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PART I

INTERMEDIATE GRAMMATICAL LEVELS
AN OVERVIEW OF THE BAUZI VERB PHRASE

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Summer Institute of Linguistics

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0. Introduction
This paper presents the initial investigations of the verb structure in Bauzi. 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 Baulzi 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) \( \text{Eq Cl} = \text{S}_\text{NP} + \text{Eq}_\text{NP} \)

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) \( \text{Poss Cl} = \text{S}_\text{NP} + \text{Poss}_\text{NP} + \text{Ex} \)

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 existentive 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) \( \text{Adj Cl} = \text{S}_\text{NP} + \text{State}_\text{Adj} \)

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 2.7). 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 gu -bu -le.
     Zino belly -large -come
     'Zino is pregnant.'

1.4 Verbal clauses

Verbal clauses have the following basic structure:

(11) \( \text{Verb Cl} = \text{Tw} \text{S}_\text{NP} + \text{OBJ}_\text{NP} + \text{TP}_\text{NP} + \text{Inst} + \text{FVP} \)
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.  
I go.  
Intransitive

(13) em ubo n.  
I ubi eat.  
Transitive

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

'I go.'
'I eat sweet potato.'
'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):

```
  VP
 /     \
/      \  
ITR    CMP
       ATN
       INCEP
       DIR
       VP2
       N
       DES
       INTG
       MV
       Aux V
       M Root
       DIR
```

This tree is to be read as: a Verb Phrase (VP₁) 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 (VP₂), 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) Pesao fa le.  
airplane ITR come
'The plane is returning.'

(17) Pesao 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 daa neo fa.  
Zino children CMP born
'Zino has already borne children.'

(21) Pesao fa neo le.  
airplane return CMP come
'The plane has already returned.'
2.3 Attenuative:  

The Aux  

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:  

'What are you doing?' The following examples illustrate  

(22)  

em + gi  

le la  

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:  

The Aux  

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  

(25)  

Bau + nas  

la  

Bau ATN go  

'Dave just left.'  

(26)  

em + nas  

K  

I ATN 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 Trian 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):  

(27)  

DIRECTIONALS  

Same level as subject, speaker  

Different level from subject, speaker  

above speaker  

below speaker  

general  

tom  

upstream  

general  

nom  

downstream  

suo  

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 humat now du -su.
stone earth hole DIR put -on, in
"He put the stone in the hole."

(32) om Kusela sum 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"

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 doko naobu doko 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 aspeical 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 nuna mo de.**
    Tulisi house build Aux V
    'Tulisi built a house.'

(46) **em ubis a de.**
    I ubi eat Aux V
    'I cooked up the sweet potato.'

(47) **em 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. incomplete 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 chu da.**
    child water bathe Aux V
    'The child is bathing.'

(50) **dam ence 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 na a ho.**
    I food eat Aux V
    'I ate the food.'

(52) **Tulisi Ageoiga esu ho.**
    Tulisi Ageoiga stay Aux V
    'Tulisi stayed in Ageoiga.'

(53) **Ahisede ut sie ho.**
    Ahisede wood garden Aux V
    'Ahisede 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 you 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 illustrates 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: \textit{le}.

The Aux V \textit{lo} supports a main verb and means 'doing' the action of the verb. The form \textit{lo} is probably derived from the main verb form \textit{lo} 'to give'. The following sentences illustrate \textit{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 THT AT CMP
     'Biloli brought it to the house.'

In example (60) above, the main verb is \textit{kike} 'to wash' which is modified by the Aux V \textit{da} 'incomplete'; however, notice that \textit{da} in turn is modified itself by another Aux V \textit{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 \textit{da} and \textit{lo} are added to the right, but the main verb is \textit{le} 'come'. This use of \textit{le} is to be carefully distinguished from the use of \textit{le} as an Aux V. Finally, in sentence (62) the main verb \textit{you} 'to bring' takes an Aux V \textit{le} 'to come', which in turn takes an Aux V \textit{ho} 'completed'. The Auxiliary expansion process is a recursive one.

2.8 Negation: \textit{-m}\{\textit{ka} \textit{vabo}\}

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

(63) em doho Tate.
     I pig cut
     'I cut up the pig.'
(64) em doho Tate \textit{-m ka}.
     I pig cut \textit{-Negation}
     'I didn't cut the pig up.'
(65) em ubo oba vou le \textit{-m vabo}.
     I ubi you bring Aux V \textit{-Negation}
     'I didn't bring the sweet potatoes to you.'
2.9 Desiderative: *moh, moko*

The form *moko* 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 moko.*
I Kusela go PREP 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 nuzuha enu 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

1 Field work on which this description is based was carried out under the auspices of the Summer Institute of Linguistics in cooperation with Cendersavarih University. My husband, Dave, and I began work on the Bausi 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.

2 Bausi 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.

References

A STUDY OF SENTANI VERB STRUCTURE

Dwight Hartzler
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   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 or object 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 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 + (WBG) + 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:

\[-V_1 + V_2 \rightarrow V_2, \text{ except } -i + a \rightarrow /ae/\]

When one vowel final morpheme cooccurs with a vowel initial morpheme, the final vowel of the first morpheme is deleted. This is true unless the first vowel is \(i\) and the first vowel initial is \(a\). In this case they contract to the single phoneme \(/ae/\).

(5) 2. Consonant Assimilation Rule:

\[\{re, h(V)\} \rightarrow \{se, /n-, i-; fe, /u-\}\]

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

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 -k(e)- or the discontinuous occurrence aspect morpheme -u-...-bo, -ko (see Section 1.51), for example:

(6) \[\text{Beva} \ ere -k \ -al\] \[\text{I, root-past tense-subject see}\]

'I saw.'

(7) \[\text{Weye} \ ere -u -fe -bo-k\ -wa\] \[\text{You, root-OA -object-OA-past tense-subject see}\]

'You see me.'

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

(8) \[V \ e- \ 'to go'\]

CV \ ko- \ 'to spit'\]

CV.CV \ oro- \ 'to walk'\]

CV.CV.CV \ hiko- \ 'to swim'\]

CV.CV.CV \ iseyo- \ '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 nege- 'to stay'. Nege- is inflected to fit the context while the negative root stays the same.

The root is changed to a negative by the suffix -\(\_\_\_\), and the prefix \(e\) \(-\) \(-\_\_\_\). In roots that begin with a vowel, assimilation takes place whereby the prefix \(e\) \(-\) \(-\_\_\_\) assimilates to the
beginning vowel, and that vowel is slightly lengthened. Examples:

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

'He is not eating.'

(10) Neve 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(ê)-

The past tense is marked by the morpheme -k(ê)-, 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 ê 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 past = ROOT + (OA) + TENSE + SUBJECT

Examples:

(12) Reve a -e-k -ale.
 I root-past tense-subject
 see

'I saw (it).'</n

(13) Reve a -uko-k -ale.
 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: Ø

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 ê is deleted in erê-. The morpheme order for present tense is:

(14) V present = ROOT + TENSE + SUBJECT

Example:

(15) Reve er -Ø -ale.
 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 future = ROOT + SUBJECT-TENSE + ASPECT + AGREEMENT

The following charts demonstrate the unique subject markers and
agreement, with and without the occurrence aspect.

\[
V_{\text{future}} = \text{ROOT} + \text{SUBJECT-SENSE} + \text{OA} + \text{AGREEMENT}
\]

\text{'to eat'}

\begin{align*}
1s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{ane-} \\
2s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{fe} \\
3s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \phi \\
1du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{an} \\
2du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{range} \\
3du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{nai} \\
1pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{ma} \\
2pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{N} \\
3pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{nai}
\end{align*}

\text{Figure 1. Future Tense Morphemes}

* See Section 1.51

\[
V_{\text{future}} = \text{ROOT} + \text{SUBJECT-SENSE} + \text{OA} + \text{AGREEMENT}
\]

\text{'to go'}

\begin{align*}
1s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{e-} \\
2s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \phi \\
3s & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \phi \\
1du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{a} \\
2du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \phi \\
3du & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{ne} \\
1pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{ma} \\
2pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{N} \\
3pl & \phantom{\text{OAD}} \phantom{\text{N}} \phantom{\text{AGREEMENT}} \phantom{\text{OA}} \phantom{\text{SUBJECT-SENSE}} \phantom{\text{ROOT}} \text{nai}
\end{align*}

\text{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:

\begin{align*}
(17) & \text{ane - ko-bé. = anekobé.} \\
& \text{root- OA-agreement eat} \\
& \text{You two will eat (it).'}
\end{align*}

First person plural e- becomes:

\begin{align*}
(18) & \text{e - ma - lé. = emalé.} \\
& \text{root-subject-agreement go} \\
& \text{We will go.'}
\end{align*}

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:

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

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 -\( \text{al\'e} \). 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) \[ e - k - a - t\'e. \]

root-past tense-person-agreement: go 'They went.'

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

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) \[ V = \text{ROOT} + \text{SUBJECT} + \text{OBJECT} \]

However, for first and second singular subject there is a
reordering to:

\[ (21) \quad V = \text{ROOT} + \text{OBJECT} + \text{SUBJECT} \]

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.

\[ \begin{array}{ccccccc}
\text{V} & \text{present} = & \text{ROOT} + \text{TENSE} + \text{OBJECT} + \text{SUBJECT} \\
 & 1s & 2s & 3s & 1du & 2du & 3du & 1pl & 2pl & 3pl \\
\hline
\text{to see}' & & & & & & & & & \\
1s & er(e) & - & aw & an & - & ab & amé & - & am & amé & alé \\
2s & " & ar & - & an & am & - & amé & am & - & amé & æ \\
\end{array} \]

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:

\[ (22) \quad \text{er} - \text{ar} - \text{æe} = \text{erar} = \text{eraræe}. \]

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 \( ë \) in \( \text{amé} \) and the initial \( æ \) in \( \text{alé} \), to become \( æe \), e.g.

\[ (23) \quad \text{er} - \text{ame} - \text{alé} = \text{eramæé}. \]

'I see them.'

When the third person plural object is used with a second person subject the final \( ë \) in \( \text{amé} \) is deleted and the verb becomes:

\[ (24) \quad \text{er} - \text{ai} - \text{mi} = \text{erai} = \text{eramî}. \]

\textbf{erantamæ.} 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.

\[ \begin{array}{ccccccccc}
\text{V} & \text{present} = & \text{ROOT} + \text{TENSE} + \text{SUBJECT} \\
 & 1s & 2s & 3s & 1du & 2du & 3du & 1pl & 2pl & 3pl \\
\hline
\text{to see}' & & & & & & & & & \\
1s & er(e) & - & aw & an & - & ab & amé & - & am & amé & alé \\
1du & " & e"** & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
2du & " & e" & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
3du & " & " & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
1pl & " & a"** & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
2pl & " & a" & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
3pl & " & a" & - & e & n & - & e & m & - & m & e & m & - & m & ë & tõ & bõ \\
\end{array} \]

Figure 6. Object Person-Number Morphemes

\( * \) \text{ai occurs before continuant consonants} \\
\( ** \) \text{Vowel} \\
\( \text{tõ, bõ} \) \\
\( \text{y} \) \\
\( \text{æ} \) \\
\( \text{er} \)
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) \[\text{src} - k - \text{mi} - \text{mi}. = \text{orekai}-\text{mi}.\]

root-past tense-subject-object

'They saw them.'

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.

(26) \[\text{Renæmi} - \text{fco-uko} - k - \text{al}.\]

reflex pronoun cut-aspect-tense-subject

'I cut myself.'

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 1.71. Notice also the m- in the third singular object column. This is phonemically me, the e having been elided and the a having assimilated to the next consonant b (see M. Hartzler, 1976).

The blank sections on these charts indicate that the combination 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.

(27) \[\text{Rayey} \text{yoku-ne p - an} - \text{al}.\]

I dog - hit-3 sg object-subject

'I am hitting a dog.'

(28) \[\text{Rayey} \text{yoku helen p - al}.\]

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) \[\text{Rayey} \text{yoku helen po - ukokal}.\]

I dog many hit-multiple occurrence, past tense, first person.
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 ke, 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 y. The y occurs following the root for singular person past tense forms and in second person singular future tense, e.g.

    you see-verb-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. Reye ane-yu-ke -ale.
    I eat-OA-tense-subject
    'I have eaten (many times).'

33. Reye ane-yu-ko-nge.
    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.

    we see-tense-subject
    'We saw (it).'

    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. Reye ane-yu -ale.
    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)g and directly precedes the subject morpheme. Once again it follows the contraction Rule 1, Section 1, the final g 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) Re۵e۵e we -k ale.
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) Re۵e ane re -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 we 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) Re۵e s -k ale -mo.
I go-past tense-subject-completion aspect
The event 'I went' is being discussed.

(42) Re۵e s -we ale -mo.
I go--subject-completion aspect
'I am going.' (as referred to in reported speech)

(43) Re۵e s re -le -reme.
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) Re۵e s -re -le -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) Re۵e pinae erel 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 had 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 modality 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.

\[(46) \text{Reyaa eraman }\text{n-ane-re -ko-nde -hole.} \quad \text{I food eat-subject-DA-agreement-necessity}
\]

'I have to eat.'

\[(47) \text{Reyaa niae }\text{n-ane-re -ko-nde -hole.} \quad \text{I past eat-subject-DA-agreement-necessity}
\]

'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 directional and negatives.

2.1 Directionals

The basic verb of motion is the verb root \(\text{g- }\) 'to go'. This has counterparts \(\text{me- }\) 'to come', \(\text{g- }\) 'to go down', \(\text{i- }\) 'to go up' and \(\text{fe- }\) '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.

\[(48) \text{Reyaa hagaubokale mekaloe.} \quad \text{I ran I came}
\]

'I came running.'

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

\[(49) \text{Reyaa wokale oke.} \quad \text{I threw it not went down}
\]

'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.

\[(50) \text{Reyaa hagaubokale male.} \quad \text{I ran I came}
\]

'I come running.'

Other examples of directional are:

\[(51) \text{Reyaa poukoke ogatie.} \quad \text{you you threw it went}
\]

'You threw it.' (no definite direction)

\[(52) \text{Reyaa hagaubonde vende.} \quad \text{he he will run he will go up}
\]

'He will run (up a hill).'</n

\[(53) \text{Reyaa hagaikoke ogatie.} \quad \text{they they ran they went down}
\]

'They ran (down a hill).'</n

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 \(\text{nege- }\) '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.

\[(54) \text{Reyaa a -nane-i negale.} \quad \text{not-eat-not I stay}
\]

'I am not eating.'
(55) Reve nina a -ane-i negali.
I past not-eat-not I stay
'I did not eat.'

(56) Reve a -ane-i negeregi.
not-eat-not I will stay
'I will not eat.'

Notes

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References


SOME INTER-CLAUSAL RELATIONS IN KEMTUK

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0. Introduction
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0. Introduction

The purpose of this paper¹ is to present some basic inter-clausal relations types in the Kemtuk language.² The analysis is based on data from texts and examples given by my language teachers³.

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:

(1) Existential Relations

Conjunctive Disjunction

temporal non-temporal temporal

SIMULTANEOUS 'while'
CONJUNCTION 'and'
SUCCESSION 'then'

non-temporal indefinite

(2) Causal Relations

Efficient Cause Final Cause

Preempted Maintained

PRMPT-CAUSE 'although'
EFFICIENT CAUSE 'therefore'
FINAL CAUSE 'in order to'

- Pactive
(Hypothetical, Contrafactual)

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:

(3)

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 uare wata dali. negui seguyvo itigo
Ibu Camat dansa juga, tambur kecil yang pegang tano.
Tan-gan-dia
'The district officer's wife is dancing too, while she
is holding a little drum in her hand.'

(5) *Wim mia-go kebung blone sesuain, mia sam ke klik.*
Wim ibu-punya paha diatas duux uhu surat tulis

'Wim is sitting on his mother's lap, while his mother
is writing a letter.'

The above examples reflect the following syntactic require-ments which express the relation SIMULTANEOUS:

(a) Clause ordering: Either Cl\(_x\) or Cl\(_y\) can be fronted.

(b) Relation expression: SIMULTANEOUS is realized syntac-ically 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:

(6)

\[ S \]

\[ \text{Cl}_{x,y} \]

\( (a) \)

\[ \text{Cl}_{x,y} \]

\( (b) \)

1.2 Conjunction

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

(7)

\[ \text{Pred} \]

\[ \text{Arg} \]

\[ \text{Arg} \]

CONJUNCTION

OBJECT

OBJECT

\( \emptyset, e \)

'and,'

\[ \text{Cl}_x \]

\[ \text{Cl}_y \]

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, mingkoy gemang,
saya punya kebun kankung ada ubi ada

'In my garden there is kankung (type of vegetable) and
there are sweet potatoes.'

(9) *Wabedonggo isotnang nasi ayam ulum dam, kim
pada waktu siang kita nasi ayam sayur makan dan
bu drop.

Kolapa 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 con-
junction 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:

(10) (b.1)

\[ S \]

\[ \text{Cl}_{x,y} \]

\( (a) \)

\[ \text{Cl}_{x,y} \]

\( (b) \)

(c) When two propositions are reduced to one surface clause,
repetition of underlying identical referents is suppres-
sed and non-identical material is listed as NP\(_1\)NP\(_2\) in any
relevant grammatical relation (i.e. Sub, Obj, Ind. Obj,
etc.). Thus:
1.3 Succession

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

\[
\begin{align*}
\text{Prop} & \quad \text{Pred} & \quad \text{Arg} & \quad \text{Arg} \\
\text{SUCCESION} & \quad \text{EVENT} & \quad \text{SUCCESSIVE EVENT} \\
\text{go(ngga)(nemot)} & \quad \text{Cly} & \quad \text{Cly} \\
\text{'then'} & & \\
\end{align*}
\]

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 SUCCESION. To illustrate this relation, notice the following examples:

\[
\begin{align*}
(13) & \quad \text{Imotnang ten yamso dam -go, ngganemotno imotnang kami makanan sudah makan terus kami usne nemu mea srek, tidur nenti tidur 'When we have finished eating, we will go to sleep.'} \\
(14) & \quad \text{Nebo dasinggo, ngggao imot mea dam, babi sudah masak terus kita nanti makan 'When the pig is cooked, we will eat.'} \\
(15) & \quad \text{Isotnang yakenano pungggo(no) imotnang usne nemu mea kami kampung tiba terus kami tidur nanti srek, tidur 'When we have arrived at the village, we will go to sleep.'} \\
(16) & \quad \text{Imot yakenano pungggo, nebo duikko dasinggo, imot kami kampung tiba babi bakar sudah masak kami mea dam, nanti makan 'When we have arrived in the village, when we have roasted the pig, when the pig is ready, we will eat.'}
\end{align*}
\]

Referring now to the predicate SUCCESION 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 SUCCESION 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\textsubscript{x}, then Cl\textsubscript{y}'. There is a range of variants which signal this relation as follows:

(17) a. go engganemtno
    b. go enggano
    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\textsubscript{x} must be fronted (Cl\textsubscript{x}) to precede both the interclausal relation marker and Cl\textsubscript{y}.

(b) Relation expression: SUCCESSION is realised syntactically as an overt relation marker go engganemtno (and its variants listed above (17)) between Cl\textsubscript{x} and Cl\textsubscript{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, of 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:

(18)

\[ S \rightarrow \text{Cl}_x \rightarrow \text{V} \rightarrow \text{Cl}_y \]

\[ \text{Subj} \rightarrow \text{Ob} \rightarrow \text{V} \rightarrow \text{Ob} \rightarrow \text{V} \]

1.4 Contrast

The CONTRAST relation may be represented by the following diagram:

(19)

\[ \text{Pred} \rightarrow \text{Arg} \rightarrow \text{Arg} \]

\[ \text{CONTRAST} \rightarrow \text{THESIS} \rightarrow \text{ANTITHESIS} \]

\[ \text{ya} \ldots \text{ya} \rightarrow \text{but} \rightarrow \text{Cl}_x \rightarrow \text{Cl}_y \]

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

(20) Biap denok ya klong, genam ya kua klong.
    'The child from Tanah Merah goes, but I don't go.'

(21) Genam ya kua klong, biap denok ya klong.
    'I don't go, but the child from Tanah Merah goes.'

(22) Genam bu ya hua sue, genam bola voli ya me.
    'I don't want to swim, but I want to play volleyball.'

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

(a) Clause ordering: Either Cl\textsubscript{x} or Cl\textsubscript{y} may be fronted
(Cl<sub>x,y</sub>).
(b) Relation expression: CONTRAST is realized syntactically by the relation marker va, which is proposed 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 mot kopi-va ya drop, teh-va ya drop.
Yoram engkau kopi-atau minum teh-atau minum
'Do you (Yoram) want to drink coffee or tea?'

(26) Ngezaa 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 va, which is proposed 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 Clx precedes RESULT Cly.

(b) Relational expression: the form da is prepouted in Clx, with the exception that it follows the subject when the subject is a pronoun.

Syntactically diagrammed, we get:

\[
\begin{align*}
(34) & \quad S \\
& \quad Clx_p \\
& \quad Cl_y \\
& \quad S_p \\
& \quad da(0) \\
& \quad VP
\end{align*}
\]

(35)

2.2 Efficient cause

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

\[
\begin{align*}
(36) & \quad S \\
& \quad Pred \\
& \quad Arg \\
& \quad Arg \\
& \quad EFFICIENT CAUSE \\
& \quad MEANS \\
& \quad RESULT \\
& \quad (sogo) temoyne \\
& \quad (sogo) so (goso) \\
& \quad 'therefore, so'
\end{align*}
\]
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 uru nogo kua klong. ibu sakti sebab ibu kebu ke tidak pergi
'Mother is sick; therefore she did not go to the garden.

(38) Martina Wim yaveo go so Martina kebali 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 $C_{1x}$ is fronted to precede the interclausal relation marker and RESULT $C_{1y}$. A varying order allows RESULT $C_{1y}$ to be fronted before MEANS $C_{1x}$, which is followed by the interclausal relation marker.

(b) Relation expression: EFFICIENT CAUSE is realized syntactically by the relation marker (sogo)go 'therefore', temoyno 'emphatic therefore', sogo sogo 'wherefore', sogo temoyno 'emphatic therefore'.

These conditions produce the following trees:

(39) $$\text{S} \quad \text{MEANS} \quad \text{RESULT}$$

$$\quad C_{1x} \quad \text{relation marker} \quad C_{1y}$$

(40) $$\text{RESULT} \quad \text{MEANS} \quad \text{S}$$

$$\quad C_{1y} \quad \text{relation marker} \quad C_{1x}$$

so (go so) temoyno

The EFFICIENT CAUSE relation 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:

(41) $$\text{S} \quad \text{MEANS} \quad \text{RESULT}$$

$$\quad C_{1x} \quad \text{relation marker} \quad C_{1y}$$

$$\quad \emptyset \quad \text{Subj (Obj) VP} \quad \text{Subj} \quad \emptyset$$

sogo sogo 'wherefore'

The relator temoyno is apparently derived from temor '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 Kemtuk simply uses the MEANS Clause blank to express such a question.

(42) Not sogo temoyno kua weng? engkau apa sebab tidak datang
'Why did you not come?';
2.3 Final cause
The FINAL CAUSE relation is diagrammed as follows:

\[
\begin{align*}
\text{Prop} & \quad \text{Pred} \quad \text{Arg} \quad \text{Arg} \\
\text{FINAL CAUSE} & \quad \text{MEANS} \quad \text{PURPOSE} \\
\text{(genang) so} & \quad \text{C}_{1x} \quad \text{C}_{1y} \\
\text{'in order to'} & 
\end{align*}
\]

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 genamoy biap genokey 
    pendeta dia oleh bilang saya tanah merah anak 
    Meyno klong genangse sekola galy Meyno degutgenangseu? 
    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.'"

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 phrase 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:

```
(49)  Prop
     /   \
   Pred   Arg  Arg
  /\       /\    /\  \
CONTINGENCY CONDITION CONSEQUENCE
 'if...then'
```

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 go klong goso, ningkoy nemot se iti.
     saya sudah pergi petata engkau kasih
     'If I go, I will fetch the potatoes for you.'

(51) Martin mot kebali suy su semugo aya motnego dov
     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 $C_{1x}$ followed by CONSEQUENCE $C_{1y}$. This order can be reversed, however.

(b) Relation expression: CONTINGENCY is realized syntac-

Inter-clausal relations are characterized by the relation marker go(so) with allomorph ko (so) following voiceless sounds. The relation marker must be postposed directly following the CONDITION $C_{1x}$.

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:

```
(52)  S
     /\  \
   C_{1x}  Relation  Marker  C_{1y}
```

Notes

1 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.

2 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).
My husband, J.J. van der Wilden and I began the study of Kentuk 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 Kentuk speakers from the village of Merem. Previous study of the Kentuk language may be found in van der Wilden (1975).

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

References


Simplicity and depth in Kentuk predication

Jaap van der Wilden
Summer Institute of Linguistics

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

The first impression one gets, hearing and analyzing texts in the Kentuk 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) Motnang gemang mes pen kle -1-0.
    you pl existence fut/mod talk plural-future-2nd per
    'you there certain 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:

\[ CL = NP + NP_{ex} + V_{ex} \]

(where \( NP_{ex} \) = optionally as many (non-subject) NPs as a given verb type (VP) dictates)

This expression, constrained by the requirements of \( V_{ex} \), generates the following basic CL types:

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

I discuss and illustrate these clauses below.

1.1 Equative (EQ) clauses

The following formula summarizes this clause type:

\[ EQ CL = S_{np} + EQ_{np} + (FR_{ex}) \]

For example:

(5) \[ Genam \text{ Markus gabe.} \tag{5} \]
    I Markus exist here
    'I here am Mark.'

(6) \[ Martin Camat gemang. \tag{6} \]
    Martin district chief exist here
    'Martin there is district chief.'

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

As the Kentuk clauses above demonstrate, a \( S_{np} \) may be identified or \textit{equated} with another \( EQ_{np} \) by an existential predicate \( FR_{ex} \). This situation is shown in examples (5) and (6) above, where \textit{gabe} and \textit{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 \( FR_{ex} \) may be deleted, leaving two NPs juxtaposed for a very common Equative clause surface structure. It should be noted also that an \textit{EX}-predication can not be affixed in the way a true verb is (see Section 1.3). See also Section 2.1 where \textit{gabe} and \textit{gemang} are further discussed.

1.2 Adjectival (AD) clauses

AD CL may be described as:

(8) \[ AD CL = S_{np} + FR_{adj} \]

Consider the following examples:

(9) Yap nege seqav go.
    house this small possess
    'This house is small.'

(10) Nege suey.
    this good
    'This is good.'

(11) Sedue nege 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 (\( FR_{adj} \)), 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.
     1 go -completed
     'I had gone.'

(14) Nemot kopi bu drop sc.
     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 \( \text{va} \) 'moderate imperative', or preceding \( \text{se} \) 'strong imperative marker'. If \( \text{se} \) is used the subject normally is retained. Consider the following examples:

(16) Klong va!
     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) Ra!
     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:

```
    VP
     /    \         
    PRE AUX     POST AUX
     /     \       /     \       /     \        /     \
    V       DETAIL ADJUNCT    
       /     Modal    Neg    Root    Plural    Neg    Direct    Modal    Pers    Modal
     /     \
   Exsit     Gemang va
   /     \    se
  gabe     se
        /    \    
    kua     mo
         /  \
    maning
```

2.1 Existence

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

(22) \( \text{gabe} \): 'exists, comes to exist (near speaker)'

(23) \( \text{gemang} \): 'exists, come to exist (far from speaker)'

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

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'):

(26)

\[ \text{PROP} \]
\[ \text{PRED} \]
\[ \text{ARG} \]
\[ \text{ARG} \]
\[ \text{CONJ} \]
\[ \text{PROP} \]
\[ \text{PROP} \]
\[ (\text{here}) \]
\[ (\text{there}) \]
\[ \text{EXIST} \]
\[ \text{MAN} \]
\[ \text{GO} \]
\[ \text{MAN} \]
\[ \emptyset \]
\[ \text{gab} \]
\[ \text{sedue} \]
\[ \text{klong} \]
\[ \text{sedue} \]

...cover them all.

Consider Figure 1:

<table>
<thead>
<tr>
<th></th>
<th>ABSOLUTE</th>
<th>NON-ABSOLUTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLITION</td>
<td>ze- (necessity, strong imperative)</td>
<td>-ze (desiderative)</td>
</tr>
<tr>
<td></td>
<td>-va (mild imperative)</td>
<td>va- (interrogative, comment to inform the speaker)</td>
</tr>
<tr>
<td>POSSIBILITY</td>
<td>mea- (certain future; permission)</td>
<td>-mo (uncertain future; possible)</td>
</tr>
<tr>
<td>COMPLETION: present</td>
<td>va- (present incomplete)</td>
<td></td>
</tr>
<tr>
<td>past</td>
<td>mo- (definitive past completed)</td>
<td>maning- (not yet begun)</td>
</tr>
<tr>
<td>DURATION</td>
<td>-go (past durative)</td>
<td>(C)Y- (-gu, -te-) (present durative)</td>
</tr>
</tbody>
</table>

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_X), GO (MAN_X))
\[ i.e. \ 'the\ conjunction\ of:\ a\ certain\ man_x\ exists\ and\ a\ certain\ man_x\ goes.'\]  

(b) Now by applying Condition (i), the co-referential terms MAN_X are reduced to zero (Ø) in one of their instances,
\[ i.e.\ CONJ ((EXIST (MAN_X), GO Ø))\]  

(c) Next, by applying Condition (ii), the only NP argument present MAN_X is fronted as subject,
\[ i.e.\ MAN_X CONJ (EXIST, GO)\]  

(d) Condition (iii) spells those abstract elements out, as in Kemtuk:
\[ s \in \emptyset \text{ gemang/gabe klong} \]
\[ 'There\ is\ a\ man\ there/here,\ who\ is\ going.'\]  

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.
\[ I\ go,\ \text{desiderative less absolute (direction action is anticipated)}\]
'I want to go.'

(28) Hot so klong!
\[ you\ must\ go\ (desiderative\ and\ absolute\ action\ is\ expected)\]
'You must go!'  

(29) Klong ya!
\[ go\ \text{mild imperative} \]
'Come on, go!'  

(30) Genam ya klong.
\[ I\ present\ incomplete\ go \]
'I am already going.'

(31) Hot ya klong?
\[ you\ command\ go\ (ya =\ command\ to\ inform\ the\ speaker) \]
'Are you going?'

2.2 Possibility

Possibility is one of the logically expected modals. It comes out in Kemtuk 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 so- 'uncertain possibility or intention'. Consider
the following examples:

(32) Genam mea klong.
'I certainly will go.'

(33) Not (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) Not ya klong you present go (just started)
'You are going.'

(35) Not 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 (O)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 (-gow, -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-\(e\) -na -l -u.
I future talk-duration-there-future-1st person
'I will talk over there.'

(44) Nesot 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 analyzeable 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 Kemtuk 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 DET Adjunct (DET ADJ) in the verb may occur in two ways:
(a) Independently of the root
(b) As an elaboration of the root

The following tree shows the occurrences of the DET ADJ.

```
        Detail Adjunct Occurrence
            any verbal predicate   motion predicate
                   adjunct      non-adjunct   adjunct      non-adjunct
                                      root + adjunct root      adjunct alone klong (motion away)
                                 wong (motion towards)
```

(1) (2) (3) (4)

Each of these four possibilities are illustrated as follows:
(52) Genamnang mea pen e -sa -l
we exclusive possessive talk plural-direction-future
-2
'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/PERS

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

<table>
<thead>
<tr>
<th>Genam/at</th>
<th>Genamman</th>
<th>Imotnamon</th>
<th>Genamang</th>
<th>Imotnang</th>
</tr>
</thead>
<tbody>
<tr>
<td>アトマン</td>
<td>(1+3-2)</td>
<td>(1+2-3)</td>
<td>(1+3-2)</td>
<td>(1+2-3)</td>
</tr>
<tr>
<td>(a-)</td>
<td>kle-</td>
<td>me-</td>
<td>e-</td>
<td>e-</td>
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<tr>
<td>Mot</td>
<td>Motnamon</td>
<td>Motnang</td>
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<td></td>
</tr>
<tr>
<td>(a-)</td>
<td>kle-</td>
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<tr>
<td>Nemot</td>
<td>Nemotnamon</td>
<td>Nemotnang</td>
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<td></td>
</tr>
<tr>
<td>(a-)</td>
<td>ke/kle-</td>
<td>ne-</td>
<td></td>
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</tr>
</tbody>
</table>

Figure 2. Plural Markers in Root
and DET ADJ
Note that in singular position in ROOT + DET ADJ g- 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 g -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 = genammon or athnon [Dual]
(b) Speaker - 3rd person + addressee = imotnamon
(c) Speaker + 3rd person - addressee = genammon or atnang [Plural]
(d) Speaker + 3rd person + addressee = imotnamon

Consider the following examples:

(58) Genammon umum iti k-e -l -u
we two (excl) vegetables take plural-future-1st person so.
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 (-guy, -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 (-gov, -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 -1 -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:

(65)

DIR
  move towards speaker
  move from speaker

DET (only)

ROOT + DET

near

distant

same level

as

level as

from

same level as

level as

from

same level as

level as

from

same level as

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sam
(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 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-future-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-future-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-future-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 Kemptuk 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 Kemptuk 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 Genyom). 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. Mambramo, 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 Kemtuk/Gresi villages (although Yansu is on a higher location than Jayapura). It is interesting that the Kemtuk 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 -n 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 -t- if it occurs in ROOT DET ADJ with the directional away from the speaker, and by -t- 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
### Figure 4. Contrast in Person Markers

The following examples show minimal contrasts between these person markers:

- **(85)** Genam bu lu l u so.
  - 1st person, 1st person, future, desiderative
  - 'I want to go wash myself.'

- **(86)** Mot bu lu l o so?
  - 2nd person, 1st person, future, desiderative
  - 'You want to go for a wash?'

- **(87)** Nemot bu lu y o.
  - 3rd person, 1st person, future, non-past
  - 'He will wash himself.'

- **(88)** Nemot bu lu y u.
  - 3rd person, 1st person, future, non-past
  - 'She will wash herself.'

- **(89)** Imotan ng bu lu e y o.
  - 3rd person, plural, future, 1st person, non-past
  - 'We all want to wash ourselves.'
Notes

1 Study of the Kemtuk language was begun by my wife Jelly van der Wilden and me in January 1975 under the auspices of Cenderwasih 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.

2 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.

References


Van der Wilden, Jelly, 1976. Some inter-clausal relations in Kemtuk, this volume.

FORM AND MEANING IN THE ISIRAWA NOUN PHRASE

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Summer Institute of Linguistics

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

The purpose of the paper is to summarize the Isirawa 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
ADJ CL = adjectival clause
anim = animate
ASSOC = association
assoc = associative marker
dl = dual
fut = future
inter = interrogative
ID EQ CL = identificational equational clause
inanim = inanimate
N = noun
NH = noun head
NP = noun phrase
obj = object marker
ORIENT = orientation
pl = plural
pn = pronoun
QUAL = qualification
REAL = referential core
rel = relative marker
subj = subject
subj = subject marker
g = singular

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attaching complex backgrounded propositions into whose relations it also enters (Qualification). This latter typically involves relative clause embedding. In what follows (1.2 and 2.), I discuss how these concepts take syntactic form in Isirawa.

1.2 Syntactic structure

The syntactic structure of the Isirawa noun phrase may be summarized in the following chart:

<table>
<thead>
<tr>
<th>ASSOCIATION</th>
<th>REFERENTIAL CORE</th>
<th>QUALIFICATION</th>
<th>QUANTIFICATION</th>
<th>ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun Animate or Inanimate</td>
<td>Noun Head</td>
<td>Embedded Clause Adjectival Verbal</td>
<td>Quantifiers Numerals</td>
<td>Demonstrative</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The conditions on ordering within the noun phrase may be stated as:

1. (a) The order of noun phrase constituents is 1-2-3-4-5 as indicated in the chart above.
   (b) This order, however, may freely vary, such that quantification (QUANT) may precede qualification (QUAL), i.e.
   
   ASSOC + REFCO + QUAL + QUANT + ORIENT
   
   ASSOC + REFCO + QUANT + QUAL + ORIENT

2. If more than one association noun \((A)\) occurs in a single noun phrase, the animate noun (if any) precedes the inanimate noun, i.e.

   If in a NP: \(A + A\) Then: \(A_n\)-anim + \(A_n\)-inanim
3. If more than one qualification constituent occurs in a single noun phrase, then the order is, following the noun head: identificational equational clause, adjectival clause, and verbal clause or (depending on the nature of the equational clause) adjectival clause, similarity equational clause and verbal clause, i.e.

(3) If in a NP: QUAL + QUAL + QUAL
    1  2  3

   QUAL + QUAL + QUAL
   1  2  3

   ID EQ CL ADJ CL VERB CL

Then: \[\{\]

   QUAL + QUAL + QUAL
   1  2  3

   ADJ CL SIM EQ CL VERB CL

That is, an equational clause comes ahead of an adjectival clause only if it is an identificational equational clause, but after an adjectival clause if it is a similarity equational clause (see Section 3.2 below for discussion).

4. If qualification is a verbal clause, the qualification may be extrapolated to follow orientation, i.e. both cases below are possible, though the first one is the usual order:

(4) REFCO + QUAL + QUANT + ORIENT
     VERB CL

    REFCO + QUANT + ORIENT + QUAL
    VERB CL

2. The components of the noun phrase

2.1 Referential core

The center of a referring expression is syntactically the noun head. Its function is to provide the main reference point for a collection of backgrounded predicates which get encoded as the components which are discussed in the sections below. There is no morphology in the noun head. Pronominalization of the possessed noun head as -a is discussed in Section 3.

2.2 Association

The semantic feature of this component may be described as one of inherent or intimate association with the referential core, i.e. with the noun head. What seems to be reflected here is something akin to the classical idea of genitive, if one grants the possibility of seeing 'genitive' as something deeper than mere syntactic form.

There are two sub-types of association: an animate noun associated with the noun head and an inanimate noun associated with the noun head, i.e.

(5) (a) N\textsubscript{ASSOC} - anim + NH

    (b) N\textsubscript{ASSOC} - inanim + NH

I will describe these two relations separately in what follows.

2.2.1 Noun head and associated animate noun

An animate noun relates to the noun head in the following ways: as possessor to possessed, as whole to part, in a kinship relation and other general associations. An associative marker -y, which can vary to zero (Ø) is attached to the associated noun. The associative marker is realized in three forms, depending on the number of the associated noun: -y for singular, -naf for dual, -\textsubscript{m}(y) for plural. For example, a plural associated noun would be marked as follows:

(6) kampin-v\textsubscript{a}
    goat -assoc m for pl house
    'a house for goats'

The associated animate noun can be a proper name; it can also
be replaced by a pronoun.

While the associative marker -v can optionally be deleted, it is obligatory when the possessed noun head is pronominalised 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) avu -v
    woman (-assoc m for sg) clothes
    'a woman's clothes'

(9) e sao
    His House
    'his house'

(10) orwa Saticana -v
    son boy's name (-assoc m for sg) bone
    'the son Saticana's bone'

(11) Mariya -v
    girl's name (-assoc m for sg) husband
    'Mariya's husband'

(12) wek -v
    pig (-assoc m for sg) footprint
    'footprints of a pig'

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 -p-. 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  etavranaś
        bird good-sbj m sg-fly
        "A good bird is flying.'

(19)   onowara akira-n  enšač
        cloud white-sbj m sg-come
        'A white cloud comes.'

(20)   e sāo vise sri -v  esauneiš
        man house big very-obj m pl-build
        'Men are building a very big house.'

(21)   nani vise kafora tätāja  poensač
        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  etavranaś
        bird
        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 identification 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 taka  Piter  tativofa-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 arcama Frane -rari-v  ewariye
        I boy red boy's name-like-obj m saw
        'I saw a light colored boy who is like Frane.'

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  Anzrpo  Boas -rare-n  enšač
        his brother boy's name boy's name-like-sbj m come
        'His brother, Anzrpo, who is like Boas, is coming.'

Some other examples of the equational predicate are:

(26)    tēra ma -rari-v  episi
        boy this-like-obj m hit
        'I hit a boy like this one.'

(27)    vā sāo tāniša  -sone puwučeli
        my house mountain-from listened
        'I (bird) listened from my mountain house.'

(28)    Siwanorowa avi  Tamurike -v  enatumoni
        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) kān nan tāte sacana -v e sekāsāmi
child father kind of arrow-sbj m sub sg-sharpened

'The child's father sharpened arrows.'

(30) kān nan tāte pori saavel pol sacana pā -β
child father came near kind of arrow rel m-sbj sg
sekāsāmi -na wavae
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 caverāf'a pe -v pā -purumī
he egg that mentioned previously rel m-cooked

-na mainetorēmi
sub verb m ate

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

(32) e vise māe pe -n pā
men big this that mentioned previously-sbj m rel m
-ānāvramai -na
-pēmarausunai -sub verb m told stories

'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
pesekāsīmi
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: sōvek 'all', warofa 'many', vise 'much', arōkānana 'few, a little', mīnana 'other, one more', māri 'another, one more'.

These are illustrated in the following sentences:

(34) tēs sōvek pina -vās evinanāe
child all ocean-at were going

'All the children were walking on the beach.'

(35) e warofa sri pes anavrāu
man many very here are

'Very many men are here.'

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

'Bring much water.'
(37) pu arsokàna enàisane
    water a little drank
    'I drank a little water.'

(38) sap mina-v enesuneisë
    house other -obj m are building
    'They are building another (or one more) house.'

(39) ə mri arinëa
    man another will come
    'Another (or one more) man will come.'

2.42 Numerical quantification

Numerical quantification refers to the number of the noun head.

The morpheme -ə 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 -ə nausra ewapriya
    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
cə -mri -mri 'one on the other hand'
Hand-another-one
and 'twelve' is
teni-e-napə 'two on the foot'
foot two
etc. The following chart shows the cardinal numbers of Isirawa
up to twenty.

(42) 1 mri 2 napə (navkə) 3 nausra 4 kokra 5 wanav 6 camre-mri

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, a -mre -wewev
    me -finished man-another-finished
    'forty (all of me finished, another man finished)'

(45) afo-wewev, a -mre -wewev, a -mre -wewev
    me -finished man-another-finished man-another-finished
    'sixty (all of me finished, another man finished, an-
    other 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, (ə) 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, ə mr(i)e wewev, (ə) mr(i)e ca -mre
    nausra
    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:

(49) one mri first mri-ava-ofa
  two napnæ (or navkæ) second napnæ-ava-ofa (or navkæ-ofa)
  three naurna third naurna-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) maë (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 maë pêsaïne ñewtæti-vo
Estera this looking back -obj m
'This Estera was looking at (our) back.'

(51) nefâ ve pasnerameê o aane aca ce -opoë us
have been watching your bird good that-with
'You (God) have been watching us with that angel (good bird) of yours.'

(52) kàcàn tâte pe saw me porimaavei pol
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 -vao, i.e.

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

<table>
<thead>
<tr>
<th>number/person</th>
<th>first</th>
<th>second</th>
<th>third</th>
</tr>
</thead>
<tbody>
<tr>
<td>ag</td>
<td>e</td>
<td>më</td>
<td>(efoare)</td>
</tr>
<tr>
<td>dl</td>
<td>ne</td>
<td>më</td>
<td>(efonafoare)</td>
</tr>
<tr>
<td>pl</td>
<td>ne</td>
<td>më</td>
<td>(efâare)</td>
</tr>
</tbody>
</table>

For the third person subject, efoare, efonafoare, and efâare 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) maë maistërapao
    this sg-came back
    'This one came back.'
The associative pronouns (possessor etc.) are:

<table>
<thead>
<tr>
<th>number/person</th>
<th>first</th>
<th>second</th>
<th>third</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg</td>
<td>afo</td>
<td>ofo</td>
<td>efo</td>
</tr>
<tr>
<td>d1</td>
<td>nenfo</td>
<td>ofnafo</td>
<td>efnafo</td>
</tr>
<tr>
<td>pl</td>
<td>nenfo</td>
<td>ofsvo</td>
<td>efsvo</td>
</tr>
</tbody>
</table>

Some examples of object pronominalizations are the following:

(59) afo pu -n scaimao
me rain-sbj m soaked
'The rain soaked me.'

(60) manfo -episkewa
these-two sg-hit
'He hit these two people.'

(61) têra cevevo emarimanô
child sg-watched
'The child watched those people.'

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 -n 'possessed one'. The noun head cannot be pronominalized in construction with any other associated noun.
Notice the following examples:

(67) ASSOC noun (true possessive) noun head
a. têra -y mumurâsca
    child-assoc m knife
    'the child's knife'
b. têra -y
    child-assoc m -s
    'the child's thing/one (=knife)'

(68) ASSOC noun (whole-part) noun head
a. têra -y cana
    child-assoc m hand
    'the child's hand'
b.* têra -y
    child-assoc m -s
    '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 (*).

References


Notes

1 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 AmSir, 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.

2 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.
PART II

DISCOURSE AND COMMUNICATION ACTS
DISCOURSE CONSIDERATIONS IN BAHASA INDONESIA

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Summer Institute of Linguistics

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 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. 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, tense of verbs, sentence length, phonological grouping, person orientation, tagmeme presented, etc. Discourse types found in this study include Narrative, Expository, Hortatory, and Procedural (Longacre, 1968).

(1)

<table>
<thead>
<tr>
<th>Sequence in Time</th>
<th>Accomplished Time</th>
<th>Projected Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>Narrative (declarative)</td>
<td>Procedural (imperative)</td>
</tr>
<tr>
<td>-</td>
<td>Expository (declarative)</td>
<td>Hortatory (imperative)</td>
</tr>
</tbody>
</table>

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 masyarakat. Ucapan adalah milik individu, society expression is property individual

milik orang as-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-loc divide

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

Procedural: sequential projected time, imperative.

(5) Pertama sediahlah bahan ya dan bumbu dan alat-alat nya.

First prepare ingredients and spices and utensils

Untuk bahan nya bisa kita pilah... Kemudian untuk for ingredients can we-loc 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)

<table>
<thead>
<tr>
<th>DISCOURSE TYPES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Orientation</td>
</tr>
<tr>
<td>1st</td>
</tr>
<tr>
<td>2nd</td>
</tr>
<tr>
<td>3rd</td>
</tr>
</tbody>
</table>

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 (Kite). 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.6 (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 = + Introduction + Procedure
+ Product/Goal

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

(8) Expository Discourse = + Introduction + Point
+ 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).
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 kisah orang tua itu he big also following story person old that sendiri, begini cerita-nya... sejak itu tingal-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. 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 Leburan 'a month after the last day of fasting'.

When episodes are separated by time shifts, such words as
set the stage in some way. This setting may be evidenced in forms such as ber-V, ter-V, or Ø forms.

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

(12) *Di bawah se-pohon...* terdiri ecabah rumah beraterap in under a -tree stand a house roofed
genteng. Dinding-nya buluh beranyan dan lantai-nya thinly wall -its bamboo woven and floor -its
Ø dari tanah saja. Keliling pekarangun-nya Ø 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 balai² bambu. in balcony side left located a cot bamboo
'Below 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, 1) 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 menemahat. not also answer
..."*Ah, ke mana lagi dia? Haruskan 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
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:

(14)

1. Discourse

   (2a) Generic information

   (2b) Specific information

   (3) Wayang

      (other arts)

      General information on Central Java

      Specific notes on each area

      (200 pages)

   (3a) General history

   (3b) Specific types

   (4) Wayang purwa (other types)

   (4a) General introduction

      (4b) 18 specific types

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:

(15)

Discourse: 'Cooking Fried Rice'

   Introduction

   Procedure 1 Procedure 2 Goal

      Preparation Cooking

         food spices utensils

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 Dénoüement as opposed to surface level grammatical Peak. These Climax and Dénoüement 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 Dénoüement 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:

<table>
<thead>
<tr>
<th>Surface</th>
<th>Title</th>
<th>Episode 1</th>
<th>1-5</th>
<th>Episode 2</th>
<th>6-10</th>
<th>Episode 3</th>
<th>11-23</th>
<th>Episode 4</th>
<th>24-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep</td>
<td>Aperture</td>
<td>Stage</td>
<td></td>
<td>Climax</td>
<td>Dénoüement</td>
<td>Closure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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, Dénoüement, 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 Dénoüement 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: Akrenim: 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:

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>muak</td>
<td>'nauseating'</td>
</tr>
<tr>
<td>penyakit kanker</td>
<td>'cancer' (mentioned two times)</td>
</tr>
<tr>
<td>kebencian rawan</td>
<td>'alarming fact'</td>
</tr>
<tr>
<td>persoalan</td>
<td>'problem' (two times)</td>
</tr>
<tr>
<td>mariyuana</td>
<td>'marijuana'</td>
</tr>
<tr>
<td>mematikan</td>
<td>'kill BI' (three times)</td>
</tr>
<tr>
<td>narkotika</td>
<td>'opiate, narcotic' (three times)</td>
</tr>
</tbody>
</table>
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 Panjarg Uraitva:
(18) ...tiada yang menolong...Jampi²
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, "...Jampi²
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
cases a discourse and a paragraph) together.

2.2 Character cohesion

Once a character in BI discourse is introduced, further refer-
ences to this same character provide cohesion for the whole dis-
course. 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):

<table>
<thead>
<tr>
<th>CHARACTER COHESION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENTENCE</td>
</tr>
<tr>
<td>one character</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>-</td>
</tr>
</tbody>
</table>

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 'that' function above the
sentence and tadi 'just now' has only been found between para-
graphs 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 '∅' in 'like-subject' deletion processes. Notice how the character is traced through the following examples with the pronoun -nya and ∅.

(20) Sapi ter dorong ke belakang, muka-nya meringis -ringis...
Sapi was pushed back face-his have sour look
'Sapi was pushed back. His face had a sour look.'

(21) ...kata Malin Sabar sambil ∅ mengegang pipi -nya yang say Malin Sabar while hold cheek-his which
sakit itu, lalu ∅ 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 mengharapri Malin Sabar dengen Mr. doctor-emphais approach Malin Sabar with
sebuah perkakas pada tangan-nya, an instrument in hand -his
'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 ∅ lari.
Ali hit Sapii, then run
'Ali hit Sapili, then he (Ali) ran away.'

(25) Ali memukul Sapili, lalu ia lari.
Ali hit Sapili, then he run
'Ali hit Sapili, then he (Ali or Sapili) 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.
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, Ø) to trace this character.

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

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 orang² itu 'those men':

(31) ...mereka itu lengah sudah dibentak oleh
    they that inattentive already be snapped at by
    serdadu itu. Bapak -nya bercerita, orang² 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 kompor dan wajan.
    take stove and frying pan
    Sekarang mulai-lah dengan memanaskan wajan diatas
    now begin-imp with make hot frying pan on top
    kompor 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
2.3 Event cohesion

2.3.1 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.'

2.3.2 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.

2.3.2.1 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.
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...'

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.'

2.3.2.2 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

2. 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 kepadaan.
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 was 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 sus-
pension of the general rule, it must be marked to communicate the
proper sequence of events.

The following pairs of clauses demonstrate some of the pos-
sible 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'
(46) 2. "Ah, rejae amat mpok," kata si Doel
hot very say Doel
1. setelah dikenal-nya beberapa swat...
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 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 he 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
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 setasian 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 pre-
viously 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
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 topologicalization and emphasis. Topologicalization is similar to Callow's theme, while our emphasis takes on the characteristics of both focus and emphasis as Callow defined them.

3.1 Topologicalization

In Fillmore's (1968:57) words, "Topological processes are devices for isolating one constituent of a sentence as a 'topic'." We distinguish further between lexical topologicalization and discourse topologicalization. In lexical topologicalization the underlying roles determine the selection of the NP to be fronted as topic. In discourse topologicalization the choice of which NP gets topologized 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 topologicalized 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. The topic is what has been referred to already, what is considered 'known', 'given', or 'assumed to be known' by the speaker. 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."
The comment is anything predicated of the topic, as well as any background information.

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

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)

<table>
<thead>
<tr>
<th>Developmental Topicalization</th>
<th>Supportive Topicalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic-Topic Binding</strong></td>
<td>Cl₁</td>
</tr>
<tr>
<td></td>
<td>Cl₁</td>
</tr>
<tr>
<td><strong>Comment-Topic Binding</strong></td>
<td>Cl₁</td>
</tr>
<tr>
<td></td>
<td>Cl₁</td>
</tr>
</tbody>
</table>

Topicalization Types

3.1.1 Developmental topicalization

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

(55)  

<table>
<thead>
<tr>
<th>Topic-Topic Binding</th>
<th>Comment-Topic Binding</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Developmental Topicalization

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)  

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>jampil2</td>
<td>telah banyak kali dicoba -nya magic formulas already many time be tried-he</td>
</tr>
<tr>
<td>(jampil2)</td>
<td>tiada mujarab. magic formulas is not effective</td>
</tr>
</tbody>
</table>

'The magic formulas were already tried many times by him, (the magic formulas) were not effective.'

Developmental Topicalization

Top-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)  

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ia)</td>
<td>mendengar jerit orang</td>
</tr>
<tr>
<td>be hear scream person</td>
<td></td>
</tr>
<tr>
<td>yang</td>
<td>sedang diobati dokter di-blik sebelah was be treated doctor in-room side</td>
</tr>
<tr>
<td>who</td>
<td></td>
</tr>
</tbody>
</table>

'(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 *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 'who 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)

```
   Topic-Topic Binding
   T           C
   Cl₁        C
     T
     Cl₂

   Comment-Topic Binding
   T           C
     C
     Cl₁
          T
          Cl₂
```

Supportive Topicalization

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
      *air kali*..............sekarang sudah jadi merah
      water river        now already become red

      *yang 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

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
      *(air kali) bercampur kotoran*
      water river mix with dirt

      *yang 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 and pronominalization are two major aspects of Topicalization in BI discourse. To illustrate these aspects, suppose we describe a basic clause as X-V₁-Y, where X is the topic, and V₁-Y are verb plus object. To the basic clause X-V₁-Y we shall juxtapose another basic clause Q-V₂-Y. Q is another topic that is different from X, while V₂-Y is another verb and the same object.

(61)  \[ X \quad V_1 \quad Y \]
    \[ Ali \quad beli \quad buku \quad itu. \]
    \[ Ali \quad buy \quad book \quad that \]
    \[ 'Ali bought that book.' \]
    \[ Q \quad V_2 \quad Y \]
    \[ Tuti \quad jual \quad buku \quad itu. \]
    \[ Tuti \quad sell \quad book \quad that \]
    \[ 'Tuti sold that book.' \]

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: \[ X \quad V \quad Y \]
\[ X \quad V \quad Y \]
\[ Ali \quad beli \quad buku \quad itu. \]
\[ Ali \quad buy \quad book \quad that \]
\[ 'Ali bought that book.' \]
\[ Q \quad V \quad Y \]
\[ Y \quad V \quad Q \]
\[ Dikai \quad jual \quad buku \quad itu. \]
\[ Dikai \quad sell \quad book \quad that \]
\[ 'Dikai sold that book.' \]

Application of the Fronting Rule

Notice that the form of the verb in the second clause became prefixed when it was 'passivized'. When the semantic object "buku itu 'that book'" gets topicalized, it is fronted, and the verb is marked with the prefix di-. Thus the agent NP Tuti as the normal 'unmarked' lexicosemantic 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.

\[ X \quad V_1 \quad Y \quad and \quad Y \quad V \quad Q \quad = \quad X \quad V_2 \quad Y \quad and \quad yang \quad VQ \]
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. 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.20

(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 karena**
answer person rather angry 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 bangku.**
Malin Sabar-emph sit -emph wait on-top a 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 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'
yang not 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-pya, kecut hati-pya.
    rise fear-his shrink liver-his
    'he became frightened and his liver shrank (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-pya.
    help -imp treat tooth my -he
    "[Saya] boleh [memelong obati gigi kamu], tapi tunggu
    I may -help treat tooth you but wait
    sebentar," jawab tuan dokter.
    a moment answer master 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]," sabut 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:


want drink what
want drink coffee
want drink water stone

What do you want to drink, sir? (Do you want to drink) coffee? (Do you want to drink) ice water?...

4.121 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 berani!" "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.

4.122.1 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.

4.122.2 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 lai 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 permasalahan ini tentu memerlukan penyelesaian
     all problem this certainly needs settlement
     yang bijaksana. Penyelesaian permasalahan 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):

<table>
<thead>
<tr>
<th></th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existential/Introductory</td>
<td>T</td>
<td>T,C</td>
</tr>
<tr>
<td>Developmental</td>
<td>T</td>
<td>C</td>
</tr>
</tbody>
</table>

Position of Old and New Information

4.2.1 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
information. This use is in contrast to new information in the topic of a sentence as will be seen later.

In developmental sections of discourse, old information regularly appears in the topic of a sentence. What is referred to (the topic) has to be in the reader's known information. We shall also see that pronominalisation and other markers show that the topic is part of known information.

New information, once introduced, becomes part of the old information. An example of this process is found in an Expository discourse on wayang kulit 'puppet plays'. Notice how the new information in the comment of Clause 1 becomes old information in the topic of Clause 2:

\[(86)\]  
**TOPIC**  
Kulit  
skin  

**COMMENT**  
dipotong menurut sesuatu bentuk tertentu  
be cut follow a form certain  

Potongan kulit ini kemudian dilobangi kecil2  
slice skin this then have holes put in small  

'The leather is cut according to a certain pattern. Then this piece of leather has small holes drilled in it...'  

4.212 New information

On the right side of the chart (85) we see that new information may be placed in either the topic or the comment of an existential/introductory paragraph or in the comment of a developmental paragraph.

The topic of an existential paragraph may include new information if an unknown character is being introduced. This contrasts with the mention of a known person or place in the topic as seen in the previous section.

In the first paragraph of a Narrative, for example, the topic may be new information, as seen below:

\[(87)\]  
**TOPIC**  
Dusun Limbayung  

**COMMENT**  
letak--nya agak keudik...  
village Limbayung location--its rather upstream  

'The village of Limbayung was located rather far upstream...'

Since this was a small village, it is assumed that the mention of its name is new information at this point. A second mention of the village is treated as known information, however, as is seen in the next sentence of the same story, where the topic is reduced in structure to a simple noun:

\[(88)\]  
**TOPIC**  
Dusun itu  

**COMMENT**  
tidak berapa besar...  
village that not very big  

'The village was not very big.'

While new information can appear in the topic, it is generally found in the comment. This means that the comment of a sentence is adding something previously unknown within the discourse while the topic holds some referent constant. The example (88) shows this principle. The village (dusun itu) is old information and is in the topic of the sentence. The size of the village is something the reader did not previously know and as new information is in the comment of the sentence.

4.22 Markers

In addition to the topic-comment signals regarding old and new information, there are also lexical markers in BI discourse which signal whether information is old or new. We turn next to this question.

4.221 New information

New characters or referents may be introduced with such indefinite words as se-orang 'a-person', se-suatu 'a-certain',
se-buah 'a-thing', etc. This reference is only made once, however, and then the referent is old information, for example:

(89) Terebut se-orang guru mengaji...
     dia kuat berkhidrah
     '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

1 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.

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2 Longacre (1968, 1972) presents discourse studies in Philippine and Papua New Guinea languages which show various criteria for distinguishing discourse genre.

3 Longacre (1972:150f) presents Ellis Deibler's material on such counts.

4 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.

5 Drama was not studied, but usually has sequential orientation. Epistolary genre is sometimes posited, but would include other embedded genre.

6 See Longacre (1972:137) for an example in diagram form.

7 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.

8 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.

9 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.

10 Halim (1969:57)

11 Tabor (1966:84-85) calls this 'figure'.
12 Tabor (ibid) called this 'ground'.

13 Halim (1969:191) calls these 'coordinate and subordinate'.

14 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.

15 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...'

16 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.'

17 MacDonald and Suenjono (1967:234).

18 West (1973:100) in describing the semantics of focus in Amsanad Iloggao (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.

19 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.

20 Grimes (1971:196) states that characters may exhibit a certain pattern of references, departures from which are a rhetorical device for emphasis, as is shown here.

References


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-addresses 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:

(1)

\[ S_1 \]

\[ \begin{array}{c}
  \text{NP} \\
  [ + \text{'1st prs'}]
\end{array} \]

\[ \begin{array}{c}
  \text{V} \\
  [ + \text{declare}] \\
  [ + \text{perform}]
\end{array} \]

\[ \begin{array}{c}
  \text{NP} \\
  [ + \text{2nd prs}]
\end{array} \]

\[ S_2 \]

'I declare to you (message)
That is, the speaker (1stprs) declares to addressee (2ndprs) the message of the imbedded sentence (S₂). 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:

```
(2) Prop
    /\      /
   / \     / \     /
  Fred Arg Arg Arg Arg Arg Arg
 /
Mood DECL INTERROG IMP GREET DEPREDATE etc.
```

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 these 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 coassignable 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.

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 (PRES) function, and an attitudinal (ATT) one. This cluster as a group determine (DET) an assertional (ASRT) function, which in turn determines (DET) an expression (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, PRES, and ATT, which determine (DET) two further components. Unlike the CS, the CG's final pair is percep-
tional (PRCT), 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 hearing on what message he will accept (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:

\[
\begin{align*}
\text{CS} & \quad \text{VOL (Ex, O, T, L)} \\
\text{VOL (Ex, O, T, L)} & \quad x \ 1 \ 1 \ 1
\end{align*}
\]

\[
\begin{align*}
\text{CS} & \quad \text{VOL (Ex, O, T, L)} \\
\text{VOL (Ex, O, T, L)} & \quad y \ 1 \ 1 \ 1
\end{align*}
\]

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 affect a change in CG's volitional, presuppositional, or attitudinal component.

2.2 Presupposition
Presuppositional components were diagrammed as follows in (4):

\[
\begin{align*}
\text{CS} & \quad \text{PRES} \\
\text{ELV(Ex, O, T, L)} & \quad x \ 2 \ 1 \ 1
\end{align*}
\]

\[
\begin{align*}
\text{CG} & \quad \text{PRES} \\
\text{ELV(Ex, O, T, L)} & \quad y \ 7 \ 2 \ 2
\end{align*}
\]

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, 'factive' (Kiparsky and Keparsky, 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:

\[ \text{ATT} \quad \text{EMOT}(x,0,0,1,1) \]

\[ \text{ATT} \quad \text{EMOT}(x,0,1,1,2) \]
These are to be understood as an experiencer (x or y) feels (EMOT) or entertains an attitude (O₃ or O₂) at a certain time (T₁ or T₂) and place (L₁ or L₂).

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:

\[
\begin{array}{c}
\text{CS} \\
\text{ASSERT} \\
\text{ASRT(Ag,O,T,L)}
\end{array}
\]

That is, an agent \( x \) asserts some message (\( O₄ \)) at a certain time \( T₁ \) and location \( L₄ \).

In contrast to presuppositional content which reflects shared information, one may discern in an utterance the assertional part, which is new information to the CS. 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 CC.

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:

\[
\begin{array}{c}
\text{CS} \\
\text{EXPR(Ag,O,T,L)}
\end{array}
\]

This is to be read as an agent \( x \) expresses an overt object \( O₅ \) at a specific time, and location \( L₅ \). The \( O₅ \) 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 \( O₅ \) 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 TRESP 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 perceives an overt signal (\(O_s\)) at a given time and location. 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 \((O_s)\) 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 \((\text{INTRP})\) is diagrammed as:

That is, a certain experiencer \((Ex_y)\) interprets/understands a certain message \((O_{10})\) at a given time and location. This is done via \(Ex_y\)'s \(\text{PRCP}T\) function as it reacts to \(Ag_x\)'s \(\text{EXPR}\) function. The \(\text{INTRP} \ Ex_y\) is also influenced in the operation by his own \(\text{VOL}\), \(\text{FRESF}\), and \(\text{ATT}\) states.

Just as \(\text{EXPR}\) was central to the CS, so \(\text{INTRP}\) 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. Exegeses of ancient language documents are faced with a similar task. In this outline paper, I will not present a sample analysis but only suggest the following format for cataloging observations.

<table>
<thead>
<tr>
<th>TEXT</th>
<th>EXPRESSION</th>
<th>ASSERTION</th>
<th>PRESUPPOSITION</th>
<th>VOLITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral transcription</td>
<td>surface pat-scription</td>
<td>what is the 'focus', new course, syntax, (foregrounded) info,</td>
<td>what is the old (backgrounded) info, to accommodate theme, topic</td>
<td>what is the CS aiming to accomplish?</td>
</tr>
</tbody>
</table>
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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References