felt that general principles can be gleaned from such a corpus and that these principles can then be tested on further material.

This paper was written during a workshop (Loka Karya II) in April-May, 1976 sponsored by the Universitas Cenderawasih/Summer Institute of Linguistics project. We are indebted to Dr. Kenneth Gregerson for his consultant help and to Musa Lazarus who has been our tutor in BI and who helped on the grouping section (1.1).

<sup>2</sup> Longacre (1968, 1972) presents discourse studies in Philippine

and Papua New Guinea languages which show various criteria for distinguishing discourse genre.

<sup>3</sup> Longacre (1972:150f) presents Ellis Deibler's material on such counts.

<sup>4</sup> Surface structure tagmemes, taken from the tagmemic theory of Pike, Longacre, et al, in discourse refers to the various parts of a discourse such as Stage, Setting, Episode, Closure, and Finis.

<sup>5</sup> Drama was not studied, but usually has sequential orientation. Epistolary genre is sometimes posited, but would include other embedded genre.

<sup>6</sup> See Longacre (1972:137) for an example in diagram form.

<sup>7</sup> Musa Lazarus, a native speaker of BI, and the first author independently made intuitive divisions in the texts and then compared notes. As there were no major differences of opinion it was felt that these grouping devices were quite effective despite the occasional lack of a surface level marker.

<sup>8</sup> Talking about Philippine languages, Pike (1964:7) says "even more disconcerting were slight hints that choice of sentence structure is determined not by random selection but that one sentence type in a story demands that a limited selection of sentence types follow it such that the actors involved must flow--within certain limits--from one point in the story to another via one grammatical structure to another." This is how we are viewing discourse topicalization.

<sup>9</sup> Halim (1969:185-186) states that in BI 'the relations between topic and comment are signaled by intonation and not by such syntactic devices as word order.' However, in this study we are using written Indonesian rather than spoken as a basis for our analysis, and as such, intonation markers were not available.

<sup>10</sup> Halim (1969:57)

<sup>11</sup> Tabor (1966:84-85) calls this 'figure'.



- <sup>12</sup> Tabor (ibid) called this 'ground'.
- <sup>13</sup> Halim (1969:191) calls these 'coordinate and subordinate'.
- <sup>14</sup> Beekman (1974:274) uses the terms 'developmental' and 'supportive' to refer to semantic propositions classified in a discourse according to their function--whether they support or develop another semantic unit. Although we are basically focusing on the surface structure, we are also taking into consideration the semantic implications.
- <sup>15</sup> Tabor (1966:84-85) states that 'ground events' which we are calling comment, 'frequently occurs in clauses embedded in noun phrases, or without a predication...'
- <sup>16</sup> Halim (1969:56) refers to the same process which he calls 'focalization by which processes a constituent of a sentence is brought into focus or moved toward the front of the sentence.'
- <sup>17</sup> MacDonald and Soenjono (1967:234).
- <sup>18</sup> West (1973:100) in describing the semantics of focus in Amganad Ifugao (Philippines), notes that subject and object focus is marked by prefixes on the verb. The prefix di- could similarly be interpreted as an object focus marker.
- <sup>19</sup> It is assumed that there are intonational markers signalling emphasis. However, this paper has dealt with written literature, and therefore intonation is not included in this list.
- <sup>20</sup> Grimes (1971:96) states that characters may exhibit a certain pattern of references, departures from which are a rhetorical device for emphasis, as is shown here.

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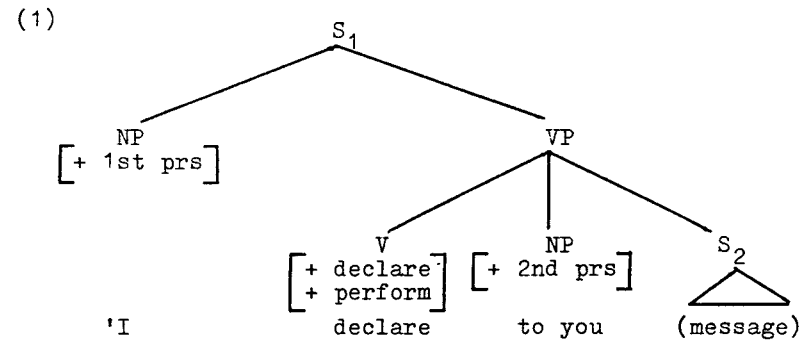
## ON COMMUNICATION ACTS

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0. Introduction
1. The communication complex
2. Components of communication
3. An application to text analysis

## 0. Introduction

In the past few years a great deal of linguistic attention has been focused on SPEECH ACTS. Linguists began reading J.L. Austin (1962) and, on the model of such PERFORMATIVE sentences as 'I now pronounce you man and wife', some began to grant a deep structure role to implicit speaker-addressee relations parallel to the explicit speaker-addressee situation in the ceremonial 'I now pronounce you...' formula. Thus Ross (1970) suggested that all declarative sentences are imbedded in an implicit superordinate sentence in the following way:

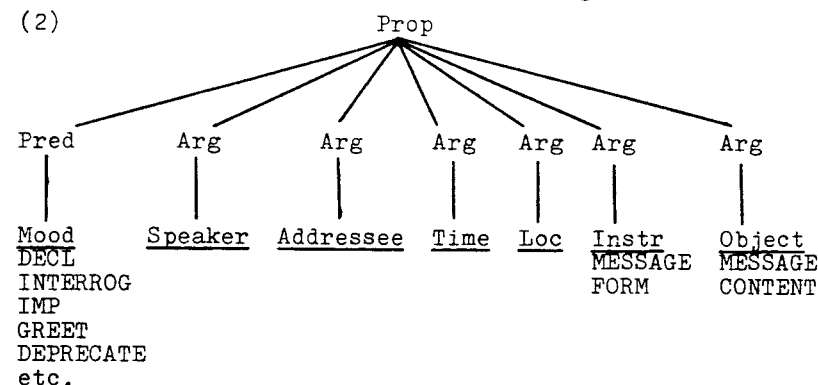


That is, the speaker (1st prs) declares to addressee (2nd prs) the message of the imbedded sentence ( $S_2$ ). Sadock (1970) approached the same problem with what he terms 'hyper sentences'. Fraser (1971) offers a critique of the Ross model in which he concludes that as a syntactic theory it is not well motivated, but that in a theory like Generative Semantics it might find more natural justification. In 1971 I suggested similarly that a generally semantic (or, more precisely, pragmatic) account makes more sense when dealing with an abstract construct like the speech act. Instead of performative or hypersentence NPs, Ss, and VPs, I worked with semantically-based elements, arguments, propositions, and predicates in the speech act. While this approach was more satisfying, it still failed to face the complexity that lurks beneath the term 'speech act'.

My reference to pragmatics above concerns such resurgent efforts in this area as the International Working Symposium on Pragmatics of Natural Languages as reported in Bar Hillel (1971). Besides the logicians, there has been a keen awareness of the dimensions of the speech event on the part of language oriented anthropologists and sociologists, for example, Hymes (1972). It would undoubtedly be possible to uncover a good deal of valuable work from a wide variety of other disciplines, but I will not attempt any such survey in this paper. I will concern myself, rather, with the more modest effort of restating what appear to me to be the fundamental and obvious functional components of what I shall broadly term the 'communication act'. I shall first be concerned with constructing a tree which attempts to interrelate the multiple functions of a communication act. Next I want to briefly discuss the components individually. Finally, I suggest that a practical approach to interpreting texts or speeches requires information in just these categories.

# 1. The communication complex

The speech act conceived broadly as a communication involves certain easily agreed upon components (cf. Hymes, 1972:59 ff.). How to state or graph the interrelations among these components in a revealing way is a further and, I think, significant question (cf. Katz, 1972:444). Ross' syntactic tree account of performatives was an effort in just that direction. A more semantically oriented interpretation in the same vein might prepare (cf. Gregerson, 1971) something like the following:



That is, a speech act constitutes an abstract association of a mood relation such as declarative, which requires as its terms/arguments such roles as speaker, addressee, time of speech act ('zero'), location of speech act ('zero'), an overt signalling form as an instrument to convey the ultimate speech object, the message content.

While the above tree (2) expresses many of the components of the communication act, it does not express as many as are relevant, as I shall suggest later. Furthermore, time and location are viewed as functions of the communication act as a whole, but in fact they may have one value for the speaker or communicative

source (CS), and a different value for the addressee or communicative goal (CG). This is especially relevant in problems of deixis or long distance message transmitting, where locations may or may not be identical. Also, when the CS is a writer from the past or an automaton on Mars, the time difference between sending and receiving a message may be significant. Fillmore (1971) distinguished speaker and addressee location but not time. In any case, for these above reasons and others, it seems appropriate to suggest that the above tree is over simplified, even though it appears adequate to model some of the normal communication functions.

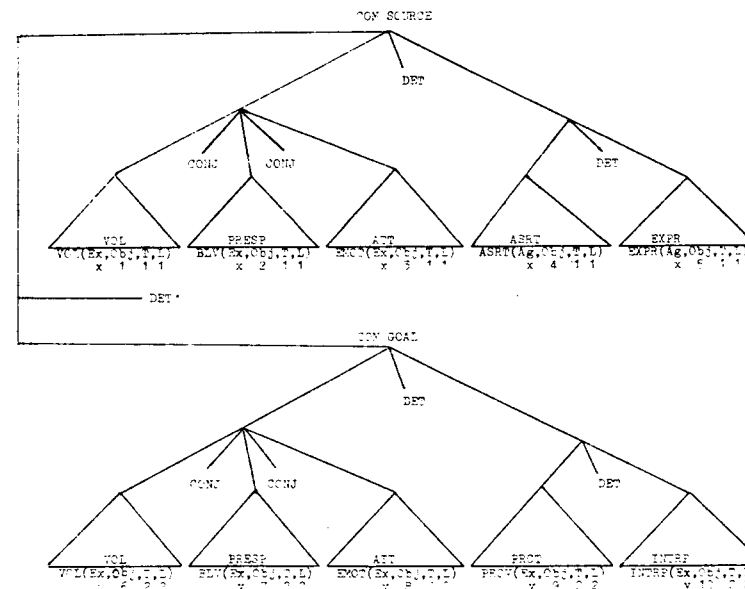
If the communication act model (2) is inadequate, in what directions shall we look for a better one? In suggesting an answer to this question, I shall assume:

(3)

- a. Any weaknesses in the model in (2) are not inherent in the nature of the graph. That is, I take it that trees are adequate devices for representing communication acts.
- b. Further I assume that the primitives, proposition, predicate and argument are a serviceable logical language in which to express the pragmatics of communication.
- c. An adequate model must be general enough to explain all communication types and all components of communication. By 'all types' of communication I mean speech, literature, gesture, electronic, etc. By 'all components' I mean that, while all the minutiae of the communication act may not be explicitly diagrammed in the model, they are nevertheless in principle assignable under some major component or function.

With these things in mind, I take as a reference point the following tree in which I integrate the multiple functions of the communication act.

#### (4) THE COMMUNICATION ACT



The communication act tree in (4) is intended to express the fundamental idea that communication involves a communicative source (CS) which determines (DET\*) in some sense the internal state of a communicative goal (CG). However, each of these, CS and CG, are internally complex. First, with reference to the CS the tree exhibits a three-way conjunction of a volitional (VOL) function, a presuppositional (PRESUP) function, and an attitudinal (ATT) one. This cluster as a group determine (DET) an assertional (ASRT) function, which in turn determines (DET) an expressional (EXPR) component. These functions will be discussed further below.

The CS determines the internal processes in the CG, which is itself also complex. The CG too possesses the same three conjoined functions VOL, PRESUP, and ATT, which determine (DET) two further components. Unlike the CS, the CG's final pair is percep-

tional (PRCPT), which in turn has its effects on an ultimate interpretational (INTRP) function.

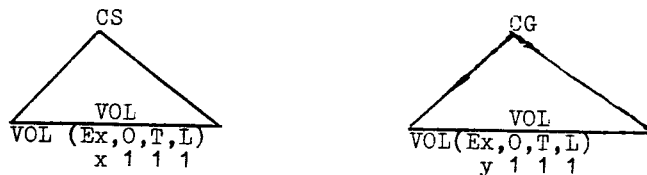
To sum up, I am reconstructing the notion that what a speaker wills (VOL), believes (PRES) and feels (ATT) have direct bearing on what message he will assert (ASRT) and that the latter dictates the overt form of expression (EXPR). On the other hand an addressee's will, beliefs, and attitudes have a filtering effect on what he perceives (PRCT) and thereby understands/interprets (INTRP) the message to be.

## 2. The components of communication

The communication components or functions outlined above each constitute a vast realm for the independent inquiry of a variety of scientific disciplines. It follows, then, that what I can do here is no more than comment on these components as they currently concern the pragmatics of linguistic description. I take them up one by one below in a brief fashion.

### 2.1 Volition

The volitional components diagrammed in (4) under CS and CG as:

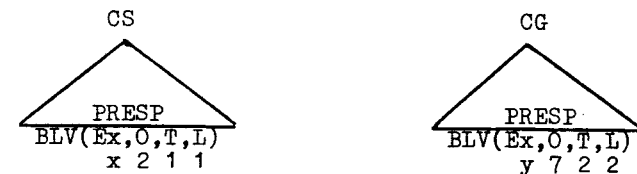


which is meant to convey in the case of CS that a certain experiencer  $x$  ( $EX_x$ ) wills or purposes a certain thing ( $O_1$ ) at a certain time and location ( $T_1, L_1$ ). This differs from VOL in CG in the fact there is a different experiencer ( $EX_y$ ) whose will or purpose

is distinct ( $O_6$ ) from  $EX_x$ . The contents of  $O_1$  and  $O_6$  may be expressed in proportional form to be associated with the assertional content ( $O_4$ ). It is apparently one of the tasks of the interpreting experiencer ( $EX_y$ ) in the CG to construct an hypothesis about the nature of the CS volitional  $O_1$  based on what the CS expresses. Whether a sentence is to be taken at 'face value' when people are 'playing games' (in the transactional sense), is precisely a question of interpreting a speaker's volitional content  $O_1$ . To the extent, of course, that CG's VOL allows, communication can take place and beyond that CS may even effect a change in CG's volitional, presuppositional, or attitudinal component.

### 2.2 Presupposition

Presuppositional components were diagrammed as follows in (4):



Again these two components differ in the fact that different experiencers at different times and locations entertain independent presuppositions ( $O_2, O_7$ ).

A growing body of literature is available on presupposition from both philosophy and linguistics. The issue arises whether presupposition inheres in the sentence or in the utterance (cf. Katz, 1972:442). The attitude adopted here is that the conflict is not an acute one in a system that brings together grammar and semantics in a pragmatic context. Clearly presupposition presupposes a presupposer and ultimately must depend on the overall

communication act, not merely on properties of grammatical units.

Broadly conceived presupposition as a communication act function involves the 'felicity' or 'aptness' conditions (Fillmore, 1972) for the use of a surface form, but goes beyond agreement on language conventions, but includes all beliefs, everything held to be true, by a CS and CG. Thus, 'factives' (Kiparsky and Kiparsky, 1971) and lexical entries with presuppositional and assertional reversals like 'accuse' vs. 'criticize' (Fillmore, 1971), and backgrounding vs. foregrounding ('focus'), etc. all may be viewed as highly systematized constraints on appropriateness of form. However, logical non-sequiturs, errors in matters of fact and incongruity with experience call for a very broad base for presupposition which is nothing less than the total body of knowledge which one possesses. Lakoff (1971:329) apparently feels uncomfortable with a position in which linguistic knowledge/competence is integrated with one's knowledge of the world generally. I do not feel uncomfortable with that very natural assumption. Nor do I find it helpful to view belief about language as 'competence' and belief about the rest of the world which may also have its effects on language to be 'performance'.

Problems of reference in philosophy, such as whether proper names have meanings, are resolvable only in pragmatic terms such that speakers and hearers can attribute true 'content' to a name or a referring expression only to the extent that they both presuppose certain facts about the object of the named referent (Searle, 1971:140). The matter of referential opacity crucially concerns the beliefs of the speaker and/or subject of a sentence in characterizing a referent in a given set of terms. In the time-tested example:

'Oedipus wants to marry Jocasta'

the assertion is that 'x wants to marry y' and part of the

presupposition is that these two referents exist and bear the names Oedipus and Jocasta. Oedipus further presupposes that Jocasta is a woman and desirable for marriage; however, the speaker of the sentence may entertain different beliefs, namely that Jocasta is not only a woman, but is in fact the mother of Oedipus and therefore not desirable as his marriage partner. The problem is not one of grammar or intentional semantic content--the problem is a pragmatic one of presupposition.

The basic condition on effectual communication between CG and CS is one of shared presupposition (cf. Jackendoff, 1972:16). To the extent that they differ, to that extent communication is impeded. A constant process may be seen at work in the normal development of a discourse, in which the CS signals as the different material he is presupposing from what he is asserting. This is accomplished through topicalization and relativization among other things. With reference to topicalization, it is important to see shifts in grammatical relations, say a direct object becoming a 'passive' subject, not as independent sentence grammar processes, but as effects of discourse constraints imposed to keep the CS and CG presupposing the same thing as regards reference. That is, a pragmatic viewpoint must underlie our theories about form. The category of 'code' which Hymes (1972) recognizes is part of the presuppositional resources of speakers and hearers as is 'competence'.

### 2.3 Attitude

The attitudinal functions of CS and CG were pictured in (4) as:

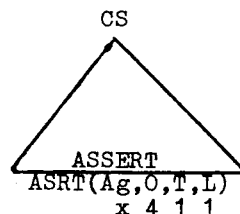


These are to be understood as an experiencer (x or y) feels (EMOT) or entertains an attitude ( $O_3$  or  $O_8$ ) at a certain time ( $T_1$  or  $T_2$ ) and place ( $L_1$  or  $L_2$ ).

Quite apart from will and belief are the emotional attitudes that underlie a communicational expression. Such pairs as 'x hates, loves, misses, etc. someone', therefore 'x asserts something to y' are clearly a normal kind of association that must be accounted for in a natural approach to linguistics. While the notion of pairing presuppositions with sentences is discussed in linguistics, one notices a conspicuous dearth of linguistic effort in the attitudinal interface with language. The category which Hymes (1972:62) calls 'key'--the tone, manner, or spirit in which an act is done--approaches what is called 'attitudinal' here, but 'key', as used by Hymes, seems to focus more on how the speaker characterizes some referent's action, rather than how the speech act specifically is characterized as to emotional content.

## 2.4 Assertion

The assertional function is conceived in the following terms:



That is, an agent<sub>x</sub> asserts some message ( $O_4$ ) at a certain time<sub>1</sub> and location<sub>1</sub>.

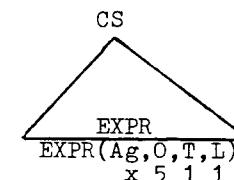
In contrast to presuppositional content which reflects shared information, one may discern in an utterance the assertional part, which is new information to the CG. This distinction has been variously labeled 'topic' vs. 'comment', 'theme' vs.

'rheme', 'presupposition' vs. 'focus'. Clearly this assertional function is the central operation in the communication act. It is the process by which discourse is advanced by a new increment and the CS determines or affects the internal information (and potentially other) state of the CG.

It is clear from (4) above that the assertional component is distinct from the expressional one (EXPR). This is to say that the semantic, propositional function is independent of the surface form which signals it.

## 2.5 Expression

Expression (EXPR) was earlier diagrammed as follows:



This is to be read as an agent<sub>x</sub> expresses an overt object<sub>5</sub> at a specific time<sub>1</sub> and location<sub>1</sub>. The  $O_5$  expressed is the surface structure of the communication act. What Hymes (1972:62) called 'channel' ('oral, written, telegraphic') is reflected in the way in which the abstract predicate EXPR manifests itself, i.e. as speak, write, tap, and what kind of an  $O_5$  the agent produces.

The EXPR function is one of actual surface structuring in grammatical and phonological patterns. If one wishes to distinguish langue from parole or competence from performance, the EXPR component relates to parole and performance while the PRES component has to do with langue and competence.

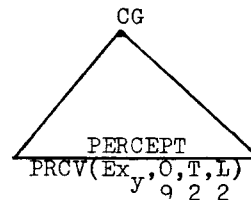
Expression is not to be equated simply with the generation of 'grammatical sentences', but subsumes overt language structure from the broadest discourse to the narrowest morpheme; from the

most all-encompassing phonological stretch to the ultimate phonetic (physiological) feature.

The expressional shape of a message also contributes to such distinctions as dialect, language, register (see Hymes, 1972:63), but is not the only component that characterizes these concepts, e.g. the presuppositional aspect of 'code knowledge' also distinguishes different speech varieties as much as overt structure does.

## 2.6 Perception

In (4) perception was displayed as:

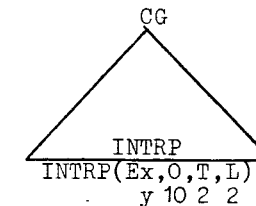


That is, a communicational goal or experiencer<sub>y</sub> perceives/receives an overt signal ( $O_9$ ) at a given time and location<sub>2</sub>. The nature of the mode or 'channel' of expression dictates the mode of perception.

The question of perceptual strategy for conveying information from speaker to hearer depends crucially on a relationship between expressional form ( $O_5$ ) and the interpretational process, which are mediated by the perception component. Thus, loudness, length of utterance, ordering all must be processed through a perceiving experiencer ( $Ex_y$ ).

## 2.7 Interpretation

The interpretation function (INTRP) is diagrammed as:



That is, a certain experiencer ( $Ex_y$ ) interprets/understands a certain message ( $O_{10}$ ) at a given time<sub>2</sub> and location<sub>2</sub>. This is done via  $Ex_y$ 's PRCPT function as it reacts to  $Ag_x$ 's EXPR function. The INTRP  $Ex_y$  is also influenced in the operation by his own VOL, PRESP, and ATT states.

Just as EXPR was central to the CS, so INTRP is the heart of CG. It is crucial, however, to realize how dependent both central components are on the other mediating and influencing functions in the communication process.

## 3. An application to text analysis

If it is true that communication involves the major components above, it implies that a communication analyst, say a linguist, literary critic, etc., must relate his hypotheses about any given discourse to just these parameters. Linguists studying unknown languages often begin with tape recordings of oral text which they seek to transcribe for detailed analysis. Exegetes of ancient language documents are faced with a similar task. In this outlinish paper, I will not present a sample analysis but only suggest the following format for cataloging observations.

<u>TEXT</u>	<u>EXPRESSION</u>	<u>ASSERTION</u>	<u>PRESUPPOSITION</u>	<u>VOLITION</u>
oral transcription, documents	surface patterns of discourse, syntax, phonology	what is the 'focus', new (foregrounding) info,	what is the old (backgrounded) info, to theme, topic	what is the CS aiming to accomplish at.



rheme, comment.

each point.

ATTITUDE

what is the  
CS' feeling,  
emotion, state  
of mind. Does  
it show up  
explicitly  
registered in  
the expression?

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