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ABSTRACT
                This volume presents five languages of India-Nepal
from four different language families: Halbi and Kupia (India) of the
Indo-Aryan family, Parengi-Gorum (India) of the Munda family,
Dhangar-Kudux (Nepal) of the Dravidian family, and Tamang (Nepal) of
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Patterns In Clause, Sentence, and Discourse

in selected languages of India and Nepal

Part I, Sentence and Discourse

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Acknowledgments

These volumes are unique in that they are the fruit of cooperation with two institutions of two different countries--Andhra University in India and Tribhuvan University in Nepal. The Summer Institute of Linguistics was invited by Andhra University to conduct a linguistic workshop on its campus in January and February of 1972. This was the formal beginning of this four-phase report.

We wish therefore to express our sincere appreciation to the Vice Chancellor, Mr. L. Bullayya, the Registrar, Mr. M. Gopalakrishna Reddy, and the Syndicate of Andhra University for their encouragement and cooperation in making this research possible.

Subsequent to the two months at Andhra University, the research teams travelled to Nepal where they worked on further analysis and composition under the kind auspices of Tribhuvan University, Kathmandu. We are deeply grateful to the Vice Chancellor, Dr. T. N. Upraity and to Dr. P. R. Sharma, Dean of the Institute of Nepal and Asiatic Studies, for their part in making this further work possible.

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Introduction

We present in this volume five languages of India-Nepal from four different language families--Halbi, Kupia, and Parengi-Gorum of India, and Dhangar-Kudux and Tamang of Nepal. Halbi and Kupia are Indo-Aryan languages spoken in Madhya Pradesh and Andhra Pradesh respectively. Parengi-Gorum is a Munda language spoken in Andhra Pradesh and Orissa. Dhangar-Kudux is a Dravidian language spoken in southern Nepal. It is a dialect of the Kudux of India. Finally, Tamang is a Tibeto-Burman language of Nepal.

We focus in this volume on sentence--four of the papers are on sentence description and the paper on Dhangar-Kudux discourse has implications for sentence analysis. The paper, "Clause Patterns in Parengi-Gorum," has been included here in order to balance the sizes of Parts I and II of the report. For the theory underlying this paper, see the article, "Toward the Systematization of Display Grammar," by Austin Hale in Part II.

All of the sentence papers build on the ground work laid by Robert E. Longacre (1967, 1968, 1970, 1972, and the two papers co-authored with Ballard and Conrad 1971). There are, however, certain modifications which we would like to suggest. One is regarding the place of sentence in the grammatical hierarchy. The other is concerning the ranking of relationships within a sentence. Both are discussed in the paper, "Sentence Relations Between Whole Propositions in English."

We feel that the proper context in which to study relations between propositions is discourse. We found in our study of sentence that some sentence links and relators tended to fluctuate in meaning from informant session to informant session especially when sentences were previously elicited out of context. Within a discourse, however, a particular relation is much less likely to be ambiguous and the language assistant is put on a much firmer footing when having to answer questions about that relation. No doubt quick elicitation of several sentence types is possible depending on the ability of the language assistant. Unless, however, these sentences are checked in context, the linguist cannot be sure of either the meaning he has assigned or of the possibility of a finer distinction in meaning.

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Gordon and Pike have reversed this order in their paper on Dhangar-
Kudux by studying discourse structure via a heuristic known as sentence
reversal. The beauty of this approach is that it studies linguistic
units in context and hence the language assistant is perfectly at home
in giving judgments about whether certain sentences or groups of sen-
tences can be reversed and if so what adjustments are required to make
the change. The method is based on the assumption that the language
assistant will only reverse units which are in some way complete in
themselves. By starting with sentence size units, the linguist not only
discovers much of the structure of paragraph and discourse begins to
unfold as well.

Semantic Relations
Between Whole Propositions
In English

Ronald L. Trail

Purpose and Scope. We would like to discuss briefly in this paper:
1) the place of sentence (as opposed to clause) in the grammatical hier-
archy; 2) the need for sentence as an area of study in its own right;
3) sentence viewed as the domain of relationships between whole propo-
sitions; and 4) the relationship of surface to deep structure in sentence.

A. The Place of Sentence in the Grammatical Hierarchy.

In current Tagmemic thought, Sentence and Clause are viewed as
separate levels in the grammatical hierarchy. Clause is viewed as the
domain of what in logic is known as predicate calculus, whereas Sentence
is viewed as the parallel to formal logic's statement calculus. Clause
is a verb-centered construction surrounded by certain nuclear (obliga-
tory) constituents which strictly subcategorize it. Sentence, on the
other hand, is a level characterized by clause combination—that is,
clauses joined by such connectors as and, but, or, if...then, and the
like.

We recognize that the relationships which separate these two puta-
tive levels are genuinely different. What we wish to query is, Do these
differences qualify to separate clause and sentence as two separate
grammatical levels, or should they be rather viewed as two components of
a single level? We wish to defend the latter choice particularly from
analogy to phrase level.

We would like to point out at the outset that although some of the
relationships seen on sentence level are peculiar to that level (as
opposed to levels below it)—particularly cause-effect relationships—
others have already been encountered on phrase level. These are: co-
ordination, alternation, antithesis, generic-specific, and perhaps
others. They are illustrated as follows:

Coordination: men and women
Alternation: men or women
Antithesis: men but not women

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Generic–Specific: It was <u>black</u>, <u>pitch black</u> outside.

The interesting point to observe here is that although these re-
lationships occur between phrases, there has been no great pressure to
posit a separate level of <u>phrase combination</u> as such. Yet when such re-
lationships are seen between clauses, we are quick to posit a separate
level which we call sentence, and to blithely admit that sentence is a
level of <u>clause combination</u>. It is this similarity between clause and
phrase, but yet the dissimilarity with which they are treated that we
wish to highlight. Would it not be more logical to treat the two alike
and to say that we have <u>phrase</u> as a separate level within which there are
a finite set of basic, simple, or primary phrase types, and then that
there are ways of combining these types into larger combined units; and
similarly that we have <u>clause</u> (or sentence—whatever we call it) as a
single level within which there are basic types characterized as verb-
centered constructions, and then that there are ways of combining these
into larger units? So within each level (phrase and clause) we would
have two components—a basic-type component and a combined-type compo-
nent. Admittedly clause combination is a bit more extensive than phrase
combination, but the parallel is still there. If such a course were
taken it would be best to call the level 'sentence' since that term has
more universal coinage. We could then call what is now the domain of
clause, 'simple sentence,' and what is now the domain of sentence, 'com-
plex or composite sentence.' This would allow us to focus on simple
sentence as the domain of verb subcategorization and on complex sentence
as the domain of sentence embellishment and combination. By sentence
embellishment we mean peripheral modifiers such as introducers, outer
locatives and temporals (note that the latter two have fluctuated be-
tween clause and sentence in recent analyses), and other discourse related
tagmemes.

Longacre (1968, Vol. I, p. xx) ably defends the uniting of phrase
and a putative phrase cluster level, as a single level. He does this
by showing that primary exponence of clause level tagmemes requires
that they be filled by units from the next level down the hierarchy,
that is, from this putative phrase cluster level; but that in actual
fact simple phrases are far more common as exponents of clause tag-
memes than are phrase clusters. He could have gone on to reason that
simple phrases and phrase clusters have identical distribution and
therefore need to be considered a single level.

Now if we reasoned similarly to this about clause (simple sentence)
and sentence (complex sentence) we should be able to say that primary
exponence would require that paragraph tagmemes be filled more commonly
by sentences (complex sentence) than by clauses (simple sentences).
We do not think that this is true. Both simple sentences and complex
sentences have this in common that they make assertions—the former does
it simply; the latter by attaching conditions and concessions or by com-
bining two into one assertion. We would like to put forward the claim
that simple sentences (simple assertions) fill paragraph level slots as
typically as do complex sentences (complex assertions) and that therefore

clause and sentence should be joined into one single grammatical level.

Note that running through the argument above is the premise that a level is constituted of units which have identical or similar distribution. Therefore because combined phrases have the same distribution as simple phrases, we posit a single phrase level. Similarly, because complex sentences and simple sentences have the same distribution (that is, in paragraph slots) we posit a single level of sentence. Figure 1 below is a chart of our suggested view of sentence and phrase in the grammatical hierarchy accompanied by the corresponding semantic terminology.

Level	Number of Units	Single	Two or more
Sentence	Grammatical	Simple Sentence 'I ran.'	Complex Sentence 'I ran but she walked.'
	Semantic	Proposition	Paired Propositions
Phrase	Grammatical	Simple Phrase 'the red ball'	Complex Phrase 'the red ball and the white one'
	Semantic	Term	Paired Terms

Figure 1.   Suggested Hierarchical View of Sentence and Phrase.

The above observations, however, have not been incorporated into the papers of this volume. They are all written from the point of view that clause and sentence are separate levels, and that sentence is the domain of clause combination.

B. Is the Study of Sentence Well Motivated?

In answer to the second question—Why do we need the sentence in English grammar?—we would like to present the following two exercises and from them draw support for the need for sentence in English discourse. It was suggested to me by Austin Hale that a good heuristic for determining the function of a grammatical unit is to try to function without it. We have therefore taken a paragraph from an article in the February 12, 1973 issue of Time entitled, "Deke's Comeback," and attempted to retell it using no sentential connectors such as: and, but, or, if, although, when, before, after, and the like. If our guess is correct, we should not be able to retell the story with the same ease and poignancy

of style as the original. The original we present as is in the column
on the left; our revised version on the right.

<table>
<tr><td align="center">Original</td><td align="center">Revised</td></tr>
</table>

Original	Revised
"It was a day that Donald K. ('Deke') Slayton would never forget. On March 15, 1962, only two months before the taciturn astronaut was scheduled to become the second American to orbit the earth, NASA doctors abruptly grounded him. Reason: they had discovered an occasional irregularity in the rhythm of his heartbeat. The bitterly disappointed Slayton subsequently became chief of flight-crew operations at the Manned Spacecraft Center and played a key role in picking all future space crews, including the first men to land on the moon. But even as he sent other astronauts to the launch pad, he never stopped dreaming of making the trip into space himself."	It was a day that Donald K. ("Deke") Slayton would never forget. He was grounded abruptly on March 15, 1962 by NASA doctors. Only two months later the taciturn astronaut was scheduled to have become the second American to orbit the earth. Yes, they had grounded him. Reason: they had discovered an occasional irregularity in the rhythm of his heartbeat. The bitterly disappointed Slayton subsequently became chief of flight-crew operations at the Manned Spacecraft Center. He played a key role in picking all future space crews, including the first men to land on the moon. Meanwhile, he continued to dream of making the trip into space himself.

1) The first sentence can pass as it is, since the that-clause is
modifying merely the term day of the sentence and not the sentence as
a whole. We consider this a relationship between a whole proposition
and a part proposition (as will be seen later) and not between two whole
propositions. This relationship is therefore beyond our purview.

2) The second sentence--beginning, "On March 15, 1962...,"--immed-
iately gives us trouble since it is composed of two propositions in
reverse temporal sequence. It is reverse because the "grounding" occurs
before his scheduled orbit, but is mentioned after the orbit. A con-
fusing factor is that the time that he was actually scheduled, that is,
selected, and the time he was to actually orbit are not the same. We
use the latter as the intended time reference since it makes sense with
the word "before" of the original. Otherwise, the "grounding" took
place after the scheduling or selecting and this does not match with the
intended sense of the original. We attempt to adjust the relationship
without the relator "before" as follows:

a) Previous to this the taciturn astronaut had been scheduled in just
    two months to become the second American to orbit the earth. Now,
    on March 15, 1962, NASA doctors had abruptly grounded him.

This attempt keeps the two events in their original chronological order in past time. The sequence is signaled by the words, "previous to this" and "now." One evident problem with this is that it makes a very poor connection with the topic sentence. This is because the topic sentence makes an indefinite reference to a certain "day" and our sentence refers to it as though it were a definite reference. The day does not become definite as March 15, 1962, until our second sentence. It does, however, make an easy transition to the following sentence since the original order has been preserved.

b) He was grounded abruptly on March 15, 1962 by NASA doctors. Only two months later the taciturn astronaut was scheduled to have become the second American to orbit the earth.

This attempt puts the two events in their correct chronological order which it accomplishes by the word "later" plus the verb phrase, "was scheduled to have become." Although this makes a fairly good connection with the topic sentence, the second sentence is a bit awkward. The second sentence also does not make a good transition to the beginning word (reason) of the third, and therefore requires a short summary sentence to make up for this, namely, "Yes, they had grounded him." Another criticism which will recur is that the single proposition sentences lack the style and flavor of the original and tend to be matter-of-fact and prosaic. When the original and our two attempted revisions of sentences two were read to several others, they unanimously favored the original.

3) The third sentence is all right as it is, except notice that the proposition needs to be labeled as reason. Otherwise a more wooden, "This was because..." would have to be resorted to. If we were to rule out this use of the word "reason" on the grounds that it is a sentential connector, we might not be able to adjust the relationship satisfactorily. In fact, cause-effect relationships are very difficult to express without using relators such as: because, if, so, although, and therefore.

4) Sentence 4 is an Additive or Conjoined sentence which is easily divided into two by deleting the conjunction "and" and repeating the Subject by means of a pronoun in the second proposition. This is a perfectly acceptable adjustment and at first glance, seemingly little is lost in the process. However, note that without the conjunction the style is choppy and lacks the free flow of the original. Another function of and is brought out by its absence—and permits a sequential and/ or cause-effect relationship between its propositions. Slayton's becoming chief of flight-crew operations was certainly prior in time to, and the cause of his playing a key role in picking future space crews. Without the and however, the two propositions are simply events which may or may not be related. It is therefore interesting to see that although the primary function of and is to conjoin similar events, these secondary sequential and/or cause-effect functions are implied as well.

5) Sentence five is a Concessive or Antithetical sentence—"But

even as he sent other astronauts to the launch pad, he never stopped
dreaming of making the trip into space himself." This but has at least
three functions. Placed at the beginning of the sentence it signals a
contrast with what has gone before--in this case the previous sentence.
It also permits a summarizing of the event with which it contrasts,
namely, "...even as he sent other astronauts to the launch pad..."
Finally it functions as a contraexpectation signal indicating to the
reader that something counter to the normal expectancy patterns should
be anticipated. Now to capture these three functions without the signal
is difficult. The following are two attempts:

a) Meanwhile, he continued to dream of making the trip into space him-
self.

    This lack the summary function and puts the burden of contrast on
the emphatic he, himself as against those he sent. It completely misses
the counter-expectancy component signaled by but.

b) Like this he sent many other astronauts to the launch pad. However,
he never stopped dreaming of making the trip into space himself.

    This attempt captures the summary function by virtue of the anaphoric
phrase, like this. It also retains the contrast and contraexpectancy
components by means of the synonomous however. This may have been cheat-
ing a bit since it may be only punctuation that separates our sentences
now. At any rate one can see that it would be very difficult to express
the concept of contraexpectancy without using a connecting signal of
some kind.

    So in just briefly analyzing a paragraph of English prose we can
begin to see that the study of sentence is well motivated. We have been
very hard put to function without paired propositional sentences. In
two places we had to indicate the relationship between two propositions
either by actually naming it in the case of "reason," or by using a
synonym in the case of "however" for "but." Our paragraph lost style
and free flow and became prosaic, stilted, and choppy. In some places
we lost components of meaning, as for example when we had to function
without "and" and "but." And we noted that the function of and is not
simply to conjoin, but also to signal sequence and/or a cause-effect
relationship.

    Another test was done on two different discourse types to see what
sentence types formed their basic structure. Both discourses were arti-
cles from the June 1972 issue of Reader's Digest. One was a Narrative
discourse entitled, "Little Boy Lost in the Rockies," by Edward Pales,
and the other an Expository-Procedural discourse entitled, "Straight
Talk About Good Posture," by Warren Young. Assuming that there is a
correlation between types of relationships between propositions and types
of relationships between paragraphs in discourse, we went through the
articles noting these relationships. The first time through the articles
was to identify the relationships between the last sentence of a para-

graph and the first sentence of the next paragraph. We felt that this
would give us a rough indication of the relationships between para-
graphs. The second time through the articles we merely counted the dif-
ferent types of paired-propositional sentences in each discourse (assum-
ing that a certain discourse type would per force have more relation-
ships of one kind than another). We present the results of this study
in Figures 2-4 by simply listing the types of relationships and beneath
them the number of times that particular relationship occurred in the
discourse. After we have shown the results of the two kinds of rela-
tionships mentioned above, we combine them in a third chart (Figure 4).

Relationship / Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Loc	Att
Narrative	3	20	1	0	2	2	1	0
Expository-Procedural	7	1	11	6	0	1	0	1

Figure 2. Relationships Between Paragraph Final Sentences
and Paragraph Initial Sentences.

Relationship / Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Alt
Narrative	11	14	1	4	11	3	1
Expository-Procedural	15	3	2	13	8	0	1

Figure 3. Relationships Between Paired Whole Propositions.

It is interesting to note the heavy reliance in Narrative on tem-
poral relationships. This fact brings us to see that temporal rela-
tionships are extremely important in Narrative discourse and may in fact
form its basic structure or backbone. The comparatively heavy emphasis
on Manner relationships is also to be expected in this type of discourse
in order to facilitate description. In Expository-Procedural discourse
on the other hand, temporal relationships are little used whereas there
is heavy emphasis on Coordinate, Cause-Effect, and Generic-Specific.
We would conclude that these tend to form the basic structure of Exposi-
tory-Procedural discourse.

Relationship Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Loc	Alt	Att
Narrative	14	34	2	4	13	4	1	1	0
Expository-Procedural	22	4	13	19	8	1	0	1	1

Figure 4.   Combined Relationships of Figures 2 and 3.

Notice, however, that one discourse genre does not completely rule out the use of a particular relationship which does not form part of its basic structure or backbone. But where a temporal relationship (sequential or concurrent) is used in Expository-Procedural discourse, it contributes to it as supportive or collateral information. For example, in the discourse on Posture, the subject of good posture is introduced and expounded upon and no time line is developed because the material is subject oriented. However, when the point is made that posture could effect one's career, a success story is told in which a woman, having corrected her posture, goes on to a highly successful career. Within the story then a time line is developed, but the story merely plays a supportive role to the larger exposition.

Similarly, such relationships as cause-effect, antithetical, and alternative do not form the backbone of Narrative discourse, but are nevertheless used in Narrative as collateral material to give participant attitudes or accompanying description. For example, in the story, "Little Boy Lost in the Rockies," the time line proceeds from a bit before Keven Dye is lost until he is finally found and the story unfolds around that time line. As descriptive information is brought in, it comes via relationships other than sequential. Note in the following quote both the Antithetical and Alternative constructions: "They'd called out, they told Sheriff Estes, but he always ran on. Sometimes on craggy ridges he'd appear for an instant against the sky. He'd snatch food left for birds. At night, he'd break into cabins, steal peanut butter or raid dust-bins." (Underlining ours).

The time line, on the other hand, is carried on by such temporal phrases as, "An hour earlier, At breakfast, On Wednesday, The next day," and by such temporal clauses as, "When Phillip's enquiries and a search of the tree house failed to locate Kevin," and "...when he glanced towards the water again..."

The expository part of the Expository-Procedural discourse is developed by such Generic-Specific relationships as: "Posture is so basic to the human condition that we all rely upon it to make instant judgments of others. (Specifically) A slumping figure betrays advancing age, and nothing signals to us that someone is a 'loser' more surely than a de-

feated slouch;" and "The mechanics of balancing our bodies against the ever tugging pull of gravity--which is what posture is all about--are more complicated than you may imagine. (Specifically) Good posture has never been more vital, both psychologically and physically, than in to-day's tense, push-button sit-down world." It is also developed by such cause-effect relationships as: "Since good posture is something you achieve with your body, you must learn it in your body and not just in your mind;" and, "To keep good posture after you have found it, you need to get fit and stay fit with sensible exercise."

In the procedural part of the Expository-Procedural discourse, we notice such sequential or concurrent relationships as: "Now, keeping your back and head flat against the wall, slowly move your feet back to the wall and straighten your legs until you are in a standing position. Finally, walk round the room, maintaining the same posture; then place your back against the wall again to see if you have held the right position."

So to sum up, we have seen how discourse tends to lose style and structure when sentences as paired whole propositions are substituted by simple sentences. Further we have seen how certain relationships between propositions (and between paragraphs) function to form the basic structure or backbone of certain discourse genre. Thus we can conclude that even with this minimal study, the investigation of sentence is well motivated.

C. Semantic Relationships Between Whole Propositions.

Semantic Categories. We move then to a study of relationships be-tween whole propositions. Statement calculus of formal logic posits five basic relationships which can exist between what it terms "prime sentences." These it defines (Stoll, 1961, p. 161) as, "...sentences which either contain no connectives or, by choice, are regarded as 'indivisible'." These five relationships are:

a) Negation: A, $\neg$A (A, not A).
   Derek is a carpenter; Derek is not a carpenter.

b) Conjunction: A$\wedge$B (A and/but B).
   He ran but she walked.

c) Disjunction: A$\vee$B (A or B).
   He is either eating or he is sleeping.

d) Conditional: A$\longrightarrow$B (if A, then B).
   If you don't study you will fail your exam.

e) Biconditional: A$\longleftrightarrow$B (A if and only if B), or (if A, then B, and if B, then A).

He will sing if and only if she plays the piano; or
He will sing if she will play the piano and vice versa.

We will call these respectively, Negation, Conjunction, Disjunction,
Cause-Effect, and Biconditional. We will use only b, c, and d as seman-
tic domains in our outline of the semantic sentential relationships of
English. We cannot use Negation partly because it is not a propositional
relationship in the same category with the others, and partly because it
is subsumed under Disjunction—Derek is a carpenter or he is not a car-
penter. Biconditional as well does not seem to be a productive rela-
tionship but rather a subtype of the Cause-Effect relationship.

Semantically we wish to call prime sentences, propositions. By a
proposition we mean a single event or state with its modifying nuclear
roles. These roles may be events or states in themselves. Other events
or states may be included in the proposition provided that they are
functioning to modify the roles of either the main event or state or the
roles of modifying events or states. (Propositions in deep structure
correspond to clauses in surface structure.)

We focus in this paper (and generally in the included sentence pa-
pers) on relationships existing between only whole propositions as the
domain of sentence, and not on the relationships existing between whole
and part propositions. By the latter we mean, for example, the relation-
ships between verbs of cognition and speech and their sentential comple-
ments.

1) He said he was going downtown.

2) I know who your father is.

Nor are we focussing on relationships which exist between expletive
"it" and its antecedents such as:

3) It is a fact that all such optimism is misplaced.

We are focussing rather on relationships which can exist between
whole propositions. We assume that only one single primary relationship
exists in any one sentence. Secondary relationships may also exist but
are not in focus in the mind of the speaker (unless he is punning and this
domain is beyond the purview of our paper). To take an illustration from
Robin Lakoff (1971, p. 127):

4) The police came into the room and everyone swallowed their cigarettes.

The primary relationship between the two propositions is a temporal
(sequential) one—the sentence being taken from a Narrative discourse.
As Robin Lakoff has pointed out, this and also encodes cause-effect
(the police's coming caused the swallowing of the cigarettes). But we
maintain that the cause-effect relationship is not in focus in the mind
of the narrator. He is simply story telling and sequence in time is in

focus. So we claim sequence to be primary, and cause-effect to be secondary based on the larger discourse context in which the sentence is found.

Secondary relationships may also exist alongside of a primary relationship as long as they are functioning to modify one of the propositions involved in the primary relationship. Example 5 is an illustration of this where the but signals a secondary relationship modifying the Result of a Reason-Result sentence.

Ranking of Relationships. Within any sentence in which there are several relationships encoded, we claim that only one is primary or dominant and that others, if any, play a subsidiary role to it. For the answer as to which relationship is primary, we turn again to statement calculus for our clue which posits that cause-effect relationships take precedence over all other relationships. I quote from Robert Stoll (1961, p. 163), "We agree that $\longleftrightarrow$ is the strongest connective (that is, it is to encompass most), and then follows $\longrightarrow$. Next in order are $\land$ and $\lor$, which are assigned equal strength, and then follows $\urcorner$, the weakest connective." By and large we agree with this statement, however, when but $(\land)$ involves contraexpectancy, we hold that it outranks both and $(\land)$ and or $(\lor)$. This exception may stem from the fact that contraexpectancy involves cause-effect or expectancy patterns.

Given then the following sentence in which both a cause-effect and a conjunctive (antithetical) relationship are encoded, we are bound to give precedence to the cause-effect relationship. (Examples 5-7 are all from Longacre 1968, Vol. II, p. 6.)

5) Because water is scarce some take sponge baths but others have stopped bathing entirely.

The basic relationship here is therefore cause-effect with an antithetical relationship embedded in the effect proposition, and not an antithetical sentence with a cause margin. We label the sentence therefore a Reason-Result sentence.

The question then arises as to which relationship is primary if a certain sentence contains two cause-effect relationships. The rule that we posit for this situation is that the relationship which is stated first is primary. Note Example 6.

6) In order to save water he would have gone without bathing entirely if she had been content with a sponge bath.

In this sentence both a Purpose-Result relationship (in order to save water he would have gone without bathing entirely), and a Contrafactual relationship (he would have gone without bathing entirely if she had been content with a sponge bath) are encoded. Which one dominates the sentence or is primary? According to our rule we must label it a Purpose-Result sentence since that relationship is stated first. We there-

fore classify it as a Purpose-Result sentence with a Contrafactual sen-
tence embedded in the Result proposition.

We also posit that temporal relationships (sequential or simulta-
neous) if they apply equally to both propositions of a preceding or
following paired propositional relationship outrank the relationship of
the propositional pair if it is conjunctive or disjunctive.

7) When water is scarce some take sponge baths but others stop bathing
   entirely.   .

8) When water is scarce we either take sponge baths or go without bath-
   ing entirely.

We therefore label Examples 7 and 8 Sequential sentences, 7 having a
conjunctive (antithetical) relationship embedded in the second proposi-
tion, and 8 having a disjunctive (alternative) relationship embedded in
its second proposition. Note that the two sentences although seeming
to be Simultaneous relationships, are really Sequential (bordering on
cause-effect), the condition of scarce water having to prevail before
people begin to take sponge baths. Note also that the <u>when</u> is a close
synonym for <u>if</u> in these sentences. (Examples 5-7 are all analyzed con-
versely to our analysis by Longacre who names them respectively: Anti-
thetical Sentence with preposed Causal Margin; Contrary-to-fact Condi-
tion with preposed Purpose Margin; and Antithetical Sentence with preposed
Time Margin.)

Finally we hold that <u>but</u>, when involving the meaning component
contraexpectancy, outranks contrastive <u>but</u>, <u>and</u>, and <u>or</u>. This may be
because contraexpectancy involves cause-effect expectancy patterns and
these outrank other relationships.

9) She had fish and chips and he had a steak, but neither of them en-
   joyed the dinner.

10) John is either reading or he is relaxing but you may see him.

Both sentences we label Antithetical--Example 9 has an Additive sen-
tence embedded in the first proposition while Example 10 has an Alter-
native sentence embedded in the first proposition. (Note that it is
probably more accurate to say that the embedded sentence in 9 is Contrast
rather than Additive.)

In summary then we have posited the following four rules to deter-
mine the primary relationship in a sentence.

a) The cause-effect relationship outranks all other relationships.

b) If two or more cause-effect relationships are present in a sin-
gle sentence, the relationship stated first outranks the others.

c) Temporal relationships, if they apply equally to both proposi-
tions of a preceding or following conjunctive or disjunctive relation-
ship, outrank that relationship.

d) But when involving the meaning component of contraexpectancy,
outranks and, or, and contrastive but.

One final note needs to be made about relationships. Some rela-
tionships require two and only two propositions, others permit more than
two. However we still hold that only one primary relationship can be
permitted per sentence. Disjunctive (not with excluded middle) is a
relationship which permits several propositions but whose primary rela-
tionship of choice among them remains singular.

Semantic Tree. Given then the relationships which exist between
whole propositions, we have attempted to put them into a system and pre-
sent them in the form of a tree diagram. All sentential relationships
can be subsumed under the three logical headings of Cause-Effect, Con-
junction, and Disjunction. The sentences at the terminal nodes of the
tree are meant to be illustrative of the relationship of the node and
where possible to be universally valid across cultural boundaries. The
linguist technician is therefore encouraged to use them to elicit similar
relationships in the language he is studying as a means of beginning
sentence analysis. In some cases where our suggested example fails to
elicit the same relationship, a more culturally valid example could be
substituted. Example 11a should be universally valid as a Condition-
Consequence relationship, except of course, in cultures in which houses
above the ground are unknown. In such a case, perhaps "cliff" could be
substituted for "roof."

1. Cause-Effect Relationships (A——>B).

We will now go through the tree (Figure 5) from right to left ex-
plaining our use of semantic labels and commenting on the relationships
we have noted. The first division in our tree is between Cause-Effect
and Non-Cause-Effect type relationships. It is interesting to observe
that by means of a transform battery, the whole range of Cause-Effect
relationships (plus some others) can be generated from a single Condi-
tional sentence. Note the following battery:

11a) If you step off the roof you will fall.⎤
11b) Step off the roof and you will fall. ⎦ Condition-Consequence.

12) Had he stepped off the roof he would have fallen. Contrafactual.

13a) He stepped off the roof so/therefore he fell.⎤
13b) Because he stepped off the roof he fell. ⎦ Reason-Result.

14) In order to fall he stepped off the roof. Purpose-Result.

15) The quicker you step off the roof, the quicker you will fall. Pro-
portional.

DISJUNCTION (A∨B)   CONJUNCTION (A∧B)

RESTATEMENT

CONTRAST

COMPARISON   CONTRAEXPECTATION   REPETITION

POLARIZED   MANNER   SPEAKER EXPECTANCY

POSITIVE

ALTERNATIVE	ADDITIVE	QUESTION-RESPONSE	COMPARATIVE OF DEGREE	COMPARATIVE OF MANNER	CONTRAST	ANTITHET-ICAL	GENERIC-SPECIFIC	RECAPIT-ULATION	NEGATIVE ECHO	POSITIVE ECHO
He is either coming or he's not. Don't step off the roof or you will fall. Step off the roof or you won't fall.	He eats much and he sleeps much. There was food and there was water.	What is your life? it is a vapor.	He is taller than l.	He eats like a pig.	They have food and shelter but we have none of these things. Although they have food and shelter, we have none of these things.	He stepped off the roof but he didn't fall. Although he stepped off the roof, he didn't fall. Step off the roof, you won't fall.	They have everything; they have food; they have clothing; they have fields; they have houses.	We ate; we ate raven-ously.	You won't go out a-lone at night will you?	You did bring the food, didn't you?

Figure 5.   Semantic Relations Between Whole Propositions in English.

SEMANTIC RELATIONSHIPS

CAUSE-EFFECT (A ——> B)

HYPOTHETICAL

TEMPORAL   INTENTION   INFERENCE

SEQUENCE   CORRELATIVE

SYNONYMY   PAST TIME

ANTONYM

IDENTITY- PARAPHRASE	NEGATED ANTONYM	SIMULTANEITY	SEQUENCE	REASON- RESULT	MEANS- PURPOSE	CONDITION- CONSEQUENCE	CONTRA- FACTUAL	PROPORTIONAL	GROUNDS- IMPLICATION
The tiger charged; he ran headlong into the waiting snare.	He is not dead; he's alive. Let the boy go; don't try to stop him.	While the men worked in the fields, the women worked at home.	They cooked the meal and ate it heartily. After they cooked the meal they ate it heartily. Having cooked the meal they ate it heartily.	He stepped off the roof he fell. Because he stepped off the roof, he fell.	He stabbed the tiger in so/therefore order to kill it.	If you step off the roof you will fall. Step off the roof and you will fall.	Had he stepped off the roof he would have fallen.	The quicker you get back the quicker you can eat.	She is pale so she must be sick.

16) He stepped off the roof so he must have fallen. Grounds-Implication.

17a) He stepped off the roof and then he fell.⎤
17b) After he stepped off the roof he fell.   ⎦ Sequence.

18a) He stepped off the roof but he didn't fall.   ⎤
18b) Although he stepped off the roof he didn't fall.⎬ Antithetical.
18c) Step off the roof, you won't fall.   ⎦

19a) Don't step off the roof or you will fall.⎤ Alternative.
19b) Step off the roof or you won't fall.   ⎦

The fact that we have been able to include all of our terminal nodes under Cause-Effect as transforms of one kernel conditional sentence gives us good reason to include them all under the general heading of Cause-Effect. We will further defend this choice as we consider each individual sentence relationship. Examples 18 and 19 are not considered cause-effect and will be commented on under Antithetical and Alternative. Example 17 could be considered cause-effect perhaps because of the strong cause-effect relationship which underlies it, and the close relationship between temporal sequence and logical (cause-effect) sequence. In such cases where it could be classified as either, the context must be the final arbiter as was noted in Example 4 above.

Grounds-Implication. The first division under Cause-Effect is labeled hypothetical. By this we mean that the sentences under this node are up for proof. Nothing in them indicates that they have occurred; they come under the rubric of prediction and supposition. The sentence type Grounds-Implication falls under the inference node. It is interesting to note that this type is actually the second premise and conclusion of an inference argument, such as:

20) All pale people are sick.
    She is pale.
    So she must be sick.

The first premise is taken as an implicit underlying cause of the final conclusion. In the sentence however, since the first premise of the argument is omitted, the Grounds becomes inferential cause by proxy. In order to elicit the Grounds as the case in the mind of the speaker, the question must be asked, Why do you think she is sick? Answer: Because she is pale. It is this element of thought, inference, or conclusion which characterizes this sentence relationship.

21) She is pale so (I think, infer, conclude that) she must be sick.
    Grounds-Implication.

The sentence is not a statement of fact, but merely a statement of the speaker's opinion which can be disproved.

Proportional. The Proportional sentence comes under the semantic

notion of _correlativity_ by which is meant that one proposition varies in degree or quality either in direct or inverse proportion to the other proposition.

22) The quicker you return, the quicker you can eat. Direct Proportion.

23) The more I tell you the less you obey me. Inverse Proportion.

There may be some question about the validity of including this sentence under the Cause-Effect heading. If the question is asked, What will cause you to eat quickly? the answer is, My quick returning. And likewise to the question, What will be the _result_ if you return quickly? the answer is, I will be able to eat quickly. These indicate that the underlying relationship between the two is cause-effect.

Condition-Consequence. The cause of this relationship is set forth as provisional, the effect of which will only occur provided that the cause is realized. The sentence is therefore always set in an unrealized or subjunctive mode.

24) If you step off the roof you will fall. Condition-Consequence.

An interesting feature about this type is that it requires that both of its propositions be either positive or both negative in cultural or situational value. We will illustrate presently what we mean by this. It may be true of all cause-effect sentences and if so would lead us to conclude that only good causes underlie good results and bad causes, bad results. Notice what happens if we put a negative into the condition of Example 24.

25) If you don't step off the roof you won't fall.

We were compelled to match the _don't_ of proposition one with a _won't_ in proposition two. This feature is a subtle one and some might object on the basis that you can say the following sentence which seems to be negative-positive.

26) If you don't talk too much people will like you.

But the relationship is still positive to positive since _talk too much_ has a negative cultural value which is negated making it a positive. Note that conjecture, not fact, is involved in this relationship.

The second example of Condition-Consequence noted in our cause-effect battery, Example 11b (Step off the roof and you will fall), is a subtype of the Conditional sentence in which the speaker expects the hearer to be familiar with the information given. He gives it as a re-minder, caution, or warning.

Contrafactual. This pair is merely a Condition-Consequence sentence viewed from the present as having already happened or as it turns out, as

having not happened. In the mind of the speaker the truth value of his
assertion is actually the opposite of what is stated. Therefore the
actual truth of:

27) Had he stepped off the roof, he would have fallen. Contrafactual.

is, He did not step off the roof and he didn't fall. His assertion
however, is merely conjecture, based on laws of cause-effect or cultur-
ally determined expectancy patterns, and is not as such a statement of
fact.

Means-Purpose. There are two ways of looking at this relation-
ship--the one indicates that it is cause-effect, the other that it is
effect-cause.

28) He stabbed the tiger in order to kill it. Means-Purpose.

Is the Means (the stabbing of the tiger) the cause of an intended effect,
or is the Purpose (in order to kill it) the cause of the action portrayed
in the Means proposition? In reality intention always precedes action
and constitutes the underlying cause of any intermediate means. Note
that in this relationship we are given only the intention and the means
and not the final result. If we ask, What was the cause of his stabbing
the tiger? we get the reply, Because he wanted to kill it. If we in
turn ask, What resulted because he wanted to kill the tiger? we get, He
stabbed it. This seems to firmly establish the Purpose proposition as
the cause and the Means as effect in this sentence type.

Note that it is not permitted to ask, What was the cause of his
killing the tiger? because in our original Means-Purpose sentence he did
not yet kill it. Nor are we permitted to ask, Why did he want to kill
the tiger? since the answer (Because he did not want it to kill him),
takes us out of the domain of our original sentence and is therefore not
valid as proof of anything.

The semantic feature that distinguished this sentence is intention
or desire. Note the frequent use of want in the questions and answers
about it above. We move with this sentence type out of the domain of
conjecture into statement of fact.

Reason-Result. This is the most clearly cause-effect of all of the
cause-effect relationships. It can be encoded with any of three gram-
matical signals--because, so, or therefore.

29a) He stepped off the roof so/therefore he fell.⎤
29b) Because he stepped off the roof, he fell.   ⎦ Reason-Result.

Of the six cause-effect patterns given, only Grounds-Implication
and Proportional reject permutation of their two propositions. If the
propositions of these two are permuted it results in a change of sen-
tence pattern.

30) He is pale so he must be sick. $\Longrightarrow$
    So he must be sick, he is pale.*
    He must be sick because he is pale.

31) The quicker you return the quicker you can eat. $\Longrightarrow$
    The quicker you can eat, the quicker you return.*
    If you want to eat quickly, you must get back quickly.

2. Conjunction (A∧B).

The first node we encounter under Non-Cause-Effect is conjunction which in logic includes both the notions of and and but. That is, it includes both coupling and contrast. We have also included under this node the features of time and restatement.

2.1 Temporal.

Temporal relationships can be divided into the broad categories of Sequence and Simultaneity.

32a) They cooked the meal and ate it heartily.
32b) After they cooked the meal they ate it heartily.   Sequence.
32c) Having cooked the meal they ate it heartily.

33) While the men worked in the fields the women worked at home. Sim-
                                                                   ultaneity.

The subcategories of pure sequence versus overlapping sequence, and of coterminus simultaneity versus inclusive simultaneity, are not shown in the tree. In pure sequence, one action follows the other with no overlap whereas overlapping sequence permits the second to begin before the first has finished. Coterminus simultaneity requires that both actions begin and end at precisely the same time whereas inclusive simultaneity merely requires that the time span of one be included within the time span of the other.

It is in this area of simultaneity that some have distinguished a Circumstantial relationship, in which one proposition forms the circumstance, setting, or situation under which the other occurs. This may be a real distinction especially if we say that we have this relationship if and only if the first proposition is a state, not an event.

34) While the weather continued fair, the men continued to work.

We have likewise not included this distinction of simultaneity in the tree.

2.2 Restatement.

Restatement is a conjunctive relationship in which one proposition repeats or restates, either verbally or conceptually, part or all of

another and modifies it in some way. The test for a restatement rela-
tionship is, Can you insert the words, "That is," between the propositions
and still retain the original sense of the sentence.

Negated Antonym and Paraphrase. The first node under restatement is
synonomy which requires that the two propositions be synonomous either
by negating an antonym of one of the constituents of the other or by
providing a synonym for one of the constituents of the other. This con-
stituent in both cases is typically and possibly obligatorily the pred-
icate.

35) He is not dead; he is alive. Negated Antonym.

36) The tiger charged; he ran headlong into the waiting snare. Para-
                                                                 phrase.

Positive and Negative Echo Questions. The two echo questions
qualify as restatement sentences in that the second proposition restates
the first in the form of a formulaic truncated question with the added
semantic component of speaker expectancy. In the Positive Echo, the
speaker uses a positive statement in the first proposition coupled with
a negative statement in the second to indicate that he expects a posi-
tive answer. In the Negative Echo he uses a negative statement in the
first proposition and a positive statement in the second to signal that
he expects a negative answer.

37) You did bring the food, didn't you? Positive Echo.

38) You won't go out alone at night, will you? Negative Echo.

We have included these under the repetition node because the tag
question elliptically repeats the first proposition in the form of a
pro-verb (in Example 37 the pro-verb is did; in Example 38 the pro-verb
is will).

Recapitulation. Recapitulation is a restatement sentence requiring
that at least the Actor or Undergoer and the Predicate of one proposi-
tion be repeated by the second proposition.

39) We ate; we ate ravenously. Recapitulation.

Generic-Specific. This is a restatement relationship in which one
generic proposition is restated in the form of one or more specific
propositions.

40) They have everything; they have food; they have clothing; they have
    fields; they have houses. Generic-Specific.

2.3 Contrast.

The two relationships coming under the semantic notion of contrast—

Antithetical and Contrast—are closely related to each other in both
form and meaning. They are both a subclass of contrast—the one stem-
ming from an expectancy pattern which is countered; the other from a
comparison of two opposing situations. We have labeled the first Anti-
thetical and the second Contrast.

Antithetical. The first of these involves what Robin Lakoff (1971
p. 135) calls, "an assymetric use of but" (because the two propositions
cannot be permuted).

41a) He stepped off the roof but he didn't fall.⎤ Antithetical.
41b) Although he stepped off the roof, he didn't fall.⎦

Cause-effect is involved in this type and forms the basis for the ex-
pectancy pattern underlying the contrast. We have not included Anti-
thetical under Cause—Effect, however, because no Why-question will elicit
either proposition as the cause. The relationship is rather one of con-
trast between a thesis and an antithesis. This becomes clear when the
sentence is paraphrased as follows:

42) He stepped off the roof but in contrast to what you are thinking,
    he didn't fall.

Returning to Example 18c (Step off the roof, you won't fall) we
classify it as a form of the Antithetical relationship. Depending upon
the situation in which it is spoken, this subtype can vary from a dare
to an encouragement. It is often used by parents or instructors to in-
spire children or students to undertake an unfamiliar action.

43) Take a deep breath and relax on the water, you won't sink.

Note that this sentence may be paraphrased, Take a deep breath and re-
lax on the water; in contrast to what you think, you won't sink.

Antithetical includes Longacre's Expected Consequent Antithetical
and Consideration Which Counter-Balances Antithetical (1970 p. 797).

Contrast. This type requires that two constituents of one proposi-
tion be compared or contrasted with two of the other.

44a) They have food and shelter but we have none of these things. Con-
                                                                    trast.
44b) Although they have food and shelter we have none of these things.

Note that they and food and shelter are contrasted with we and none of
these things. Contrast includes Longacre's Denied Alternative Anti-
thetical (1970 p. 797). It corresponds to Robin Lakoff's "symmetrical
but" (1971 p. 135), in that the propositions may be permuted.

In both Antithetical and Contrast sentences, although functions as
a paraphrase of but. The question arises then, Is it always a para-

phrase of but? We have noted two situations in which it is not. The
first is where we have a negated antonym in one proposition and an anto-
nym in the other.

45) He is not dead but he's alive.

46) Although he is not dead, he is alive.*

The reason that the although paraphrase does not apply here is that
although functions to contrast degrees or gradients of an absolute, but
not synonomous constituents (not dead and alive are here synonyms). But,
on the other hand, is able to completely ignore the not and function to
contrast the antonyms dead and alive. Note, however, what happens when
we modify one of the absolutes, making it a relative term.

47) Although he is not dead, he is barely alive.

Now the although functions because it is serving to contrast degrees
of death--dead versus barely alive. This difference between but and al-
though was suggested by Longacre (1967 p. 19).

     The second situation where the two contrast is with deleted infor-
mation. But permits deletion of the Result proposition of an embedded
Reason-Result sentence whereas although does not permit it.

48) I was going to the store but Kenny got sick.

49) Although I was going to the store, Kenny got sick.*

Although refuses to function as long as the result of Kenny's sickness
remains implicit. But note:

50) Although I was going to the store, Kenny got sick so I couldn't.

     2.4 Non-Contrast.

     Comparative of Manner and Degree. The first label under the Non-
Contrast node is comparison which requires that the two propositions be
related to each other by positive resemblance of either manner or degree.

51) He eats like a pig. Comparative of Manner.

52) He is taller than I. Comparative of Degree.

While in English these may not qualify as two whole propositions on the
surface, certainly two whole propositions are involved in the deep
structure. In an another language they may surface as two, as for ex-
ample, As a pig eats so he eats.

     Question-Response. This relationship falls under the node labeled
polarized. It is polarized in the sense that one proposition is minus,

the other plus; one is stimulus, the other response. We are not focussing on the Question-Response found in dialogue but rather on the rhetorical device used in monologue.

53) What is your life; it is a vapor.   Question-Response.

Additive. It is difficult to join two propositions together in a purely semantic coupling or additive relationship. One would think that and would do this for us quite simply. But notice the three following sentences all joined with and but none of them additive in relationship.

54) The police came in and everyone swallowed their cigarettes. Sequence.

55) Step off the roof and you will fall. Condition-Consequence.

56) He will do the theoretical work and she will do the practical. Contrast.

In an earlier draft of this paper we tried to join two events widely separated in semantic domain with and in an attempt to show that it could be done. Our sentence was:

57) He will go and the sun won't shine.

Reaction to the two propositions by others however, was that there was a cause-effect relationship between them—that is, He will go and (he is such a sourpuss that) the sun won't shine.

Even without and events linked together tend to take on a cause-effect or sequential relationship. Note:

58) I came; I saw: I conquered.

However, where two events or states are coupled together with only one constituent of each which is varied, a true semantic additive relationship is obtained.

59) There was food and there was water. Additive.

60) He eats much and he sleeps much. Additive.

If we vary two constituents, the relationship becomes one of contrast—He eats much and he sleeps little. Here eating is contrasted with sleeping and much with little.

The same relationship is signaled by the discontinuous links both...and and neither...nor. Whereas both...and permits only two propositions, the Additive sentence is typically open-ended (that is, permits two or more propositions).

3. Disjunction $(A \lor B)$.

The semantic notion that characterizes this relationship is <u>choice</u>. This choice is either between the positive and negative aspect of the two predicates involved, between situational opposites, or between corresponding constituents of each proposition. They are illustrated as follows:

61) He's either coming or he's not coming. (Positive-Negative).

62) He's either sleeping or he's eating. (Alternate Predicates).

63) Did Brad eat the pie or did Darryn? (Alternate Actors).

64) Do you walk to work or do you carry your lunch?*

65) Do you walk to work or do you take the bus? (Situational Opposites).

The latter two illustrate the need for situational opposites in the Alternative sentence. Since you can both <u>walk</u> <u>to</u> <u>work</u> and <u>carry</u> <u>your</u> <u>lunch</u> at the same time, they do not qualify as alternatives. The sense is rectified when a mutually exclusive activity to <u>walk</u> <u>to</u> <u>work</u> is introduced such as <u>take</u> <u>the</u> <u>bus</u>. The same would be true of:

66) Do you carry your lunch or buy it at the cafe?

The feature of choice is also seen in our transform of the Conditional sentence, If you step off the roof you will fall.

67) Don't step off the roof <u>or</u> you will fall.

The choice here is subtle, but is between obedience and consequences, which are again mutually exclusive. We have classified this sentence with Alternative rather than Cause-Effect because the supposed result <u>you</u> <u>will</u> <u>fall</u>, is the result of stepping off the roof, <u>not</u> of not stepping off the roof as the sentence commands. This is seen if the sentence is paraphrased as follows, Don't step off the roof because if you do you will fall. In our alternative sentence the <u>or</u> takes the place of <u>because</u> <u>if</u> <u>you</u> <u>do</u>. The basic relationship then is choice between obedience and disobedience with consequences.

Mutual exclusion is not the only feature which characterizes disjunction along with choice. Choices can be presented in the form of a list, one or more of which may be selected.

68) We will go by bus, or by jeep, or if things are really bad we will walk.

D. Relationship of Surface to Deep Structures.

Tagmemicists have always been interested in this problem basically because the tagmeme is a form (surface)-meaning (deep) composite. Sentence structure has been an especially good area in which to study this relationship perhaps because of the obvious discrepancy between the two.

Mary Ruth Wise in her paper on Palikur (1971) has contributed much to this problem. She has charted the two categories in the form of a matrix the deep (semantic) structures forming the vertical dimension and the surface (grammatical) structures forming the horizontal dimension. Two salient features which emerged from her study were that, "...the deep structure relation between actions may remain invariant through variant surface structures, or the surface structure may remain invariant through variant deep structure relations," and that, "Within a discourse...the boundaries of deep structure sentences and surface structure sentences are not always co-terminous."

Another conclusion which can be drawn from our study is that the relationship between surface and deep is arbitrary and therefore language specific. That is, given a certain deep structure relationship, it is impossible to predict with accuracy what its surface encoding will be. For the single deep relation of Sequence, a speaker of English has a choice of at least three contrasting surface forms.

68) They cooked the meal and ate it. Coordinate (Base-Link-Base).

69) After they cooked the meal, they ate it. Subordinate (Relator-Axis-
                                                            Base-Base).

70) Having cooked the meal they ate it. Subordinate (Participial Base-
                                                            Base).

In Tamang a speaker would have a choice of the two Subordinate structures noted for English but has no Coordinate choice. In Palikur a speaker would have the same Subordinate choice, but his Coordinate choice would be a paratactic Base-Base construction.

Having noted this, there are some general conclusions which can be drawn which indicate that the relationship between surface and deep may not be completely arbitrary. We will note these presently but first would like to discuss the means we used to study this relationship.

We have attempted to keep these two categories separate, but still to take both into consideration when determining structure. Again Wise's Palikur article pointed us in the right direction for keeping the two in proper balance. For the specific method of mapping the two together in a single chart which we have used I am indebted to Ray Christmas whose paper, Sentence Patterns in Kupia, appears in this volume. The method is simply to construct a tree of the semantic relationships existing in a

language similar to the one in Figure 5. The terminal nodes of this
tree then, instead of being listed side by side, sink into a three or
four level grammatical grid to the level appropriate to the structure
of each. The three levels are basically Coordinate and Subordinate
with Coordinate divided into linked versus paratactic structures. If
subordinate is similarly divided, it is between those structures whose
dependent half is participial in form and those whose dependent half is
made so by the presence of a relator.

     We have thereby relegated to surface structure only these four
categories. The first question we ask when determining grammatical
status is, Is it a relationship between structures of equal grammatical
status (either independent or dependent) or not? If so we label it
Coordinate. If it is Coordinate and there is a link joining the two, we
assign it to the Base-Link-Base division, otherwise to the Base-Base
division. If the relationship is between constructions of unequal gram-
matical status we label it Subordinate and then assign it to either the
participial or axis-relator class. Participial structures tend to be
static verb forms whereas relators may allow the verb form to vary.
Participial endings typically occur exclusively on verbs while relators
tend to be more free to occur with either nouns or verbs. Certainly
our grammatical grid could be finer, but we have cut off at this point
feeling that it is sufficiently fine to be readily usable and to show
up pattern from language to language.

     Each sentence paper in this volume contains such a display showing
the interplay between deep and surface for its own language. The Halbi
and Maithili papers (the latter is included in Hale 1973, Vol. I) also
contain these displays in reverse in which the tree is composed of gram-
matical criteria while the grid receiving the terminal nodes is semantic.
Alice Davis, author of the Maithili paper, has used the two displays to
establish contrast between sentence types. She reasons as follows:
"In order to establish contrast between sentence types, following the
tagmemic form-meaning composite standard, we require that each sentence
type must appear on a separate branch of both the Semantic Tree and the
Grammar Tree. If two types emanate from the same terminal branch on
either one of the trees, they are considered as subtypes. Thus, although
the Reason sentence types appear in three different places on the Gram-
mar Tree, they are classes as sub-types because they all emerge from the
same branch on the Semantic Tree."

     Ray Christmas has done a similar thing in constructing a matrix of
grammatical differences (Figure 3 in the Kupia paper), in addition to
his semantic tree. He then insists that a sentence type must have at
least one grammatical and one semantic difference to qualify as a con-
trastive type.

     We now present the dual structure displays of six languages minus
the super structure of the Semantic trees (Figures 6-11). That is,
merely the four-layer grammatical grid and the terminal nodes of the
Semantic trees will be presented for each language. This will allow us

to observe all the languages together with their various grammatical en-
coding patterns, and enable us to draw conclusions about their similari-
ties and differences. From these then we may be able to abstract some-
thing more about the relationship of surface to deep in general.

Four of the languages are Indo-Aryan (Kupia, Halbi, Maithili, and
Nepali), so we may expect some similarities of grammatical encoding
patterns among them. One is Tibeto-Burman (Tamang), and the other is
an Arawakan language of Brazil (Palikur). We have put the sentence
types of Palikur, as presented by Wise and Green 1971, into our format in
order to give more diversity to our comparison. In doing so we assume
responsibility for assigning the types to the broad semantic categories
of Cause-Effect, Conjunction, Restatement, Coupling, Complementation,
Disjunction and Temporal. We have had to do this also for Nepali since
it was not presented in this format. (If we have misrepresented either
language it has not been intentional.) Except for one or two types, the
assignment was sufficiently straight forward to be without question. For
some of the languages it was necessary to decide as well the exact gram-
matical status of a type since all of the sentence papers in this volume
used only a three-level grammatical grid. The languages are grouped to-
gether according to language family, the four Indo-Aryan languages being
listed first.

We can make the following general observations about these displays:

a) Cause-effect relationships tend to encode as subordinate struc-
tures. Palikur is an exception to this statement but even then it has
several of its Cause-Effect sentences encoding as subordinate.

b) Disjunction relationships almost uniformly encode as coordinate
structures with a link. Palikur is the sole exception to this, its
Disjunctive sentence being a paratactic structure.

c) Restatement relationships tend to be paratactic in form. The
items not so labeled but qualifying as Restatement in the Tamang, Nepali,
and Palikur displays are Paraphrase and Generic-Specific. (These types
will be found grouped under the semantic category of Conjunction in these
three languages.)

d) Conjunctive relationships tend to encode as coordinate forma-
tions. This includes the terms Coupling and Complementation.

e) Temporal relationships are largely subordinate in structure.
This may be due to their affinity to Cause-Effect relationships.

While it is true that there is a great deal of similarity across
the three language families (Arawakan, Indo-Aryan, and Tibeto-Burman),
this may not be entirely unexpected. Tamang has been under the strong
influence of Indo-Aryan (Nepali) for some time and we could dismiss the
similarity with Arawakan as coincidence. It is evident that we need a
much wider sampling of languages and language families before any firm

Alt	Alt-Cond	Con-join-ed	Anti-thet-ical					Rsn-Rslt A				B L B	COORD
	Addi-tive	Ex-haus-tive	Gen-Sp	Ques-tion-Rsp	Para-phras-Recap	Neg-Ant-onym	Pos-Eko	Pro-por 2		Warn-Consq B	Simul B	Seq B	B B
												Seq A	Ppl B	SUBRD
			State-Expla-nation					Rsn-Rslt B	Pro por 1	Cond A	Conc	Cntr-fac-tual	Neg-Cond A	Simul A	Seq A / Cond B	A-R B

Disjunc-tion   Coupling   Restatement   Cause-Effect   Temporal

Figure 6.   Kupia Dual Structure Display.

Alt Alt- Ques			Con-join-ed	Magn-ific- Neg-Ant-		Rsn-Rslt	Cond Alt					B L B	COORD
	Quot-ation ness Fact	Wit- Pro-por Comp	Dis-Claim Cnj	Desc-List-ing	Iden-Cont-rast	ation Pos-Sp-Gen	onym Neg-Sp-Gen	Pos Eko	Cnt-rex			B B
	Topic-Com-ment		Anti-thet-ical					Cause-Effect	Cntr-fac-tual	Gen-Sequ-ence	Sp-Sequ-ence	Ppl B	SUBRD
	Topic-Com-ment		Anti-thet-ical			Pur-pose-Rslt	Con-ces-eion	Cause-Effect	Cond Temp-Cond	Simul Coter-minus	Sp-Sequ-ence	A-R B

Dis-junc-tion   Complementation   Coupling   Restatement   Cause-Effect   Temporal

Figure 7.   Halbi Dual Structure Display.

Alt	Coup-led	Cont-rast	Gen-Sp	Anti-thet-ical	Rsn A Qntf-Rsn	Re-sult		Warn-ing	Immed-Sequ-ence	B L B	COORD
	Cor-rela-tive	Reit-era-tion	Para-phras onym	Neg-Ant-Rsp	Ques-tion-Rsp					B B
				Conc-Att				Tem-poral		Ppl B	SUBRD
				Con-ces-sion	Rsn B pose Pur-pose	Pur-Neg fac-tual	Cntr-fac-tual	Condi-tion-al	Tem-poral	A-R B

Dis-junc-tion   Coupling   Restatement   Cause-Effect   Temporal

Figure 8.   Maithili Dual Structure Display.

Alter- Coor- Cons-   Enum-   B
na-   dina- traint   era-   L   C
tion   tion   tion   B   O
                                                                            O
       Anti-   Inclu- Inver- Para- Equi-   B   R
       thet-   Exclu- sion   phrase val-   B   D
       ical   sive   ence
                                      Conc-   Cond- Temp-   Ppl S
                                      Out-   Out- Iden   B   U
                                      come   come   B
                                                                            R
                                              Rea-   A-R D
                                              son   B

Dis-   Conjunction   Cause-Effect   Tem-
junc-   poral
tion

Figure 9.   Nepali Dual Structure Display.

Alter- Int-   Addi-   B
na-   Alter- tive   L   C
tive   native   B   O
                                                                            O
       Cont-   Gen- Cor- Contra-   Anti-   B   R
       rast   Spec- rela- dic-   thet-   B   D
                ific tive tory   ical
                                                              Sequ-   Ppl S
                                                              ence   B   U
                                                                            B
              Com-   Condi- Cntr- Rsn- Con- Con- Con- Sequ-   A-R R
              para-   tion- fac- Rslt ces- cept- cur- ence   B   D
              tive   al   tual   sion Rslt rent

Disjunction   Conjunction   Cause-Effect   Temporal

Figure 10.   Tamang Dual Structure Display.

Dis-   Ad-   Con-   Con- Pur-   B
junc-   versa- verse   ces- po-   L   C
tive   tive   sive sive   B   O
                                                                            O
   Para- Adver- Con- Cont- Pur- Cause-   Ex-   Circum- Simul- Sequ- B   R
   phras- sa-   verse rast   po- Effect   plan- stan-   tane- ence B   D
   tic   tive   sive   atory tial   ous
                               Cause-   Circum-   Sequ- Ppl S
                               Effect   stan-   ence   B   U
                                                         tial   B
                               Pur-   Equiv- Condi-   Circum-   Sequ- A-R R
                               po-   alent- tion-   stan-   ence   B   D
                               sive   Cond   al   tial

Dis-   Conjunction   Cause-Effect   Temporal
junc-
tion

Figure 11.   Palikur (Arawakan) Dual Structure Display.

conclusions can be drawn. Perhaps by making our grammatical grid finer and our semantic domains more sharply defined we would get more contrastive patterns from language to language. Our hunch is that language families will display marked tendencies towards uniformity of encoding patterns from deep to surface and that this uniformity will be a contributing factor to enable us to more exactly classify a language. While semantic notions seem to definitely point toward a universal base, it is the grammatical encoding patterns which need further study as do the relationships between them. As the study of semantic universals is proving fruitful, we are encouraged to believe that the study of grammatical encoding patterns and their relationships to semantic notions will as well.

ABBREVIATIONS

Alt	Alternative
Anti	Antithetical
A-R B	Axis-Relator-Base Base
Att	Attributive
BLB	Base Link Base
BB	Base Base
C-E	Cause-Effect
Cnj	Conjecture
Cntr	Contra
Cntrex	Contraexpectation
Comp	Comparison/Comparative
Cond	Conditional
Coord	Coordinate
Consq	Consequent/Consequence
Desc	Descriptive
Eko	Echo
Gen	Generic/General
Iden	Identity
Immed	Immediate
Inclu	Inclusive
Int	Interrogative
Loc	Locative
Neg	Negative
Para	Paraphrase
Pos	Positive
Ppl B	Participial-Base Base
Propor	Proportional
Ques	Question
Qntf	Quantified
Recap	Recapitulation

Rslt	Result
Rsn	Reason
Seq	Sequence
Simul	Simultaneous
Sp	Specific
Temp	Temporal

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Sentence Patterns in Halbi

Fran Woods

A. Introduction.

Halbi is the lingua franca of the Bastar District in the interior of the state of Madhya Pradesh, India. According to the 1961 Census of India there are 300,000 native speakers of the language. Halbi belongs to the Indo-Aryan family of languages and is closely related to Oriya, Hindi, and Marathi.

As a member of the Summer Institute of Linguistics working under the auspices of Deccan College, Poona, the author commenced research in Halbi in 1967. Between 1967 and 1969 the author and a co-worker, Miss Betsy Schuyler, lived in the village of Bhatpal in Bastar District. The present analysis is based on the language as spoken in Bhatpal village.

The author is particularly indebted to Mr. Chingaru Ram Murea, Mr. Durga Ram Murea, and Mr. Lula Ram Murea, all of Bhatpal village, for their able assistance in sorting out the intricacies of their language; and to my co-worker, Betsy Schuyler, for her continuing interest and encouragement. The author is also indebted to Dr. Kenneth L. Pike, Dr. Ronald L. Trail, Dr. Robert E. Longacre, and other members of the Summer Institute of Linguistics for their stimulation in working on the sentence in Halbi.

It is the author's view that a sentence is basically composed of either one proposition (clause) with its peripheral elements, or two or more propositions (clauses) with only one primary relationship, plus periphery. Focusing on the latter aspect the purpose of this paper is to describe the sentence structure of Halbi. Leaving the description of one-proposition-sentence at this point, we focus on sentence as grammatically a level of clause combination and semantically a level of proposition combination. The interplay of these two features is what we have used to arrive at the twenty-nine sentence types here posited.

The first section of the paper describes the general grammatical structure of the sentence in Halbi and includes a description of sentence nucleus and sentence periphery. The contrastive sentence types are then incorporated into two trees. The first tree is a semantic or propositional relationship tree where each node is a contrastive semantic feature. The second tree is a grammatical structure tree where each node is a contrastive grammatical feature.

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The second section of the paper describes in detail the contrastive sentence types. Each sentence is introduced with a short grammatical description followed by a basic sentence formula using the four box system developed by Pike. Immediately following the formula is a description of the semantic relationship between the propositions. This is followed by a more detailed grammatical description including the Halbi examples.

Following this section is a short section on sentence combination describing simultaneous double encoding of various propositional relationships and the embedding of coordinate and alternate constructions in dependent bases. Finally, a section on distribution illustrates some of the recursive embedding of one sentence type within another which may occur in Halbi.

In the basic sentence formulas, links are formalized using a six box system. Box 3 gives the Halbi word or words while box 6 gives the English gloss. Halbi words written with capital letters in box 3 (such as GUNE) indicate one of a class of conjunctions. This is also true in the grammatical descriptions where relators (such as ALE) and verbal suffixes (such as -UAY) are written with capital letters to indicate one of class of fillers.

The following is a summary statement of the Halbi phonology and the orthography used for the examples and illustrations given in Halbi. In Figures 1, 2, and 3 the consonants and vowels are given together with the orthographic equivalents in those cases where the orthographic spelling is different from the phonemic spelling. In Figure 4 syllable initial clustering with h is illustrated.

p	t	ṭ (T)	c	k
b	d	ḍ (D)	j	g
	s			
m	n			
	l			
	r	ṛ (R)		
w			y	h

Figure 1. Halbi Consonants.

i			u
	e	ə(6)	o
		a	

Figure 2. Halbi Oral Vowels.

$\tilde{\imath}$ (i:) $\tilde{u}$ (u:)

$\tilde{e}$ (e:) $\tilde{3}$(6:) $\tilde{o}$ (1:)

$\tilde{a}$ (a:)

Figure 3. Halbi Nasalized Vowels.

ph	th	ṭh (Th)	ch	kh
bh	dh	ḍh (Dh)	jh	gh

Figure 4. Syllable Initial Clusters with h.

Throughout the paper, clauses filling the sentence bases are de-
scribed as belonging to the Active, Eventive, Stative, or Attributive
clause sets. The Active clause set includes Intransitive, SemiTransi-
tive, Transitive, and DiTransitive clauses; the Eventive clause set in-
cludes Eventive, SemiReceptive, Receptive, and DiReceptive clauses; the
Stative set includes Descriptive, SemiStative, Stative, and DiStative
clauses; and the Attributive clause set includes Circumstantive, Semi-
Attributive, Attributive, and DiAttributive clauses. A more complete
description of the Halbi Clause may be found in volume two of this re-
port.

During the research, considerable use was made of a concordance of
text in Halbi made on the IBM 1410 computer at the University of Okla-
homa by the linguistic information retrieval project of the Summer In-
stitute and sponsored by grant GS 1605 of the National Science Founda-
tion.

B. General Structure of the Halbi Sentence.

In Halbi, a sentence consists of a nucleus and an optional peri-
phery. The nucleus of the sentence is that part of the sentence pro-
viding the contrastive features which identify the various sentence
types in Halbi. The periphery of the sentence generally does not pro-
vide the contrastive features distinguishing one sentence from another
although there are specialized periphery tagmemes which may only occur
with certain sentence types. General periphery tagmemes are common to
most types of sentence. In the following paragraphs some general char-
acteristics of the sentence nucleus and then of the sentence periphery
are discussed.

1. Characteristics of the Sentence Nucleus.

The sentence nucleus expresses sememic relations between propo-
sitions such as coordination, condition-consequent, reason-result, al-
ternation, thesis-antithesis, topic-magnification and the like. These
sememic relations encode into various grammatically contrastive sen-

tences. To facilitate the description of the contrastive sentence
types, the most common sememic relationship encoding into a particular
sentence type is taken as the name of the sentence.

According to Longacre (1968:42), parts of a sentence, "have a cer-
tain mutual dependence, cross-reference and cohesiveness." It is these
features within the nucleus which distinguish it from the sentence peri-
phery and which prompt the classification of an item as either nuclear
or peripheral.

There are two types of nuclear tagmemes--links and bases. Links
consist of conjunctions such as ki 'or', nahle 'otherwise', gune 'there-
fore', aur 'and'. Bases may be dependent or independent and may be
joined by the links or merely juxtaposed. The independent bases are
filled by independent clauses. The dependent bases are filled by var-
ious dependent clauses. A base is termed dependent when any one of the
following five factors is applicable:

a) If a base is filled by an axis-relator clause it is dependent
and must have another base, not filled by an axis-relator clause, occur-
ing with it.

(DB)leka boRe boRe baRlo   jale (IB)bia   k6rdebe.
    boy big big he grew when·   wedding they will perform
    'When the boy is grown big they will perform the wedding.'

Here the first base is dependent in that it is filled by an axis-rela-
tor clause and requires the presence of the second base.

b) If a base is dependent on the rest of the sentence to complete
its meaning it is dependent. As a result, a base expressed in imper-
fect aspect is dependent.

(DB 1)mo:y ni ete   jale (DB 2)mortis.
      I   not I would come if   you would die
      'If I hadn't come you would have died.'

(DB)616s bai jatibe   (IB)pren bai co kirta janu   eta
    Alice Bai she would go   Fran Bai of reason part. here

    Theblise.
    she has stayed
    'Alice Bai would have gone but because of Fran Bai she has stayed.'

In the first example, the second base is dependent on the first base to
complete its meaning. The first base is already dependent in that it is
filled by an axis-relator clause. In the second example, the first base
is dependent on the second base to complete its meaning.

In the same manner, a base expressed in optative mood is dependent.
As such the base with the optative mood is dependent on the independent

base to complete its meaning.

(DB)k6ha:y   hoo   (IB)ruha!
     wherever it may be   stay!
     'Wherever it may be, stay there!'

c) If a base is filled by an unexpandable formulaic clause, it is dependent. In the example, the second base in an unexpandable formulaic clause and can never occur alone.

(IB)tumco   datun   aur   ay   (DB)ne?
     you of toothstick other it is   isn't that so
     'Your toothstick is different, isn't it?'

d) If the paired prefixes j- and h- occur in two otherwise inde-pendent bases, then both bases are interdependent and thus dependent. The two correlative terms are underlined in the following example.

(DB 1)je 16ge pani 16ge   roede   (DB 2)hun 16ge   cua:
     wherever water place in it will be   that place in well

     khoRuat.
     they will dig
     'Wherever there is water, at that place they will dig a well.'

e) If negative markers permute from a normal negative positioning in any sentence type then the base in which they are permuted is depen-dent.

(DB 1)leka khae   nai   (DB 2)ka:y   nai.
     boy he eats not is   anything not is
     'The boy doesn't eat, he doesn't do anything.'

Here the initial base is dependent in that the negative has been per-muted from a position preceding the verb and its form has changed. Normally the clause would be leka ni khae 'the boy does not eat.' The second base is dependent in that it is formulaic.

The sentence nucleus is described in detail with reference to each sentence type in the section on contrastive sentence types.

2. Characteristics of the Sentence Periphery.

Robert Longacre (1970a:786) divides the sentence periphery into two distinct parts--inner and outer periphery. In this report we have used his outer periphery concept as applying to Halbi sentence. Most, if not all, of his inner peripheral items we have incorporated into the sentence nucleus. This means that a conditional clause is never peri-pheral to what follows it, but always nuclear indicating a condition-consequent relationship. This is a valid sentence level relationship. In the same way, concession, time, cause, purpose, and circumstance

are always considered nuclear to their sentence types.

On the other hand, such items as exclamation, vocative, response, emphatic focus, and time setting are generally not propositional in nature and tend to occur indiscriminately among the sentence types. By these two criteria they are considered peripheral. The fact that some of these are, in fact, limited in distribution to only a few sentence types does not, in our opinion, give sufficient reason for incorporating them into the nucleus of the sentence. The sentence is either composed of only one proposition with accompanying peripheral elements, or two or more propositions with only <u>one</u> primary relationship. This relationship may or may not be signalled by a linking tagmeme. To include these items in the nucleus would be to allow more than one relationship to exist within the sentence.

The periphery of the Halbi sentence consists of a number of optional tagmemes which normally occur on the outer extremities of the sentence, but which, in some cases, may even interrupt the internal linear ordering of the sentence nucleus itself.

Most peripheral elements do not influence or restrict the relationship between the propositions in the nucleus and these are termed General Periphery. However, there are some peripheral elements which have some influence on the propositional relationships of the nucleus and these are termed Specialized Periphery. In the following paragraphs these two types of periphery are described in detail.

2.1 General Periphery.

The occurrence of any of the general periphery tagmemes on a sentence is largely discourse conditioned. In a narrative or dialogue, tagmemes such as attention, response, and vocative occur frequently while in other discourses, such as a procedural discourse, they occur infrequently. Also it is to be noted that some sentence types are more prone to attract these general periphery tagmemes than others. Positive Echo Question and Alternative Question Sentences nearly always have the vocative tagmeme occurring with them, while the Generic Temporal-Conditional Sentence rarely does. The general periphery tagmemes fall into two groups:

2.11 Tagmemes Restricted to Prenuclear Position.

These prenuclear tagmemes occur sentence initial only. Usually only one from this group will occur in any one sentence (two exclamations, however, have been observed in one sentence).

<u>Exclamation</u>. The exclamation tagmeme includes such things as: <u>i aya</u> 'good grief!', <u>chi</u> 'ugh!', <u>oho re</u> 'ah ha!', <u>bap re</u> 'wow!', and <u>he:</u> 'what!'.

<u>Attention</u>. The attention tagmeme includes: <u>d6ka</u> 'look!', <u>ale</u>

'here!', ede 'here!', he: 'hey!'.

Response. The response tagmeme includes: nai 'no', hou 'yes', ale 'O.K.', kosón to 'so what', kosón jale 'who knows?'.

Sentence Conjunction. The sentence conjunction tagmeme includes: aur 'and', tebe 'then'.

2.12 Tagmemes Not Restricted in Relation to the Nucleus.

These non-restricted tagmemes occur anywhere within the sentence.

Vocative. The vocative tagmeme includes: miri 'Miri!', bai 'lady!', aya 'Mother!', leka 'Boy!', and any other name or relationship term.

Hesitation. The hesitation tagmeme includes: kay to 'ummmm'.

2.2 Specialized Periphery.

The occurrence of any of the specialized periphery tagmemes on a sentence is conditioned by both the specific sentence type and the occurrence of that sentence within a discourse. The emphatic tagmeme, mantór '!', may only occur with Contra-Expectation, Antithetical, Identity-Contrast, or Witness-Fact Sentences and then only at that point in a discourse requiring an emphatic assertion of belief in the truth or correctness of the statement being made. As yet, the relationship between discourse and the occurrence of these peripheral elements in a sentence has not been studied in depth so a full description must wait until such a study has been made. The specialized periphery tagmemes fall into three groups:

2.21 Tagmemes Restricted to Prenuclear Position.

These prenuclear tagmemes occur sentence initial only.

Topic. The topic tagmeme is usually a phrase marked with the usual direct object marker ke, and frequently employing the repeater tagmeme.

    kakRi   ke bole
    cucumber OM also
    'Regarding the cucumber...'

Setting. The setting tagmeme is usually a general time phrase and is obligatorily present when clauses of the Active set fill the bases of the Descriptive Listing Sentence. Setting optionally occurs in other sentence types. Some of the phrases which may fill this tagmeme include: rati mó:jón 'night and day', aThara din rati mójón 'for eighteen days, both day and night', eble 'as yet', roj 'daily', boRe biane 'early in the morning'.

2.22 Tagmemes Restricted to Postnuclear Position.

This set of tagmemes may occur sentence final only.

Responsibility Disclaimer. The responsibility disclaimer tagmeme
is filled by m6ne 'it is said'. Throughout narrative discourse m6ne
closes each sentence and indicates that the story did not originate with
the storyteller. In dialogue m6ne closes the sentence which is passing
on secondhand information. The speaker disclaims all responsibility for
the truth of his statement when he attaches m6ne to the end.

Afterthought. The afterthought tagmeme may consist of any clause
level tagmeme and it occurs sentence final (and following m6ne when it
occurs). The afterthought is used to clarify some part of the preced-
ing sentence.

(IB 1)ja sa:gun   des   (IB 2)bolla   (AFTH)m6--ke
      go! having told give!   they said   I-OM
      'They said, "Go and tell!" to me.'

2.23 Tagmemes Not Restricted in Relation to the Nucleus.

These tagmemes will occur within the body of the sentence.

Emphatic. The emphatic tagmeme is filled by mant6r '!', and it may
occur only with the Contra-Expectation, Antithetical, Identity-Contrast,
or Witness-Fact Sentences. mant6r occurs between the two bases of the
sentence and applies to both. When this tagmeme occurs the truth of
both bases is being asserted and the same two bases are being linked to-
gether as a definite unit.

Repeater. The repeater tagmeme is filled by bole 'also' and pher
'again'. bole and pher may occur separately or together and frequently
are found to occur within the sentence bases.

janu. The janu morpheme occurs in many sentence types. Its func-
tion is unknown. janu may occur within the bases of the sentence.

to. The to morpheme occurs in many sentence types; however, here
too the function is unknown. Like janu it may occur within the sentence
bases.

Time Sequence. The time sequence tagmeme is filled by pase 'later'.
It may occur in the sequence sentences where it intensifies the sequential
relationship of the propositions. It may also occur in other sentence
types where a time sequence may be relevant although not in focus.

Emphatic Focus. The emphatic focus tagmeme is filled by ci. It
occurs with the part of the sentence base being emphasized or in focus.

3. Semantic Structure Tree.

The semantic structure tree (Figure 5) breaks down into six major

nodes. The initial break is between chronological and non-chronologi-
cal. Although cause-effect relationships involve temporal sequence in
which cause must precede effect, it is only secondarily in focus. This
may also be true of the other non-chronological sentence types. In
chronological sentence types, either a simultaneous or a sequential tem-
poral relationship is being focused upon.

Under the non-chronological node come the sub-divisions of cause-
effect, disjunction, restatement, coupling, and complementation. Under
cause-effect we include conditional, concessive, contrafactual, reason-
result, and so forth.

By disjunction we mean alternation in which 'or' is the typical
conjunction.

Restatement means that one proposition repeats, either in the same
or different form, the initial proposition and may add further informa-
tion or speaker expectancy.

Under coupling we have included the two relationships which can be
characterized as, "A and B" and "A but B." "A and B" simply links two
propositions together as a double assertion. "A but B" links two propo-
sitions together as a contrastive assertion.

Finally, complementation indicates that one proposition completes
or complements the meaning of the other either by item identification
and comment, by correlative relationship, or by complementation of such
verbs as 'say', 'know', and 'see'.

The reader is also directed to the far lower right which lists the
three grammatical divisions as layers into which the terminal points of
the tree fall.

It is not surprising to find most cause-effect and chronological
relationships encoding as subordinate type grammatical structures. Dis-
junction as expected encodes into coordinate type grammatical struc-
tures. Restatement is largely paratactic but has two sentence types
which encode as subordinate structures (these, however, may be due to
our definition of truncated and formulaic clauses as being dependent
and may not be a real reflection of the true structure). Coupling
which we would expect to encode into coordinate, largely encodes into
paratactic. This fact demonstrates the tendency of Halbi to conjoin
not so much by means of links as by parataxis or other means. Finally,
complementation sentences which we would expect to encode into the sub-
ordinate grammatical structures encodes mainly into paratactic.

4. Grammatical Structure Tree.

The Halbi sentence structure tree (Figure 6) divides into three
smaller trees termed: subordinate, paratactic, and coordinate. Each
of these trees is considered to be in contrast with the other on the
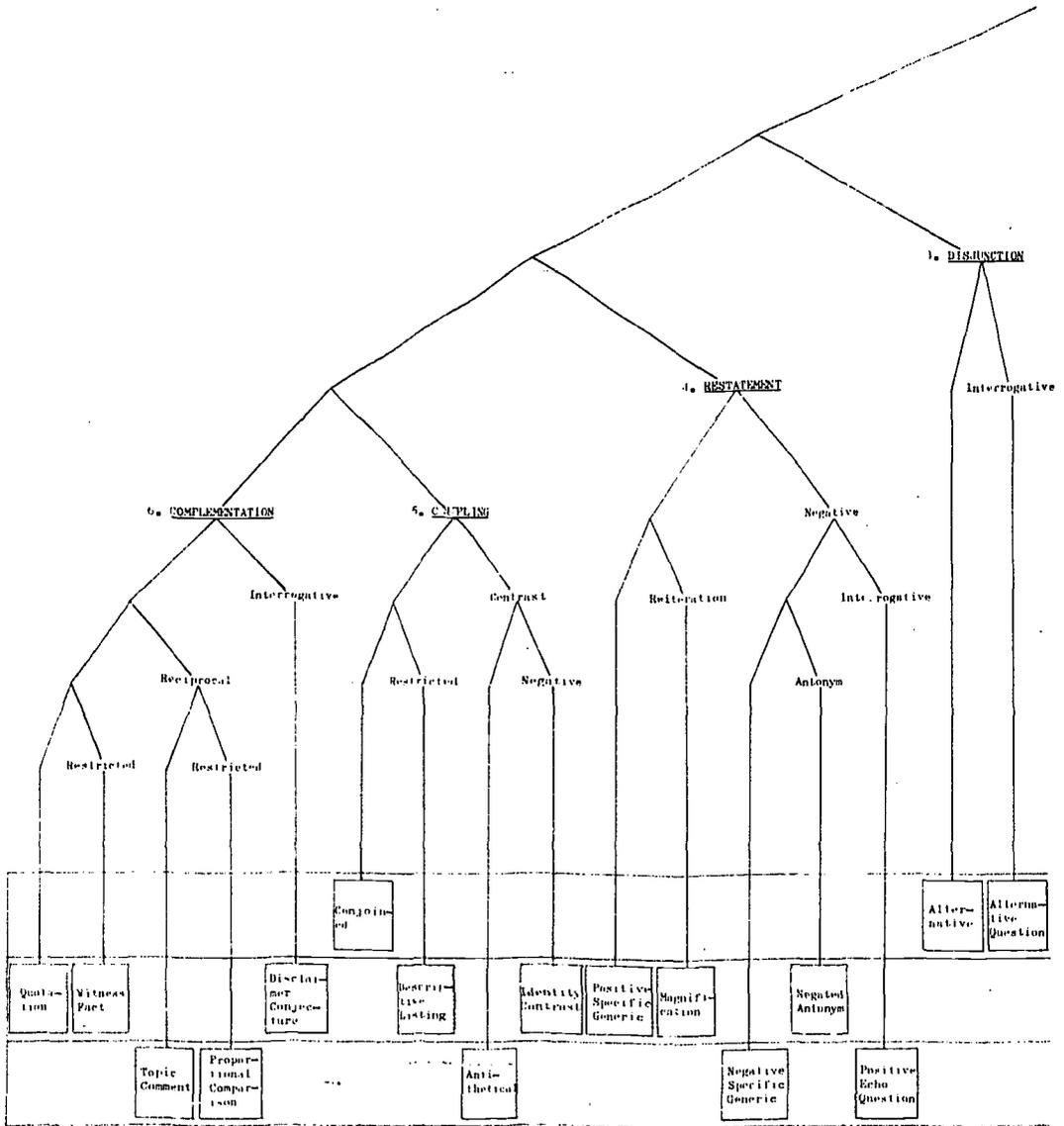
Figure 5.   Semantic Structure Tree.

1. CHRONOLOGICAL

2. CAUSE-EFFECT

Sequential

Unreal

Coterminate   Specific

Opposition

Conditional

Intent   Sep-Pos   Interrogative   Opposite

Negative

Reason Result	Conditional Alternative	COORDINATE
Contra Expectation		PARATACTIC
Purpose Result / Concessive	Generic Temporal Conditional / Cause Effect / Conditional Consequent	Contra Factual / Simultaneous / Coterminus / General Sequence / Specific Sequence	SUBORDINATE

Figure 6.   Grammatical Structure Tree.

SUBORDINATE

A-R Dependency

Negative

Postpate

Interrogative

Negative

Negative

Interrogative

Independent
base

Only Active or
Eventive clause
set

Only Active or
Eventive clause
set

Interrogative

Specialized
Periphery
(Time|sequence)

Specialized
Periphery
(Time|sequence)

			Co- terminus		Specific Sequence				Simulta- neous	General Sequence	CHRONOLOGICAL
Purpose Result	Cause Effect	Contra- factual				Con- cessive	Generic Temporal Condi- tional	Condi- tional Conse- quent			CAUSE-EFFECT
											DISJUNCTION
Negative Specific Generic	Positive Echo Question										RESTATEMENT
											COUPLING
			Topic Comment								COMPLEMENTATION

following basis:

a)   In the subordinate tree, sentences must have at least one dependent base.

b)   In the paratactic tree, sentences must have only independent bases.

c)   In the coordinate tree, sentences have independent bases joined by a link.

Each tree divides out to the various contrastive sentence types. Each node on the tree is a contrastive grammatical feature which sets individual sentences and sets of sentences off from one another. (Another contrastive feature is the distribution of each sentence within the grammatical heirarchy; however, this aspect of distribution has not been incorporated into the grammatical tree.) Some of the nodes are self explanatory while others need some explanation.

Subordinate Branch. Optional permute indicates that the bases of these sentences may be permuted without change in meaning. Optional specialized periphery tagmeme, time sequence, means that the form pase 'later' may optionally occur. Independent base indicates the obligatory presence of at least one independent base.

Paratactic Branch. Optional specialized periphery tagmeme, emphatic, indicates the optional occurrence of the form mant6r '!'. Same base fillers means that both bases must have the same clause types. Obligatory setting periphery indicates the presence of some time phrase such as rati m6:j6n 'night and day'.

Coordinate Branch. Disjunct is given as an antonym to conjunct and is characterized by the link 'or'.

The reader is also directed to the far lower right which lists the six major sememic divisions as layers into which the terminal points of the tree fall.

C.   Contrastive Sentence Types.

At the time of writing, there have been found twenty-nine contrastive sentence types.[2] These twenty-nine sentences have been posited as a result of the contrastive features incorporated in the two sentence trees in the previous section. To facilitate description, the sentences are divided into six groups according to the six major nodes on the semantic structure tree. These groups then are: Chronological, Cause-effect, Disjunction, Coupling, Restatement, and Complementation.

The contrastive sentence type examples have been kept free from em-

bedding for illustrative purposes.   Embedding of one sentence within
another is discussed in Section E. Distribution.

1. Chronological.

The chronological group of sentences consists of four basic types,
all of which are subordinate in that they each have one dependent base.
The dependency is based on the different axis—relator clauses which may
fill this dependent base.

The relationship of the propositions of the chronological sentences
may be summarized in the following tree diagram:
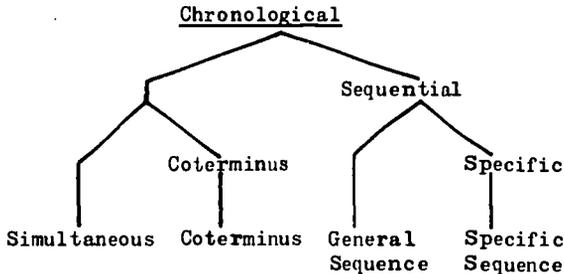
Figure 7.   Chronological Branch.

1.1 Specific Sequence Sentence.

The Specific Sequence Sentence consists of at least one dependent
base, with the possibility of a second, and one independent base. The
dependent bases are filled by dependent clauses or axis—relator clauses
while the independent base is filled by an independent clause.

Basic Sentence Formula:

	DB 1	DepCjvCl A–RCl 7		DB 2	DepCjvCl		IB	IndCl
+	Initial Prop of Temp Seq	complt action	+	Foll Prop of Temp Seq	complt action	+	Final Prop of Temp Seq	action

The propositions of the sentence are in a temporal sequential re-
lationship in which a preceding action must be completed before a follow-
ing action can begin.   The propositions, in general, express a sequence
of events in past or present time but they may also be expressed in pro-
jected time.

1) (DB)iskuT6r   ne bosan   (IB)6sp6tal   ne neuat.
        motorscooter on having caused to sit   hospital to they will

        take
        'Having made them sit on the motorscooter they will take them
        to the hospital.'

        The dependent bases are filled by a Dependent Conjunctive Clause or
by an Axis—Relator Clause 7. The Dependent Conjunctive Clause consists
of Dependent Clause 4 from the Active or Eventive clause sets. The clause
is unmarked for tense, person, mood, or voice. No verbal auxiliaries
may occur. The suffix -un occurs on the verb and indicates a completive
aspect. An optional word BATI[3] 'after' may also occur intensifying the
fact of completion. The Subjects of the bases must be the same.

2) (DB)anun   bati (IB)ado boRe boRe ke kaTtor ay.
        having brought after   half big big OM cutting it is
        'After having brought (the fish to the house), half the big ones
        are to be cut up.'

        When more than one dependent clause occurs, both must be Dependent
Conjunctive Clauses.

3) DB 1)hasun   (DB 2)bhuklun   (IB)goTheaesot.
        having laughed   having rejoiced   they are conversing
        'Having laughed and rejoiced they are talking together.'

4) (DB 1)sut   ghenun   (DB 2)anun   bhati (IB)hun ke
        thread having bought   having brought after   that OM

        posea   ne bhorun   detor ay.
        rice water in having filled giving it is
        'Having purchased thread, after having brought it (home), it is
        to be soaked in rice water.'

        When the same clause is repeated in two dependent bases then an em-
phasis on degree or quantity is in focus. This feature is directly in-
fluenced by the semantic implications of the sentence. In the following
example, for the sentence to be at all meaningful to the audience
the dependent base must be duplicated.

5) (DB 1)leki gagun   (DB)gagun   (IB)ai:k kan cipRa
        girl having cried   having cried   eye ear pus like stuff

        dh6rli.
        she took hold
        'The girl, having bawled her eyes out, has caused her eyes and
        ears to gum up.'

        The Axis—Relator Clause 7 which may also fill the initial dependent

base has Dependent Clause 3 from the Active or Eventive sets of clauses filling the axis. Dependent Clause 3 is expressed in perfect aspect and is unmarked for person and number. No verbal auxiliaries may occur. The relator is filled by <u>pase</u> 'later'. The dependent base when filled by this axis—relator clause may have the same or different subject in relation to the independent base.

6) (DB)kupa   ba:dlo pase (IB)mi:Dtor   ay.
        rice stack tied up later   threshing it is
        'Later, after the rice-stack is built, the rice is to be
        threshed.'

The independent base is filled by an independent clause from the Active or Eventive clause sets. This independent clause may be expressed in past, present, or projected time. Declarative mood is usual, though imperative or interrogative mood may occur. Psuedo—passive voice may also occur. The benefactive auxiliary <u>de</u> or the perfective auxiliary <u>ro</u> may occur. Negation does not occur in any base. The linear ordering of the sentence is, in general, as displayed in the four box array; however, permutation is allowed.

7) (DB)s6b masT6r nikrun   bhati (IB)16cman ke cheki
        all teacher having come out after   Laksman OM blocking

        hola.
        they became
        'After all the teachers came out they stopped (blocked) Laksman.'

8) (DB)gay Dhilun   (IB)c6rak   neese.
        cow having freed   to cause to graze he is taking
        'Having let the cattle out he is taking them out to graze.'

9) (DB 1)jaun   bhati (DB 2)D6:Dik   bisan   (IB)khator
        having gone after   a little while having rested   eating

        ay.
        it is
        'After having gone (there), having rested awhile, (food) is
        to be eaten.'

10) (DB)bimar   cha:Dlo pase (IB)kukRi pila detor ay.
        sickness healed later   hen   child giving it is
        'Later, after healing, a chicken is to be given.'

    1.2 <u>General Sequence Sentence.</u>

    The General Sequence Sentence consists of a dependent and an inde-
pendent base. The dependent base is filled by an axis-relator clause
while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	¦	A-Rcl 1		+	IB	¦	IndCl
	Initial	¦	past			Final	¦	projected
	Prop of	¦	time			Prop of	¦	time
	Temp Seq	'				Temp Seq	'	

The propositions of the sentence are in a temporal sequential re-
lationship in which the initial proposition is generally considered to
be complete before a following projected action is begun.

1) (DB)dhan   6k6rli   ale (IB)biasi   martor ay.
        paddy rice it sprouted when   a small plough hitting it is
        'When the paddy has sprouted then it is to be ploughed with
        the biasi plough.'

The Axis-Relator Clause 1 which fills the dependent base of this
sentence consists of an axis filled by an independent clause from the
Active or Eventive clause sets. The idependent clause must be expressed
in simple past tense. The relator is filled by ALE[4] 'when'.

2) (DB)bai m6n ila   ale (IB)mo:y ec:de   sa:guklay.
        lady pl. they came when   I   I will come in order to tell
        'When the ladies come I will come in order to tell them.'

The independent base is filled by an independent clause from the
Active or Eventive sets of clauses. The clause will be expressed in
projected time. Psuedo-passive voice may occur as this usually has the
sense of projected time. The Benefactive auxiliary de has been ob-
served to occur.

3) (DB)pakli   jale (IB)dhan   kaTtor ay.
        it ripened when   paddy rice cutting it is
        'Once the paddy is ripe it is to be cut.'

The dependent base is not negateable but negation may occur in the
independent base. The linear ordering of the bases is usually as dis-
played in the four box array, however, permutation may occur without
any change in the sentence structure. The dependent base is frequently
permuted to a position following the independent base in procedural
type descriptions where it fills an afterthought tagmeme of the special-
ized periphery. Also the specialized periphery tagmemes, time sequence
(pase 'later') and repeater (pher 'again'), occur frequently and add to
the temporal focus of the sentence.

4) (DB)hun sowkar chuTi dilo   ale (IB)gh6re   euat.
        that richman leave he gave when   house to they will come
        'When the richman gives (them) leave they will come home.'

5) (DB)khub din holi   jale (IB)ra:boti amke d6kuk suay.
        many day it became when   Ramboti we OM to see she will come
        'When many days are passed Ramboti will come to see us.'

6) (DB)pani marli ale (IB)dhan   6kruay.
        water it hit when   paddy rice it will sprout
        'Once it has rained the paddy will sprout.'

7) (DB)leka boRe boRe baRlo   jale (IB)bia   k6rdebe.
        boy big big he grew when   wedding they will perform
        'When the boy is grown big they will perform the wedding.'

8) (DB)hun log   m6n ila   ale (IB)s6b log   khauat.
        that people pl. they came when   all people they will eat
        'When those people come everyone will eat.'

9) (DB)hun m6n pej   khadla ale (IB)ami bole pej   khauau:.
        that pl. gruel they ate when   we also gruel we will eat
        'When they eat gruel we also will eat gruel.'

10) (DB)leka hi:Dlo   ale (IB)pase pher hun kes ke khi:Dik
        boy he walked when   later again that hair OM a little

        khi:Dik bacator   ay.
        a little causing to leave it is
        'When the boy walks then after that a little bit of his hair
        is to be left to grow long.'

1.3 Co-terminus Sentence.

The Co-terminus Sentence consists of one dependent and one inde-
pendent base. The dependent base is filled by an axis—relator clause
while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A—RCl 5	+	IB	IndCl
	Identity			Co-terminal	
	Prop			Prop	

The initial proposition of the sentence is an event whose terminus
(end point) signals the terminus of the second proposition also. That
is to say, the two propositions are in a coterminating relationship.
While the beginning points of the two propositions can also be the same
this is not required.

1) (DB)m6ke j6r   rotle   (IB)6cha ni lage.
        I OM fever be until complete   good not it feels
        'I didn't feel good while I was feverish.'

In some sentences the two propositions are not only in a co-ter-
minating relationship but they are also in a concurrent relationship
as well--both beginning and ending together.

a)   (DB)tin   din phuni   hott6le
         three day full moon be while and until complete

         (IB)nacuat.
            they will dance
         'They will dance for three days while the moon is full and
         until it's finished.'

The dependent base is filled by Axis-Relator Clause 5. The axis
is filled by Dependent Clause 4 from the Active, Eventive, Stative, or
Attributive sets of clauses, and is unmarked for tense, person, voice,
mood, or aspect. No verbal auxiliaries have been observed. The re-
lator is filled by –T6LE,[5] 'until completion' or –T6TLE,[6] 'during and
until complete'. The dependent base is always stated positively.

3)   (DB)ber ud6tle   (IB)ami sou   rou:.
         sun rise until complete   we having slept we were
         'We had slept until the sun had risen.

The independent base is filled by an independent clause from the
Active, Eventive, or Stative sets of clauses. The following aspect-
tenses have been observed to occur: simple future, simple past, aor-
ist, and present continuous. The benefactive auxiliary de or the per-
fective auxiliary ro may also occur. Pseudo-passive voice may occur,
and the base may be negated. The linear ordering of the bases is as
displayed and no permutation is allowed.

4)   (DB)bai chut'   ne rotle   (IB)gh6re   oluk
         lady uncleanness in be until complete   house in to enter

         detor   nu   ay.
         giving not it is
         'As long as the lady is defiled she is not allowed inside the
         house.'

5)   (DB)ami phik6r ne rotle   (IB)gaguau:.
         we   sadness in be until complete   we will cry
         'We will cry as long as we are sad.'

6)   (DB)doa   m6co thane   rotle   (IB)dile.
         medicine I of place in be until complete   I gave
         'I gave medicine until it was finished.'

7)   (DB)bor6k 6mr6tle   (IB)janu pej bhat
         year arrive until complete   part. gruel cooked rice

deuat.
they will give
'They will give rice and gruel until the arrival of the next
year.'

8) (DB)tumco   har   hotle   (IB)kheluau:.
       you of failure be until complete   we will play
       'We will play until you lose.'

9) (DB)rani ke bia   hotle   (IB)k6ha:y   jauk ni
       queen OM wedding be until complete   wherever to go not

       dila.
       they gave
       'They did not allow the queen to go anywhere until her
       marriage.'

10) DB)sor   hott6le   (IB)hun 16ge   rolu.
       agreement be during and until complete   that place at we were
       'We were at that place while and until we reached agreement.'

11) (DB)idlo   De:g   hott6le   (IB)laTa m6n
       this big height be during and until complete   weed pl.

       ruay.
       it will be
       'The weeds will be there while and until the paddy rice grows
       to be fairly big.'

1.4 Simultaneous Sentence.

The Simultaneous Sentence consists of one dependent and one inde-
pendent base. The dependent base is filled by an axis-relator clause
while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A–RCl 6 A–RCl 8	+	IB	IndCl
	Temp Sett Prop	simult action		Concurrent Ev Prop	simult action

The propositions of the sentence are in a temporal relationship
in which the second action takes place within the time span of the in-
itial action (inclusive simultaneity) or concurrently (concurrent sim-
ultaneity) with it. Which of these two relationships is realized de-
pends on the semantic context in focus. Example 1 shows one event oc-
curring within the time span of the other; while example 2 shows the two

in a concurrent relationship.

1) (DB)cegto   bera (IB)deo   m6n euat.
         climbing time   spirit pl. they will come
         'During the time of taking possession, the spirits will come.'

2) (DB)gh6re   olto   bera (IB)usni   boluat.
         house in entering time   like that they will say
         'While entering the house they will talk like that.'

      The dependent base is filled by Axis-Relator Clause 6 or 8. The
occurrence of the Axis-Relator Clause 6 involves a sharp focus on the
simultaneous beginnings and continuance of the initial and following
actions. The axis is filled by Dependent Clause 2 from the Active or
Eventive sets of clauses, and is marked for incomplete aspect only.
The benefactive auxiliary de or the completive auxiliaries ja or sar
may occur. The relator is filled by ke 'at.'

3) (DB)jhuma   lagto   ke (IB)ete   euat.
         tiredness sticking at   coming they will come
         'At the time of becoming tired they will come home quickly.'

The occurrence of Axis-Relator Clause 8 involves a general focus of
simultaneity of the initial and following actions. The axis is filled
by Dependent Clause 2, from the Active, or Eventive sets of clauses,
and is expressed in imperfect aspect and unmarked for person or num-
ber. Also no verbal auxiliaries have been observed to occur. The re-
lator is filled by bera 'time'.

4) (DB)porto   bera (IB)to   mo:y gh6s6rle.
         running time   part. I   I fell
         'While running I fell.'

      The independent base may be filled by an independent clause from
the Active or Eventive sets of clauses. The clause may be expressed in
the following aspect-tenses: simple past, simple future, present per-
fect, present continuous, and aorist. Psuedo-passive voice may occur.
The verbal auxiliaries de benefactive, ja completive, or ro perfective
may also occur.

5) (DB)ghoRa 16ge   6mra 6mri k6rto   ke (lB)goT6k pa:y ke
         horse place in arrival   performing at   one   foot OM

         TuTan   dili.
         having broken off she gave
         'At the time of arriving near the place of the horse she broke
         off a foot.'

6) (DB)dhan   pakto   ke (IB)moRgun   jaese.
         paddy rice ripening at   having fallen it is going
         'At the time of the paddy rice ripening, it is falling all over

the place.'

Negation rarely occurs with either base. The linear ordering of
the bases is generally as displayed in the four box array, however,
permutation is allowed. Specifically, the dependent base has been ob-
served to interrupt the internal linear ordering of the independent
base.

7) (DB)pani   marto   bera (IB)mitjak jauat.
        water hitting time   to weed they will go
        'During the time of the rains they will go to weed the fields.'

8) (DB)batwsi phukto ke (IB)e   paT   ili.
        flute rlaying at   this behind she came
        'At the time of the playing of the flute, she came along this
        way.'

9) (DB)caur deto   ke (IB)alu   bole dilabe.
        rice giving at   potato also they gave
        'At the time of giving rice, they also gave potatoes.'

10) (DB)16gin   marto ke (IB)duno leka leki ke tel
        joining of hands hitting at   both boy girl OM oil

        cegala.
        they applied
        'At the time of the joining of hands, they rubbed oil over the
        boy and girl.'

2. Cause-Effect.

The cause effect group of sentences consists of nine basic types.
Of these, Contra-Expectation encodes grammatically as paratactic,
Conditional-Alternative and Reason Result encode as coordinate, and the
rest are subordinate.

The relationships of the propositions of the sentences may be
summarized in tree diagram as in Figure 8.

2.1 Contra-factual Sentence.

The Contra-factual Sentence consists of two dependent bases.
The first dependent base is filled by an axis-relator clause while the
second dependent base is filled by a dependent clause.

The initial proposition of the sentence is a conditional ground
which is stated as unfulfilled while the second proposition is the
unfulfilled consequent of that condition. This means that, in actual
fact, the opposite of each of the propositions is what occurred.
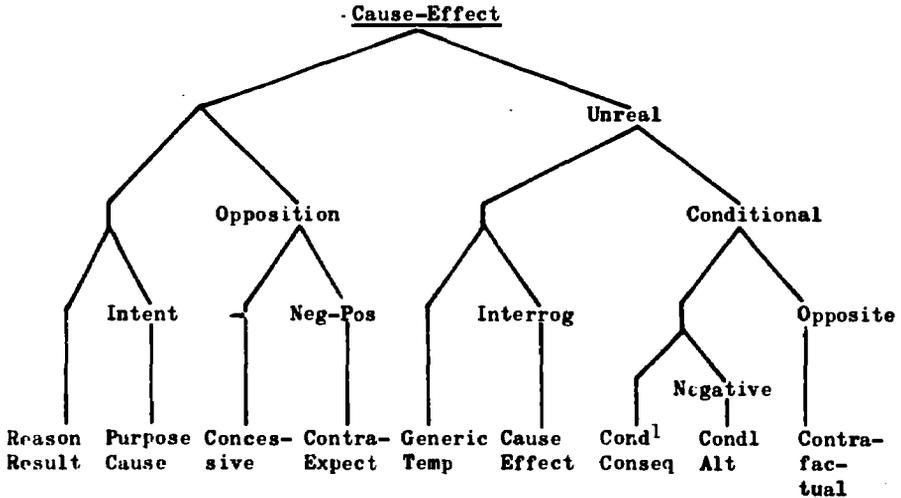
Figure 8.   Cause-Effect Branch.

The tree diagram shows:

- Cause-Effect
  - (left branch) Opposition
    - Intent
      - Reason Result
      - Purpose Cause
    - Neg-Pos
      - Conces- sive
      - Contra- Expect
  - (center branch)
    - Generic Temp
    - Cause Effect
  - Unreal
    - Interrog
    - Conditional
      - Negative
        - Cond^1 Conseq
        - Condl Alt
      - Opposite
        - Contra- fac- tual

Basic Sentence Formula:

$$+ \;\begin{array}{|c|c|} \hline \text{DB 1} & \text{A--RCl 9} \\ \hline \text{Unfulfil} & \\ \text{Condn} & \\ \text{Prop} & \\ \hline \end{array} \;\longrightarrow\; + \;\begin{array}{|c|c|} \hline \text{DB 2} & \text{DepCl 1} \\ \hline \text{Unfulfil} & \\ \text{Conseq} & \\ \text{Prop} & \\ \hline \end{array}$$
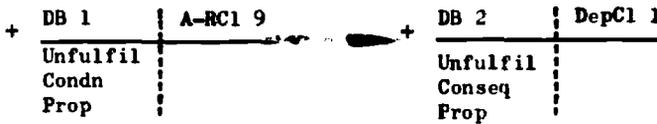
1) (DB 1) mo:y ni   ete   jale (DB 2)mortis.
          I   not I would come if   you would die
          'If I hadn't come you would have died.'

This example actually means: 'I came so you didn't die.'

    DBase 1 is dependent as a result of the axis-relator clause which
fills it while DBase 2 is dependent in that it is marked for imperfect
aspect and requires the rest of the sentence to complete its meaning.
Together these two dependent bases produce an independent sentence.

    DBase 1 is filled by Axis-Relator Clause 9. The axis is filled by
Dependent Clause 1 from the Active, Eventive, Stative, or Attributive
clause sets. The clause is always expressed in imperfect aspect and
marked for person and number. The perfective auxiliary _ro_ may occur.
The relator is filled by **ALE**.

2) (DB 1)boRe da:y uTtu   ale (DB 2)ami dhan   ka:Dun
         big time we would arise if   we paddy rice having

              detu.
         husked we would give
         'If we would've arisen early we would've husked rice.'

     DBase 2 is filled by Dependent Clause 1 from the Active or Even-
tive clause sets. This clause is always expressed in imperfect aspect
and marked for person and number.

3) (DB 1)tumi bhaTpal ni etas   ale (DB 2)jh6pke h6lbi ni
         you Bhatpal not you would come if   quickly Halbi not

         siktas.
         you would learn
         'If you wouldn't have come to Bhatpal you wouldn't have learned
         Halbi quickly.'

     Negation may occur on either base, both bases, or not at all ex-
cept when an Eventive clause fills DBase 2. When an Eventive clause
fills DBase 2 then negation must occur on both bases or not at all. The
linear ordering of the bases is as displayed in the four box array.

4) (DB 1)hun ogay   roto   ale (DB 2)hun ke biskuT
         that quietness he would be if   that OM biscuit

         dete.
         I would give
         'If he would've been quiet I would've given him a biscuit.'

5) (DB 1)ami aji biane   boRo da:y uTtu   ale (DB 2)boRe
         we today morning in big time we would arise if   big

         da:y jhaTi   gaRa   netu
         time type of cart oxcart we would take
         'If we would've arisen early this morning we would've taken
         the jhaTi cart early.'

6) (DB 1)ami aji pej   bera jh6pke khau   rotu   ale
         we today gruel time quickly having eaten we would be if

         (DB 2)jhari   pokak   jatu.
              fishnet to throw out we would go
         'If we would've eaten quickly we would've gone to net fish.'

7) (DB 1)hun m6n sewa   k6ruk   jata   ale (DB 2)hoti.
         that pl. worship to perform they would go if   it would be
         'If they would've gone to do worship it would've been good.'

8) (DB 1)ra:boti d6kuk eti   ale (DB 2)hoti
        Ramboti to see she would come if   it would be
    .. 'If Ramboti would've come to see (us) it would've been good.'

9) (DB 1)babu ke d6ktu   ale (DB 2)hoti
        Babu OM we would see if   it would be
        'If we would've seen Babu it would've been good.'

10) (DB 1)tui boRe biti dh6rtis   ale (DB 2)hoti.
        you big thing you would take hold if   it would be
        'If you would've gotten a big one (fish) it would've been good.'

2.2 Conditional-Alternative Sentence.

The Conditional-Alternative Sentence consists of two independent
bases joined by a contra-conditional conjunction. The independent bases
are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	IndCl	+	LK	Cj ' nahle	+	IB 2	IndCl
	Choice			Contr	'other-		Choice	
	1 Prop			Condl	wise'		2 Prop	
				Pivot				

The propositions of the sentence are in an alternating relationship
with the contra-conditional pivot making the first proposition the nega-
tive condition of the second.

The independent bases are filled by independent clauses from the
Active or Eventive clause sets. Simple future tense may occur with sim-
ple future; imperative mood and psuedo-passive voice may occur. No ver-
bal auxiliaries have been observed.

1) (IB 1)poysa dh6ruat   (LK)nahle   (IB 2)6ysa dam6R
        money they will take   otherwise   much tar

    chicuat.
    they will wipe over
    'They will take money otherwise they will wipe tar over every-
    thing.'

2) (IB 1)aj   le   Dhaka borha: ke (LK)nahle   (IB 2)ami maruau:.
        today from cover! pig   OM   otherwise   we we will hit
        'Shut up the pig from today otherwise we'll beat it.'

When the same predicate occurs in both bases then the first predicate
may be deleted. Also, the specialized periphery tagmeme, Topic, may occur
with this sentence as shown in the following example:

3) (STOP)kakRi   ke bole (IB1)paklo   biti ke am6T ·   (LK)nahle
         cucumber OM also   ripened thing OM curry type   otherwise

    (IB 2)sag sagi   ra:dtor   ay.
          curry type preparing it is
    'Regarding the cucumber, the ripened cucumber is prepared as
    am6T curry otherwise it is prepared as sag sagi curry.'

Negation does not occur on either base. The linear ordering is as
displayed in the four box array and no permutation is allowed. A speci-
fic sequence of events is obviously intended which limits the possibility
of permutation. Apparently, the best choice, in the mind of the speaker,
is given first.'

4) (IB1)k6ra (LK)nahle   (IB 2)mora.
         do!   otherwise   die!
    'Do or die!'

The specialized periphery tagmeme, Afterthought, has also been ob-
served to occur as shown in the following example:

5) (IB 1)hun thane   chak6k   mo:d anuat   (LK)nahle
        that place at one leaf cup wine they will bring   otherwise

    (IB 2)pona pani   hun thane   deuat   (AFTH)juhlo
          sacred water that place at they will give·   gathered

    log   ke.
    people OM
    'At that place they will bring a cup of wine otherwise at that
    place they will give sacred water to the gathered people.'

2.3 Conditional-Consequent Sentence.

The Conditional-Consequent Sentence consists of one dependent and
one independent base. The dependent base is filled by an axis-relator
clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 1	+	IB	IndCl
	Condl		·	Conseq	
	Ground			Prop	
	Prop				

The initial Proposition forms the grounds against which the subse-
quent proposition will or can be realized.

1) (DB)tui ni' gelisis   jale (IB)mo:y ee:de.
        you not you have gone if   I   I will come
        'If you haven't gone I'll come.'

The dependent base is filled by Axis-Relator Clause 1. The axis
is filled by an independent clause from the Active, Eventive, or Stative
sets of clauses. The relator is filled by ALE. The clause is express-
ible in a number of different aspect-tenses: simple past, present con-
tinuous, present perfect, aorist, and simple future. The imperative or
interrogative mood do not occur and no verbal auxiliaries have been ob-
served. The dependent base is dependent as a result of the axis-relator
clause which fills it.

2) (DB)6cha silema ase   jale (IB)jau:de.
        good movie it is if   we will go
        'If there's a good movie on we'll go.'

The independent base is filled by an independent clause from the
Active, Eventive, or Stative sets of clauses. The aspect-tenses which
may occur in the independent base are: simple future, aorist, and pre-
sent continuous. Interrogative or imperative mood may occur.

3) (DB)tumi ni ias   jale (IB)mo:y e   thane   kay kaje
        you not you come if   I   this place in what for

        rua:yta?
        I will stay
        'If you don't come why should I stay here?'

4) (DB)D6slo biti ke bas   dh6rlise   ale (IB)pokan
        burnt thing OM smell it has taken hold if   having thrown out

        dias.
        give!
        'If the burnt thing has become smelly toss it out.'

The benefactive auxiliary de and the completive auxiliary ja may
occur in the independent base.

5) (DB)tumi jiu ke ni sa:glas jale (IB)mo:y ucki   houn
        you   heart OM not you told if   I   strangle having become

        jae:de.
        I will go
        'If you don't tell me where your heart is I'll go hang myself.'

Negation may occur on either base, both bases or not at all. The
linear ordering of the bases is as displayed in the four box array but
permutation is allowed.

6) (DB)bokRa ke ni dh6ras   jale (IB)haT   ne biku:de.
       goat OM not you take hold if   market in we will sell
       'If you don't take the goat we will sell it in the market.'

7) (DB)mo:y hutay a:y ale (IB)ni ee:.
       I   there I am if   not I come
       'If I'm to be in that place I won't come.'

8) (DB)tui jase   jale (IB)mo:y bole ee:de.
       you you will go if   I   also I will come
       'If you will go I also will come.'

   2.4 Cause-Effect Sentence.

    The Cause-Effect Sentence consists of one dependent and one inde-
pendent base. The dependent base is filled by an axis-relator clause
or a dependent clause. The independent base is filled by an independent
clause.

    Basic Sentence Formula:

		DepCjvCl			
+	DB	A-RCl 2	+	IB	IndCl
	Queried	interrog		Desired	
	Cause	mood		Effect	
	Prop			Prop	

    The initial proposition is an interrogative generic cause question-
ing what can be performed to bring about the desired effect proposition.

1) (DB)k6s6n k6run   (IB)cha:Dauaybe?
       what having performed   he will cause to heal
       'What's he to do to make it heal?'

    Axis-Relator Clause 2 or the Dependent Conjunctive Clause may fill
the dependent base. When the Dependent Conjunctive Clause occurs then
the bases must have the same Subject. The Dependent Conjunctive Clause
always contains the generic question word k6s6n 'what?', the generic
pro-verb k6r, 'perform' and is expressed in the interrogative mood. The
dependent base is dependent as a result of the axis-relator clause and
the dependent clause which may fill it. The interrogative mood of the
dependent base then extends over the entire sentence.

2) (DB)k6s6n k6run   (IB)k6man   khau:de?
       what having performed   harvest we will eat
       'What's to be done for us to be able to live?'

The axis of Axis-Relator Clause 2 is filled by Dependent Clause 4 which
like the Dependent Conjunctive Clause always contains the generic ques-

tion word k6s6n 'what?', the generic pro-verb k6r 'perform' and is ex-
pressed in interrogative mood. The relator·is filled by —LENE.[7]   The
Subjects of the bases may be the same or different.

3)   (DB)hun ke k6s6n k6s6n k6rle   (IB)anuk   huay?
        that OM what what when perform   to bring it will be
        'What's to be done so that I can bring it?'

The independent base is filled by an independent clause from the
Active or Eventive clause sets. The clause is expressed in simple future
tense or psuedo-passive voice. No verbal auxiliaries have been observed.
Negation does not occur on any base. The linear ordering of the bases
is as displayed in the four box array and no permutation is allowed.

4)   (DB)k6s6n k6run   (IB)utrua:ybe?
        what having performed   I will descend
        'What am I to do so that I can descend?'

5)   (DB)k6s6n k6run   (IB)jiuau:be?
        what having performed   we will live
        'What are we to do so that we can survive?'

6)   (DB)k6s6n k6rle   (IB)cha:Duaybe?
        what when perform   it will heal
        'What's to be done so that it will heal?'

7)   (DB)hun g6Rur   ke janu k6s6n k6rle   (IB)mari hoede?
        that crocodile OM part. what when perform   hit it will be
        'What's to be done to the crocodile so that I can kill it?'

    2.5 Generic Temporal—Conditional Sentence.

The Generic Temporal—Conditional Sentence consists of one dependent
and one independent base. The dependent base is filled by an axis-re-
lator clause while the independent base is filled by an independent
clause.

    Basic Sentence Formula:

+	DB	A—RC1 2	+	IB	IndC1
	Generic	state		Generic	
	Condn			Conseq	
	Prop			Prop	

The propositions of the sentence are in a generic condition-conse-
quent relationship which posits a general rule or maxim. The initial
proposition is a general condition whose expected general consequent,
result, or response is stated in the second proposition.

1)   (DB)s6Ti   k6rle   (IB)noni ke naw sa:gauat.
        naming ceremony when perform   Noni OM name they will cause to

        tell
        'When the naming ceremony is observed then Noni's name will be
        told.'

        The dependent base is filled by Axis-Relator Clause 2. The axis is
filled by Dependent Clause 4 from the Active, Eventive, Stative, or At-
tributive sets of clauses. The clause is not marked for tense, aspect,
mood, or voice. The perfective auxiliary ro or the benefactive auxiliary
de may occur. The relator is filled by a suffix -LENE.

2)   (DB)beTa hole   (IB)bap   co th6r   ay
        son   when be   father of a relationship term he is
        'When a son is born, he is the father's th6r.

        The independent base is filled by an independent clause from the
Active or Attributive clause sets. Generally, when simple future -UAY
occurs in the independent base (as in examples 3 and 4) the speaker is
referring to people or things other than himself, his own sex, his family,
or caste. In the following example the speaker was of a caste different
to the caste of the people who are the subject of the bases.

3)   (DB)hun m6n bhat   khadle   (IB)amke bole bhat
        that pl. cooked rice when eat   we OM also cooked rice

        deuat.
        they will give
        'When they eat rice, they give us rice.'

In the following example, the speaker was a man referring to something
applying only to women.

4)   (DB)k6sa   ni dilene   (IB)hun chut   ne
        purification ceremony not when give   that defilement in

        ruat.
        they will be
        'When the k6sa purification ceremony is not performed the wo-
        man remains defiled.'

        When psuedo-passive voice occurs in this sentence type (as in ex-
amples 5-8) it is inclusive and reflexive and indicates that the sentence
applies to the speaker, his sex, his family, or may extend to include his
village or caste.

5)   (DB)6sni kai: jai: caur cun bokRa kukRa hajle   (IB)deo
        like this everything rice   goat fowl when lost   spirit

bosator   ay.
causing to sit it is
'It's like this when anything—such as rice, goats, fowl—is
lost, the spirits are to be consulted.'

6) (DB)bihRa   s6rli   bolle   (IB)pher mi:jak mureator
    plough type it finished when said   again to weed beginning

    ay.
    it is
    'When it's said, "The bihRa ploughing is finished," then the
    weeding is to begin.'

7) (DB)bhorli   bolle   (IB)ba:duṅ   detor ay.
    it filled when said   having tied giving it is
    'When it's said, "It's filled," then it is to be tied up.'

8) (DB)da:d6r   bhitre olla   bolle   (IB)jator ay.
    fishtrap inside they entered when said   going it is
    'When it's said, "The fish entered the trap," one is to go (to
    get them).'

Negation may occur on either base, both bases, or not at all. The
linear ordering of the bases, in general, is as displayed in the four
box array but permutation is allowed. The benefactive auxiliary de may
occur in the independent base.

9) (DB)dia   d6kale   (IB)ha:Di   chia:uat.
    oil lamp when show   water pot they will touch
    'When the oil lamp ceremony is observed (for purification) they
    will be able to touch the water pots.'

10) (DB)dhan   ka:Duk ni role   (IB)soutor   ci   ay.
    paddy rice to husk not when be   sleeping just it is
    'When there's no paddy to be husked then one can sleep a little
    longer (in the mornings).'

11) (DB)e   baTe   duka suka   holene (IB)sirha anuat.
    this way in pain and sickness when be   shaman they will bring
    'In this country when someone is ill they will bring the shaman.'

12) (DB)naclene   (IB)caur dhan   detor ay.
    when dance   rice paddy rice giving it is
    'When they dance, rice and paddy is to be given (to the dancers).'

13) (DB)pej   bera holi   bolle   (IB)pej   khator ay.
    gruel time it became when said   gruel eating it is
    'When it's said, "It's become lunchtime," then gruel is to be
    eaten.'

14) (DB)dhan   6k6rli   bolle   (IB)pher bihRa   martor
        paddy rice it sprouted when said   again plough type hitting

    ay.
    it is
    'When it's said, "The paddy has sprouted," then the <u>bihRa</u>
    plough is to be ploughed with.'

2.6   Contra-Expectation Sentence.

    The Contra-Expectation Sentence consists of two independent bases.
The bases are filled by independent clauses.

    <u>Basic Sentence Formula:</u>

    + | IB 1 ┊ IndCl | + | IB 2   ┊ IndCl(red.) |
        |-------|-----------------| |--------|--------------|
        | Expect ┊ pos | | Contr ┊ neg |
        | Prop   ┊ | | Expect ┊ |
        | ┊ | | Prop   ┊ |

    The two propositions are in a cause-negated effect relationship.
The initial proposition arouses an expectation, the fulfillment of which
is denied or negated by the second proposition. As a result, the second
proposition is always negated while the initial one never is.

    The bases are filled by independent clauses from the Active or
Eventive clause sets.

    In general, fairly close ties occur across the bases. Some of these
ties may be as follows:

    a)   The same Subject in each base.

1)   (IB 1)hun m6n boRe da:y j6gd61pur gela   (IB 2)najun
          that pl. big time Jagdalpur they went   not yet

        6m6rla.
        they arrived
        'They went early to Jagdalpur but they haven't arrived yet.'

    b)   The Object of IBase 1 becomes the Subject of IBase 2.

2)   (IB 1)tum ke kon   din6t   le   sikae:se   (IB 2)ni sikas.
          you OM which many days from I am teaching   not you learn
          'For how many days I am teaching you but you don't learn.'

    c)   The Subject of IBase 1 becomes the Referent of IBase 2.

3) (IB 1)tumco beTi   n6:g6t holise   (IB 2)gor6s ni hoe.
        you of daughter good   she has become   milk not it becomes
        'Your daughter has given birth but her milk hasn't come.'

    d) The Predicate in IBase 1 may be the causative form of a verb
while the Predicate in IPase 2 is the non-causative form of the same
verb.'

4) (IB 1)khub din mo:y khoale gay ke (IB)ni khadli.
        many day I   I fed cow OM   not it ate
        'For many days I fed the cow but she didn't eat.'

    e) The IBase 2 is frequently reduced to only the free form neg-
        ative ni plus the predicate.

5) (IB 1)gh6n gh6n   aig D6bi dh6rale (IB 2)ri dh6re.
        again and again fire match I lighted   not it lights
        'Again and again I struck the match but it didn't light.'

    f) The optional occurrence of the emphatic tagmeme, mant6r, from
the specialized periphery.

6) (IB 1)baba   bita pila ke poRalo   (EMPH)mant6r
        father thing child OM he caused to read   emph.

        (IB 2)kh6Tke   ni poRe.
             absolutely not he reads
        'The father taught reading to the boy but he just doesn't
        read.'

    The following aspect-tense co-occurrences across the bases have
been observed:

             IB 1   IB 2
        Simple Past ⎤   ⟶ Simple Past
        Aorist   ⎦ ⟵   ⟶ Aorist
                            ⟶ Present Continuous

        Present Continuous ⟵ ⟶ Aorist
                            ⟶ Present Continuous
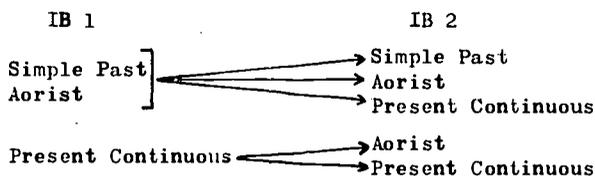
The auxiliary ne and the perfective auxiliary ro may both occur. The
linear ordering of the bases is as displayed in the four box array. No
permutation is allowed.

    2.7 Concessive Sentence.

    The Concessive Sentence consists of one dependent and one indepen-
dent base. The dependent base is filled by an axis-relator clause and
the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 4
	Conc Prop	past & current time

+	IB	IndCl
	Contr Expect Prop	past & current time

The two propositions are in a cause-inverse effect relationship. The initial proposition of the sentence is a concessive circumstance whose expected outcome is not fulfilled. This makes the second proposition function as a contrary-to-expectation proposition.

1) (DB)bhuk poRli ale bole (IB)ami kebi bhuke   ni so6lu.
        hunger it fell although   we when hunger in not we slept
        'Although there was a famine, we never went to sleep hungry.'

The dependent base is filled by Axis-Relator Clause 4. The axis is filled by an independent clause from the Active, Eventive, or Stative clause sets. The clause may be expressed in the following aspect-tenses: simple past, present continuous, and aorist. No verbal auxiliaries have been observed. The relator is filled by ale bole 'although'.

2) (DB)nani 6s6n   mo:Dhi holi   ale bole (IB)khub log   ju6la.
        small like this fair   it became although   much people they

        gathered.
        'Although it was a small fair many people gathered.

ale may be optionally deleted when aorist tense occurs on the verb rouk 'to be' in the dependent base.

3) (DB)cua: ne k6m pani roe   bole   (IB)khub log   ke phurli.
        well in less water it was although   much people OM it sufficed
        'Although there was little water in the well it sufficed many
        people.'

The independent base is filled by an independent clause from the Active or Eventive clause sets. There are some tense co-occurrence restrictions across the bases. The tenses which may co-occur are:

DB   IB

                        →Simple Past
Simple Past ⟵⟶Present Continuous
                        ➤Aorist

Aorist ─────────────────➤Simple Past
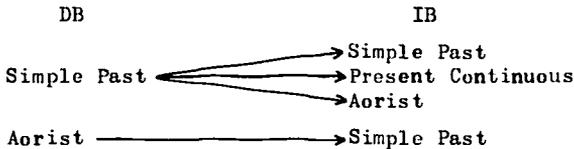
No verbal auxiliaries have been observed. Negation may occur on either

base but not both. The linear ordering is as displayed in the four box
array but some permutation is allowed. However, this permutation is
restricted and as yet it is not known what these restrictions are.

4) (DB)rani baTe   khi:Dik k6m log   hola   ale bole
       queen way in a little less people they became although

       (IB)boyragi baba   baTe   khub log   jaesot.
           holyman father way in much people they are going
       'Although less people are with the queen, many people are
       going to the holyman.'

5) (DB)pani ni ay   ale bole (IB)ami nahlu.
       water not it is although   we we bathed
       'Although there was no water we bathed.'

6) (DB)j6may naT   ke jitla   ale bole (IB)khetri kumar
       all   dance drama OM they surpassed although   a dance drama

       aur j6ym6ni bhar6t naT   ke ni jitot.
       and a dance drama dance drama OM not they surpass
       'Although they surpass all the dance dramas they don't surpass
       the Khetri Kumar and Jaymani Bharat dramas.'

7) (DB)leka m6n bai ke h6lbi sikala   ale bole (IB)bai ni ci
       boy pl. Bai OM Halbi they taught although   Bai not just

       sikli.
       she learnt
       'Although the boys taught Halbi to Bai, she just didn't learn.'

     2.8 Purpose- Result Sentence.

     The Purpose- Result Sentence consists of a dependent and an inde-
pendent base. The dependent base is filled by an axis-relator clause
and the independent base is filled by an independent clause.

     Basic Sentence Formula:

    DB | A-RCl 3   IB | IndCl
  + _____|_____   + _____|_____
    Purpose | intention   Result |
    Prop | Prop |

     Semantically the propositions are in a cause-effect relation-
ship in which the purpose stands as the cause of the action of the
result proposition. Note that purpose always implies intention (noted
in box 5) and that this intention or forethought stands as the cause
of the resulting action.

1) (DB)h6lbi sikato   kaje (IB)m6ke tui mol   chiRan
        Halbi teaching for   I OM you price having agreed upon

        anlis.
        you brought
        'Having agreed on a wage you brought me here for the purpose of
        teaching Halbi.'

The dependent base is filled by Axis-Relator Clause 3. The axis is
filled by Dependent Clause 2 from the Active set of Clauses. The clause
is expressed in imperfect aspect and is unmarked for person or number.
No verbal auxiliaries have been observed to occur. Generally, the
clause is reduced to its minimal form and the Subject is deleted. The
Subject of both bases will be either the same or the Subject of the
dependent base will be the Object of the independent base. The relator
is filled by kaje 'for'. In example 2, the same Subject occurs in both
bases while in example 3, the Subject of one base becomes the Object of
the other.

2) (DB)pan TuTato kaje (IB)ran   jauat.
        leaf picking for   forest they will go
        'They will go to the forest for picking leaves.'

3) (DB)nacto   kaje (IB)hun thano   bhopal co boRe sah6b
        dancing for   that place of Bhopal of big official

        hag dilose.
        he has called
        'The important official from Bhopal has called (the boys) to
        come and dance.'

The independent base is filled by an independent clause from the
Active set of clauses. The clause may be expressed in past, present,
or projected time. Psuedo-passive voice may occur. No verbal auxil-
iaries have been observed.

Negation does not occur on either base. The linear ordering of the
sentence bases is, in general, as displayed in the four box array but
permutation is allowed. Also, the dependent base may interrupt the
internal linear ordering of the independent base, as in example 4.

4) (IB)huta ba:w6s (DB)phoRki monato kaje (IB cont.)anlase.
        there bamboo   fence making for .   they have brought
        'For making a fence they have brought bamboo.'

5) (IB)6sni   lai.   c6na kera deuat   (DB)khato
        like this puffed rice channa banana they will give   eating

        kaje.
        for
        'They will give puffed rice, channa, and bananas like this for

the purpose of eating.'

2.9 Reason-Result Sentence.

The Reason-Result Sentence consists of two independent bases joined by a reason-result conjunction. The bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	Ind Cl	+	LK	Cj	GUNE tebe	+	IB 2	IndCl
	Reason			Rsn		'therefore'		Result	
	Prop			Rslt				Prop	
				Piv					

The initial proposition of the sentence is given as the reason or basis for the resulting proposition which follows.

1) (IB 1)m6ke anuk   jau   rola   (LK)gune   (IB 2)mo:y
        I OM to bring having gone they were   therefore   I

        ile.
        I came
        'They had come to get me so I came.'

IBase 1 is filled by an independent clause from the Active or Attributive sets of clauses. IBase 2 is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. The clauses which fill the bases do not have to be of the same emic type. Also Active clauses may co-occur with Stative clauses. Co-occurrence re-strictions appear to be imposed by semantic (situational) constraints.

2) (IB 1)ami k6rea log   au: (LK)gunuk   (IB 2)amke 6ysa ni
        we dark people we are   therefore   we OM much not

        d6kot.
        they look
        'We are dark-skinned people therefore they don't stare at us.'

3) (IB 1)mahla   euat   (LK)gune   (IB 2)laj   kaje
        bethrothal they will come   therefore   shyness for

        haT   geli.
        market she went
        'They will come for the betrothal so she went to the market because she was shy.'

The tense co-occurrence restrictions which usually apply in the
Conjoined Sentence and others, do not apply in this particular sentence.
A temporal sequence is not in focus so IBase 1 may be projected time
while IBase 2 may be past time.

4) (IB 1)mo:y khub caur khaua:y   (LK)gunuk   (IB 2)m6ke bai m6n
       I   much rice I will eat   therefore   I OM lady pl.

        khub caur dh6run   dila.
        much rice having gotten they gave
        'I will eat lots of rice therefore the ladies got me lots
        of rice.'

Imperative mood or pseudo-passive voice do not occur in IBase 1 but
may occur in IBase 2. The following example illustrates pseudo-passive
voice.

5) (IB 1)sian   log   m6n at   (LK)tebe   (IB 2)hun m6n.
        old person people pl. they are   therefore   that pl.

        ke naw ni dh6rtor   ay.
        OM name not taking hold of it is
        'They are old people therefore you must not say their names.'

The perfective auxiliary ro or the benefactive auxiliary de may occur
in either base. Either base may be negated but not both. The linear
ordering of the sentence is as displayed in the four box array and no
permutation is allowed.

6) (IB 1)tumco dehe: po:Dri ay   (LK)gune   (IB 2)6ysa d6kuat.
        you of flesh white it is   therefore   much they will

        look
        'Your skin is white therefore they will stare at you.'

The reason-result pivot GUNE has two forms: gune and gunuk. gune
is used by men while women may use both gune and gunuk. The tebe pivot
seems to occur if the speaker is relating something he himself witnessed
while GUNE is used for secondhand information.

7) (IB 1)ami j6yphur co hoT6l thane   bhat   khadlu (LK)gune
        we Jeypur of hotel place in cooked rice we ate   therefore

        (IB 2)amke hun bita m6n 6ysa d6kot.
              we OM that thing pl. much they look
        'We ate lunch at a hotel in Jeypur therefore many men stared
        at us.'

8) (IB 1)e   leka co tual jhiku   rohot   (LK) gune
        this boy of towel having snatched they were   therefore

(IB 2)e   ci   kirta Thebu   rou:.
        this just reason having stayed we were
'They had snatched the boy's towel therefore for this very
reason we had stayed.'

3. Disjunction.

The disjunction group of sentences consists of two basic types and
both of these are coordinate. In the Alternative Question Sentence
the second base is dependent (having a formulaic clause filler) but
because of the link it is being retained in the coordinate group.

The relationships between the propositions of the sentences may be
summarized in the following tree diagram:

Disjunction

Interrogative

Alternative   Alternative
Sentence   Question
                            Sentence
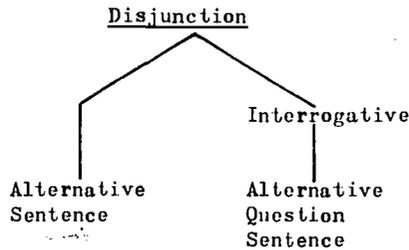
Figure 9. Disjunction Branch.

3.1 Alternative Question Sentence.

The Alternative Question Sentence consists of one independent and
one dependent base joined by an alternating link. The independent base
is filled by an independent clause; the dependent base is filled by a
dependent clause; and the link by a conjunction ki/kay 'or'.

Basic Sentence Formula:

	IB	IndCl			LK	Cj	ki, kay			DB	FormCl 1 DepCl 7
+	Altv Prop	pos interrog	+		Alt Piv		'or'	+		Altv Prop	neg/generic interrog

Semantically the two propositions are in an alternating relationship
in which they are reciprocally offered as choices to each other. In
subtype 3.11, the choice is between the positive and negative of propo-
sition one. In subtype 3.12, the choice is between proposition one and
the generic interrogative 'what'.

The independent base is filled by independent clauses from the

Active, Eventive, Stative, or Attributive sets of clauses. The clauses
from the Active and Eventive set are expressible in the following aspect-
tenses: simple past, simple future, or present continuous. The clauses
from the Stative and Attributive sets are not expressible in reference
to time. The psuedo-passive voice may occur but no other verbal auxil-
iary has been observed. The sentence as a whole is interrogative, and
carries a distinctive question intonation pattern.

The dependent base may be filled by Formulaic Clause 1 or Dependent
Clause 7. The dependency of the base is a result of these fillers. Al-
so the occurrence of either Formulaic Clause 1 or Dependent Clause 7 di-
vides the sentence into two subtypes.

3.11 Alternative Question Subtype 1.

The propositions of this subtype are in a negative alternating
relationship in which the initial proposition is always positive while
the final proposition is always negative. A response is required from the
the audience either as a negation or an affirmation of the speaker's
initial proposition.

Formulaic Clause 1 filling the dependent base has two structural
possibilities and is always negative:

  a) <u>nai</u> 'not is'. This will occur when clauses from the
    Attributive and Stative clause sets fill the independent
    base. This is a predicate consisting of a bound negative
    <u>n</u>- plus a form of the verb <u>AY</u> 'to be'.

1) (IB)bai gh6re ase (LK)ki (DB)nai?
   Bai house in she is or not is
   'Is Bai in the house or not?'

2) (IB)miri cor ay (LK)ki (DB)nai?
   Miri thief he is or not is
   'Is Miri a thief or not?'

  b) <u>NAJUN</u> 'not yet'. This will occur when clauses from the Active
    and Eventive clause sets fill the independent base. There
    are two forms possible: <u>najun</u> which is a bound negative
    <u>na</u>- plus <u>jun</u> '?' and is used by men; <u>nai</u> which is a bound
    negative <u>n</u>- plus a form of the verb <u>AY</u> 'to be' and is used
    by women.

3) (IB)leka m6n hun baT le ila (LK)ki (DB)najun?
   boy pl. that way from they came or not yet
   'Did the boys come from that place yet or not?'

4)   (IB)beTsi a:g dholi   (LK)kay (DB)najun?
          Betsy body she washed   or   not yet
          'Has Betsy given birth yet or not?'

5)   (IB)tui pani anlis   (LK)ki (DB)najun?
          you water you brought   or   not yet
          'Did you bring water yet or not?'

3.12 Alternative Question Subtype 2.

The initial proposition queries whether that same proposition is
true or occurred; the final proposition queries what is true or what
action took place if the initial proposition isn't true or didn't occur.
A response is required from the audience in the form of a statement or
explanation.

The dependent base is filled by Dependent Clause 7 from the Active
or Eventive clause sets and is in the interrogative mood. See example
4 below. This clause is usually truncated to only the question word
k6s6n 'what' and as a result is dependent. There is no overt negative
in either base.

1)   (IB)umco goT   khub D6:D   hoese   (LK)kay (DB)k6s6n?
          we of language much difficulty it is becoming   or   what
          'Is our language giving you difficulties or what?'

2)   (IB)tuco   ga:w   s6b le   boRe ay   (LK)ki (DB)k6s6n?
          you of village all from big it is   or   what
          'Is your village bigger than all others or what?'

3)   (IB)tuco   des   s6b des   le boRe ay   (LK)kay (DB)k6s6n?
          you of country all country from big it is   or   what
          'Is your country larger than all other countries or what?'

4)   (IB)hunco   m6nus   ke bimar   holi   (LK)ki (DB)k6s6n holi?
          that of husband OM sickness it became   or   what it became
          'Her husband became sick or what happened?'

5)   (IB)durga m6n bokra anla   (LK)ki (DB)k6s6n?
          Durga pl. goat they brought   or   what
          'Did Durga's people bring the goat or what happened?'

3.2 Alternative Sentence.

The Alternative Sentence consists of two independent bases joined
by an alternating link. The bases are filled by independent clauses
linked by a conjunction.

Basic Sentence Formula:

+	IB 1 ┊ IndCl	+	± LK ┊ Cj ┊ ki, kay	+	IB 2 ┊ IndCl
	Altv ┊ Prop ┊		Alt ┊ Piv ┊ ┊ 'or'		Altv ┊ Prop ┊

The two propositions are in a disjunctive relationship. The relationship between the propositions may be either:

a) Positive-negative alternation of the same proposition.

1) (IB 1)tumi bolase   (LK)ki (IB 2)ni bolase.
        you you will say   or   not you will say
        'Either you will speak or you won't.'

b) Alternate choices between different propositions.

2) (IB 1)bosu   rolu   (LK)kay (IB 2)uba   rou:.
        having sat we were   or   standing we were
        'Either we had sat or we had stood.

3.21 Alternative Subtype 1.

The propositions are in a positive-negative alternating relationship where the initial proposition is always positive and the final proposition is always negative.

The independent bases are filled by matching independent clauses from the Active or Eventive sets of clauses. However, the clause filling IBase 2 is reduced to just the predicate plus a negative.

3) (IB 1)hun dine   deota m6n kaTot   (IB 2)ni kaTot.
        that day on spirit pl. they cut   not they cut
        'On that day the spirits will either cut or they won't.'

The sentence is expressed in projected time. The same verb plus suffixes will occur in each base. That is, if IBase 1 is aorist, then IBase 2 is also aorist, as well as being negated. The Subjects remain the same across the bases. When imperative mood occurs in Dase 1 then imperative mood also occurs in Base 2.

4) (IB 1)tui likun   des (IB 2)ni likun   des.
        you having written give!   not having written give!
        'Either you write or don't write!'

The alternating link, ki/kay, is readily elicitable but rarely occurs in text or conversation since alternation in this sentence type is implied by the juxtaposition of the same two clauses, the second of

which is reduced and negated.[8] The linear ordering is as displayed in the four box array and no permutation is allowed.

5) (IB 1)saka   hoot   (IB 2)ni hoot.
         healing they become   not they become
         'Either they heal or they don't.'

   3.22 Alternative Subtype 2.

   The propositions are in an alternating relationship where each proposition is an alternate choice expressed positively.

   The independent bases are filled by independent matching clauses from the Attributive set when identification of an item is in focus as in the following example.

6) (IB 1)ra:Di co gh6r ay   (LK)kay (IB 2)s6rkar   co gh6r ay.
         widow of house it is   or   ⌐ government of house it is
         'Either it is a widow's house or it is a government house.'

   The independent bases are filled by independent clauses from the Active or Eventive clause sets when alternate events are in focus. The tense of the verbs will be the same in each base. The Subjects will be the same across the bases. Negation does not occur on any base. The linear ordering of the bases is not rigid and permutation may occur.

   4. Restatement.

   The restatement group of sentences consists of five basic types. Two of the sentences are subordinate (Positive Echo Question and Negated Specific—Generic), and the other three are paratactic (Negated Antonym, Magnification, and Positive Specific—Generic).

   The relationships of the propositions of the various sentences may be summarized by tree diagram as in Figure 10.

   4.1 Positive Echo Question Sentence.

   The Positive Echo Question Sentence consists of an independent and a dependent base. The independent base is filled by an independent clause while the dependent base is filled by a formulaic clause.

   Basic Sentence Formula.

|	IB	IndCl		DB	FormCl 2
+			+		
	Iden	decl		Echo	neg interrog
	Prop	mood		Qn	mood. 'Yes'
				Prop	response re—
					quired

Restatement

Figure 10.   Restatement Branch.

The propositions of the sentence are in a restatement relationship in which the second proposition rephrases the first in the form of a question in minimal form. The question requires a positive answer affirming the content of the first proposition.

1)   (IB)rati bera m6sin   sunalas   (DB)ne   bai?
        night time taperecorder you caused to hear   isn't that so Bai
        'Last night you played the taperecorder for us, didn't you Bai?'

The independent base may be filled by an independent clause from the Active, Eventive, Stative, or Attributive sets of clauses.

2)   (IB)tumco datun   aur ay   (DB)ne   bai?
        you of toothstick other it is   isn't that so Bai
        'Your toothsticks are different, aren't they Bai?'

There is no observable limitation to tense or aspect. Interrogative mood may not occur in the independent base since the whole sentence is interrogative as a result of the dependent base. The independent base may be either negative or positive.

3)   (IB)hun m6n ni ila   (DB)ne   sukri?
        that pl. not they came   isn't that so Sukri
        'They didn't come, did they Sukri?'

The dependent base is filled by Formulaic Clause 2. This formulaic clause may consist of the word ne or a:y both of which mean 'isn't that so?'. The general sentence periphery Vocative tagmeme occurs frequently with this sentence and normally follows the dependent base.

4)   (IB)ami hud6lda:y   koRi didi s6:ge nahalu   (DB)ne
        we at that time Kori Didi with we bathed   isn't that so

                koRi didi?
                Kori Didi
                'At that time we bathed with Kori Didi, isn't that so Kori
                Didi?'

5)   (IB)goT6k Da:Da   martor biti ke sa:gu   roc:de   (DB)a:y?
                one   sugarcane hitting thing OM having told I will be   isn't

                that so
                'I'll tell you about cutting the sugarcane, okay?'

        A distinctive rising question intonation pattern occurs on the de-
pendent base. The linear ordering of the bases is as displayed in the
four box array and no permutation is allowed.

6)   (IB)e   baj co bia   6m6rlise   (DB)ne?
                this la...y of wedding it has arrived   isn't that so
                'This lady's wedding (time) has arrived, hasn't it?'

7)   (IB)eda:y mo:y bole ee:de   (DB)a:y?
                now   I   also I will come   isn't that so
                'I will come now, shall I?'

8)   (IB)poka   jane   (DB)ne?
                very well he knows   isn't that so
                'He knows it very well, doesn't he?'

9)   (IB)usni   k6rese   (DB)ne?
                like that he is performing   isn't that so
                'He is doing it just like he should, isn't he?'

        4.2 Negated Antonym Sentence.

        The Negated Antonym Sentence consists of two independent bases.
The bases are filled by independent clauses.

        Basic Sentence Formula:

        IB 1 | 1ndCl   IB 2 | IndCl
    + ─────────────   + ─────────────
        Iden | pos   Restat | neg
        Prop | S_i   Prop | S_i

        The propositions are in a restatement relationship in which one
restates the other by negating an antonym of a constituent of the other
(usually the predicate).

1) (IB 1)i   baT ke ia   (IB 2)huta ni g6ma.
        this(emph) way OM come!   there not tarry!
        'Come back this way, don't tarry there!'

     The bases are filled by independent clauses from the Active, Even-
tive, or Stative sets of clauses. The independent clauses tend to be
matched across the bases so that when an Intransitive clause fills
IBase 1 then an Intransitive clause will also fill IBase 2. The same
mood, voice, and tense tend to occur in each base.[9]

2) (IB 2)e   log   nactor nu ay   (IB 1)ogay   houn
        this people dancing not it is   quietness having become

        rotor ay.
        being it is
        'These people are not to be dancing, they are to be remain-
        ing quiet.'

3) (IB 2)tumi gir co e   paT ni naka   (IB 1)bhitre raha
        you line of this side not cross!   inside stay!
        'Don't cross this side of the line, stay inside.'

     The same Subject occurs in each base and is overt only in the base
which occurs initially in the linear order. The final base of the li-
near order is often reduced to only the Predicate. The linear ordering
is quite loose so that permutation of the order displayed in the four
box array frequently occurs. One of the bases must be negated.

4) (IB 2)leka ke ni Tebaua   (IB 1)euk   dias.
        boy   OM not cause to stop!   to come give!
        'Don't stop the boy, allow him to come!'

5) (IB 2)ma:d   ni hoe   (IB 1)pat6r   holise.
        thickness not it becomes   thinness it has become
        'It didn't become thick, it became thin.'

6) (IB 2)cuTea rani ni manli   (IB 1)khedun   nili.
        mouse Queen not she obeyed   having chased she took
        'The Mouse Queen didn't obey, she (disobeyed and) chased
        the cattle.'

7) (IB 2)tumi kakRi   ke ni ra:das   (IB 1)6sni   khau6has.
        you cucumber OM not you cook   just like this you will eat
        'You don't cook cucumbers, you just eat them raw.'

8) (IB 2)hun leki goT6k ni:d ni soe   (IB 1)s6bu ke d6kte
        that girl one   sleep not she slept   all OM seeing

        roe.
        she was
        'The girl didn't sleep a wink, she was looking at everything.'

4.3 Negative Specific-Generic Sentence.

The Negative Specific-Generic Sentence consists of one dependent base, with the possibility of another, and a final dependent base. The dependent bases are filled by dependent clauses while the final dependent base is filled by a formulaic clause.

Basic Sentence Formula:

+	DB 1	DepCl 6	+	DB 2	DepCl 6	+	FIN DB	Form Cl 3
	Sp	S_i		Sp	S_j		Generic	S_i
	Prop	neg		Prop	neg		Prop	neg

The propositions of the sentence are in a restatement relationship in which the specific propositions enumerate one or more different predications conceptually included in the generic proposition. All propositions must be expressed in the negative and have a common topic.

1) (DB 1)leki khadlise   nai   (DB 2)so6lise   nai   (FIN DB)
         girl she has eaten not is   she has slept not is

              ka:y   nai.
              anything not is
              'The girl hasn't eaten, she hasn't slept, she hasn't done
              anything.'

The dependent bases may be filled by Dependent Clause 6 from the Active, Eventive, or Attribu ive sets of clauses. When the dependent bases are filled by clauses from the Active or Eventive sets then the same Subject will occur in each base. When the dependent bases are filled by clauses from the Attributive set then different Subjects will occur in each base but a common possessor (stated in DBase 1) applies to all bases (See example 2). When more than one dependent base occurs then each base is filled by a clause from the same clause set, and the verbal suffixes will be the same. All the bases are negated.

2) (DB 1)hunco   baba   ni ay   (DB 2)aya   ni ay   (FIN DB)
         that of father not he is   mother not she is

              ka:y   ni ay.
              anything not it is
              'He doesn't have a father, he doesn't have a mother, he
              doesn't have anyone.'

The dependent bases are dependent as a result of the permutation of the negative from its normal position preceding the predicate to a position following the predicate where its form also changes. The usual use of the negative would be:

leka <u>ni</u> khae
boy   not he eats   'The boy doesn't eat'

However, in this sentence type the above example becomes:

leka khae   <u>nai</u>
boy he eats not is   'The boy doesn't eat'

The FIN DBase is filled by Formulaic Clause 3. There are two structural possibilities for this formulaic clause:

a) ka:y   ci   nai
    anything just not is   '(he) just won't (do) anything'

The predicate <u>nai</u> is a form of the negative <u>n-</u> plus a form of the verb <u>AY</u> 'to be', while the topic is the generic word <u>ka:y</u> 'anything'. The emphatic particle <u>ci</u> 'just' may be added to this formulaic clause.

b) ka:y   ci   ni ay
    anything just not it is   'there just isn't anything...'

The predicate <u>ni</u> <u>ay</u> consists of the free form negative <u>ni</u> 'not' and a form of the verb <u>AY</u> 'to be', while the topic is the generic word <u>ka:y</u> 'anything'. The emphatic particle <u>ci</u> 'just' may be added to this formulaic clause.

The linear ordering of the bases of the sentence is as displayed in the four box array and permutation of the dependent bases with the FIN DBase is not allowed. When more than one dependent base occurs then these may permute with one another.

3) (DB 1)leka khae   nai   (FIN DB)ka:y   nai.
           boy   he eats not is   anything not is
           'The boy doesn't eat or anything.'

4) (DB 1)m6co bhai   ni ay (FIN DB)ka:y   ni ay.
           I of brother not he is   anything not it is
           'I don't have a brother or anyone.'

4.4 <u>Magnification Sentence</u>.

The Magnification Sentence consists of at least two independent bases, with the possibility of a third. The bases are filled by independent clauses.

The relationship between the propositions is one where the second and third propositions are restatements of the initial theme or topic proposition. The restatement propositions enlarge upon, magnify, or expand the theme of topic.

Basic Sentence Formula:

+	IB 1	IndCl	+	IB 2	IndCl	+	IB 3	IndCl
	Topic	S_i		Magnf	S_i		Magnf	S_i
	Prop	P_i		of	P_i		of	P_i
				Topic			Topic	
				Prop			Prop	

1) (IB 1)m6co gh6re   ra   (IB 2)m6co beTi   kaje gh6r jua:y
         I of house in stay!   I of daughter for house young man

         ra.
         stay!
         'Stay in my house, stay as a husband for my daughter!'

The independent bases are filled by independent clauses from either
the Active or Stative sets of clauses. The same clause will occur in
each base. That is, when a SemiTransitive clause fills IBase 1, a
SemiTransitive clause will also fill IBase 2 and 3. The same Subject
and the same Predicate occur in each base, thus providing a close link-
age of the bases. Tense, mood, voice, and aspect will be the same in
each base.

2) (IB 1)tumi jaha (IB 2)tumi ch6y bhai   jaha.
         you go!   you six brother go!
         'Go! You six brothers go!'

Negation does not occur in any base. The linear ordering of the
bases is usually as displayed in the four box array, but permutation of
topic to sentence final position is allowed.

3) (IB 1)j6may ga:w   co log   jasot   (IB 2)lad boli ne jasot.
         all   village of people they go   Lad Boli to they go
         'All the villagers go, they go to Lad Boli.'

4) (IB 1)khub khaja khadlu (IB 2)ciwRa   kera   aru lai
         much tidbit we ate   rice mixture banana and puffed rice

         miTh6i s6b khadlu.
         sweets all we ate
         'We ate lots of tidbits, we ate rice mixture, bananas, and
         puffed rice and sweets and all.'

5) (IB 1)dhukan dhukan dhukan bulese   (IB 2)e   k6pRa dhukan
         shop   shop   shop   he is walking   this cloth shop

         bulese   (IB 3)hun pen   dhukan bulese.
         he is walking   that betel nut shop   he is walking

'He is walking around the shops, he is walking around the cloth shop, he is walking around the betel nut shop.'

4.5 Positive Specific—Generic Sentence.

The Positive Specific—Generic Sentence consists of one independent base, with the possibility of up to three, and a final independent base. The bases are filled by independent clauses.

Basic Sentence Formula:

$$+ \ \frac{\text{IB 1} \mid \text{IndCl}}{\begin{array}{l|l}\text{Sp} & \text{P}_i \\ \text{Prop} & \text{pos}\end{array}} \quad \underset{-}{+} \ \frac{\text{IB 2,3} \mid \text{IndCl}}{\begin{array}{l|l}\text{Sp} & \text{P}_i \\ \text{Props} & \text{pos}\end{array}} \quad + \ \frac{\text{FIN IB} \mid \text{IndCl}}{\begin{array}{l|l}\text{Generic} & \text{P}_i \\ \text{Prop} & \text{pos}\end{array}}$$

The propositions of the sentence are in a restatement relationship in which the specific propositions enumerate one or more different specifics included in the all inclusive generic proposition. All propositions must be expressed positively and have a common Predicate.

1) (IB 1)suksi   bhijli   (IB 2)cita   bhijli   (FIN IB)
          dried fish it got wet   custard apple it got wet

        j6ma bhijli.
        all it got wet
        'The dried fish got wet, the custard apples got wet, every-
        thing got wet.'

The all inclusive (generic) proposition has a Subject which involves the use of a generic or summary word meaning 'all' such as:

        s6b leka m6n
        all boy pl.   'all the boys'

        gulay ga:w   co log
        all   village of people   'all the villagers'

2) (IB 1)ami bia   d6kuk jauau: (IB 2)sukuntula m6n jauat
          we wedding to see we will go   Sukuntula pl. they will go

        (FIN IB)gulay ga:w   co log   jauat.
                all   village of people they will go
        'We will go to see the wedding, Sukuntula's family will go,
        the whole village will go.'

The bases are filled by independent clauses from the Active, Eventive, or Stative set of clauses. The same emic clause type must occur throughout the bases. That is, if IBase 1 is filled by an Intransitive clause then all the bases including FIN IBase are filled by the same.

Also, the verbal suffixes of each base will be the same. At present
only present perfect, present continuous, simple future, and simple
past tenses have been observed to occur. The verb ASE 'to be' also oc-
curs. Mood, voice, and aspect are the same throughout the bases. Ne-
gation does not occur on any base. The Predicates will be the same in
each clause with only the Subjects being different.

3)   (IB 1)hun   16ge   ami rolu   " (IB 2)durga m6n rola   (IB 3)
            tht place in we   we were   Durga pl. they were

            chi:gRu m6n rola   (FIN IB)s6bu log   rola.
            Chingaru pl. they were   all   people they were
            'We were at that place, Durga's people were there, Chingaru's
            people were there, everyone was there.'

      The linear ordering of the sentence is usually that displayed in
the four box array. The FIN IBase does not interrupt the linear order-
ing of the lBases but it may permute to a position immediately preceding
the IBases. Where several IBases occur these may permute with one an-
other.

4)   (IB 1)esu   dhan   6cha 6cha baRlise   \   ' IB)s6bu 6cha
            this year paddy rice goed good it has grown   all   good

            6cha baRlise.
            good it has grown
            'This year the paddy rice did well, everything has done well.'

5)   (FIN IB)s6b log   asot   (IB 1)tati gh6ro   log   asot
            all people they are   Tati house of people they are

            (IB 2)sirha gh6ro   log   asot   (IB 3)poTel gh6ı
                  Sirha house of people they are   Potel house of

            log   asot.
            people they are
            'All the people are there, Tati's house's people are there,
            Sirha's house's people are there, Potel's house's people
            are there.'

      5. Coupling.

      The coupling group of sentences consists of four basic types. One
of the sentences is coordinate (Conjoined), two are paratactic (Identity-
Contrast and Descriptive Listing) and one is subordinate (Antithetical).

      The relationship of the various sentences may be summarized in the
following tree diagram:

Coupling

Contrast

Restricted   Neg-Pos

Conjoined   Descriptive   Antithetical   Identity
             Listing   Contrast
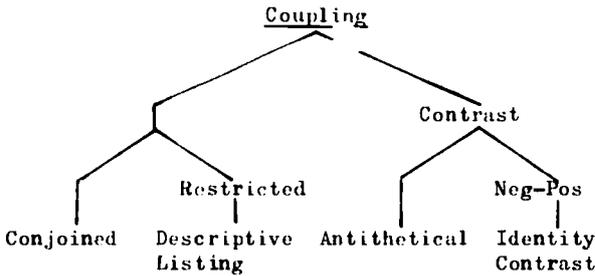
Figure 11.   Coupling Branch.

5.1   Identity-Contrast Sentence.

The Identity-Contrast Sentence consists of two independent bases.
The independent bases are filled by independent clauses.

Basic Sentence Formula:

$$+ \quad \frac{\text{IB 1} \;\vdots\; \text{IndCl}}{\text{Iden} \;\vdots\; \text{pos/neg}} \qquad + \quad \frac{\text{IB 2} \;\vdots\; \text{IndCl}}{\text{Contrast} \;\vdots\; \text{neg/pos}}$$
$$\text{Iden} \quad \text{Contrast}$$
$$\text{Prop} \qquad\qquad \text{Prop}$$

The relationship of the two propositions is one of contrast. This
contrast is maintained by a two-fold difference between them. The first
is a positive-negative or negative-positive relationship between their
Predicates. This is shown in box 5 of the formula above. The second
difference requires that a participant or supporting prop (setting, lo-
cation, time) of one must contrast with a corresponding participant or
supporting prop of the other. The reader can note this twofold differ-
ence in other examples, but note the pattern in examples 1 and 2 in the
Figure below.

Base Example	Base 1	Base 2
1	a. in your country b. give	a. in our country b. do n give
2	a. his father b. is alive	a. my father b. isn't ( )

Figure 12.   Two-fold Difference Chart.

1) (IB 1)tumco des   ne k6sa   ni deot
        you of country in purification ceremony not they give

        (IB 2)amco des   ne deuat.
              we of country in they will give
        'In your country they don't perform the K6sa purification
        ceremony, in our country they do perform it.'

2) (IB 1)hunco   baba   ase   (IB 2)m6co baba   ni ay.
        that of father he is   I of father not he is
        'His father is alive, my father isn't.'

    The independent bases are filled by independent clauses from the
Active, Eventive, Stative, or Attributive sets of clauses. Generally,
the clauses filling the two bases are matched so that both will belong
to the same set—Active with Active, Eventive with Eventive, Stative
with Stative, and Attributive with Attributive.

3) (IB 1)m6co beTa beTi   nu at   (IB 2)tuco   beTa beTi
        I of son daughter not they are   you of son daughter

        at.
        they are
        'They are not my children, they are your children.'

4) (IB 1)gay gor6s ni anlo   (IB 2)bag   gor6s anlo.
        cow milk   not he brought   tiger milk he brought
        'He didn't bring cow milk, he brought tiger milk.'

    Sometimes even though the clauses do not match yet the identity-
contrast relationship still exists. When this is true, negated clause
from the Attributive set will usually be one of the clauses.

5) (IB 1)raja to   nu ay   bai (IB 2)rani ke d6klu.
        king part. not he is Bai   queen OM we saw
        'It wasn't the king, Bai, we saw the queen.'

    No adversative conjunction exists which would provide a close con-
trastive link. The two-fold contrastive relationship of the two propo-
sitions provides the semantic linkage. Grammatically, the linkage for
the two bases may be:

    a) The juxtaposition of the two clauses,
    b) The obligatory presence of a negative particle in one base
        versus its absence in the other,
    c) The occurrence of contrasting tagmemes such as—Subject versus
        Subject, Object versus Object, and so on, or
    d) The optional occurrence of the emphatic tagmeme mant6r, from
        the specialized periphery which is emphasizing the truth or
        correctness of both bases.

6)   (IB 1)tumeo 16ge   6sp6tal neuat   (EMPH)mant6r
         you of place in hospital they will take   emph.

         (IB 2)ameo 16ge   ni neuat.
              we of place in not they will take
         'In your country they will take (sick people) to the hospital,
         but in our country they don't take them.'

When the same Predicate occurs in the bases then the second Predi-
cate may be deleted. When this occurs then the positive base will occur
initially and the negative base finally.

7)   (IB 1)phus   jon ne nacuat   (IB 2)aur   jon ne nai.
              lunar month moon in they will dance   other moon in not is
              'They will dance in the month of Phus, not in another month.'

8)   (IB 1)ma:g   jon ne pakuay   (IB 2)ebe nai.
              lunar month moon in it will ripen   now not is
              'In the month of Mang it will ripen, not now.'

9)   (IB 1)phujari k6ruay   (IB 2)aur   log   nai.
              priest he will perform   other people not is
              'The priest will perform the ceremony, not anyone else.'

The linear ordering of the sentence is loose in that no specific
base must occur initially or finally.

10) (IB 1)mo:y ni jane: (IB 2)hun leka januay.
              I   not I know   that boy he will know
              'I don't know but that boy will know.'

11) (IB 1)m6ke nu ay   bai (IB 2)aru   leki ke ay.
              I OM not it is Bai   other girl OM it is
              'It isn't me, Bai, it's another girl.'

12) (IB 1)6ytwar aur 16kinbar rati mas ni khaot   (IB 2)aur   rati
              Sunday and Thursday night meat not they eat   other night

              khauat.
              they will eat
              'They don't eat meat on Thursday and Sunday nights but they
              will eat it other nights.'

13) (IB 1)mu:de bera sag   khauau: (IB 2)rati bera ni khau:
              midday time curry type we will eat   night time not we eat
              'At midday we eat vegetable curry but not at night.'

5.2 Antithetical Sentence.

The Antithetical Sentence consists of one dependent and one inde-

pendent base. The dependent base is filled by a dependent clause while
the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	DepCl 1	+	IB	IndCl
	Contr	unreal		Factl	real
	Factl			Anti-	
	Thesis			Thesis	
	Prop			Prop	

The propositions are in a thesis-antithesis relationship to each
other characterized by the English conjunction 'but' (A but B). Propo-
sition one states an event which is never realized. Against this or in
spite of it, proposition two is realized. The word mant6r occurs be-
tween the propositions and emphatically asserts that the sentence is
true.

1) (DB)616s bai jatibe   (EMPH)mant6r (IB)pren bai co kirta   janų
        Alice Bai she would go   emph.   Fran Bai of reason part.

        eta Theblise.
        here she has stayed
        'Alice Bai would have gone but because of Fran she has stayed
        here.'

The dependent base is filled by Dependent Clause 1 from the Active
clause set. The base is dependent in that it is marked only for imper-
fect aspect, person, and number and is dependent on the rest of the sen-
tence to complete its meaning. The perfective auxiliary ro has been ob-
served to occur. The suffix -be occurs on the verb but as yet its func-
tion is unknown.

2) (DB)id6lda:y   gh6re   6mru   rotube   (IB)janu
        at this time house in having arrived we would be   part.

        tuci   kirta Theblu.
        you of(emph) reason we stayed
        'At this time we would have arrived home but because of you we
        waited.'

The independent base is filled by an independent clause from the
Active, Eventive, or Stative clause sets. The independent base is ex-
pressed in past time.

3) (DB)mo:y mo:d khatebe   (EMPH)mant6r (IB)e   ci   kirta
        I   wine I would eat   emph.   this of(emph) reason

ogay   hole.
quietness I became
'I would have drunk wine but because of the others I sat quietly.'

The morpheme _janu_ may occur with this sentence. However, like the suffix -_he_, its function is unknown. The emphatic tagmeme, _mantór_, from the specialized periphery may optionally occur between the bases.

Negation does not occur on either base. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed.

4) (DB)ami naT   dókuk jatube   (IB)e   ci   kirta
      we   dance drama to see we would go   this of(emph) reason

    Thebluse.
    we have stayed
    'We would have gone to see the dance drama but because of her we stayed here.'

5.3 Descriptive-Listing Sentence.

The Descriptive-Listing Sentence consists of at least two independent bases with the possibility of up to six. The bases are filled by independent clauses.

Basic Sentence Formula:

IB 1	IndCl		IB 2	IndCl		IB 3-6	IndCl
Desc	pos		Desc	pos		Desc	pos
Prop 1	neg		Prop 2	neg		Props	neg

(+ before each box, − below)

Semantically the two propositions are in a coupling relationship in which each proposition adds an event or state to a list of events or states with a common topic. This descriptive listing may involve:

a) A single actor performing (or not performing) a series of actions or predications during a specific time setting.

1) (SETT)eble   (IB 1)ni   uTlise   (IB 2)duar duari ni   baRae
          as yet   not she has arisen   courtyard   not she sweeps

    (IB 3)chaRa ni   dee.
          dung   not she gives
    'As yet she hasn't arisen, she doesn't ᵣeep the courtyard nor does she dung it.'

b) A single possessor whose possessions (or lack thereof) are listed:

2) (IB l)hunco   gh6r ase   (IB 2)kuRea   ase   (IB 3)beRa ase
         that of house it is   cattle shed it is   field it is

         (IB 4)kaRa ase   (1B5)gay ase   (IB 6)bachi ase.
              field it is   cow it is   calf it is
         'He has a house, a cattle shed, fields, cattle, and calves.'

    The independent bases are filled by independent clauses from either
the Active or the Attributive sets of clauses. No mixing of clause sets
may occur. Where all the bases are filled by clauses from the Active
clause set then the Subject of each base will be the same and generally
each of the bases will have the same tense, mood, voice, and aspect.
Changes in the tense suffixes indicate that a temporal sequence is in-
volved. Also the Setting tagmeme from the specialized periphery must
occur when the Active clause set is used.

3) (SETT)rati m6:j6n (IB l)ni soe   (IB 2)ni khae.
         night day   not she sleeps   not she eats
         'Night and day she doesn't sleep and she doesn't eat.'

    Where all the bases are filled by clauses from the Attributive set
then a possessive pronoun occurs in IBase 1 and this possessive pronoun
applies equally to all the bases although not overtly marked. The
possessive pronoun is readily supplied in each base by the language
assistants but in their opinion it makes the sentence cumbersome. The
possessive pronoun in the following example has been underlined.

4) (IB l)<u>hunco</u>   gh6r ni ay   (IB 2)beRa ni ay   (IB 3)bho:ysa
         that of house not it is   field not it is   buffalo

         ni ay.
         not it is
         'She doesn't have a house, nor fields, nor waterbuffaloes.'

    The bases are either all negative or all positive. The linear or-
dering of the bases of the sentence is as displayed in the four box
array and permutation is restricted. When all the bases are negated
then permutation is allowed but only if temporal sequence is not
involved. None of the positive examples are permutable.

5) (SETT)aThara   din rati m6:j6n (IB l)ek ni:d ni   soe
         eighteen day night day   one sleep not she sleeps

         (IB 2)pej   bhat   ni khae.
              gruel cooked rice not she eats
         'For eighteen days, both day and night, she hasn't slept one
         bit, nor eaten any gruel or rice.'

6) (SETT)rati m6:j6n (IB l)khae   (IB 2)pie   (IB 3)soe
         night day   she eats   she drinks   she sleeps

(IB 4)bose.
        she sits
'Night and day she eats, she drinks, she sleeps, she sits.'

7) (SETT)boRe biane   (IB 1)uTe   (IB 2)baRa o:Da   k6re
        big   morning in   she arises   house cleaning she per-

            (IB3)chaRa caT   dee.
        forms   dunging the courtyard she does
        'Early in the morning she arises, she cleans the house, she
        dungs the courtyard.'

8) (SETT)aji   biane   (IB 1)duar   baRale (IB 2)chaRa dile
        today morning in   courtyard I swept   dung I gave

        (IB 3)pani anle   (IB 4)ra:da   ra:dle.
            water I brought   preparation I prepared
        'Today, I swept the courtyard, dunged it, brought the water,
        cooked the meal.'

    5.4 Conjoined Sentence.

    The Conjoined Sentence consists of at least two independent bases,
with the possibility of up to five, joined by a coordinating conjunction.
The bases are filled by independent clauses.

    Basic Sentence Formula:

+	IB 1 ┊ IndCl	+	± LK ┊ Cj ┊ AUR	+	IB 2 ┊ IndCl
	Iden ┊		Conn ┊ ┊ 'and'		Conj ┊
	Prop ┊				Prop ┊

±	[	+	± LK ┊ Cj ┊ AUR	±	IB 3-5 ┊ IndCl	]
			Conn ┊ ┊ 'and'		Conj ┊	
					Prop ┊	

    The coordinate relationship is used to join propositions of equal
grammatical-semantic status in a series of two or more. The propositions
must have a common topic and although sequence may be involved, it is
not in focus when this grammatical construction is chosen.

1) (IB 1)pej   khauat   (LK)aur (IB 2)aplo   beRa ne jauat
        gruel they will eat   and   one's own field in they will

            mi:jak
        go to weed
   'They will eat gruel and they will go to their own fields to

weed them.'

The independent bases are filled by independent clauses from the
Active, Eventive, Stative, or Attributive sets of clauses. The clauses
filling the bases tend to be matched so that both will belong to the same
set—Active with Active and so on. It has been observed that a Stative
clause may follow an Active clause when location is involved.

2) (IB 1)gh6r ba:dlu   (LK)aru (IB 2)a:su.
        house we tied   and   we are
        'We built a house and here we are.'

3) (IB 1)cuRator   ay   (LK)aur (IB 2)hunco   pani ke gartor ay.
        preparing it is   and   that of water OM pouring it is
        'It is to be prepared (cooked) and its water is to be poured off.'

In general, indicative mood must match indicative mood, imperative
mood must match imperative mood, hortative must match hortative.

4) (IB 1)leka tui hun cua: ne ut6r   (LK)aur (IB 2)hun k6sla ke
        boy you that well in descend!   and   that a pot OM

        nikran   des.
        having brought out give!
        'Boy! You descend down that well and fetch my pot!'

Within indicative mood the restriction is that prior propositions
must be the same or prior in tense or aspect to the following proposi-
tions. This restriction may be summarized as follows:

                        IB 1   IB 2

                    Simple Past ══════►Simple Past
                                    ►Present Perfect

                    Present ───────────►Present

                    Future ───────────►Future
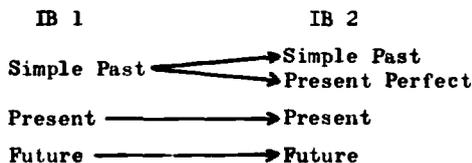
This indicates the fact that logical sequence is involved though we are
positing that it is not primary.

5) (IB 1)rati bera so6lu   (LK)aur (IB 2)biane   uTlu   (LK)aur
        night time we slept   and   morning in we arose   and

        (IB 3)pher gelu.
            again we went
        'We slept at night and in the morning arose and again we
        went.'

Any base may be negated. The linear ordering of the bases is as
displayed in the four box array but some permutation is allowed. Where

temporal sequence is not involved then the bases may be permuted. When temporal sequence is involved then permutation may occur only after a change in sentence type. One of the bases (or several) will be changed to the dependent base of one of the sequence sentences. We posit, however, that the chief function of this sentence type is simply to list events as having occurred together. Often the situational context is responsible for contributing a temporal/logical sequence to the Conjoined Sentence.

6) (IB 1)pej   khadlu   (LK)aur (IB 2)Da:Da   maruk gelu.
        gruel we ate   and   sugar cane to hit we went
        'We ate gruel and went to cut sugar-cane.

This Conjoined Sentence becomes a Specific Sequence Sentence when IBase 1 and IBase 2 are permuted and the necessary grammatical changes made to the structure:

    (IB)Da:Da   maruk gelu   (DB)pej   khaun   bhati.
        sugar cane to hit we went   gruel having eaten after
        'We went to cut sugar-cane after having eaten our gruel.'

    In general, the Subjects will be the same in each base. The coordinating conjunction AUR has two forms—aur and aru. aur is used by men and aru is used by women.

7) (IB 1)pani   t6pali   (IB 2)nahan   dili.
        water she heated   having bathed she gave
        'She heated water and bathed.'

8) (IB 1)hun   m6n ch6ya co m6ya hola   (LK)aru (IB 2) up6r   phur
        that pl. disappearance they became   and   above world

        ne gela.
        in they went
        'They disappeared and returned to the upper world.'

6. Complementation.

    The complementation group of sentences consists of five basic types. Three of the sentences (Disclaimer-Conjecture, Witness-Fact, and Quotation) are grammatically paratactic, and the other two (Proportional-Comparison and Topic-Comment) are subordinate.

    The relationships of the propositions of the sentences may be summarized by tree diagram as in Figure 13.

6.1 Disclaimer-Conjecture Sentence.

    The Disclaimer-Conjecture Sentence consists of one dependent and one independent base without any overt linking conjunctions. The dependent base is filled by a rhetorical question and the independent base is

<u>Complementation</u>

```
                        Complementation
                       /        |      \
                      /         |       \
                     /          |        Interrogative
                    /           |
                   /       Reciprocal
                  /         /      \
            Restricted     /    Restricted
            /    |        /      /    \         \
Quotation  Witness     Topic  Proportional  Disclaimer
           Fact        Comment Comparison    Conjecture
```
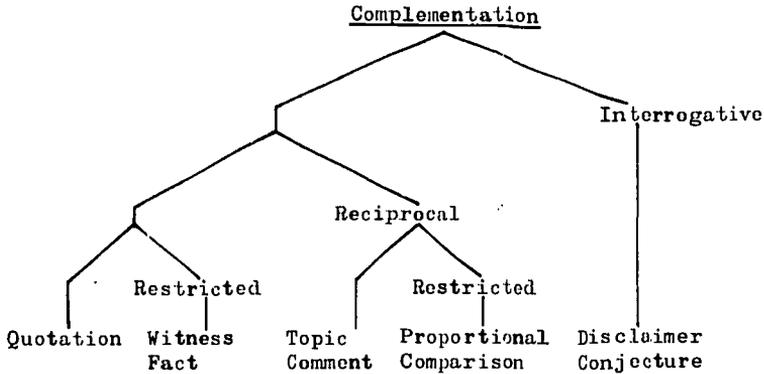
Figure 13.   Complementation Branch.

filled by an independent clause.

<u>Basic Sentence Formula</u>:

$$+ \begin{array}{c|c} DB & RhetQn \\ \hline Discl & interrog \\ Prop & \end{array} \quad + \begin{array}{c|c} IB & IndCl \\ \hline Conjt & \\ Prop & \end{array}$$

The two propositions are in a complementary relationship--the second
to the first.   The initial proposition of the sentence disclaims or de-
nies all knowledge concerning the proposition which follows.   The second
proposition then is a conjecture as to the existence or availability of
an item or a conjecture about an occurrence of which the speaker has no
first hand knowledge.

1)   (DB)kon janlose   (IB)phur phura bole eu   roede.
        who he has known   flood   also having come it will be
        'Who knows whether a flood will have come.'

The dependent base is filled by a clause from the Stative clause
set and is always expressed in interrogative mood.   The question thus
formed is a rhetorical question and no response is required from the
audience.   The DB is incomplete and formulaic.   The rest of the sentence
is required to complete the meaning.   All the examples show only one form
of the verb 'to know' which is present perfect, third person, masculine.
However, the language assistants agree that other forms of the verb are
possible.

The independent base is filled by an independent clause from the
Active, Eventive, or Attributive clause sets.

2) (DB)kon janlose   (IB)agór bole hoede.
         who he has known   more also it will be
         'Who knows whether it will cost more.'

    Negation does not occur on either base. The linear ordering is as
shown in the four box array and permutation is not allowed.

3) (DB)kon janlose   (IB)upre pani marlise.
         who he has known   above water it has hit
         'Who knows, it may have rained up there.'

4) (DB)kon janlose   (IB)caur cun aladad   dhóru   rou:.
         who he has known   rice   large quantity having gotten we were
         'Who knows whether we'll be able to get a large quantity of rice.'

    6.2 Proportional-Comparison Sentence.

    The Proportional-Comparison Sentence consists of two dependent
bases. These dependent bases are filled by dependent clauses.

    Basic Sentence Formula:

+ | DB 1 | DepCl 8 | + | DB 2 | DepCl 8 |
    | Quant | i- | | Proport | h- |
    | Prop | relative | | Prop | prefix |
    | | prefix | | | |

    The two propositions are in a correlative complementary relation-
ship. The initial proposition is a quantified proposition, a 'plumb-
bob' or scale, focussing on one element only of the proposition. Against
this a similar element in the second proposition can be related or mea-
sured exactly. Time, location, quantity, and manner are the non-nuclear
clause elements which are relateable (measurable) across the bases. In
the following example location is being related across the bases.

1) (DB 1)je 16ge pani 16ge   roede   (DB 2)hun 16ge   cua:
          wherever water place in it will be   that place in well

         khoRuat.
         they will dig
         'Whereever there is water, at that place they will dig a well.'

Actor, possessor, action, and goal are the clause nuclear elements which
are relateable (measurable) across the bases. In the following example
actions are being related across the bases.

2) (DB 1)ebe tuco baba mori holoje   (DB 2)usni
          now you of father dead he became(relative)   just like that

amco   des   co raja bole morlo.
we of country of king also he died
'Just as your father is dead now, so the king of our country
also died.'

A contrastive feature of this sentence type is the obligatory
presence of cross-referencing terms typically occurring in pairs, as:

DB 1   DB 2

j-idlida:y⎤   h-udlida:y⎤
j-id6lda:y⎦ at whatever time   h-ud6lda:y⎦ at that time
j-e thane   at whatever place   h-un thane   at that place
j-itlo   however much   h-utlo   that much
j-6s6n   however   ∅-us6n   like that
j-on   whoever   h-un   that one
             ⎡whoever   h-un   that one
j-e   ⎣whatever
j-eco   whose ever   h-unco   his, hers, its
j-e   verb relative   ∅-usni   just like that

As a result of the obligatory presence of the cross-referencing
prefixes (j- and h-) both bases are considered dependent.

3) (DB 1)jitlo   m6cri jhari ne poRede   (DB 2)hutlo   ke
        however much fish net   in it will swim   that much OM

        dh6rtor   ay.
        taking hold of it is
        'However many fish swim into the net, that many fish are to
        be caught.'

The clause types which fill the two bases are not usually matched.
DBase 1 is filled by Dependent Clause 8 from the Active, Eventive, Sta-
tive, or Attributive clause sets. DBase 2 is also filled by Dependent
Clause 8 from the Active or Eventive clause sets. Co-occurrence restric-
tions on the clauses appear to be semantically or situationally govern-
ed.

4) (DB 1)j6s6n   age   co m6hal roli   (DB 2)usni   m6hal ba:dla.
        however before of palace it was   like that palace they

        tied
        'However the palace was previously, just like that they built
        it.'

The following tenses have been observed in DBase 1: simple future,
simple past, and aorist. The perfective auxiliary ro may also occur.
No other verbal auxiliaries have been observed. The following tenses
have been observed in DBase 2: simple future and simple past. Impera-

tive or interrogative mood, or psuedo-passive voice may occur. No ver-
bal auxiliaries have been observed. In example 5, DBase 2 is expressed
in imperative mood and in example 6, DBase 2 is expressed in interroga-
tive mood.

5)   (DB 1)ami jid6lda:y   eu:de   (DB 2)hud6lda:y   sa:g.
             we   at whatever time we will come   at that time tell!
             'At whatever time we will come, at that time tell us!'

6)   (DB 1)amco des   ne nua: manluje
             we of country in New Year festival we celebrated(relative)

             (DB 2)usni   tumi bole manu6has?
                    just like that you also you will celebrate
             'Just as we celebrate the New Year festival here, in your
             country, do you also celebr:te the same festival like that?'

        Neither base is negateable. The linear ordering of the bases is as
displayed in the four box array and no permutation is allowed. The
Predicate of one of the bases may be deleted but never both. Other clause
level tagmemes may also be deleted. These deletions may be predicatable
but as yet no pattern has been observed. Examples 7, 8, and 9 show some
of these deletions.

7)   (DB 1)j6s6n   co m6hal (DB 2)us6n   holi.
             however of palace   like that it became
             'Whatever the palace (was like before) that's how it became.'

8)   (DB 1)jitlo   dhan   co (DB 2)hutlo   caur monali.
             however much paddy rice of   that much rice she made
             'However much paddy rice there was, that much rice she made.'

9)   (DB 1)jid6lda:y   ami eu:de   (DB 2)hud6lda:y?
             at whatever time we we will come   at that time
             'At whatever time we will come, at that time?'

10) (DB 1)jid6lda:y   mo:y phirte   roe (DB 2)hud6lda:y   boRe
             at whatever time I   returning I was   at that time big

             m6skul   ne poRle.
             difficulty in I fell
             'At whatever time I was returning, at that time I fell into
             difficulties.'

11) (DB 1)j6s6n   j6s6n   hun deo   sa:gu   roede   (DB 2)us6n
             however however that spirit having told it will be   like

                  joRtor   ay.
             that putting together it is
             'Just as that spirit will have said, like that it is to be
             gotten together.'

6.3   Topic-Comment Sentence.

The Topic-Comment Sentence consists of one dependent and one inde-
pendent base. The dependent base is filled by an axis-relator clause
or a dependent clause and the independent base is filled by an indepen-
dent clause.

Basic Sentence Formula:

+	DB	A-RCl 1 DepCl 5	+	IB	IndCl
	Topic Prop	indefinite		Comment Prop	

The two propositions are semantically in a complementary relation-
ship. The initial proposition identifies a theme or topic which is ex-
pounded by the final proposition. In other words, the topic proposition
highlights or spotlights one particular item upon which the comment
proposition enlarges.

1) (DB)kon   des   ne ay   ale (IB)hun thane   16R6i holi.
        which country in it is when   that place in war   it became
        'Whatever country it is in, a war occurred there.'

2) (DB)koni   hoo   (IB)haT   baTe   Da:Da   bikuat.
        whoever it may be   market way in sugar cane they will sell
        'Whoever it may be, they will sell the sugar-cane in the market.'

The dependent base may be filled by Axis-Relator Clause 1. The
clause filling the axis is an independent clause from the Active, Event-
ive, or Attributive sets of clauses. Typically, the clause is from the
Attributive set as the identification of an item is in focus. The com-
bination of a question word (marked by prefix k-) and the relator ALE
results in an indefinite meaning to the item in focus.

3) (DB)kay g6Rur   ay   jale (IB)hun co paT ne mo:ji g6ta bosli.
        what crocodile it is when   that of back in middle   she sat
        'Whatever crocodile it is, she sat on the middle of its back.'

The dependent base may also be filled by Dependent Clause 5 from
the Eventive clause set. The clause typically identifies a location,
time, person, or thing. The combination of a question word or a generic
word (both marked by prefix k-) and the verb houk 'to become' in the
optative mood results in an indefinite meaning to the item in focus.

4) (DB)k6ha:y   hoo   (IB)raha.
        wherever it may be   stay!
        'Wherever it may be, stay there!

The occurrence of either Axis-Relator Clause 1 or Dependent Clause 5, in the dependent base, is dependent upon the speaker's attitude or outlook toward the eventuation of the topic proposition. The author feels that one is probably further removed from reality than the other although which one it would be is unknown.

The independent base is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. Psuedo-passive voice or imperative mood may occur.

5) (DB)kitlo   dhan   ay   ale (IB)anun   dias.
      how much paddy rice it is when   having brought give!
      'However much paddy rice there is, bring it!'

6) (DB)kidlida:y   hoo   (IB)amco gh6re   ia.
      whatever time it may be   re of house in come!
      'At whatever time it may be, come to our house!'

Neither base is negateable. The usual linear ordering of the bases is as displayed in the four box array but permutation may occur. When permutation does occur then the relator of the axis-relator clause may be deleted as shown in example 7.

7) (IB)pher jator ay   (DB)kon   t6ri ne ay.
      again going it is   which pond in it is
      'To whichever pond it is, (to that pond) one is to be going.'

8) (IB)khau:be (DB)ka:y   ci hoo.
      we eat   anything just it may be
      'Whatever it may be, we eat it.'

No interruption of the internal linear ordering of the dependent base is allowed. However, when an axis-relator clause fills the dependent base it may interrupt the internal linear ordering of the independent base as in example 9.

9) (IB)hun may   beTi   kaje (DB)kay kay dh6run   dilo
      that mother daughter for   what what having gotten he gave

      ale (IB cont.)hun ke d6kak   anu   roe.
      when   that OM to show having brought he was
      'Whatever he got hold of, he had brought it for the mother and daughter to see it.'

10) (DB)kitlo   dhur   le   ila   ale (IB)eta bisalasot.
      how much distance from they came when   here they have rested
      'However far they have come from, here they have rested.'

11) (DB)kay na:w co raj   ay   ale (IB)hun thane   ase.
      what name of country it is when   that place in she is
      'Whatever is the name of the country, she is there.'

6.4   Witness-Fact Sentence.

The Witness-Fact Sentence consists of two independent bases. The
bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	IndCl		+	IB 2	IndCl
	Fact				Stat	
	Witness				of Fact	
	Prop				Prop	

The two propositions are in a complementary relationship in which
the second completes the meaning of the predicate of the first. The
initial proposition of the sentence introduces a predication which as-
serts a mental or sensory activity such as 'see' or 'know'. The second
proposition states the event which is visually or otherwise perceived or
known. The word mant6r may occur between the propositions and emphati-
cally asserts that both the initial proposition and the final proposition
are true and definitely occurred.

1) (IB 1)mo:y jane: (EMPH)mant6r (IB 2)hun leka 6cha ay.
        I   I know   emph.   that boy good he is
        'I know for sure that the boy is good.'

Where the second proposition is secondhand information and has not
been witnessed firsthand then the word m6ne 'it is said' will be added
to the end of the proposition. In using m6ne, the speaker is disclaim-
ing responsibility for the proposition which precedes it.

2) (IB 1)chi:gRu pep6r   ne poRlo   (EMPH)mant6r (IB 2)ba:gla des
        Chingaru newspaper in he read   emph.   Bangla Desh

        ne khub log   morla   (RDM)m6ne.
        in much people they died   it is said
        'Chingaru read in the newspaper that many people died in
        Bangla Desh.'

The independent clauses which may fill IBase 1 are from the Stative
clause set. The predicates of these dependent clauses all indicate some
sort of awareness such as: d6k 'see', jan 'know', sun 'hear', poR 'read'.

The IBase 1 is always positive but IBase 2 may be either positive or
negative. The emphatic tagmeme mant6r, from the specialized periphery,
may occur between the bases. Also the responsibility disclaimer tagmeme
m6ne, from the specialized periphery, may occur following IBase 2.

3) (IB 1)chi:gRu sunlo   (EMPH)mant6r (IB 2)bai nagpur baTe   Dera
        Chingaru he heard   emph.   Bai Nagpur way in lodging

dh6rli   (RDM)m6ne
she got   it is said
'Chingaru heard positively that Bai had gotten lodgings in
Nagpur.'

Independent clauses from the Active, Eventive, Stative, and Attri-
butive clause sets fill IBase 2. The linear ordering of the bases is as
displayed in the four box array and no permutation is allowed.

4) (IB 1)s6b log   d6kte rola   (IB 2)koki   ni mare.
        all people seeing they were   to anyone not he hits
        'Everyone saw that he didn't hit anyone at all.'

5) (IB 1)durga m6n d6kla   (IB 2)hun leki haT   baTe   geli.
        Durga pl. they saw   that girl market way in she went
        'The people of Durga's house saw her go towards the market.'

6) (IB 1)bai d6klise   (EMPH)mant6r (IB 2)kaThma:Du ne khub hipi
        Bai she has seen   emph.   Kathmandu in much hippie

        m6n asot.
        pl. they are
        'Bai saw that there were many hippies in Kathmandu.'

7) (IB 1)leka janlo   (IB 2)sah6b   m6n puna baTe   jau
        boy he knew   official pl. Poona way in having gone

        rola.
        they were
        'The boy knew that the officials had gone to Poona.'

6.5 Quotation Sentence.

The Quotation Sentence consists of two independent bases. The
filler of the first base is unlimited while the independent clause which
fills the second base is limited to the Stative set and verbs of vocal
or mental activity.

Basic Sentence Formula:

	IB 1	wd,Ph,Cl, Sen,Para,Disc		IB 2	IndCl
+	Quotation Prop		+	Quote Formula Prop	

The two propositions are in a complementary relationship in which
the first proposition completes the meaning of the Predicate of the
second. The second proposition of the sentence is a predication which
asserts a speech act such as 'say'. The initial proposition states what

it is that is actually said.

1) (IB 1)car rupea a:t   ana dias (IB 2)mo:y bolle.
       four rupees eight anna give!   I   I said
       'I said, "Give four rupees and eight annas."'

The IBase 2 is filled by an independent clause from the Stative
clause-set. The predicate will indicate some sort of verbal or mental
speech act such as bol 'say', sa:g 'tell', or bon 'think'.

2) (IB 1)k6s6n khu:dese?   (IB 2)bone:se.
       what he is stamping   I am thinking
       'I am thinking to myself, "Why is he stamping?"'   \

3) (IB 1)ia   utraklay   (IB 2)bolese.
       come! in order to take down   she is saying
       She is saying, "Come and take this thing down (off my heal)!"'

IBase 1 may be filled by a word, phrase, clause, sentence, para-
graph, or discourse. In this paper the examples of the filler of IBase
1 are deliberately limited to short ones for illustrative purposes.

Frequently the subject of IBase 2 fills the afterthought tagmeme,
of the specialized periphery, as in the following example.

4) (IB 1)may loTea anlo   ni more   (IB 2)bolese   (AFTH)
       exclam. he brought not he dies   he is saying

       hun raja.
       that king
       'That king is saying, "Curses, he brought it, he didn't die."'

Many of the sentence periphery tagmemes will occur in IBase 1.
This is a result of the fact that normally whatever occurs in the actual
speech event is quoted completely and will frequently include paragraph
and discourse level particles.

5) (IB 1)ale bhaci kaje paTa paTi   dh6ras nai   (IB 2)bolese
       att. niece for handwoven cloth you get won't you   he is

              (RDM)m6ne (AFTH)s6tra   bita.
       saying   rdm   father in law thing
       'The father-in-law is saying, "Listen, won't you get a hand-
       woven cloth for the daughter-in-law."'

The typical linear ordering of the bases is as displayed in the
four box array. However, IBase 1 may permute to a position where it
interrupts the internal linear ordering of IBase 2. The predicate of
IBase 2, however, must always occur following IBase 1.

6) (IB 2)hun   ke (IB 1)ai:k ulThàlo   (IB 2 cont.)boluat.
    that OM   eye he caused to turn up   they

    will say
    'They will say to that, "He was jealous."'

7) (IB 2)hun ke log   m6n (IB 1)hura   holo   aur gelo   ci
    that OM people pl.   ·   hateful he became and he went just

    (IB 2 cont.)boluat.
              they will say
    'The people will say to that, "He became furious and just
    went."'

8) (IB 1)hun co kaje tumi ni khiseaua (IB 2)bolli.
    that of for you not be sad!   she said
    'She said, "Don't be sad for that reason!"'

9) (IB 1)ja sa:gun   des (IB 2)bolla   (AFTH)m6-ke.
    go! having told give!   they said   I-OM
    'They said to me, "Go and tell!"'

10) (IB 1)tuco   kaje kit   hat co paTa   dh6rtor ay
    you of for how many hand of handwoven cloth getting it is

    (IB 2)bolese.
         he is saying
    'He is asking, "How many cubits of handwoven cloth are to be
    gotten for you?"'

D. Sentence Combination.

        There are two ways so far observed in which sentence types can com-
bine with each other in Halbi—either by superimposing a proportional
relationship on another type or by embedding a coordinate or alterna-
tive construction in the dependent base of another type.

    1. Simultaneous Double Encoding.

        Proportional Comparison plus General Sequence. This type, as well
as the following, combine both the grammatical signals and semantic
meanings of both relationships in the one sentence. Note that the j-
form in the one base plus the h- form in the other signals the propor-
tional relationship, while the ALE relator signals the general sequence
relationship.

1) (DB 1)beka m6n jid6lda:y   ila   ale (DB 2)hud6lda:y
    Becca pl. at whatever time they came when   at that time

                ami bokRa ke anun   deu:de.
                we goat OM having brought we will give
                'At whatever time the Gordon's come, at that time we will bring
                the goat.'

2) (DB 1)je   dine   k6sa   dila   ale   (DB 2)
                whatever day on purification ceremony they gave when

                hun dine   hag deuat.
                that day on they will call
                'Whatever day they will give the K6sa purification ceremony,
                on that day they will call the village people.'

3) (DB 1)je   thane   bayle gh6r holi   ale (DB 2)huta
                whatever place in woman house it became when   there

                kh6rca   dh6ruk jauay.
                compensation to get he will go
                'Wherever it is a woman sets up house then the ex-husband will
                go there to get compensation.'

     Proportional Comparison plus Generic Temporal Condition. Again two
relationships are signalled. The j—h form correlation across the bases
signals the proportional relationship, while the relator –LENE signals
the generic temporal conditional relationship.

1) (DB)je   sag   cuRu   role   (IB)hun sag
                whatever curry type having prepared when is   that curry type

                deuat.
                they will give
                'Whenever, whatever curry is prepared, that curry they will give.'

2) (DB)jitlo   din kaje neu   role   (IB)hutlo   din
                however much day for having taken when is   that much day

                rotor ay.
                being it is
                'Whenever, however, many days one is taken for, for that many
                days one should stay.'

3) (DB)jitlo   bollene (IB)hutro   dh6ruciat.
                however much when say   that much they will just get
                'Whenever, however much is said, that much they will definitely
                get.'

4) (DB)jitlo   likle   (IB)hutlo   likuk   houay.
                however much when write   that much to write it will become
                'Whenever, however much is written, that much will be written.'

5) (DB)i6s6n   k6male   (IB) us6n   khator ay.
        however when farm   like that eating it is
        'Whenever, however a person farms, then just like that they w '1
        eat.'

2. Coordinate and Alternative Constructions in Dependent Bases.

2.1 Coordinate Constructions.

Combination of Specific and General Sequence Dependent Bases.
These two dependent bases—the specific sequence signalled by the -un
suffix and the general sequence signalled by the ALE relator—are juxta-
posed in a loose coordinate-sequence relationship to each other, but
each maintaining its peculiar relationship to the one independent base.

1) (DB 1)pani   marun   (DB 2)dhan   6k6rli   ale   (IB)biasi
        water having hit   paddy rice it sprouted when   a small

            maruat.
        plough they will hit
        'After it's rained, when the paddy has sprouted, they will
        plough with the biasi plough.'

2) (DB 1)mo:Dea pisan ghorun   bhati (DB 2)pase uk6Rli   jale
        millet flour having mixed after   later it boiled when

        (IB)utrator   ay.
            causing to descend it is
        'After having mixed the millet flour, when it's boiled, it
        is to be taken off the fire.'

Combination of Specific Sequence and Simultaneous Dependent Bases.
Similar to the above, specific sequence is signalled by the suffix -un
while simultaneous action is signalled by -to ke. These, as well, are
in a loose coordinate-sequential relationship to each other, each main-
taining its peculiar relationship to the independent base.

1) (DB 1)kukRa basto   ke (DB 2)nikrun   bati janu (IB)raja
        cock   crowing at   having come out after part.   king

        ete   ilo.
        coming he came
        'At the time of the cock's crowing, (and) after having departed.
        the king came quickly here.'

2) (DB 1)din bhor   roun   bati (DB 2)s6:j   hoto   ke
        day throughout having stayed after   evening becoming at

        (IB)gh6re   ilu.
            house to we came
        'After having stayed the whole day, at the time it became

evening, we came home.'

Double Conditional Specific-Generic Dependent Bases.   In this com-
bination, conditional bases are conjoined in a coordinate relationship
to each other and with a specific-generic meaning.   However, each base
maintains a temporal conditional relationship to the independent base.
This type is different than the above in that a linking morpheme AUR
'and' can occur joining the conditional bases.   Note also in the follow-
ing two examples the Quotation Sentence embedded in the IB of the Tem-
poral Conditional sentences.

1)   (DB)⎡khub buta k6rlene   aur kay kay k6rlene   ⎤ (IB)hun
     ⎣much work when perform and what what when perform⎦   that

        ke 6cha s6hralase   boluat.
        OM good they have done praiseworthily they will say
        'When a person does his work well and whatever it may be (that
        is done well), they will say to that, "He has performed
        praiseworthily."'

2)   (DB)⎡naha dhoa ni hole   ka:y   ci   ni hole   ⎤
     ⎣bathing   not when become anything just not when become⎦

        (IB)hun   ke 6Dra   ay   boluat.
            that OM unclean he is they will say
        'When someone doesn't bathe and when he just won't do anything,
        they will say to that, "He is unclean/dirty."'

   2.2   Alternative Constructions.

   Combination of Specific-Generic and Alternation.   Similar to but
distinct from the coordinate constructions is the combination of depen-
dent clauses into an alternating relationship with a specific-generic
meaning.   The resulting constructions embed in the dependent base of
the Topic-Comment Sentence or of the Generic Temporal Conditional Sen-
tence.   There are several features of interest which apply to this type
when embedding in the Topic-Comment Sentence: a) the linking morpheme
ki/kay 'or' may optionally occur between the clauses; b) when the ALE
relator is used, it is not repeated with each clause but occurs only
once at the end of the list; c) several clauses occur as choices; and
d) a specific-generic relationship encodes across the dependent clauses
although the generic clause may optionally be deleted.

1)   (DB)⎡kay calis rupea   ay   kay n6be   ay   kay kitro   ay ⎤
     ⎣or forty rupees it is or ninety it is or how much it is⎦

        jale (IB)boRe mo:d co poysa deuat.
        when   big wine of money they will give
        'Whether it is rupees forty or ninety or however much it is,
        they will give the money for the "Big Wine" ceremony.'

2) (DB)⌈ber hoo   bad6r hoo   ka:y   hoo   ⌉(IB)tumco
     ⌊sun it may be cloud it may be anything it may be⌋   you of

       gh6re   d6kuk   euau:.
       house to to see we will come
       'Whether it is sunny, or cloudy, or whatever it may be, we
       will come to your house to see (them).'

3) (DB)⌈dui Than rohot   kay tin   Than   rohot ⌉ ale (IB)gida
     ⌊two thirg they were or three thing they were⌋ when   eaglet

       ke apTun   dili.
       OM having turned out she gave
       'Whether there were two or three, she turned the eaglets out
       (of the nest).'

4) (DB)⌈DhuTi   hoo   ko:Di   hoo   kay n6ki
     ⌊fish basket it may be little pot it may be or aluminium pot

       hoo   ⌉ (IB)beRa baTe   neuat.
       it may be⌋   field way in they will take
       'Whether it is a fish basket or a little pot or an aluminium
       pot, they will take it to the fields.'

5) (DB)⌈kay dui moyna ay   kay tin   moyna ay ⌉ ale (IB)hun
     ⌊or two month it is or three month it is⌋ when   that

       16ge   rola.
       place in they were
       'Whether it was two months or three months, they were at that
       place.'

6) (DB)⌈bimar   holi   ki kay holi ⌉ale (IB)6sp6tal nila.
     ⌊sickness it became or what it became⌋ when   hospital they

       took
       'Whether it is sickness or whatever it is, they took her to
       the hospital.'

7) (IB)jae:de   bua   (DB)⌈kiRa   hoo   thapa   hoo ⌉
     I will go Father   ⌊insect it may be grasshopper it may be⌋
       'Whether it is an insect or a grasshopper, I will go Father (in
       order to marry it).'

8) (DB)⌈kay koni log   nila   kay bilhi: khadli kay pokay
     ⌊or any people they took or cat   it ate or thrown out

       holi   kay kukur khadli⌋ ale (IB)hun biti ni ay.
       it became or dog   it ate⌋ when   that thing not it is
       'Whether someone took it or a cat ate it or it became thrown

out or a dog ate it, that thing is not here.'

When the specific-generic alternating construction embeds in the
Generic Temporal Conditional Sentence the following features apply:
a) the linking morpheme <u>nahle</u> 'otherwise' will occur between the clauses;
b) several clauses occur as choices;[10] c) a specific-generic relation-
ship encodes across the bases although the generic clause is deleted
in the following examples.

1) (DB) kukur ke nahle   boyla m6n ke sog k6rlene   (IB)hun
         dog   OM otherwise bull pl. OM love when perform   that

         ke sog k6rlo   boluat.
         OM love he performed they will say
         'When a person takes good care of a dog or bull (or any ani-
         mal), people will say to that, "He took care of them."'

2) (DB) deo   ke nahle   raja ke nahle   bh6gwan ke pa:y poRlene
         spirit OM otherwise king OM otherwise God   OM foot when fall

         (IB)hun ke pa:y poRlo   boluat.
             that OM foot he fell they will say
         'When a person worships a spirit, or the king, or else God,
         then people will say to that, "He worshipped."'

E. Distribution.

     In Halbi, sentences combine to form paragraphs and fulfill speci-
fic functions in other higher levels in the hierarchy. Many sentences
appear to have a very restricted distribution within these higher levels.
However, a complete description must wait until an analysis of Halbi
paragraph and discourse have been undertaken.

     Extensive recursive embedding of one sentence type within another
occurs very frequently in Halbi. This recursive embedding, according
to Longacre (1968), is a distinguishing feature of the sentence as a
legitimate level within the grammatical hierarchy.

     Exhaustive studies of this feature of recursive embedding in Halbi
have not, as yet, been undertaken. However, in the following pages are
some examples of what has been observed. Also included are examples of
backlooping that may occur.

     1. Chronological.

     1.1 Specific Sequence Sentence.

     The Specific Sequence Sentence may embed: a) in the independent

base of the Generic Temporal Conditional Sentence.

1) (DB)s6tra   s6tri   role   (IB)⌈pher boRe da:y
        father in law mother in law when is   ⌊again big   time

        uTun   k6rtor   ay.⌉
        having arisen performing it is⌋
        'When there are in-laws, one must arise early and work.'

    b) in the independent base of the Purpose- Result Sentence.

2) (DB)m6cri dh6rto   kaje (IB)⌈haT   le   sut   ghenun
        fish taking hold for   ⌊market from thread having purchased

        antor   ay.⌉
        bringing it is⌋
        'For netting fish, thread is to be purchased and brought from
        the market.'

    c) in the IBase 1 of the Negated Antonym Sentence.

3) (DB 2)tumi hi:Duk   ni s6kas   (IB 1)⌈ph6T ph6Ti   ne
        you to walk   by foot not you can   ⌊motorscooter on

        cegun   jau6has.⌉
        having climbed you will go⌋
        'You are unable to go by foot, you will go by motorscooter.'

    d) in IBase 2 of the Identity-Contrast Sentence.

4) (IB 1)janlo log   binuat   (IB 2)⌈ni janlo log   ghenun
        known people they will weave   ⌊not known people having

                phi:duat.⌉
        purchased they will wear⌋
        'The people who know (how to weave) will weave (but) the
        people who don't know will buy and wear.'

    e) in IBase 2 of the Reason-Result Sentence.

5) (IB 1)morlo   (LK)gune   (IB 2)⌈may   beTi   nikrun
        he died   therefore   ⌊mother daughter having come out

        ilase.⌉
        they have come⌋
        'The man died therefore the mother and daughter departed
        and have come here.'

    1.2 Coterminus Sentence.

The Coterminus Sentence may occur embedded in IBase 1 of the

Contra-Expectation Sentence.

1) (IB 1)⌈kukur ke mor6tle   marte   roe ⌉ (IB 2)ni more.
         ⌊dog   OM die until complete hitting he was⌋   not it dies
          ⌐'He was beating the dog to death but it didn't die.'

    1.3 Simultaneous Sentence.

    The Simultaneous Sentence backloops to manifest a clause level
function. Here it fills the axis of an axis-relator clause which in
turn fills DBase 1 of the Contra-Factual Sentence.

1) (DB 1)⌈tumi ghana   k6rto   bera etas   ⌉
         ⌊you sugar cane crusher performing time you would come⌋

        jale (DB 2)Da:Da   gur   r6s   khau   rotas
        when   sugar cane raw sugar juice having eaten you would

        be
        'If you would've been here during the sugar-cane crushing
        you would've eaten sugar-cane, raw sugar, and sugar juice.'

    2. Cause-Effect.

    2.1 Conditional Alternative Sentence.

    The Conditional Alternative Sentence may embed: a) in the inde-
pendent base of the General Sequence Sentence.

1) (DB)bimar   holi   ale (IB)⌈sirha deo   bosuay   nahle
        sickness it became when   ⌊shaman spirit he will sit other-

        gunea   caur basuay.   ⌉
    wise diviner rice he will separate⌋
    'When sickness occurs the shaman will call the spirits or
    else the diviner will separate the rice grains (to find out
    what is wrong).'

2) (DB)bai m6n ila   ale (IB)⌈amke poysa deuat   nahle
        lady pl. they came when   ⌊we OM money they will give other-

        bhat   sag   khoauat.   ⌉
    wise cooked rice curry type they will feed⌋
    'When the ladies come they will give us money or else they
    will feed us rice and curry.'

    b) in the independent base of the Specific Sequence Sentence.

3) (DB)gham   ne sukaun   (IB)⎡pase tin   tag   nahle   car
        sunshine in having dried   ⎣later three length otherwise four

        tag   hiTator   ay.⎤
        length taking off it is⎦
        'Having dried (the thread) in the sun, later three or four
        lengths are to be taken off.'

    2.2 Conditional-Consequent Sentence.

    The Conditional-Consequent Sentence may embed in the independent
base of the Topic-Comment Sentence.

1) (DB)koni thane   hoo   (IB)⎡bayle ase   ale D6g6r jae:se. ⎤
        any place in it may be   ⎣wife she is if search I am going⎦
        'Wherever it may be, if there is a wife (there) I am searching
        for her.'

    2.3 Generic Temporal Conditional Sentence.

    The Generic Temporal Conditional Sentence may embed: a) in the
independent base of the Topic-Comment Sentence.

1) (DB)koci   hoo   (IB)⎡beRa ne tiarle   jator ay. ⎤
        whoever it may be   ⎣field in when ready going it is⎦
        'Whosoever it may be, when (their) field is ready (for weeding)
        people are to be going there to work.'

    b) in IBase 1 of the Conditional Alternative Sentence.

2) (IB 1)⎡daul m6ti rani dilene   neua:y   ⎤(LK)nahle   (IB 2)
          ⎣Daul M6ti Queen when give I will take⎦   otherwise

        mo:y ni nee:.
        I   not I take
        'If Queen Daul M6ti gives it, I will take it otherwise I
        won't take it.'

3) (IB 1)⎡g6R b6R s6R b6R   hole   6sp6tal ne neuat
          ⎣trouble and difficulties when become hospital to they will

                  ⎤(LK)nahle   (IB 2)neunuat.
        take⎦   otherwise   they will not take
        'When difficulties occur (at childbirth) they take them to
        the hospital otherwise they won't.'

    c) in the independent base of the Positive Echo Question Sentence.

4) (IB)⎡dhan   hole   kaTuk lagse   ⎤(DB)a:y?
        ⎣paddy rice when become to cut you will stick⎦   isn't that so

'When the paddy rice is ready you will require it to be cut,
won't you?'

The combination Proportional Comparison plus Generic Temporal
Conditional may embed in the independent base of the Topic—Comment
Sentence.

5) (IB) je   sag   cuRu   role   hun sag
         whatever curry type having prepared when is that curry type

         deuat   (DB) m6cri hoo   go:dri hoo.
         they will give   fish   it may be onion it may be
         'Be it fish or onions, whatever curry they prepare, that
         curry they will give us.'

   2.4 Purpose— Result Sentence.

The Purpose— Result Sentence may embed: a) in the independent
base of the Generic Temporal Conditional Sentence.

1) (DB) leki hole   (IB) 6sni   kosa   ba:dto   kaje kes
         girl when become   like this hairbun tying up for hair

         bacator   ay.
         causing to leave it is
         'When there's a girl, the hair is to be left to grow long for
         the purpose of tying a bun.'

   b) in IBase 2 of the Identity—Contrast Sentence.

2) (IB 1) m6nuk m6n ni eot   (IB 2) bayle pila m6n euat
           man   pl. not they come   woman child pl. they will come

         khato kaje.
         eating for
         'The men don't come, only the women and children come for
         eating.'

   3. Disjunction.

   3.1 Alternative Question Sentence.

The Alternative Question Sentence may embed in the independent
base of the Disclaimer—Conjecture Sentence.

1) (DB) kon janlose   (IB) e   baTe k6rbuja   mirede
         who he has known   this way in watermelon it will be avail-

         ki nai.
         able or not is
         'Who knows whether watermelons will be available or not.'

In the above example, the occurrence of the rhetorical question in the
dependent base changes the interrogative quality of the embedded sen-
tence and makes it a statement of alternation.

4. Restatement.

4.1 Negative Specific-Generic Sentence.

The Negative Specific-Generic Sentence may embed in IBase 2 of the
Negated Antonym Sentence.

1) (IB 1)mur mure holahas   (IB 2)⌈goTheauas   nai
        upset   you will become   ⌊you will converse not is

        ⌉
        ka:y   nai.⌋
        anything not is
        'You will become upset, you won't converse or anything.'

5. Coupling.

5.1 Descriptive Listing Sentence.

The Descriptive Listing Sentence may embed in the independent
base of the Simultaneous Sentence.

1) (IB)⌈gh6n   uTe   gh6n   bose ⌉ (DB)deo
        ⌊time and again he arises time and again he sits⌋   spirit

        cegto   bera.
        climbing time
        'Again and again he arises and he sits during the time of
        possession by the spirits.'

5.2 Conjoined Sentence.

The Conjoined Sentence may embed: a) in the independent base of
the Simultaneous Sentence.

1) (DB)rat   hoto   ke (IB)⌈cha:Dlu aur gh6re   ilu. ⌉
        night becoming at   ⌊we freed and house to we came⌋
        'At the time of becoming night, we freed the animals and came
        to the house.'

2) (DB)Tekun   deto   ke (IB)⌈geli   aru bel   ruke
        having touched giving at   ⌊she went and tree type tree in

        cegli.   ⌉
        she climbed⌋
        'At the time of touching (the animal), she went and climbed a
        bel tree.'

b)   in IBase 2 of the Reason-Result Sentence.

3) (IB 1)tui gelis   (LK)gune   (IB 2)⎡m6ke bhat   pej
         you you went   therefore   ⎢I OM cooked rice gruel

           ra:dala   aru khate   khadla.⎤
           they caused to prepare and eating they ate⎦
           'You left therefore they forced me to cook their meals and
           they gobbled down the food (without giving me any).'

c)   in IBase 2 of the Contra-Expectation Sentence.

4) (IB 1)gay cheri bole hun baTe   khedun   ni   ne   bollu
         cow goat also that way in having chased not take! we said

           (EMPH)mant6r (IB 2)⎡ni manli   aur khedun   nili.⎤
                emph.   ⎣not she obeyed and having chased she took⎦
           'We said, "Don't chase the cattle in that direction," but
           she didn't obey and she chased them there.'

d)   in the independent base of the Cause-Effect Sentence.

5) (DB)k6s6n k6run   (IB)⎡morauau:be   aur hunco   bayle ke
         what having performed   ⎢we will kill and that of wife   OM

           anuau:be?⎤
           we will bring⎦
           'What's to be done so that we can kill him and bring his wife
           here?'

e)   in the independent base of the Topic-Comment Sentence.

6) (DB)ber hoo   bad6r hoo   (IB)⎡Dokri   ra:d   aur dhire
         sun it may be cloud it may be   ⎣Old Woman cook! and slowly

           dhire bole an.⎤
           slowly also bring!⎦
           'Whether it be sunny or cloudy, Old Woman, cook food and bring
           it carefully to me!'

f)   in Dbase 2 of the Contra-Factual Sentence.

7) (DB 1)ami aji   biane   boRe da:y uTtu   ale (DB 2)
         we today morning in big   time we would arise when

           ⎡boRe da:y jhaTi   gaRa   netu   aur jh6pke gh6re
           ⎣big   time cart type ox cart we would take and quickly house

               etu.⎤
           to we would come⎦

'If we would've arisen early this morning we would've taken
the jhati cart and we would've quickly returned.'

6.   Complementation.

6.1   Quotation Sentence.

The Quotation Sentence may embed: a) in IBase 1 of the Reason-
Result Sentence.

1)   (IB 1)⌈aji   hun   noni ni   ja   ai   bolli   ⌉(LK)tebe
              ⌊today that Noni not   go! Grandma she said⌋   therefore

           (IB 2)ni   gele.
                 not I went
           'Today Noni said, "Don't go Grandma," so I didn't go.'

        b)   in the independent base of the Generic Temporal Conditional
Sentence.

2)   (DB)nani   biti   holene   (IB) car   rupea   a:T   ana   dee:de
           small thing when become   four rupees eight anna I will give

           boltor ay.
           saying it is
           'When it is a small hen, one should say, "I will give four
           and a half rupees."'

        The Quotation Sentence backloops to manifest a clause level func-
tion.   Here it fills the axis of an axis-relator clause which in turn
fills the dependent base of the Concessive Sentence.

3)   (DB)⌈mas m6cri ni   khaha bollo ⌉ale bole (IB)ami khau:se.
           ⌊meat fish not eat!   he said⌋although   we we are eating
           'Although he said not to eat meat and fish, we are eating
           them.'

Abbreviations.

Box 1

DB   dependent base
IB   independent base
LK   link
FIN   final

Box 2

A-R	axis-relator
Cl	clause
Cj	conjunction
Cjv	conjunctive
Dep	dependent
Disc	discourse
Form	formulaic
Ind	independent
Para	paragraph
Ph	phrase
Rhet	rhetorical
Qn	question
Sen	sentence
wd	word
red.	reduced
trunc.	truncated

Box 4

Alt	alternating
Altv	alternative
Condn	condition
Condl	conditional
Conj	conjoined
Conjt	conjecture
Conc	concessive
Conn	connector
Conseq	consequent
Contr	contra
Desc	descriptive
Discl	disclaimer
Ev	event
Expect	expectation
Foll	following
Factl	factual
Iden	identity
Magnf	magnification
Piv	pivot
Prop	proposition
Proport	proportional
Quant	quantifying
Qn	question
Rsn	reason
Rslt	result
Sett	setting
Seq	sequence
Sp	specific
Stat	statement

Temp	temporal
Unfulfil	unfulfilled
Wit	witness

Box 5

complt	completed
decl	declarative
interrog	interrogative
neg	negative
pos	positive
P_i	same Predicate in both clauses
S_i	same Subject in both clauses.
real	realized
simult	simultaneous
unreal	unrealized

Other

AFTH	aftherthought
att.	attention
cont.	continued
EMPH ⎤ emph ⎦	emphatic
exclam.	exclamation
OM	object marker
part.	particle
pl.	plural
rel.	relator
RDM	responsibility disclaimer marker
STOP	sentence topic
SETT	setting (time)
[ ]	indicate embedded sentences or constructions

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Footnotes.

[1]ale occurs with sentences in the interrogative mood, while ede
occurs with sentences which are explanatory in nature.

[2]The twenty-nine sentence types posited in this paper are not
necessarily exhaustive and other types no doubt exist.

[3]The relator BATI has two forms—bati and bhati. bati is used by
men and boys, while bhati is used by women and girls.

[4]The relator ALE consists of two forms—ale and jale. ale is ⸰sed
by men and boys, while jale is used by women and girls.

[5]The suffix —T6LE has two forms: -6tle and —tle. When a verb stem
ends in a consonant then the suffix form will be -6tle as in hi:D-6tle
'until completed walking by foot.' When the verb stem ends in a vowel
then the suffix form becomes -tle as in ro-tle 'until completed staying.'

[6]The suffix -T6TLE has two forms: -t6t6le and -tt6le. When a verb
stem ends in a consonant then the suffix form will be -t6t6le as in
nac-t6t6le 'dancing and until completed.' When a verb stem ends in a
vowel then the suffix form will be -tt6le as in ho-tt6le 'becoming and
until completed.'

[7]The suffix relator -LENE has two forms: -lene and -le. -lene is
used by men and boys, while -le is used by women and girls.

[8]The conditional alternating link nahle 'otherwise', may also
occur with some of the examples.

[9]On checking with the language assistants it was found that in
sentences expressed in active voice and declarative mood, the negated
base was more acceptable as 'good Halbi' if aorist endings occurred on
the verb.

[10]A feature cf the Conditional Alternative Sentence is the optional
deletion of the same predicates from all bases except the final base.

INDEX TO HALBI

Sentence Patterns in Kupia

R.B. and J.E. Christmas

A. Introduction.

1. General.

The Language. The Kupia language belongs to the Indo-Aryan family
of languages. It is spoken in the Munchinput, Aruku, and Paderu Blocks
of Visakhapatnam District, Andhra Pradesh, and in the adjacent Koraput
District of Orissa, India.

The people who speak the language are called Valmiki people. Some
claim they descend from the famous poet Maharsi Valmiki. Valmiki people
belong to the Valmiki Scheduled Tribe of India.

The word Kupia does not occur in the 1961 census of India. The
word Valmiki does occur, and is recorded as the name of a language spo-
ken by eight people living in Andhra Pradesh State but not in Visak-
hapatnam District. We have chosen the name Kupia instead of Valmiki
since the people themselves refer to their language as Kupia. It was
evident during the 1971 census, that the people whose mother tongue is
Kupia gave the regional language, Telugu, as their mother tongue. We
consider that at least 6,000 people have Kupia as their mother tongue.

The work, The Scheduled Tribes of Andhra Pradesh (1963) records of
the Valmiki people, "They speak a corrupt form of Oriya[1]." As far as
we are aware, no study of any depth has been made in the Kupia language.

Our judgment that Kupia is an Indo-Aryan language is based on com-
parative vocabulary and grammar studies. However, since many of the
speakers are living in Andhra Pradesh, where Telugu is the regional
language, there are many Telugu loan words in the language. These are
from Dravidian roots, or Indo-Aryan roots having come via Telugu (a
Dravidian language). A few words have a clear English origin.

Research Details. This paper is a study on the sentences of Kupia
as spoken by the people of the village of Sujanakota, Munchinput Block,
Andhra Pradesh, India. During the past three years the authors have
spent approximately eight months actually living in the village. For a

further nine months language helpers have been readily available. Dur-
ing the months of January and February 1972, R.B. Christmas attended a
workshop held on the campus of Andhra University under the joint aus-
pices of the Andhra University and the Summer Institute of Linguistics.
During these months analysis was begun on Kupia sentence structure.

Two language helpers have assisted us during most of this period,
others helping in occasional checking. These are Mr. G. Kamiswarao,
about 25 years of age, and Mr. G. Surayya, about 20 years of age. Both
are Valmiki Scheduled Tribal men of Sujanakota village. Mr. Samma
Reddi Rajayya, and an elderly lady, Kamesili, gave us several texts
which we have recorded. These stories, as well as those told by the
above named language helpers, have provided a valuable source of lan-
guage material.

Analysis Model. Tagmemic theory as conceived by Kenneth L. Pike in
his book, Language in relation to a unified theory of the structure of
human behavior, (1967) and further developed by Pike, Robert E. Long-
acre, and other tagmemicists, provides the theoretical base for this
work.

Content of the Paper. The paper has three parts: a) a description
of sentence periphery; b) a description of the 23 sentence types posited
for Kupia--the main emphasis; and c) a description of operations at
sentence level. Illustrative examples are given throughout the paper,
using the Kupia phonemes which are shown in Figure 1.

Consonants:

	labial	dental	alveolar	velar
stops	p	t	T	k
	b	d	D	g
affricates			c	
			j	
fricative			s	
nasals	m	n		ng
flap			r	
lateral			l	
semivowels	w		y	

Vowels:

	front	central	back	
high	i		u	/nasalization/*
mid	e		o	/length/**
low		a		

*Nasalization is phonemic and occurs on all vowels. It is symbol-
ized by a colon after the vowel (v:).
**Length is phonemic and occurs on all vowels. It is symbolized
by doubling of the vowel (vv).

Figure 1. Kupia Phonemes

2. Sentence Theory.

What is a sentence? In the following paragraphs we propose to answer this question.

2.1 Hierarchy and Sentence.

In his definitive work, Language in relation to a unified theory of the structure of human behavior, Pike, (1967:79), speaking about hierarchical structures, states, "...smaller emic wholes may be viewed as parts of larger emic wholes, which in turn are parts of still larger ones...." In Kupia we posit clause, sentence, and paragraph—among others—as emic wholes in ascending order in the hierarchy.

In the nine box descriptive system of a unit, Pike (1971), considers grammatical, semantic, and phonological modes to be basic. We need to be able to refer to all three of these in our description of an emic unit. That is, we wish to define sentence with reference to criteria from the grammatical, semantic, and phonological modes.

Level　　Mode in hierarchy	grammatical	semantic	phonological
paragraph			
sentence	/////////	/////////	/////////
clause			

Figure 2. Hierarchical Position and Modal Relation of Sentence.

Grammatical Mode. Following Pike and Longacre[2], we recognize the sentence as a construction between clause and paragraph in the grammatical hierarchy. Although there are sentences consisting of only one clause and an optional periphery, sentences are typically combinations of clauses. Clauses may be combined in subordinate constructions as participial clause to main clause or axis-relator clause to main clause. Clauses can also be combined in coordinate constructions by simple parataxis or by means of a medial link.

In this paper we are calling a unit consisting of only one independent clause and an optional periphery, a Simple sentence. Other than this, however, Simple sentence is not discussed further.

Semantic Mode. A semantic unit, a building block of the sentence, is referred to as a proposition. A proposition is a single event or state typically having at least one actor and an action or one statant and a state. There are propositions, however, which are mere events with no actors or statants. Illustrative of this type of proposition is the Parengi udu?may 'eveninged' or 'it became evening.' A proposition may have several participants but allows only one event or state. Participants may or may not occur overtly in the surface structure.

Propositions in this paper are viewed as the semantic building blocks of the sentence. We have limited our study to sentences containing at least two propositions. In each sentence the propositions must have a stateable relationship between them.

Grammatical and Semantic Modes. The semantic definition, however, cannot be taken alone as being sufficient. The following examples exemplify this, by showing what a sentence is not.

1) patral tenu anne DanDo tenu suunoka peTinde.
   stones with and stick with dog to I will hit
   'I will hit the dog with stones and with a stick.'

In this example we have two propositions, patral tenu suunoka peTinde 'I will hit the dog with stones' and DanDo tenu suunoka peTinde 'I will

hit the dog with a stick.'   These, because of ellipsis, encode gramma-
tically as a clause or a simple sentence having a coordinate construc-
tion in the instrument slot.   By this we claim that a clause may co-
ordinate any of its constituents and still remain a single clause, with
the exception of the predicate. When the predicate is coordinated so
is the clause and so is the proposition.   The predicate then, and its
attending constituents which nucleate around it, is central to both the
clause and the proposition.   Within the sentence clauses and proposi-
tions occur in a one-to-one relationship.

     Some may object to this criterion as arbitrary saying that two
separate actors make two separate actions.   This argument has force if
we are only considering the semantic mode.   We acknowledge the presence
of two propositions in such a construction, but surface structure dic-
tates that we analyze the construction as a single clause with a co-
ordinate subject.   Recognizing the predicate as central to the clause
and the proposition, we must analyze every occurrence of a separate pre-
dicate as a separate clause and a separate proposition.

     So our semantic analysis must always be coupled with our grammati-
cal analysis.   Meaning can never be separated from form in natural
language.

     Clause-level Functions.   Further, we have chosen to treat the fol-
lowing relationships as being below sentence, not because there are not
two clauses and two propositions involved, but because one clause is
merely manifesting a clause-level function which is usually manifested
by a phrase.

     Independent clause plus relative clause constructions.
     Independent clause plus direct and indirect speech constructions.
     Independent clause plus comparative of manner constructions.
     Independent clause plus comparative of degree constructions.
     Independent clause plus purpose clause constructions.

     Paragraph Relationships.   Furthermore, some propositions are seen
to be in a recognizable relationship but they encode as paragraphs.

2) (S1)werri negele   penDli jaye   nay (S2)penDli
       mad   not go if marriage becoming not   marriage

     nejale   werri gese nay.
     not becoming mad   going not
     'If you don't go mad, you won't become married; if you
     don't become married you won't go mad.'

In example 2 we note that a sentence is the exponent of both bases.
Indeed for the biconditional relationship in Kupia the minimum exponent
of each base is a Conditional/Temporal-Result A sentence.   Our defini-
tion of a sentence as a layer of clause combination--and not sentence

combination--requires that the biconditional relationship be considered then at paragraph level.

Sentence Length. We are not tempted to consider just sheer length as a parameter to distinguish between levels in the hierarchy. Tagmeme (clause) sequences occurring in a serial or non-hierarchical fashion (say coordinate, alternative, or additive) remain in the level of sentence, however long.

3) (B1)kaTmandu caala velli gaa:wu (B2)dekuka caala sardaga   ase;
      Kathmandu very big   village   see to very happiness is

   (B3)caala goppa goppa wudyogastulu   asti; (B4)goppa goppa
      very great big   important people are   great

   goppa   andumayinaTuwanti wastuwulu kuuDanu asti.
   valuable nice   goods   also   are
   'Kathmandu is a big town, to see it brings much happiness,
   many very important men are there and a lot of very nice goods
   are also there.'

From the speaker's point of view the propositions of bases 2, 3, and 4 are all specifics of the generic idea of, 'a very big village.' That is, the independent clauses B1, B2, B3, and B4 are held together by a common semantic relationship. Furthermore, the use of kuuDanu 'also (included)' shows the unity of the propositions.

Phonological Mode. Reid (1970:6), has listed the following rules for determining the boundary between grammatical sentences as opposed to phonological ones.

"(1) Two clauses, whether phonologically bound or not, form all or part of one grammatical sentence if there is a link (e.g., a conjunction) present functioning on the sentence level.

"(2) Two clauses phonologically bound, form all or part of one grammatical sentence where no such link is present but one can be plausibly supplied.

"(3) Two clauses not phonologically bound (i.e., separated by final sentence intonation), form all or part of two grammatical sentences where no link is present, even though a link may plausibly supplied.

"(4) Two clauses, whether phonologically bound or not, form all or part of two grammatical sentences where a link is present whose function is to link structures higher than the sentence level.

"(5) Two clauses, whether phonologically bound or not, form all or part of two grammatical sentences when there is no link present and none can be plausibly supplied."

These criteria have been used as a guide in the preparation of this paper and are generally applicable. However, the emphasis in this work has been on semantic relationships and grammatical encodings, and only

secondarily on phonological criteria. We differ from Reid in point 5, in that the propositions of the Question-Response relationship are considered to encode as a sentence in spite of the fact that phonological indications suggest two simple sentences.

Summary. Our main emphasis has been a description of the grammatical and semantic relationships among sentences in Kupia. To this extent we have been more concerned with a definition of sentence determined by grammatical and semantic criteria, and to a less extent concerned with a definition of sentence determined by phonological criteria.

2.2 Tagmemes in Multi-propositional Sentences.

Dependent and Independent. The distinction dependent vs. independent is of primary importance in the description of the sentence. In this paper a clause or proposition is termed dependent if it has a subordinating relator or participle, or if it contains a word which makes it dependent. Hence all axis-relator and participial constructions are dependent. Also constructions like the following are dependent:

4) dekitadi 'You would have seen'

5) teddi deyinde 'That much I will give'

In examples 4 and 5, some predetermined knowledge is required in order to make the construction meaningful. The suffix -tadi 'would have' and the word teddi 'that much' made the propositions subordinate.

In this paper we have used the following rule for determining dependent versus independent status of a clause: If the clause is dependent upon another part of the sentence of which it is a part for its meaning, it is dependent. If it depends merely on the context in discourse, near or remote, for its meaning, it is independent. For example we consider 'He saw the man' is independent since 'He' refers to a previously mentioned dramatis persona in the discourse, but not obligatorily in the same sentence. However, we consider 'That much I will give' dependent because 'that much' is a correlative word requiring an antecedent pro-word within the same sentence.

Sentence Level Tagmemes. Four contrastive tagmeme types occur in the nucleus of multi-propositional sentences in Kupia. (Note here that we are making the distinction peripheral vs nuclear in sentence structure and saying thereby that margins are not peripheral, but distinctive constituents of each sentence type.)

```
            ¦ AR Sen
            ¦
MAR  ¦ AR Cl
-----+-----------
Prop ¦
```

```
             | In Sen
             |
     BASE  | In Cl
     ----------------
     Prop  |


             | D Sen
             |
     D BASE | D Cl
     ----------------
     Prop  |


             | conj construction
             |
     LINK  | conj particle
     ------------------------
     Conj  |
```
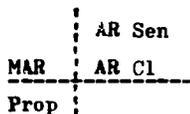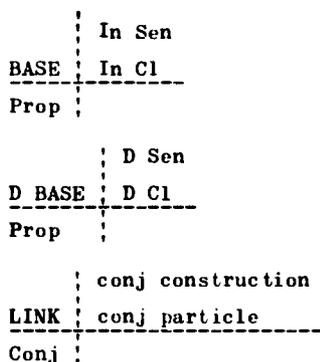
These tagmemes are set up on the following premises:

    a) All axis-relator and participial constructions are dependent
and fill margin tagmeme slots.
    b) Margin tagmemes have a minimum of restriction on an independent
base tagmeme with which they function. However, when relating to a
dependent base tagmeme there is heavy restriction in that the two are
mutually dependent. See example 6.

6) (M)tuuwi ayile   (DB)dekitam.
      you   come if   seen we would have
      'If you had come, we would have seen.'

    c) Base tagmemes are independent both grammatically and semantic-
ally.
    d) Dependent base tagmemes are dependent both grammatically and
semantically. A dependent base tagmeme is always accompanied by a mar-
gin, dependent base, or independent base tagmeme to form a sentence.
    e) In Kupia sentences consisting of only two bases and one link;
the link tagmeme always occurs between the bases.
    f) Box 2 labels are general. Thus when independent clause occurs
in box 2 of a tagmeme formula, this means that an example with an in-
dependent clause has been cited; it does not mean that all of the in-
dependent clause types posited for Kupia have been found to occur, or
are thought to occur in the tagmeme slot. Nevertheless, where restric-
tions are thought to occur, they have been stated.

    2.3 Sentence Construction.

    Sentences are made up of strings of the contrastive tagmeme types
just mentioned. However, there may be recursion as in the following:

7) (B)jo   maansu gullo laTabe nay (L)gani (B)sangile suuntayi.
      that man   dumb speak not   but   say if he hears
      'That man is dumb, he cannot speak but if someone speaks he
      can hear.'

In example 7, a Negated Antonym sentence is the exponent of the first base and a Conditional/Temporal-Result Sentence A is the exponent of the second base of an Antithetical sentence. That is, embedded sentences occur in both bases.

The paper handles, primarily, what may be called the 'norm' of the particular sentence type (without embedding). Where complex constructions have been found to fill the tagmeme slots, and these are of interest, examples are given. Such examples are not considered 'norms.'

Norm sentences are of the following forms, tagmemes being identified by box 1 labels.

Independent sentences $\quad$ MAR $\quad +\quad$ BASE
$\quad$ MAR $\quad +\quad$ D BASE
$\quad$ BASE $\quad +\quad$ BASE
$\quad$ BASE $\quad +\quad$ BASE $\quad + \text{BASE}^n$
$\quad$ BASE $\quad + \text{L} +\quad$ BASE
$\quad$ BASE $\quad \pm \text{L} +\quad$ BASE
$\quad$ BASE $\quad + \text{L} +\quad$ BASE $\quad \pm (\text{L+BASE})^n$
$\quad$ BASE $\quad \pm \text{L} +\quad$ D BASE
$\quad$ D BASE $+\quad$ D BASE
$\quad$ D BASE $+ \text{L} +$ D BASE
Dependent sentences $\quad$ MAR $\quad +\quad$ BASE

The above eleven forms are the grammatical encodings that have been found for the 23 contrastive sentence relationship types posited for Kupia.

2.4 Sentence Subtypes.

In some cases propositions in Kupia may have a common semantic relationship, but they may have different grammatical encodings. We are calling the different encodings subtypes.

Similarly, in some cases the propositions of one sentence may have the same grammatical encodings as the propositions of another, but the semantic relationship between the propositions in each case may not be the same. These we are also calling subtypes.

2.5 Sentence Contrast.

To be contrastive, ordinarily two sentences must have at least one grammatical and one semantic difference. We reserve the right, however, to set up sentences (as types) which appear to be contrastive, but for which insufficient evidence is presently at hand.

It is our belief that the sentences of a language have some formal organization in the speaker's mind. Language must have system and arrangement. We wish to show the grammatical and semantic organization

of the 23 sentence types posited for Kupia along with the sentence contrast material.

Grammatical Contrast. Figure 3 shows the 23 sentence types posited listed in the left hand column under broad semantic relationship divisions. The horizontal axis shows the grammatical encodings of the sentence types and their subtypes. Referring to the chart, we say that sentence types which encode in separate columns are considered to be contrastive grammatically. This is, if any column has one or several sentence types occurring in it, that or those sentence types contrast grammatically with the sentence types in all other columns.

We therefore initially cull out those types which are the only type occurring in a column and call these contrastive. These include the following:

1.1b	Antithetical B	column no.	6
1.1c	Antithetical C		10
2.2	Alternative Consequent		8
3.6	Proportional 2		9
3.8	Dep Negative Conditional		11

Sentence Type / Grammatical Encoding	1 MAR + BASE	2 MAR + D BASE	3 BASE + BASE	4 B + B^n	5 B + L + B	6 B + L + B	7 B + L + B ± (L+B)^n	8 B ± L + DB	9 DB + DB	10 DB + L + DB	11 MAR + BASE
Conjunction											
Coupling											
1.1 Antithetical 1.1a, 1.1b, 1.1c					A	B				C	
1.2 Exhaustive			X								
1.3 Additive				X							
1.4 Conjoined							X				
Restatement											
1.5 Question-Response			X								
1.6 Positive Echo			X								
1.7 Negated Antonym			X								
1.8 Recapitulation			X								
1.9 Paraphrase			X								
1.10 Generic-Specific				X							
1.11 Statement-Explanation	X										
Disjunction											
2.1 Alternative							X				
2.2 Alternative Consequent								X			
Cause-Effect											
3.1 Conditional/Temporal-Result 3.1a	A										
3.2 Warning			X								
3.3 Concession-Contraexpectation	X										
3.4 Contrafactual		X									
3.5 Proportion 1		X									
3.6 Proportion 2									X		
3.7 Reason-Result 3.7a, 3.7b		B				A					
3.8 Dependent Negative Conditional											X
Chronological											
4.1 Simultaneous 4.1a, 4.1b	A		B								
4.2 Sequence 4.2a, 4.2b	A		B								
3.1 Conditional/Temporal-Result 3.1b	B										

Figure 3.   Grammatical Encodings of Sentence Types.

Considering the remaining columns one at a time:

Column 1. Conditional/Temporal-Result sentences (3.1a and 3.1b)
are subtypes. The remaining sentences encoding in this column are in
contrast because of contrastive filler classes of the margin tagmeme.

Column 2. The Contrafactual Sentence (3.4) has its own special
aspect-tense predicate suffixes occurring in its base and so contrasts
with Proportional Sentence 1 (3.5), which has no such restriction.

Column 3. For contrast among restatement sentences, see the in-
troductory paragraphs to that section. It remains for us to contrast
the remaining sentences encoding in this column with each other and
with the restatement sentences.
    a) Exhaustive Sentence 1.2. This sentence requires a neg/pos or
pos/neg contrast between its two tagmemes, and does not require the in-
terrogative mood in the second base. It therefore contrasts with all
other types.
    b) Warning Sentence 3.2. This sentence requires a negative im-
perative mood for the predicate of the base 1 tagmeme and therefore
contrasts with all other sentences.
    c) Simultaneous Sentence 4.1b. This sentence does not require
restrictions on the pos/neg parameter, or on the mood. However, the
tenses must be such that the events described occur simultaneously, and
the first base obligatorily requires the imperfect morpheme -te in the
predicate. It therefore contrasts with all other sentence types.
    d) Sequence Sentence 4.2b. This sentence has the obligatory pres-
ence of a time word in one or the other of its tagmemes. It may have
potential for linear expansion to additional bases, but examples are
not available.

Column 4. The bases of the Generic-Specific Sentence (1.10) are
not freely permutable in sentences containing three or more bases. The
Generic proposition must occur initially or finally. In contrast, tag-
memes are permutable in the Additive Sentence (1.3) unless secondary
sequence relationships exist.

Column 5. The links of Antithetical Sentence A (1.1a) and Reason-
Result Sentence A (3.7a) have different exponents, and so these sen-
tences are in contrast.

Column 7. The links of the Conjoined Sentence (1.4) and the Alter-
native Sentence (2.1) have different exponent sets, and so these are in
contrast.

Semantic Contrast. Figure 4 (see p. 138) shows the relationships
that have been found among paired propositions in sentences in Kupia.
The sentence types are shown under various semantic nodes, and their gram-
matical encoding into three divisions, coordinate, paratactic, and subor-
dinate, is also shown. In examining the chart the following points are re-

levant about the binary divisions which are used throughout. The right
hand node is always marked. The left hand node is either opposite to
the right hand node—in which case it is labelled in parentheses—or
not relevant to the right hand label, in which case it is unmarked.

The following parameters have been used in drawing the chart:
chronological, cause-effect, conjunction, coordinate, restatement, dis-
junction, sequence, pos-neg, Neg, PP NN, Spk Exp, hypothetical, and
Inter in Base 1. The first seven are defined in the body of the paper,
we will now comment on the latter six.

Pos-Neg. This parameter requires a positive to negative semantic
contrast between the bases of the sentence. Either positive or nega-
tive may occur in the first base. The negative proposition may be sig-
nalled by a negative morpheme or by a word having a negative connota-
tion in relation to a corresponding constituent of the other proposi-
tion.

Neg. Sentence types under this node have a negative semantic
feature. The feature differs with the sentence type: Warning has an
obligatory negative imperative in the first base; Contrafactual is con-
sidered negative because the truth value of the event complex in the
real world is the reverse of the truth value of the anticipated event
complex; the margin of the Dependent Negative Conditional Sentence con-
tains the negative exponent nenjile, 'if it is not so'; the bases of
the Concession-Contraexpectation Sentence are in a positive-negative
semantic contrast.

PP NN. The requirement here is that either both bases are posi-
tive or both are negative.

Spk Exp (speaker expectancy). This is a semantic requirement of
the Positive Echo sentence. It anticipates the reply, 'Yes' from the
addressee.

Hypothetical. The sentences included under this node are ones in
which the outcome is unrealized and hence subject to verification.

Inter in Base 1. The first base of the sentence has an obligatory
interrogative mood.

For sentences to be in contrast semantically, they must have at
least one semantic difference. Any sentence type that occurs beneath
a terminal node on the tree is in contrast with all types occurring
under the other terminal points. Any sentences occurring beneath the
same terminal point must be contrasted by semantic criteria beneath the
threshold of the chart or joined as subtypes. Thus we join Antitheti-
cal subtypes A, B, and C; Reason-Result subtypes A and B; Simultaneous
subtypes A and B; and Sequence subtypes A and B.

The remaining contrasts will not be given here. The semantic re-
lationships among the propositions of each sentence type are given in
the description of the individual sentences. They are all in contrast.

IV. (DISJUNCTION)   III CONJUNCTION

III A (COUPLING)   III B RESTATEMENT

Pos-   Pos-
Neg   Neg

PP   Spk
NN   Exp

Inter
in
Basel

Coordinate B+L+B	Alt	Con-joined	AntiA					
			AntiB					
	Alt-Consq		AntiC					
Paratactic B+B		Addi-tive	Exha-us-tive	Gene-ric Spec-ific	Ques-tion Res-ponse	Para-phrase Reca-pitu-lation	Nega-ted Anto-nym	Posi-tive Echo
Subordinate M+B				State-ment Expla-nation				
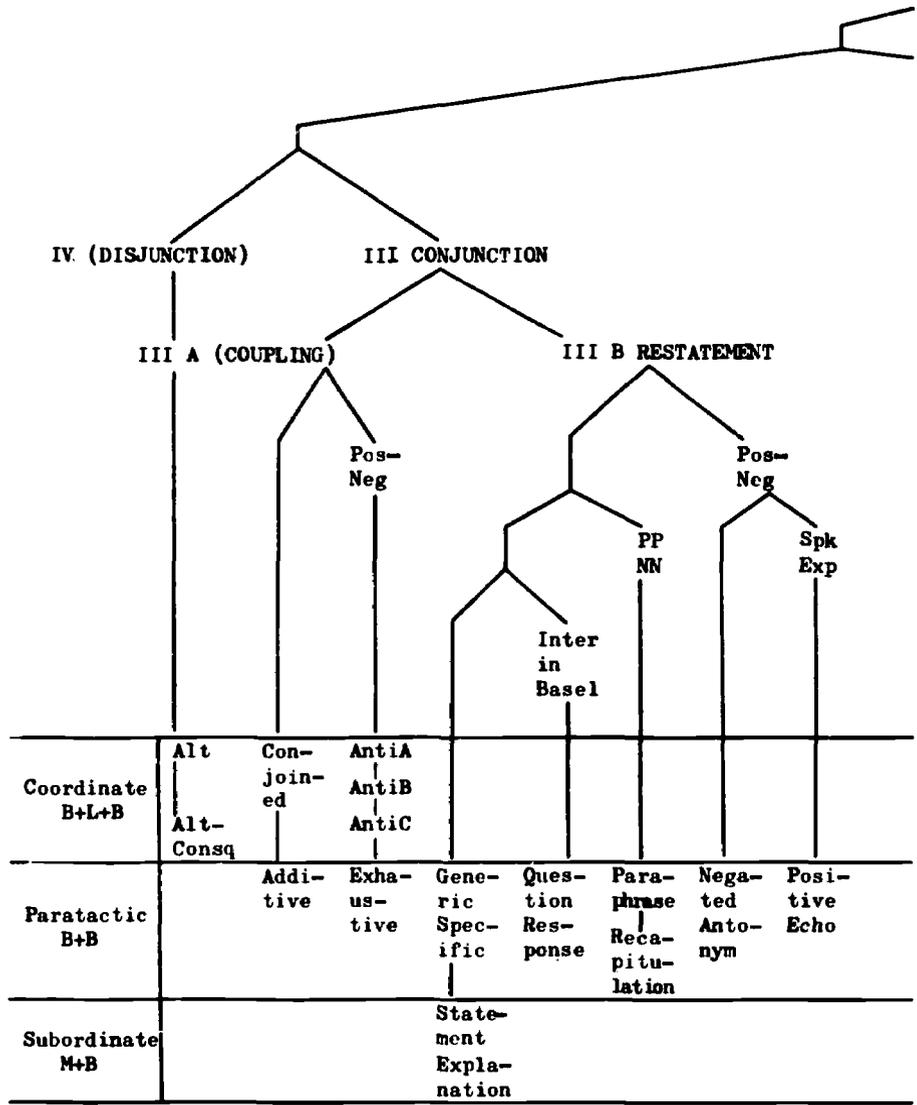
Figure 4. Semantic Relations between paired propositions in Kupia.
(also showing Grammatical encodings of these sentences
and their allos).

Semantic Relations

I CHRONOLOGICAL

II CAUSE-EFFECT

Neg

Hypot   Hypot   Seq

(-Hypot)   (-Hypot)

Resn- RsltA						Coordinate B+L+B
Prop2			Warn- Consq	Sim- ul B	SeqB	Paratactic B+B
Resn- RsltB	Cond/T- RsltA	Conc- ContE		Sim- ul A	SeqA	Subordinate M+B
PropI		Con- tra	Neg- Cond		Cond/T- RsltB	
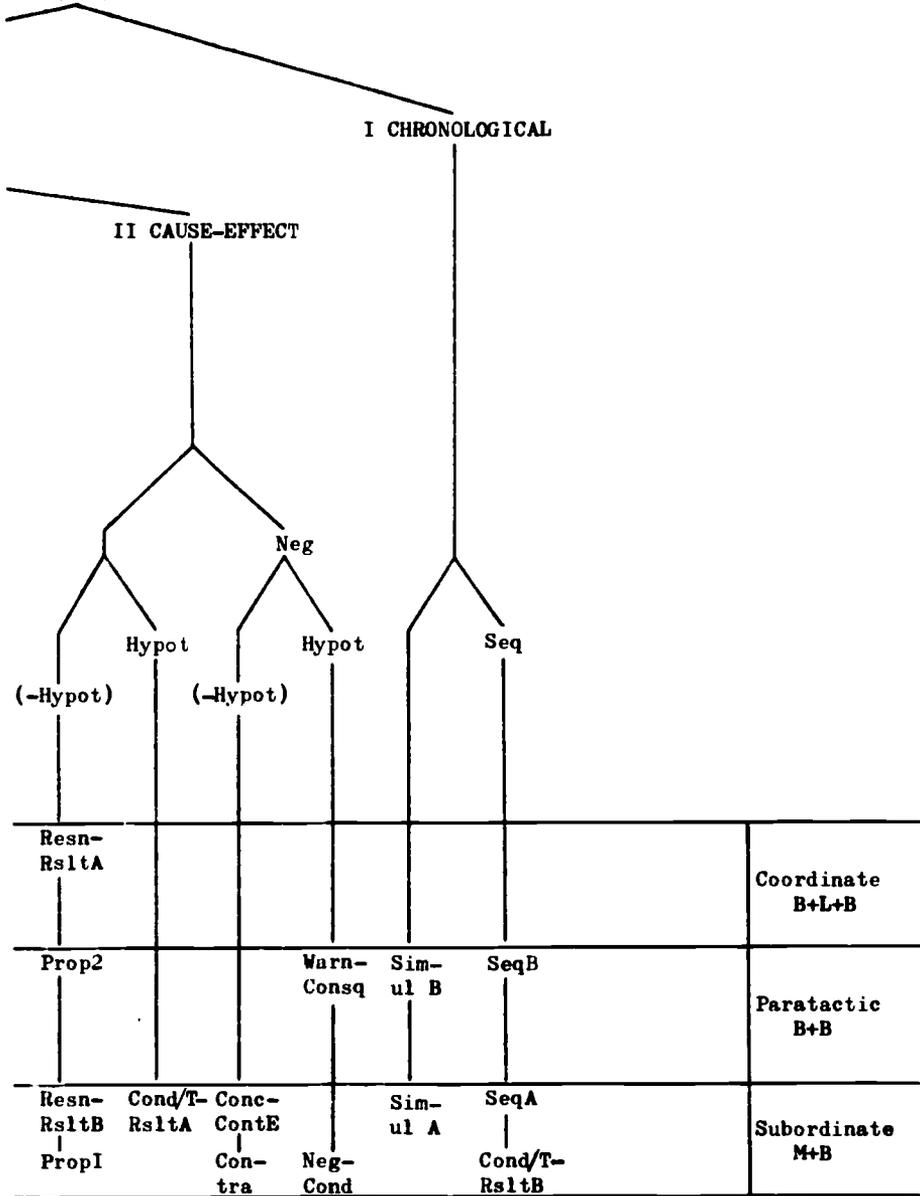
2.6 Secondary Relationships.

It is not infrequent to find sentences whose propositions can be considered to be in more than one relationship simultaneously. It is therefore necessary to recognize two classes of relationship--primary and secondary. Primary relationships are those which are in focus in a particular construction. Secondary relationships are those which incidentally encode along with the primary ones but are not in focus. In particular, coordinate sentences may have temporal or cause-effect secondary relationships between their propositions.

8) mῐiTing kera   laTabte tilo   ci jo seeDa   kera   mora gelo
   meeting doing speaking he was   and he falling doing dying went
   '(A man) was talking at a meeting and he fell over and died.'
                              or
   'It was during the conversation at a meeting that he fell over and died.'

Here we could say that the primary relationship between the propositions is coordinate as dictated by the grammatical form of the sentence. However, there is also a secondary temporal inclusive relationship in which one proposition is temporally included within the time span of the other.

In nominating a particular relationship to a number of propositions both grammatical and semantic considerations are evaluated. In the event of marginal cases grammatical considerations are given most weight, since we assume that the speaker will not choose a grammatical form to encode a secondary semantic relationship. Frequently the secondary relationship is indicative of the possibility of a transform of the sentence to a form where the secondary relationship becomes primary.

The whole concept of secondary relationships is worthy of further study, and it is anticipated that the study of higher levels in the hierarchy may be fruitful in this field of endeavour. Propositions in a given semantic relationship may have a number of different discourse conditioned grammatical encodings.

B. Sentence Periphery.

In this section we wish to present a brief description of the tagmemes in the Periphery slots. (Our term periphery would correspond to the term Outer Periphery used by Longacre, 1967). These tagmemes have a wide distribution among sentence types and, therefore, do not provide evidence for sentence contrast. When they occur with paired-propositional sentences they relate to the entire sentence and not merely to the one proposition. Their occurrence in no way alters the structure of the sentence nucleus.

Except in speech clauses, peripheral tagmemes do not normally oc-
cur in embedded constructions. It is intuitively felt that consider-
able co-occurrence and order restrictions are present among these tag-
memes, but these have not been studied. The following is a formula for
the sentence including peripheral tagmemes:

$\pm$ Excl $\pm$ Voc $\pm$ Sen Intr $+$ Sen Nucleus $\pm$ Performative

The sentence nucleus may be a Simple sentence, or any one of the
sentence types described. It should be noted that the tagmemes under
discussion occur as peripheral items to a sentence nucleus. We are not
discussing sentence fragments or words or phrases which can themselves
be an entire utterance.

Exclamation Tagmeme. This tagmeme consists of a class of exclama-
tory interjections each of which expresses the emotional attitude of
the speaker. Expressions of surprise and agreement are common in our
data.

9) ayiyo   akkar naayi   ge?
   dear me want not emp Q
   'Dear me, you don't want (all 10 of them) do you?'

10) abba   teddi   wellici!
    oh boy that much big one
    'Oh boy, it is as big as that!'

These two examples contain exclamation tagmemes having the speaker at-
titude of surprise, the following examples show a speaker attitude of
agreement.

11) ooii cengngilci!
    yes a good one
    'Yes, a good one!'

12) aa:ha eepaTi.   karidulu kiisi   tayede.
    yes   how much cost   how much it will be
    'Yes, (is that so?) how much does it cost? How much will it be?'

13) ng   sangilan.
    yes said he
    'Yes, he said it.'

14) ng   sare cucci isTum be.
    yes O.K. your wish
    'Yes, O,K., as you wish then.'

15) sare ja   jowayinci eeku watawaraumunu baTTi jeewu keranula.
    O.K. that their   one way of life   they do for themselves
    'O.K., that is their way of life, they do it for themselves.'

Vocative Tagmeme. The vocative tagmeme has various exponents:
(a) proper names, (b) kinship terms used in direct address, (c) classi-
ficatory terms such as 'child,' (d) terms of respect for an office
maharaja 'king.' Examples with more than one vocative may well occur,
but they have not been found.

16) kamiswarao, kaTmandu kiisi ase?
    Kamiswarao Kathmandu how   is
    'Kamiswarao, how is Kathmandu?'

17) oo baTTo...
    Oh brother-in-law...
    'Oh brother-in-law...'

18) o puta   cilluka deesu.
    O my child parrot give
    'Oh my child, give me the parrot!'

19) amma aa:wu konso nenji
    lady I   who   it is not
    'Lady, I am no one.'

Sentence Introductory Tagmeme. Introductory tagmemes locate the
sentence in its logical, temporal or spatial relationship with respect
to prior and following material. They also bind the sentence into the
flow of discourse from which it comes; that is, they act as tagmemes of
style, making the sentence acceptable and natural in its wider setting
in discourse.

a) Conjunctive Introductory Tagmemes. The exponents of the link
tagmemes of Antithetical, Conjoined, and Reason-Result A sentence types
can also function as sentence Introducers. That is, they can occur
within the nucleus, as links, or they can occur prenuclear, as sentence
introducers.

Antithetical Conjunction.

20) gani calli taye   nay anci ten.
    but cold remain not me   with
    'But it is not cold at my native place.'

Conjoined conjunction, see also discussion describing the Conjoined
Sentence.

21) taruwata   dessu wenDluci Tii saamani...
    in addition ten   rupees   tea goods
    'On top of that, ten rupees worth of tea...'

22) anne raati payeDka soomari santayi baar jamunde.
    again night fading monday market out become we will
    'And next morning we will go out to the monday market.'

Reason—Result A conjunction.

23) jeeci risso caala baada ase wayya angka.
    therefore much bad   is life me to
    'Therefore life is bad to me.'

24) ganuka   tukka weyyi   wenDlu.
    therefore you to one thousand rupees
    'Therefore a thousand rupees for you.'

    b) Sequence Introductory Tagmemes. When they are conditioned
by their situation in discourse, the margin tagmemes of the subordinate
sentences under the chronological node can also act as sentence intro-
ducers. As such they are in double function. See the discussion,
Sentence Margins at Discourse Level following the description of Se-
quence Sentence B.

    c) Time, Location and other introducers. The following three ex-
amples exemplify these introducers.

25) teddoDi duuri   geca iinjo waagu Takkuna ti:wo   jaa   gelo.
    then   distance going this tiger facing standing becoming went.
    'Then, going some distance, the tiger stood up facing me.'

26) otta tinto buudar   santa keeDa   geli taruwata...
    there from wednesday market finishing going time
    'From there, Wednesday market having finished...'

27) tollito aDsi teelu imporTant mukkim.
    firstly niger oil important tradition
    Firstly, niger oil is an important tradition.'

    Performative Tagmeme. Three performatives have been found in
Kupia. They can occur sentence final or sentence medial, according
to the item whose performance is being discussed. Performatives give
speaker attitude about what is being told.

    a) Possibility.

28) ...angka peTTa   gelede   kicco ge.
       me to hitting finish will he maybe
    !...maybe he will hit me.'

29) taruwata kicco ge paani aanede.
    then   maybe   water bring he will
    'Then maybe he will bring water.'

30) ...ayyasi   kicco ge teddoDi nija   ayili.
       mother his maybe   then   sleeping came she
    '...then maybe his mother slept.'

b)   Disclaimer of responsibility.

31) neep _ te <u>bette</u>   baaga calli <u>bette</u>   calli ge nay?
    Nepal at <u>they say</u> very   cold <u>they say</u> cold   or not
    'Nepal is very cold they say, is it cold or not?'

c)   Factual.

32) himaalaya parwatumu jowayingka paasika tayede   <u>geda</u>
    Himalaya mountains them to   near to remain it will <u>indeed</u>

    jecci risso calli tayede   itali.
    therefore   cold remain it will here
    'The Himalaya mountains are near to them, indeed, therefore
    it will remain cold here.'

C.   <u>Sentence Patterns.</u>

1.   <u>Conjunction Relationship.</u>

     Any series of propositions which develop a single idea or cate-
gory of thought are in a conjunctive relationship to each other. The
propositions give different information on the same subject and have
the same rank of importance. The relationship does not have chrono-
logical or logical time in focus, and is not disjunctive. The sentence
types occurring under this semantic relationship node divide into those
having a <u>Coupling</u> relationship and those having a <u>Restatement</u> rela-
tionship.

     <u>Coupling Relationship.</u> This relationship is defined as the bal-
ance of those relationships which are defined as Conjunctive but not
Restatement. It comprises sentences 1.1–4.

     1.1   <u>Antithetical Sentence.</u>

     1.1a–b Antithetical Sentences A and B.

	Sen					Sen	
+ BASE 1	In Cl	± LINK	cj	+ BASE 2		In Cl	
Thes Prop	pos/neg	Adver		Anti Prop		neg/pos	

     Grammatically, the Antithetical sentence is a coordinate construc-
tion consisting of only two independent bases which may be juxtaposed,
or coupled together by a link tagmeme. Semantically it is a conjunc-
tive relationship between two propositions which are logically opposed
to each other. The first proposition presents a thesis against which
the second proposition poses a counter statement. These two semantic

functions--thesis and antithesis--are connected by a positive-negative/ negative-positive semantic contrast.

In Kupia adversion always involves this potitive-negative semantic contrast. This contrast may be indicated by a negative particle in one base or by a pair of antonyms. Sometimes the contrast is between two seeming positives. In these cases, however, one proposition has a culturally determined negative value.

33) (B)inne kariidu   (L)gani (B)caala andumayna wastuwulu asti.
       here high cost   but   very nice   goods   are
       'Goods are expensive here, but nice.'

Here 'expensive goods' are viewed negatively from a cultural standpoint, being beyond the means of the average Kupia speaker. To this is added the counter consideration in the antithesis that the goods are nevertheless 'nice.'

On the basis of grammatical structure we have posited two subtypes of Antithetical sentence. The first--subtype A--is one in which the link is obligatory; the second--subtype B--is one in which the link is optional. Into this subdivision four contrastive semantic relationships encode in Kupia (Figure 5), paralleling the four-way division of English Antithetical sentences posited by Longacre (1971:797). These four semantic relationships are as follows:

Denied Expected Consequent. Here the contrast is formed by denying in the second proposition the expected outcome of the first.

34) (B)jowaka amci gerri jee mena   sangilayi (L)gani (B)nesilo.
       him to our house come saying said I   but   I'm not com-

            ing he said.
            'I said to him, 'Come to our house,' but he said that he wouldn't.'

35) (B)etki kuuDanu ja   seekumte cendupa jala   maansulayi (L)gani
       all   together that caste   mixing became people emp   but

            (B)pramaadumu kerti naayi.
               bad luck   do   not
            'People of all castes mix together, but they (Nepandlus) do not
            bring bad luck.'

Note: In the speaker's experience, Nepandlus typically do things bringing bad luck when they mix with others.

Denied Alternative. The distinguishing feature of this type of semantic relationship is that it is a transform of an underlying alternative sentence.

36) (B)jo ballum ase (B)Dongk nay.
      he fat   is   tall not
      'He is fat but not tall.'

Example 36, 'He is fat but not tall' has the underlying alternative
sentence jo ballum ge Dongk ge 'He is fat or tall?' Note that the an-
tithetical sentence denies one of these choices.

37) (B)inne sommul asti (B)gorrel nay.
      here cattle are   goats not
      'There are cattle here, but not goats.'

   Softening Counter Balance. Here the second proposition presents
a consideration which offsets the negative connotations of the first.
See examples 33 and 38.

38) (B)jo   maansu gullo laTabe nay (L)gani (B)sangile suuntayi.
      that man   dumb speak not   but   speak if hear he
      'That man is dumb, he cannot speak, but if someone speaks he can
      hear.'

   Contrasting Situations. Here parallel situations are contrasted
with each other, typically by opposing at least two tagmemes of one
proposition with the corresponding tagmemes of the other proposition.
In example 39 the subject and predicate are opposed.

39) (B)tuuwi inne taa   (B)aa:wu gecinde.
      you   here remain I   go will
      'You remain here, I will go.'

40) (B)jo parikca   cengngili dile sarda (B)sariga   nendile
      he examination good   give happy   satisfactory not give

      caala kasTum.
      much   trouble
      'If he does a good examination he will be happy, if he does
      : ot do satisfactorily, he will have trouble.'

   In the Antithetical sentence deletion of shared items can occur
in either base providing no loss of meaning results. Bases are per-
mutable—restrictions on permutation have not been studied—the link
remaining between them. It is anticipated that we will find that most
sentence and clause types can fill either base. However, clauses in
the interrogative mood have not been observed in the data thus far.

		Parataxis	Conjunction
	Grammatical / Semantic		
Subtype A	Denied expected consequent		X
Subtype B	Denied alternative	X	X
	Softening counter Balance	X	X
	Contrasting situations	X	X

Figure 5. Encoding of Antithetical Sentences, A and B.

1.1c Antithetical Sentence C.

In this subtype the relationship between the propositions is the same as subtypes A and B. However, either or both bases may have dependent exponents. A common recurring pattern is for a Dependent Negative Conditional sentence to be the exponent of base 2.

41) (B)angka saantaanumu jeyede   (L)gani (B)nenjile   gina
       me to heir   come will   but   otherwise particular

    jeye naayi.
    come not
    'I will get an heir, but otherwise I will not.'

42) (B)appe bleeDlu   ayilici risso bleeDlu tenu boodaka   (L)gani
       now razor blades came because blades with child to   but

    (B)nenjile   agge   pimpDalu   tila amka eejensite.
       otherwise before sharp metal pieces were our hill area in
    'Now that razor blades have come we (shave) the child's (hair)
    with blades, but otherwise, before, we had sharp metal pieces
    in our hill area.'

43) (B)aa:wu gele kayi (L)gani (B)nenjile   naayi.
       I   go   if   but   otherwise not
    'I may go, but otherwise I won't.'

1.2 Exhaustive Sentence.

```
+ BASE 1           ! In Cl    + BASE 2             ! In Cl
  -------------------!--------   ---------------------!--------
  Prop 1, Partial ¦ pos/neg     Prop 2, Remainder ¦ neg/pos
  semantic field  '             of semantic field '
```

Grammatically the Exhaustive sentence is a paratactic construction consisting of only two independent juxtaposed bases. Semantically the propositions of the Exhaustive sentence divide a semantic field, that is, the addition of the two propositions exhausts a semantic field of meaning. The propositions have a positive-negative/negative-positive contrast.

In example 44, the semantic field is all the people in the village, while in example 45 it is all the things to be known about the life of the speaker's father. Base 2 of the Exhaustive sentence frequently undergoes deletion of some of the dramatis personae occurring overtly in base 1.

44) (B)ja   gaa:wi   sagumu jiini telugu jaanti (B)sagumu jiini
        that village in some   people Telugu know   some   people

        neenti.
        con't know
        'In that village some people know Telugu and some people don't.'

45) (B)jaanlisi   sangilayi   (B)sagum aa:wu neeni.
        knowing things I have said   some I   don't know
        'I have said what I know, some things I don't know.'

46) (B)jowaka weera   rangguca sokkalu nay (B)cokkilaca asti.
        him to different coloured shirts   not   white ones are
        'He has no coloured shirts, he has only white ones.'

A variation of the Exhaustive sentence occurs when we have an Inclusive/Exclusive relationship between the propositions. That is a semantic field or thing is stated to occur under certain circumstances in one proposition and is stated not to occur under those circumstances in the other proposition.

47) (B)jaanle   cucci (B)neenle   anci
        understand if yours   not understand if mine
        'If you understand (the story), you can have it, if not it is mine.'

48) (B)anci awwo   keene ase ge   (B)keene nay ge   (gani tuuwi angka
        my   father where is ever   where not ever   but you   me to

        awwo   jaladi.)
        father became
        'Wherever my father is, wherever he isn't (doesn't matter for you have become my father).'

1.3 Additive Sentence.

$$+ \text{ BASE 1} \mid \text{In Cl} + \text{BASE 2} \mid \text{In Cl} \pm (\text{BASE} \mid \text{In Cl})^n$$

| Prop 1 | Add Prop | Add Prop. |

Grammatically the Additive sentence is a coordinate construction consisting of a minimum of two independent juxtaposed bases. Semantically the Additive sentence consists of propositions whose concepts are conjoinable—the sentence being used when the speaker wishes to list information or make a number of statements about some particular item or idea. The propositions must be culturally of the same semantic field.

The relationship is sometimes weak. The justification for saying that any two tagmemes comprise a multi-propositional sentence and not two or more Simple sentences, may not always be apparent. Points to consider in each case are: a) the presence of shared tagmemes; b) the presence of tagmemes in propositions 2, 3, and n having antecedents in proposition 1; and c) tendency toward parallelism in structure.

49) (B)kaantama gerri   nay (B)gaDDe   geca ase.
    Kantama house in not   river at going is
    'Kantama is not in the house, she has gone to the river.'

50) (B)inne oggar cengngila reeDiwolu asti (B)inne calli kuDa oggar.
    here many   good   radios   are   here cold also much
    'There are many radios here, it is cold here also.'

In example 50, the speaker is describing the city of Kathmandu. The number of good radios and the coldness of the climate are two main points which have left an impression on his mind. They are, then, of the same semantic field. This point is also apparent by the use of kuDa 'also' in proposition 2. These two propositions were the entire utterance in response to a question also indicating that the two form a single sentence.

51) (B)inne etki jiini   cengngili asti (B)tuumu kuDa amci ritti
    here all   people good   are   you   also us   like

    cengngili tangka mena   aa:wu deemuDuka jokartasi.
    good   remain saying I   god to   pray
    'All the people are well here; I pray that you also may remain
    well like we are.'

The second proposition in example 51 not only has the word kuDa 'also' which ties the two together, but also contains the words, amci ritti 'like us' which has as its antecedent in the first proposition the words inne etki jiini 'all the people here.'

1.4 Conjoined Sentence.

```
                                       ci
                                       anne
+ BASE 1 | In Cl + LINK | cj | taruwata + BASE 2   | In Cl
  Prop 1 |           Conn |    | and         Add Prop |

                             ci
                             anne
      ± ( LINK | cj | taruwata + BASE      | In Cl )n
          Conn |     | and         Add Prop |
```
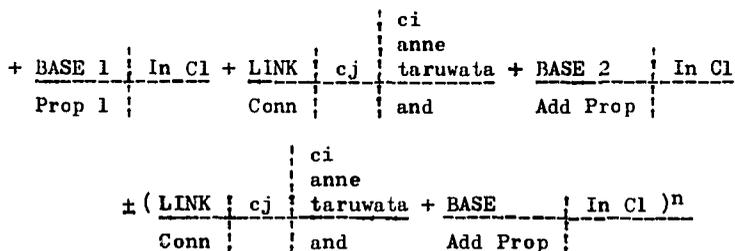
Grammatically the Conjoined sentence is a coordinate construction consisting of a number of independent bases which are coupled together by link tagmemes. Semantically the propositions are in a conjunctive relationship, being bound together by connectors. The propositions must be of the same semantic field. That is, they must, in the view of the speaker, be semantically joinable.

The conjoined relationship, then, is loose and is used when the speaker wishes to give more information to the hearer or reader. Probably because of the semantic neutrality of this relationship, secondary relationships are frequently present, notably coextension, inclusion, sequence, reason-result and grounds-result.

In Kupia there are three exponents of the link tagmeme: taruwata 'and,' anne 'and/again,' and ci 'and.' Of these, ci is the most commonly occurring exponent of the link tagmeme and is not used above sentence level. taruwata, a Telugu loan, and anne may also function as sentence introducers and as sequence markers in paragraph construction.

52) (B)jeewu laTabti baasa   eeku weera   hindi tenu nay (L)taruwata
       they   speaking language one different Hindi with not   and

     (B)telugu tenu bede   nay (L)taruwata oriya tenu bede
        Telugu with understand not   and   Oriya with understand

    nay...
    not
    'The language they speak is not a little different from Hindi
    and speaking Telugu does not help understand, and speaking
    Oriya does not help understand...'

53) (B)ja   naaDi aDugu galli (L)ci (B)jo   naaDu baa:wusi pungilo.
       that girl   steps put   and   that boy   flute   blew
    'That girl danced and that boy played the flute.'

54) (B)gaa:wica maansulu DanDal tenu weDale   ayila (L)ci (B)nakko
    villages people   sticks with field in came   and   jackal

    uTTa   nigilo
    moving   ran he
    'The villagers came to the field with sticks and the jackal
    ran away.'

55) (B)dekuma   (L)ci (B)dera   gecuma.
    let us see   and   carrying let us go
    'Let's see and carrying (it) go.'

56) (B)eekuloka   manda   rakuka tedrayilo (L)anne
    one person to sheep and goats to herd sent he   and

    (B)angka baaga widya   etki sangilo.
     me to much knowledge all   said he
    'He sent only him to herd sheep and he told me all the know-
    ledge completely.

    Restatement Relationship. This relationship is also termed Equi-
valence. The propositions of Restatement sentences are in a logical
conjunctive relationship to each other. The second proposition re-
states, enlarges upon or explains the first or a constituent of the
first. That is, the propositions are semantically linked together be-
cause essentially the same information is given in each proposition.

    For Kupia we posit seven sentence types having various degrees of
refinement within this relationship. Numbers 1.5-10 have a coordinate
surface structure encoding, and number 1.11 has a subordinate surface
structure encoding.

    Using the parameters: a) coordinate/subordinate; b) obligatory
interrogative mood/optional interrogative mood; c) positive and nega-
tive contrasts; d) same subject and predicate/optionally same subject
and predicate; we justify surface structure contrasts among these
sentences. See Figure 6. Note that only one grammatical difference
is required to contrast a type (linked of course with a semantic dif-
ference as well).

Const. Type	Oblig inter mood		Pos / neg		Dramatis Personae	Sentence Type
	Base 1	Base 2	Base 1	Base 2		
Coor	X					Ques-Resp.
		X	pos	neg	Same S.P.	Positive Echo
			pos	neg		Negated Antonym
			pos neg	or pos neg	Same S.P.	Recapitu- lation
			pos neg	or pos neg		Paraphrase
						Generic- Specific
Subord						Statement -Explanat.

Figure 6.   Grammatical Contrast among Restatement Sentences.

1.5   Question–Response Sentence.

```
              ┊ Sen
+ BASE 1      ┊ In Cl          + BASE 2      ┊ In Cl
─────────────┼───────────     ────────────┼─────────────
  Ques  Prop ┊ inter mood      Resp Prop  ┊ decl mood
```
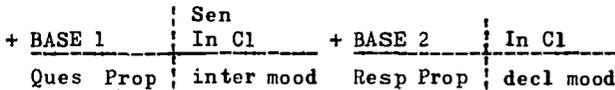
Grammatically the Question–Response Sentence is two juxtaposed tagmemes; an independent base in the interrogative mood and an inde- pendent base in the declarative mood. Semantically the Question– Response sentence consists of two propositions which are in a restate- ment relationship, the second proposition supplying the answer to the question of the first. The propositions are spoken by one person, one after the other.

Ordinarily one does not think of question–response as being in a restatement relationship. This is a specialized use of it, however, in which the speaker says the same thing twice—once in the form of a question to arouse interest, then in the form of a statement to supply the needed information. The question–response device is used frequently in storytelling in Kupia, conveying information and at the same time highlighting it. The interrogative mood may be signaled by a question word, by the interrogative marker ge, or by intonation.

57) (B)kicco toonTa (B)jo   anTu maamiDi toonTa.
      what   mango   that antu mamidi mango
      'What mango (am I speaking about)? the antu mamidi mango.'

58) (erike   jale)   (B)tukka kicco kaam kertayi   ge
    (knowledge become if)   you to what work I would have done Q

      (B)dekitadi.
        you would have seen
      '(If I had known), what would I have done to you, you would
      have seen.'

Here the Question–Response sentence is embedded in the base tagmeme of
a Contrafactual sentence. Hence the predicates of both bases have the
contrafactual aspect-tense form, having the common conditional margin
erike jale 'knowledge become if.'

59) (B)konso (B)iisweruDu.
      who   Iswerudu
      'Who?   Iswerudu.'

This example was found paragraph final. It highlights the information
that the person who had been discussed was the god Iswerudu.

      1.6 Positive Echo Sentence.

	Sen		
+ BASE 1	In Cl	+ BASE 2	In Cl
Iden Prop	pos decl mood	Echo Prop to require answer 'Yes'	inter mood

      Grammatically the Positive Echo Sentence consists of only two
juxtaposed independent bases. The first occurs in the positive declar-
ative and the second in the interrogative mood. The second proposition
is minimal, usually consisting of a negative word or phrase. Seman-
tically the two propositions of the Positive Echo sentence are in a
restatement relationship in which the second proposition rephrases the
first in the form of a question, but with the added component of speak-
er expectancy. In this case the echo question requires the answer
'Yes' from the addressee.

      Because the second base is an elliptical repetition of the first,
with the added component of speaker expectancy, we prefer to consider
the construction a paired-propositional sentence, and not a Simple sen-
tence with a tag question filling a peripheral performative slot.

60) (B)tumte   neepal sTamplu oggar asti (B)nay sir?
      your (house) at Nepal stamps   many are   not sir
      'You have many Nepalese stamps, haven't you, sir?'

61) (B)neepal mena   kera sangile   otta nepanlu bette   tawula
     Nepal saying doing speaking if there Nepandlu they say remain

        (B)nijumuwi ge?
     they   truely   Q
     'Talking about Nepal, Nepandlu people stay there, they say,
     don't they?'

We are unsure of the exact meaning of __nijumuwi__. It may be that one of
its components is a negative one and that it means 'without a doubt.'
If so this sentence type would require a negative marker in base 2, as
it does in English.

    1.7 Negated Antonym Sentence.

+ BASE 1	In Cl	+ BASE 2	In Cl
Iden Prop	pos	Neg Ant Prop	neg

    Grammatically the Negated Antonym Sentence consists of only two
juxtaposed independent bases, the second being in the negative aspect.
Semantically the propositions of the Negated Antonym Sentence are in a
restatement relationship in which the second proposition restates the
first by negating an antonym of one of the constituents of the first
proposition.

62) (B)jo   maansu guDDi   (B)deke nay.
      that man   blind man   see not
      'That man is blind, he cannot see.'

63) (B)boodalka   anci paasi tedrawa (B)jowayingka aDDu kera nay.
      children to me of near send imp   them to   block doing not
      'Send the children to me, don't stop them.'

64) (B)tuuwi inne go (B)tuuwi iinja gaa:wi   taa   nay.
      you   here go you   this village in remain not
      'You go (from here), don't remain in this village.'

65) (B)ja   noppi appe waraka ase (B)tawuki jeye   nay.
      that pain now up to is   small becoming not
      'The pain is still there, it has not become smaller.'

    1.8 Recapitulation Sentence.

+ BASE 1	Sen In Cl	+ BASE 2	In Cl
Iden Prop	same S/P	Restat Prop	same S/P

    Grammatically the Recapitulation Sentence consists of two juxta—

posed independent bases. Semantically the propositions are in a re-
statement relationship in which one proposition repeats at least the
subject and predicate of the other and enlarges upon it.

     The sentence is typically used to describe some special purpose,
or to emphasize an unusual behavior pattern or dramatic action.

66) (B)aa:wu kaTmandu gelayi (B)aa:wu gaa:wu dekuka gelayi.
      I   Kathmandu went   I   town   to see went
      'I went to Kathmandu, I went to see the town.'

67) (tuuwi keddoDi dekile kuDa) (B)bulite tatasi (B)tuuwi keddi
      you how much see if even   you go about   you   how much

       bultasi.
       go about
       '(However much (I) see you,) you are going about, you go about
       so much.'

68) (B)tuuwi kiccoka ayiladi (B)tuuwi kicco ceeta ayiladi.
      you   what for came   you   what for came
      'Why did you come, for what reason did you come?'

     We also include within this sentence type identical repetition of
a sentence. Repetition is used for emphasis.

69) (B)muurtumu dekumde   (B)muurtumu dekumde.
      horoscope see we will   horoscope see we will
      'We will look at the horoscope, we will look at the horoscope.'

70) (taruwata awwo   ammoka   erike   neente)   (B)kondaru
     (then   mother father to knowledge not knowing)   conspiracy

       yaatra   mena   dera   gecula   (B)paDuwani dera
       elopement saying bearing go they will   elopement bearing

       gecula.
       go they will
       '(Then without their mother and father knowing) they will go
       off together in conspiracy, planning a love marriage; they will
       go off and elope.'

     1.9 Paraphrase Sentence.

+ BASE 1	Sen In Cl	+ BASE 2	Sen In Cl
Iden Prop	pos/neg	Para Prop	pos/neg

Grammatically the Paraphrase sentence is a coordinate construction of two juxtaposed independent bases. Semantically the Paraphrase Sentence propositions are in a restatement relationship in which the second proposition repeats the idea of the first by using a synonym of one of the constituents of the first. The propositions have essentially the same semantic content.

As box 5 of the formula shows, the relationship is positive—positive or negative—negative, in contrast to the positive—negative or negative—positive form required by the Negated Antonym Sentence.

71) (B)caala kasTumu kicco ge nay (B)goppa alara   jatasi   naayi.
    much trouble what Q not   much trouble become am I not emp
    'Maybe much trouble (will come), won't it: much trouble I will
    have, won't I.'

1.10 Generic—Specific Sentence.

+ BASE 1	In Cl	+ BASE 2	Sen In Cl	± (BASE	In Cl)^n
Iden Prop	gear	Spec Prop	spec	Spec Prop	spec

Grammatically the Generic—Specific Sentence consists of juxta-posed independent bases. When only two bases occur permutation is permissible. Semantically the propositions of the Generic—Specific sentence are in a restatement relationship in which one proposition enlarges on another by stating one or more specifics of the generic concept of the other. The relation includes whole and parts, summary and specific actions, and class and class members.

In Kupia, this relationship frequently occurs among terms. It also occurs in constructions which we are considering paragraphs.

72) (B1)aa:wu poostasi (B2)tukka baTTa dengka (B3)katti kawini
    I   care   you to cloth buy inf   edible food

    dengka.
    give inf
    'I care for you, I give you cloth and food.'

73) (B1)jo cengngilo maansu (B2)jo daya tiloso (B3)nampa   maansu
    he good   man   he kind person   honest man

    (B4)anne deemuDu cuppiri batti   tilo maansu.
        and god   upon   devotion was man
    'He is a good man, he is kind, honest, and godly.'

74) (B2)angka siitu galluka ge eDidi   caDDuka ge (B1)iisa kammo etki
   me to seat do inf Q tumeric look inf Q   such works all

tuumu keruka ase.
you   do inf is
'You must make a seat for me, or look for tumeric for me, all
such types of work you must do for me.'

In this example the generic proposition occurs following the specific
proposition, the latter proposition encoding as an embedded **Alternative**
sentence. See also example 3 in the introduction.

1.11   Statement-Explanation Sentence.

				Sen/Dis
+ MAR	AR Cl 1.4	+ BASE		In Cl
Iden Prop		Explan Prop		
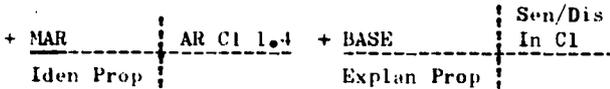
Grammatically the Statement-Explanation Sentence is a subordinate
construction, consisting of a margin tagmeme—subordinated by a relator—
and an independent base tagmeme. Semantically the propositions of this
sentence are in a restatement relationship in which the second proposi-
tion identifies, explains, or summarizes a constituent of the first
proposition.

Identification.

75) (M)iinja eeku welli santa melle   (B)rajewooda santayi.
        that one big   market speak when   huge   market
        'When we speak of the big market we mean the huge market.'

76) (M)caala kammo melle   (B)pratti deemuDuka kukkuDo detosoka
        many works speak when   each   god to   chicken giving man to

        kukkuDo dengka
        chicken give inf   .
        'By many things we mean, we must give a chicken to the person
        who offers a chicken to each god.'

77) (M)wiwaadanalu   melle   (B)kicco?
        wedding gifts speak when   what
        'When we speak of wedding gifts, what do we mean?'

Explanation. When an explanation of the statement occurs, the base
may be a complete discourse. In fact the Statement-Explanation rela-
tionship is, in Kupia, frequently the means of introducing a story—
the statement being the title of the story.

78) (M)amci eejansite   penDli   melle   (B)...
        our hill area in marriage speak when   story
        'When we speak of marriage in our hill area,...'

Summary.   The Statement-Explanation Sentence also occurs paragraph
and discourse final. In these cases the proposition of the margin tag-
meme names the subject of the paragraph and the proposition of the base
tagmeme is a summarizing comment.

79) (M)amci eejansi   penDli   melle   (B)iisici.
       our hill area marriage speak when   this way
       'Speaking of marriage in our hill area, it is this way.'

80) (M)penDli   mena   sangile   (B)iinja widdumu ganu   jarugu
       marriage saying speak when   this   custom according becoming

    jayede
    become it will
    'Speaking of marriage, it is according to this custom.'

2.   Disjunction Relationship.

This relationship is also known as the Alternative relationship.
In the main, disjunction in Kupia is exclusive disjunction; that is,
either proposition may be chosen but not both. However, example 87
seems to be one of inclusive disjunction; that is, either or both propo-
sitions may be chosen. For Kupia we posit Alternative Sentence and
Alternative-Consequent Sentence.

2.1   Alternative Sentence.

+ BASE 1 | In Cl + LINK | cj | ge + BASE 2 | In Cl
  Alt Prop 1 | Pivot | | or   Alt Prop 2 |

  + LINK | cj | ge ± (BASE | In Cl + LINK | cj | ge)^n
    Pivot | | or   Alt Prop | Pivot | | or
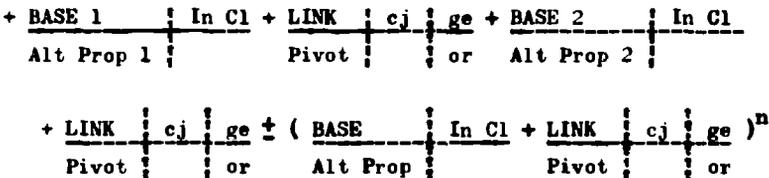
Grammatically the Alternative sentence consists of a number of
independent bases each followed by a link tagmeme. (If only two bases
occur the final link is optional.) Semantically the Alternative sen-
tence is a logical disjunctive relationship between propositions which
are related by alternative functions or pivots and are offered as
logical choices to each other.

Alternation between propositions is possible in three ways in
Kupia:

Participants or **dramatis personae.**   These can alternate with the
same predicate.

81) (nay melle) (B)iinja danumu kaawale (L)ge (B)iinja cenugu
    (not say if)   this present want   or   this   elephant

   kaawale (L)ge (B)iinja radal   kaawale (L)ge?
   want   or . this vehicle want   or
   '(If you refuse), do you want this present, or do you want this
   elephant, or do you want this vehicle?'

82) (B)cenngil ase (L)ge (B)gaar ase (L)ge(-ci   kaDa dessu.)
       good   is   or   bad is   or(one's take give imp)
       'Whether they �269e good one's or bad one's, (take them).'

   Predicates. These can be alternated using a positive-negative
contrast. In such cases only two bases can occur, and complete ellip-
sis of the second base is permitted in sentences in the interrogative
mood. The interrogative mood may be signaled by intonation. However,
frequently we interpret the final ge of sentences alternating in this
way as an interrogative marker.

83) (B)anci kooDu sangilad (L)ge (B)naayi baabu?
       my   word said you   or   not   sir
       'Did you say what l said or not, sir?'

84) (tuuwi sangile) (B)anne aa:wu anne aa:wu aani nay (L)ge
    (you   speak if)   again I   again I   bring not   or

      (B)aaninde.
         bring I will
      'If you speak again, I will not bring it again, or I will
      bring it.'

85) (B)metti uddesumu jo gallede (L)ge (B)nay (L)ge?
       saying intention he do will   or   not   or
       'Will he do what he said or not?'

   Antonyms. The alternation can be between antonyms across the
bases.

86) (B)kooTlu wellelaca (L)ge (B)eduDlasa?
       shops big ones   or   small ones
       'Are the shops big ones or small ones?'

   Occasionally the link ge can be glossed 'and' as well as 'or,'
and in some cases 'and' appears to be more natural. When this is the
case the propositions are no longer alternatives where only one may be
true, but a list of choices where all may be chosen. That is, if the
meaning is clearly 'and,' the propositions are no longer in an exclu-
sive disjunctive relationship, but in an inclusive disjunctive relation-
ship.

87) (B)angka siiti galluka (L)ge   (B)eDidi   caDDuka   (L)ge
      me to ritual must do   or/and   tumeric touch must   or/and

      (iisa   kummo etki tuumu keruka ase).
      (like these works all you   must do is)
      'You must do the rituals for me, or/and you must touch tumeric
      for me; (all these types of things you must do for me).'

2.2 Alternative-Consequent Sentence.

	Sen					
+ BASE 1	In Cl	+ LINK	cj	ge	+ D BASE	Sen*
Alt Prop 1	unrealized Pivot			or	Neg of Alt Prop 1	
	action				and Consq of Neg	
					Choice Prop	

*Dependent Negative Conditional Sentence.

   Grammatically the Alternative-Consequent Sentence is a coordinate
construction consisting of only two bases coupled together by an op-
tional link tagmeme. The second base is grammatically dependent be-
cause it is expounded by the Dependent Negative Conditional Sentence
(see C.3.8). This is the only sentence type which requires an embedded
sentence in one of its bases. The Dependent Negative-Conditional
sentence is dependent because of the obligatory presence of the margin
nenjile 'if it is not,' which requires an antecedent.

   Semantically the Alternative-Consequent sentence offers a choice
between alternatives—proposition 1 and its negative. The second base
proposition not only indicates that the negative choice exists, but
goes on to mention the consequences of that negative choice. The op-
tional link tagmeme carries less weight than the corresponding link
tagmeme of the Alternative sentence, since nenjile 'otherwise' of base
2 also shows that a choice exists. Alternation is positive-negative
by virtue of the meaning of nenjile.

88) (B)jo   maansu ja   kaam appe kerede (L)ge (B)nenjile   sanjeka
      that man   that work now do will   or   otherwise evening

          kerede.
       in do will
       'That man will do the work now or otherwise he will do it in
       the evening.'

89) (B)aa:wu sangile karekTu sanginde (B)nenjile aa:sa gelula.
       I   speak if correct say will   otherwise laugh will they
       'If I speak I will say it correctly, otherwise they will laugh.'

90) (B)eeku maargumu dekawuma   (B)nenjile   gina   iinjeewu
    one   route   show let us   otherwise particular these

    kuTumbalu kiisi jewula.
    families how   come will
    'Let us show them the route, otherwise, how will these families
    come.'

91) (B)dassacaka   tii:wile   jeyinsupa   jawula
    such things to stand up to cure manner become they

   . (B)nenjile   nay.
       otherwise not
    'If they stand up to such things they will recover from them,
    otherwise they won't.'

3. Cause-Effect Relationship.

The cause-effect relationship among propositions is somewhat more
complex than the conjunctive, disjunctive, or chronological time rela-
tionships.

The cause-effect relationship has logical time in focus—the ef-
fect proposition logically following the cause proposition. Secondar-
ily, a chronological-sequence relationship exists, since the effect
always chronologically follows the cause. When the proposition of
each base is a continuing action, the relationship may not at first
appear to be sequential as much as simultaneous, as in the following
example.

92) (M)angka tuuwi keddoDi dekite tile kuDa (B)goola
    me to you how much seeing if   ever   argumentative speech

    kerte tatasi.
    doing you keep
    'However much you keep seeing me, you keep arguing.'

In this example, however, it is assumed that the person has to see the
other person before he can start arguing. That is, the sentence is
speaking about a number of occasions, each of which has propositions
in a logical and chronological-sequential order. These, spoken of as
an on-going relationship between two actions, give the impression of
simultaneity.

Relationship		Contrasts	
Cause	Effect	Cause	Effect
Cond/Temp	Result	Stated as suppositional	Stated as definite
Warning	Consequent	Stated as a command	Stated as probable outcome
Concession	Contra-expectation	Stated as the cause of an expected result	Stated as unexpected result
(Contrafactual) Condition	Outcome	Stated as unfulfilled condition	Stated as unfulfilled outcome
(Proportional) Identity	Correlative	Stated as identity item	Stated as correlative item
Reason	Result	Stated as grounds of following result	Stated as definite
(Dep Neg Cond) Condition	Consequent	Stated as a Neg Condition	Stated as definite

Figure 7. Semantic Contrasts Among Cause-Effect Sentences.

3.1 Conditional/Temporal-Result Sentences.

Introduction. Consider the sentences spoken by speakers A and B.

A. When I become a millionaire, I'll buy a Rolls.
B. You mean, if you become a millionaire.

We see both the semantic closeness and the contrast of the relators
'if' and 'when'. However two morphemes in Kupia, le and le gina, have
both 'if' and 'when' as their possible meaning. Yet 'if' is used to
show propositions in a cause-effect relationship and 'when' is used to
show propositions in a chronological relationship. For Kupia therefore
we posit two subtypes based on whether we gloss the relator 'if' (sub-
type A), or 'when' (subtype B).

In many examples of subtype A, it is also possible to gloss the
relator 'when'. The following points are made about the choice of
glosses.

1) Relator gloss is 'if':
    a) On many occasions when a negative morpheme occurs in the protasis.
    b) When time words or phrases in either or both propositions require 'if' (see examples 93 and 98).
2) Relator gloss is 'when':
    a) When the base proposition is in the past tense.
    b) When fulfillment of the base proposition is considered inevitable.
    c) When the margin is filling a sentence introductory slot; that is, when the margin is discourse conditioned.
    d) When required by lexical considerations.

3.1a Conditional/Temporal-Result Sentence $\vdash$.

+ MAR	AR Cl 1.2 AR Cl 1.1	+ BASE	Sen In Cl
Cond Prop		Rslt Prop	hypothetical action

Grammatically this Conditional/Temporal-Result Sentence is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of one of a number of conditional relators. Semantically the propositions of this sentence are in a cause-effect relationship. The protasis states a condition and the apodosis an eventuality based on that condition. The protasis is semantically dependent because the meaning of the relator signals that a result proposition is to follow. The term hypothetical in box 5 of the base requires that the verb be negative, potential aspect, future tense, or some other unrealized action.

The verb of the margin tagmeme is without tense and is not inflected for number or person. It can take the imperfect aspect morpheme -te. Negation can be applied to either or both bases. Example 93 shows the causative morpheme -ay in the verbs of both margin and base tagmemes. The verb of the base tagmeme must be negative, potential, or some other unrealized aspect.

93) (M)jo   maan; u appe ja   kaam kerayile (B)sanjeka kerayi nay.
    that man   now that work work-k-if   evening do-k-if not
    'If that man is made to do the work now, he will not be made to do it in the evening.'

Here the words appe 'now' and sanjeka 'evening to' require the gloss 'if' for the relator.

94) (M)tuuwi anci baaki nendile   (B)riporTu kerinde.
    you   my   wages not give if   report do I will
    'If you don't give me my wages, I'll make a report.'

In this example the Conditional/Temporal-Result sentence is also a
warning-consequent relationship.

The relator may also be –le gina, 'if particular.' The function
of gina is to make the condition more specific, focussing on an item
in the protasis, usually the subject.

95) (M)tuuwi tile   gina   (B)aa:wu tayinde.
        you   remain if particular   I   remain will
        'If you remain, I will stay.'

In example 95 there is something special about tuuwi, 'you.' This in-
formation would normally be conveyed by intonation in English.

As shown in the formula, the margin can also encode as AR Cl 1.2.
That is, the relator may be –le kayi, 'if' or in some cases 'if then.'
In all the examples to hand, this relator most naturally takes the
gloss 'if.' So far we have no examples where the meaning of this re-
lator is 'when.'

96) (M)tuuwi neayile kayi (B)tukka deke nay.
        you   not come if   you to see not
        'If you don't come, he will not see you.'

97) (M)donni wanTalu kele kayi (B)aa:wu oppinde
        two   shares do if then   I   will be satisfied

        (nelle   oppi   nay.)
        (not come if satisfied not)
        'If you do two shares, I'll be satisfied. (If two shares
        don't come I won't be satisfied.)'

98) (M)ja   kaam kerle kayi (B)tukka aaji kuular deyinde
        that work do if then   you to today cereal give I will

        (nenjile   deyi nay.)
        (otherwise give not)
        'If you do that work, I will give you cereal today.
        (Otherwise I will not).

3.1b Conditional/Temporal-Result Sentence B.

			Sen
+ MAR	AR Cl 1.1	+ BASE	In Cl
Prior Prop		Final Prop	

Grammatically the Conditional/Temporal-Result Sentence B is a sub-
ordinate construction consisting of a margin and an independent base.
The margin is dependent because of the obligatory presence of one of a
number of relators. Semantically the propositions of this sentence are
in a temporal relationship in which the propositions follow each other
in time. The margin proposition is semantically dependent because the
relator signals that a final proposition is to follow.

The verb of the margin tagmeme is without tense and does not signal
number or person. It can take the imperfect morpheme **-te**. Negation
can be applied to either or both bases.

Examples with base proposition in past tense.

99) (M)ja   gorre mora ggele   (B)ja   gaa:wica kicco kerla?
       that goat dying finish when   that villagers what did they
       'When the goat died, what did the villagers do?'

100) (M)cengngil kera gele   (B)jeewu cengngil jala.
        well   doing finish when   they well   became
        'When they had done it well, they became well.'

Examples where the fulfillment of the protasis is considered in-
evitable.

101) (M)ayyadi   bette   tukka   sangile   (B)jeweka biyaDtasi.
        mother your they say you to speak when   her to fear-k you
        'When your mother tells you, you frighten her, they say.'

102) (M)termi aanle   (B)tukka panika
         wife bring when   you to joining of possessions

        jeyede
        become it will
        'When I bring a wife to you, you will join your and her
        possessions.

In the culture of Kupia speakers, there are a number of acceptable
methods of becoming married. The most frequent is for the fathers of
the man and woman to choose a spouse and arrange the wedding.

103) (M)aneku   werseku donni wersu gele   (B)terni aaninde.
        another year   two   years finish when   wife bring I will
        'When another year or two have passed I'll bring a wife.'

104) (M)aa:wu Demsa kelle   gina   (B)aa:sa   deyula.
        I   dimsa play when particular   laughing give they will.
        'When I (particularly) dance the dimsa dance, they will laugh.'

105) (M)tuuwi Demsa kelte tile   gina   (B)aa:sti nay.
     you   dimsa dance continue to when particular   laugh not
     'When you (in perticular) continue to dance the dimsa they will
     not laugh.'

In examples 105 and 106, the verbs of the margin tagmeme contain the im-
perfect aspect morpheme -te, and have a secondary simultaneous relatio-
ship.

106) (M)ja   naaDi aDagu galte tile   (B)iinjo naaDu
     that girl steps put continues to when   this boy

     baa:wusi pungitayi.
     flute   blows
     'While this girl keeps on dancing, this boy plays the flute.'

     In the following examples the relator may be glossed either 'when'
or 'if.'

107) (M)tunwi ayile   (B)tukka dekede.
     you   come when/if   you to see he will
     'When/if you come, he will see you.'

108) (M)jo ja   kaam sariga   kerle   (B)dessu wenDlu deyinde.
     he that work properly do when/if   ten   rupees give I will
     'When/if he does that work properly, I will give him ten rupees.'

     This sentence subtype frequently occurs in certain types of dis-
course where the margin tagmeme is in double function. As such the
margin functions: a) as a temporal linking device within the para-
graph, summing up a previous action; and b) as the prior proposition of
a temporal-result sentence. When functioning as such the relator -le
must always be translated 'when.'

109) (...eeku yanabay ge tomboy patralu peTite nilay.) (M)peTite
     (one eighty or ninety stones hitting took I   hitting

     nile   (B)...
     take when
     '(...I threw eighty or ninety stones). When I had thrown
     (them)...'

     3.2 Warning-Consequent Sentence.

+ BASE 1	In Cl	+ BASE 2	Sen In Cl
Warn Prop	imper mood	Consq Prop	hypothetical action

Grammatically Warning-Consequent Sentence consists of an independent base in the imperative mood and an independent base in some unrealized aspect. Semantically the sentence is two propositions in conditional cause-effect relationship in which one proposition is in the form of a command and the other a statement of the consequences if the command proposition is not fulfilled.

The verb of base 2 must be negative, imperative, potential, or some other unrealized aspect. The propositions have a common dramatis persona, namely the actor of the command proposition. This actor must be realized as the actor of the consequent proposition, or as some other role in the consequent proposition. This warning-consequent relationship may also encode as a subordinate construction (see Conditional/Temporal-Result Sentence A, example 94).

110) (B)nigu nay (B)seeDte.
　　　run   not   fall you may
　　　'Don't run, you may fall.'

111) (B)jo   picci maansuci paasi go nay (B)jo tukka peTTede.
　　　that mad   man of   near go not   he you to hit will
　　　'Don't go near that mad man, he may hit you.'

Note: Only the negative imperative mood has been found in base 1 of the examples cited. It is probable that positive imperative mood can occur as well.

3.3   Concession-Contraexpectation Sentence.

+ MAR	Indef AR Cl 1.3 AR Sen AR Cl 1.3	+ BASE	In Cl
Conc Prop	pos/neg	Contr E Prop	neg/pos

Grammatically the Concession-Contraexpectation sentence is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of the concessive relator -le kuDa. Semantically the propositions of the Concessive-Contraexpectation sentence are in a cause inverse-effect relationship.

112) (M)jo ja   kaam nekerle   kuDa (B)dessu wenDlu deyinde.
　　　he that work not do if even   ten   rupees give I'll
　　　'Although he did not do that work, I'll give him ten rupees.'

The first proposition 'He did not do that work,' has a further implied proposition of the form 'One would expect I would not pay him.' These two propositions are in a cause effect relationship. The concessive marker, however—that is, the relator of the AR construction—indicates

that the anticipated result will be replaced by an unanticipated result,
in this case, 'I will give him ten rupees.' We are therefore, calling
the relationship between the propositions a cause inverse-effect one.
The second proposition is realized in the face of the counter influence
of the first.

The propositions always have a positive-negative contrast in Kupia.
This is usually indicated by a negative particle in either the margin or
the base. However, if the encoding is between two seeming positives,
one proposition has a culturally determined negative value, or could be
paraphrased using a negative particle. Thus in example 92, goola kerte
tatasi 'you keep on arguing,' implies, 'you don't behave nicely.'

The positive-negative semantic contrast also occurs in the Kupia
Antithetical Sentence, and indeed Concession-Contraexpectation and Anti-
thetical Sentences in Kupia are transforms of each other. See examples
113 and 114.

113) (M)ji   naaDi aDugu galle kuDa (B)iinjo naaDu baa:wusi punge nay.
     that girl steps put if even   this boy   flute   blows not
     'Although the girl dances, the boy does not play the flute.'

       = . =>

114) (B)ja   naaDi aDugu galli (L)gani (B)iinjo naaDu baa:wusi punge nay.
     that girl steps put   but   this boy   flute   blows not
     'That girl dances but the boy doesn't play the flute.'

115) (M)aa:wu gele kuDa (B)ja laTabe naayi.
     I   go if even   she speak not
     'Although I went, she did not speak.'

116) (M)amci gerri nijuka   je   mena   tukka sangile kuDa (B)tuuwi
     our house sleep inf come saying you to say if even   you

     nesitasi.
     not come
     'Although we said, 'Come to our house to sleep,' you don't
     want to.'

The margin tagmeme of the Concession-Contraexpectation sentence
may also be manifested by an interrogative pro-word concessive clause,
but the interrogative pro-word in conjunction with the relator -le kuDa
becomes an indefinite pro-word.

117) (M)iinja naaDuka keddi   sangile kuDa (B)widya   jeye naayi.
     this boy to how much say if even   knowledge come not
     'Although you speak to this boy much, he does not learn.'

118) (M)keene dekile kuDa (B)batte   ja   gaaDide Diise   nay
    where see if even   they ... that donkey   appear not
    'Although they look everywhere, they say, that donkey does not
    appear.'

3.4 Contrafactual Sentence.

	AR Cl 1.2		Sen
+ MAR	AR Cl 1.1 + D BASE		Cl
Unful Cond Prop		Unful Outc Prop	contr asp

Grammatically the Contrafactual Sentence is a subordinate con-
struction consisting of a margin tagmeme—subordinated by one of a num-
ber of conditional relators—and a dependent base tagmeme. The base
tagmeme is grammatically dependent because of the obligatory presence
of the contrafactual aspect-tense morpheme in the predicate. This mor-
pheme only occurs in a clause following a margin tagmeme encoding as one
of the conditional clauses shown in the formula.

Semantically the Contrafactual sentence propositions are in a
cause-effect relationship in which neither the condition nor the result
was ever realized. In fact what is understood is the opposite of the
apparent positive-negative value of each proposition. Also understood
is the speaker's opinion of the certainty of the outcome had the con-
dition been fulfilled.

119) (M)tuuwi ayile   (B)dekitam.
    you   come if   seen we would have
    'If you had come we would have seen (you).'

That is, in example 119 we see the following implications: a) You did
not come; b) we did not see you; and c) your coming would have undoubt-
edly meant that we would have seen you. Our criteria for semantic in-
dependency (see introduction), requires that a proposition makes sense
when said in isolation. With this sentence type the base proposition
is semantically dependent because knowledge of the antecedent proposi-
tion of the margin is necessary to complete its meaning. Also the mar-
gin tagmeme is semantically dependent because of the conditional mean-
ing of the relator. Both tagmemes, then, are interdependent grammatic-
ally and semantically.

Contrafactual sentence examples in the concordance printout and in
other text material have only AR Cl 1.1 clauses as exponents of the mar-
gin. However, language helpers accepted AR Cl 1.2. Conditional clauses
do not signal person, number, or tense in the predicate. Both negation
and imperfect aspect morphemes can occur in the predicate of the margin,
but they have not been observed together in the same clause. Negation
can occur in either or both bases. If the subject of the margin tagmeme
is different from that of the base, it must be indicated by a free form

occurrence in the margin.

Only a limited number of clauses and sentence types have been ob-
served in the dependent base. However, we see no reason to expect re-
strictions in exponents of the dependent base tagmeme, beyond those
brought about by the obligatory occurrence of the contrafactual aspect.

120) (M)tuuwi neayile   (B)nedekitadi.
     you   not come if   not seen you would have
     'If you had not come, you would not have seen.'

121) (M)tuuwi santayi negele   (B)aa:wu tukka aaTu ganTalka dekitayi
     you   market not go if   I   you to eight o'clock

     dekitayi.
     seen would have I
     'If you would have not gone to the market, I would have seen
     you by eight o'clock.'

122) (M)erike   jale   (B)tukka kicco kaam kertayi?   ge?
     knowledge become if   you to what work do I would have Q

     dekitadi.
     seen you would have
     'If I had known, what would I have done to you? You would
     have seen.'

The filler of the base tagmeme of example 122 is a Question-Response
Sentence. Note that the contrafactual aspect is required on the pre-
dicate of each of its bases. This seems to be a restriction of the
Question-Response Sentence.

123) (M)tuuwi genle gina   (B)dekitam.
     you   buy if particular   seen we would have
     'If you in particular had bought it, we would have seen (it).'

124) (M)tuuwi gente tile gina   (B)dekitam.
     you   buy if   particular   seen we would have
     'If you in particular had been buying it, we would have seen
     (it).'

125) (M)tuuwi ayile   kayi (B)dekitadi.
     you   come if then   seen you would have
     'If you would have come then you would have seen (you).'

3.5-6. Proportional Sentences.

Introduction. In Kupia two different construction types show the
relationship of proportionality (or correlativity). Typical of Indo-
Aryan languages, proportionality is signaled using an interrogative
pro-word in one proposition, such as keddi 'how much,' and a correla-

tive pro-word, such as <u>teddi</u> 'that much,' in the second proposition.
The interrogative pro-words are normally translatable as question words,
but in the environments of either the relator of the margin tagmeme of
Proportional Sentence 1, or the interrogative marker <u>ge</u> of Proportional
Sentence 2, they are best translated as indefinite pro-words. The fol-
lowing pro-words and phrases and the corresponding correlative pro-
words and phrases have been noted in Kupia:

Interrogative Pro-word or Phrase		Correlative Pro-word or Phrase	
keddoDi	'whenever'	teddoDi	'then'
keddi	'however much'	teddi	'that much'
ketti	'however much (money)'	tetti	'that much'
kicco	'whatever'	ja	'that'
kee:yakka	'whenever'	tee:yakka	'then'
kee:yakka	'whenever'	ja diisi	'that day'
keen wersi	'in whichever year'	ja diisi	'that day'
ketti	'however much (money)'	donni waan- Talu beeda	'two shares more'
kiisi	'however'	dasi	'that way'
keene	'wherever'	eek waaTu	'one road'

Lexical items and not grammatical markers differentiate direct and
indirect (inverse) proportionality.

126) (M)ketti   paysalu tukka   dile   (DB)teddili   angka keeDa
        how much money   you to give ever   that much me to finish

     getayi.
     goes
     'However much money he gives to you, that much goes from me.'

In example 126 we have an inverse proportional relationship, since the
meaning is, "however much <u>more</u> you have that much <u>less</u> I have." We also
see in example 126 the restriction of shared terms—the term being com-
pared   it be common in both parts of the sentence. In this case it is
the object 'money' which is common.

3.5 Proportional Sentence 1.

+ MAR	Indef AR Cl	+ D BASE	In Cl
Iden Prop	inter pro-word	Corel Prop	corel pro-word

Grammatically Proportional Sentence 1 is a subordinate construc-
tion consisting of a margin tagmeme—subordinated by one of a number of
conditional or concessive relators—and a dependent base tagmeme. This
base tagmeme is grammatically dependent because of the presence of the

correlative pro-word (or phrase). This pro-word has an antecedent in-
terrogative pro-word in the margin tagmeme. Semantically Proportional
Sentence 1 consists of two propositions in which a constituent of one
compares directly or indirectly with a constituent of the other in de-
gree or amount. The relationship between the propositions is a weak
cause-effect relationship in which the first proposition sets the stan-
dard which causes the action of the second.

The verb of the margin is without tense and does not signal person
or number, but it can be inflected for imperfect aspect. The margin
can also signal a secondary concessive meaning when its exponent is AR
Cl 1.3. Neither past tense nor negative have been observed in the base.

127) (M)tuuwi keddi   korpa jale   kuDa (DB)teddi   deyede.
         you   how much wish   become ever even   that much give he will
         'No matter how much you want, that much he will give.'

128) (M)kee:yakka korpa jale   gina   (DB)tee:yakka deyede.
         when   wish   become ever particular   then   give he will
         'Whenever you wish something special, then he will give it.'

129) (M)aam keddi   dete tile .   (DB)jo teddili   bedawa deyede.
         we how much give keep ever   he that much same   give he will
         'However much we keep giving, he will give the same.'

130) (M)ja   naaDi nacuka   kiisi aDugu galile   (DB)jo   naaDu
         that girl dance inf how steps put ever   that boy

         dasi   baa:wusi pungitayi. (deku).
         that way flute   plays he   (look)
         'However the girl steps the dance, that way the boy plays the
         flute. (Look!)'

   Comment. The relators -le, -le gina are those used in the Condi-
tional/Temporal-Result Sentences A and B, and the relator -le kuDa is
the concessive relator. In one sense, then, these sentences could be
considered subtypes of Conditional/Temporal-Result A and Concessive-
Contraexpectation Sentences. The authors, however, are of the opinion
that the proportional relationship is primary and the conditional and
concessive relationships secondary. This is because: a) there is a
greater restraint in lexical choice in the proportional sentences due
to the sharing of constituents within the sentence; and b) the inter-
rogative and corresponding correlative pro-word concord in this sen-
tence type parallels that in Proportional Sentence 2.

   3.5 Proportional Sentence 2.

+ D BASE 1 ! Indef Cl	+ D BASE 2 ! In Cl
Iden Prop ! inter pro-word or corel pro-word	Corel Prop ! corel pro-word

Grammatically the Sentence is a coordinate construction of two dependent bases. The bases are grammatically dependent because both have the obligatory presence of an interrogative pro-word or a correlative pro-word. The pro-word of the first tagmeme is the antecedent of the pro-word of the second.

Semantically the propositions of Proportional Sentence 2 are in a proportional relationship in which a constituent of one compares directly or indirectly with a constituent of the other in degree or amount. The relationship between the propositions is a cause-effect relationship. Both tagmemes are semantically dependent because neither can be said in isolation and make sense.

132) (DB)ketti   paysal tukka dilo   g·   (DB)tetti   paysal
    how much money you to gave he ever   that much money

    keeDa geli.
    finish went it
    'However much money he gave to you, that much ran out.'

133) (DB)angka keddi   dilo   ge   (DB)tukka taddili   samanumu
    me to how much he gave ever   you to that much same

    dilo.
    gave he
    'Whatever he gave to me, that same he gave to you.'

134) (DB)tukka teddili   saaman dilo   ge   (DB)angka teddili
    you to that much goods gave he ever   me to that much

    saaman dilo.
    goods gave he
    'He gave to you the same amount (type) of goods as he gave to me.'

135) (DB)aa:wu ketti   paysal dilayi (DB)jo donni waa:Talu beda dilo.
    I   how much money gave I   he two   shares   more gave
    'However much I gave, he added twice as much.

In example 135, we note that ge is missing from the first base. This may be due to the particular correlative pro-word construction occurring in the second base.

Contrast. We set up Proportional Sentence 1 and Proportional Sentence 2 as different types because of the grammatical and semantic differences. The grammatical differences are clearly seen in the formulas—Proportional Sentence 1 is a subordinate construction and Proportional Sentence 2 is a coordinate construction. Proportional Sentence 1 may not take a past tense morpheme in the predicate of the base. Semantically the relationships differ because of the possibility of condition

and concession encoding along with the proportional meaning in one and not the other. The margin of Proportional Sentence 1 can have a simple conditional relator -le, 'if'; it can have the relator -le gina, 'if particular'; or it can have the concessive relator -le kuDa, 'if even.' These three relators impose secondary semantic meanings on to the primary proportional relationship.

Proportional Sentence 2 does not have the secondary semantic meanings of Proportional Sentence 1. In addition, although Proportional Sentence 2 bases must have the same tense, it may be past, present, or future. The use of the same correlative pro-word in both tagmemes may occur in Proportional Sentence 2; it has not been observed in Proportional sentence 1 (see example 134).

3.7   Reason-Result Sentence.

Introduction. Reason-Result sentences have a logical temporal relationship in which the reason precedes the result in time. In English this relationship does not restrict the linear ordering of the propositions in a sentence.

a)   Because he is a good man I give him money.
b)   I give him money because he is a good man.

In Kupia, however, temporal relationships are much more focal, and propositions occurring first in time must occur first in the sentence.

136) (B)jo cengngilo maansu (L)jeweci risso (B)aa:wu jowaka Dabbulu
        he good   man   therefore   I   him to money

        daa: tatasi.
        give am
        'He is a good man, therefore I am giving him money.'

137) (M)jo cengngilo maansuci risso (B)aa:wu jowaka Dabbulu daa: tatasi.
        he good   man   because   I   him to money   give am
        'Becaus' he is a good man, I am giving him money.'

3.7a   Reason-Result Sentence A.

+ BASE 1	Par / Dis ARR Cl In Cl	+ LINK	Ref AR Ph cj	jeweci risso ganuka
Resn Prop		Resn-Rslt Pivot		'therefore'
+ BASE 2	In Cl			
Rslt Prop				

Grammatically the Reason-Result Sentence A is a coordinate con-
struction consisting of independent base, link, and independent base
tagmemes. Semantically the propositions are in a cause-effect relation-
ship in which the first proposition stands as reason, cause, or stimulus
and the second as result, effect, or response to it. The link tagmeme
plays a very important role in this sentence type since it sums up the
first proposition and labels it as the reason or cause of the result
proposition. We have therefore called its semantic function Reason-
Result pivot.

The link <u>jeweci risso</u> 'for this reason,' is also used as a sentence
introducer in discourse, in which case the reason proposition may be a
paragraph or discourse.

138) (B)jooka paDto noppi baar tili (L)jeweci risso (B)jo DakTar
     him to back pain because   therefore   he doctor

     appiste   gelo.
     office to went
     'Pain had come to his back, therefore he went to the doctor.'

139) (B)iinja karanTu   jowayingka kaawale bette   (L)jeweci risso
     this electricity them to   wanted they say   therefore

     (B)ja   jaalapuTu Daam banda gella.
        that Jalaput dam built complete
     'They wanted electricity, they say, therefore they built the
     .Jalaput dam.'

140) (B)waagu caamu sukayti risso (L)jeweci risso (B)etki jiini
     tiger skin drying because   therefore   all people

     kuuDanu yaalana kerla.
     included joked   did
     'Because the tiger skin was drying, therefore all the people
     joked together.'

In example 140, we have a Reason-Result Sentence B margin as the ex-
ponent of the base 1 tagmeme. The authors are aware at this point that
this example perhaps belongs more properly with Reason-Result Sentence
B because of this fact, but at this point in the analysis have chosen
to leave it here to await further analysis.

141) (B)ikkabaTTi aaɪwu tukka nampa   jalay (L)ganuka   (B)tuccite
     now from I   you to merciful become   therefore   your to

     aaɪwu anne renDo   moosimi kicco keri nay.
     I   again different deception what do   not
     'I have pardoned you from now, therefore I will never deceive
     you again.'

142) (B)amca koDDoka   jo biye nay (L)ganuka   (B)aam eddiloso
     our words to he fear not   therefore   we smallest one

     naaDuka kaDa   nemunde.
     boy to fetch take we will
     'He (older boy) won't take notice of what we say,. therefore
     we'll take the younger boy.

   3.7b <u>Reason-Result</u> <u>Sentence</u> <u>B</u>.
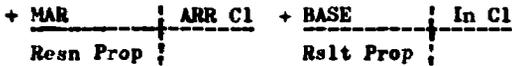
+ MAR	ARR Cl	+ BASE	In Cl
Resn Prop		Rslt Prop	

     Grammatically the Resason-Result Sentence B is a subordinate con-
struction consisting of a margin and an independent base. The margin
is dependent because of the obligatory presence of the reason relator.
Semantically the propositions are in a logical cause-effect relation-
ship in which the first proposition is a reason and the second propo-
sition is the result of that reason. The first proposition is depen-
dent semantically because of the causal meaning of the relator.

143) (M)jo aasim suddo-ci risso (B)bokirtasi.
     he Asim person because   play I
     'Because he is an Asim person, I horseplay with him.'

144) (M)angka peeTi   noppici risso (B)Daktar appiste   gecinde.
     me to stomach in pain because   doctor office to go I will
     'Because of pain in the stomach, I will go to the doctor.'

145) (M)angka peeTi   noppi ayilici risso (B)Daktar appiste
     me to stomach in pain came because   doctor office to

     gecinde.
     go I will
     'Because pain came to my stomach, I will go to the doctor.'

146) (M)buutwi   murki geti risso (B)ja   teer   booda vaDaytayi.
     ground on dirty go because   that female person is sweeping
     'So that the dirt on the ground will be cleaned up, the woman
     is sweeping.'

Examples with ARR Cl relator <u>anduka</u> 'because.'

147) (M)dooro   baabu sangile <u>anduka</u> (B)maantrumu iinja aatwu
     foreign man   say when <u>because</u>   you know this I

     sangilayi.
     said
     'Because the foreign man said it, you know, I said it.'

148) (M)ja   muni tilli   <u>anduka</u> (B)ja   meenta kayye nay.
    that ghost remaining <u>because</u>   that bird   eat   not
    'Because that ghost has remained, that bird is not eating.

149) (M)kanda   nedili   <u>anduka</u> onDaD nedili   <u>anduka</u> saapa
    vegetables not giving <u>because</u> honey not giving <u>because</u> mat

    nedili   <u>anduka</u> (B)aade gecca.
    not giving <u>because</u>   there go imp
    'Because they did not give vegetables, because they did not
    give honey, because they did not give a mat, go there and see.'

3.8 (Dependent) Negative Conditional Sentence.

+ MAR	AR Cl 1.5	nenjile	+ BASE	In Cl
Cond Prop	neg	'if it is not'	Consq Prop	hypothetical action

    Grammatically the Dependent Negative Conditional Sentence is a
subordinate construction consisting of a margin tagmeme and an inde-
pendent base tagmeme. The margin is dependent because of the presence
of the relator. Semantically the Dependent Negative Conditional sen-
tence propositions are in a cause—effect relationship. The margin prop-
osition is semantically dependent because of the conditional meaning of
the relator.

    The Negative Conditional Sentence is semantically dependent be-
cause it cannot be said in isolation and make complete sense. That is,
<u>nenjile</u> 'if this is not so' requires knowledge of an antecedent propo-
sition. Normally this antecedent proposition occurs immediately before
the word <u>nenjile</u>.

    The Dependent Negative Conditional sentence can occur as an expo-
nent of base 2 of the Alternative—Consequent sentence and as an exponent
of base 2 of the Antithetical sentence. The following example shows it
embedded in the Antithetical sentence.

150) (jeevu amba   kavula   gani) (M)nenjile   (B)katti naay.
    they mangoes eat will but   otherwise   eat   not
    '(They will eat mangoes but) otherwise they will not eat.'

    See also Alternative—Consequent sentence examples, and examples 41
and 42 of Antithetical sentence.

4. Chronological Relationships.

    There are two major subclasses of relationships among propositions
in which chronological time is in focus; they are Simultaneous and
Sequence.

4.1   Simultaneous Relationships.

Propositions are in a simultaneous relationship when time is focal and when the relationship is not sequential. That is, there must be some time common to both propositions. The relationship may be coextensive, inclusive or overlapping. A coextensive (coterminus) relationship is defined as a simultaneous relationship between propositions which both begin and end at the same time. An inclusive relationship is defined as a simultaneous relationship (non-coextensive) in which the duration of one proposition occurs within the time span of the other. An overlap relationship is defined as a simultaneous relationship in which one proposition begins before a second begins and ends before the second ends. Propositions having an overlap relationship are not being discussed here as they encode above sentence level. Graphically these relations may be shown as follows:

coextensive   ▬▬▬▬▬

inclusive   ▬▬▬▬   or   ▬▬▬▬   or   ▬▬▬▬

overlapping   ▬▬▬▬

Coextensive and Inclusive Relationships. In Kupia both of these relationships encode as two tagmemes. They are signaled in part by grammatical forms and in part by the varying semantic contexts of these forms.

151) (M)ja   naaDi aDugu galli podi (B)iinjo naaDu baaːwusi pungitayi.
      that girl steps put   item   this boy flute   blows
      'While the girl dances the boy plays the flute.'

152) (M)nepaaːwili   podi (B)suuno dassul jalo.
      not reaching time   dog   meet   became
      'Before he reached (while coming) he met a dog.'

We consider the propositions of example 151 to be in a coextensive relationship. However, there is no continuative marker in pungitayi 'he blows.' It is the nature of flute blowing and its semantic context—the context of dancing to music—that leads us to say that the dancing occurred coextensively with the flute blowing. In example 152 we have an inclusive simultaneous relationship. Specifically it shows a punctiliar action occurring with a durative action. The meeting with the dog occurs momentarily within the time span of the man's coming. These examples indicate, then, the need to have information about both the grammatical form and the semantic meaning of the tagmemes. Only then can the relationship between the propositions be specifically established.

4.1a   Simultaneous Sentence A.

+ MAR	AR Cl podi AR Cl kayi Cl —te	+ BASE	Sen In Cl
Iden Prop	time period	Simul Prop	

    Grammatically this Simultaneous Sentence is a subordinate construc-
tion consisting of a margin and an independent base tagmeme. The margin
tagmeme is dependent because of the obligatory presence of a relator or
a participial suffix. The margin can be manifested by axis-relator
clauses or an imperfect participial clause. The base tagmeme grammatic-
ally encodes as an independent clause which may or may not have the im-
perfect morpheme —te in the predicate. Semantically the first propo-
sition must be an event in a period of time during which the second
proposition can occur. This encodes grammatically by use of the imper-
fect aspect —te on the verb, or by the relator podi 'time.' Examples
156 and 157 are inclusive punctiliar; examples 153 and 155 are inclu-
sive repetitive punctiliar; and example 151 is coextensive.

153) (M)agge   aa:wu neepal tili   podi (B)roojuka bajarte
      before time I   Nepal staying time   daily   bazaar to

      gete tilayi.
      go I used to
      'Before, during my stay in Nepal, I used to go to the bazaar
      daily.'

154) (M)nekele   podi (B)gerri   tayede.
      not working time   house in remain he
      'While he is not working he will stay in the house.'

155) (M)jo   miiTing kera sangiti podi (B)eek maansu oggar kongkilte
      that meeting doing saying time   one man   much coughing

      tilo.
      did
      'During the meeting speaking time one man was coughing a lot.'

    The verb of the axis of AR Cl kayi in this sentence type must be in
the imperfect progressive aspect. This contrasts with the Sequence
Sentence A margin which also takes AR Cl kayi, but requires that the
verb be either imperfect or perfect aspect.

156) (M)miiting kera laTabte   tatikayi (B)jo seeDa kera mora gelo
      meeting doing speaking   he falling doing dying ˄˄˄nt.
      'It was during a conversation at a meeting that he fell over ˄
      died.'

157) (M)appe jeewu gete tatikayi (B)aa:wu dekilayi.
     now they going   I   saw
     'Just now as they were going, I saw them.'

   In examples 151-157 the margin proposition answers the question
'when' of the event or state of the base proposition. In the follow-
ing examples the margin proposition answers the questions, 'How?' or
'Under what circumstances?'.

158) (M)ja   awwoka   ammoka   kaka   erike   neente
     that mother to mother to whoever to knowledge not being

     (B)lungka cooru uTTa   gecula.
        hiding thief moving go they will
     'Without their mother or father or anyone knowing, they will
     go off like thieves hiding.'

159) (M)kaccitumu naayi nemente   (B)rooju kanTika   eek wiseek
     certainty not not saying   day   all together one twenty

     jiini jawusu santayi   gecuka gecumde.
     people become market to go inf go we will
     'Without a doubt, every day some twenty of us will go to a
     market.'

160) (M)ja   kaarimi nekerte   (B)maantrumu gaa:wa loonica ko kuDa
     that ritual not doing   you know village dwellers who ever

     otta geca kera kangka ge pingka ge kicco nesiti.
     there going doing eat inf or drink or what don't want
     'Unless they do that ritual, you know, none of the villagers,
     having gone there, will want to eat or drink anything.'

   4.1b Simultaneous Sentence B.

+ BASE 1 | In Cl   + BASE 2 | In Cl
  ------------|------   ------------|------
  Iden Prop | Simul Prop |

     This Simultaneous Sentence is a coordinate construction consisting
of two independent bases requiring the past imperfect tense-aspect in
base 1, and some form of the perfect aspect in base 2. Semantically
the proposition having the perfect aspect is contained within the time
span of the proposition having the imperfect aspect.

161) (B)appe jeewu gete tila (B)aa:wu dekilayi.
     now they going were I   saw
     'Just now I saw them as they were going.'

1b2) (B)jo aapiste   gete   tilo (B)anne   waaTe   eek suuno dekilo.
     he office to going was   another road on one dog   saw
     'As he was going to the office he saw a dog on another road.'

4.2 Sequence Relationships.

Propositions are in a sequence relationship when they occur one
after another in time, without overlap. That is, there is no common
time between the two propositions. In Kupia we posit: Sequence Sen-
tences A and B, and Conditional/Temporal-Result Sentence B. For a de-
scription of the last sentence subtype, see section 3.1b.

4.2a Sequence Sentence A.

$$
+ \text{(MAR} \begin{array}{|l}
\text{AR Cl (taruwata)} \\
\text{AR Cl kayi} \\
\text{Cl } -a
\end{array})^n + \text{BASE} \begin{array}{|l} \text{Sen} \\ \text{In Cl} \end{array}
$$

| | Prior Prop | | Final Prop | |
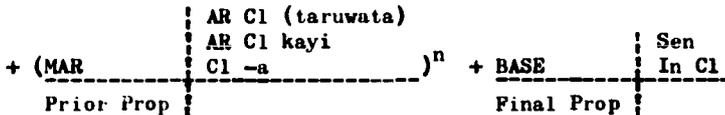
Grammatically the Sequence Sentence A consists of one or more mar-
gin tagmemes and an independent base tagmeme. The margin tagmemes are
dependent because of the obligatory presence of a relator or particip-
ial suffix. Semantically the propositions of this sentence are in a
sequential relationship in which the propositions follow one another in
time. The linear ordering of the tagmemes corresponds to their sequence
in time, therefore the tagmemes are not permutable.

Margin Exponent Cl -a. This exponent is by far the most frequent-
ly used of the exponents of the margin of this sentence. It is the
perfect participial form, and does not signal person, number, or tense.
It is normally used when there is no change in subject from the margin
to the base tagmeme. However, if the exponent of the margin is a re-
ceptor clause, the subject of the base is the receptor of the receptor
clause, see example 163. The reverse of this may also be true in which
the subject of the margin becomes the receptor of the receptor clause.

163) (M)angka telivi   ta: kera (B)aa:wu jiinlayi.
     me to knowledge remaining doing   I   passed
     'Knowledge having stayed with me. I passed (the exam).'

In the margins of examples 163 and 164, we see two juxtaposed
verbs in the perfect participial form. These are analyzed as one verb
phrase. Similarly the perfect participial uTTa in the base of example
163 is analyzed as part of the verb phrase uTTa gelo. 'He went away.'

164) (M)angka peTTa   kera (B)uTTa   gelo.
     me to hitting doing   moving went
     'Having hit me, he went away.'

165) (M)anne cammo gena   kera (B)bommalu   teyyaru kelo.
     again skins buying doing   copies of animals ready   did he
     'Then, having bought skins he made them into likenesses of
     animals.'

166) (M)jo   maansu otta geca (M)kaam kera (B)ayilo.
     that man   out going   work doing   came he
     'That man, having gone out, having done the work, came back.'

The margin predicate may also take the -aD or -wini causative in-
fixes. The suffix -ci probably means 'and then.'

167) (M)miiTing keeDaDakaci   (B)Tii parTi kela.
     meeting completed having   tea party did they
     'The meeting having finished, they held a tea party.'

168) (M)santayi gecaDakaci (M)ja   saaman wikaDakaci (M)Dabbulu
     market gone having   that goods sold having   money

     aana   deewinikaci (B)aa:wu amci gaa:wi   gecinde.
     bringing given having I   my   village to go will
     'After I have gone to the market, after I have sold the goods,
     and after I have given the money, I will go to my village.'

169) (M)wiseek wersu wayasu jowaka jewinikaci   (M)saaluru uTTa
     twenty years of age him to become having   Salur moving

     geca (B)cettar jonno tile.
     going   four   months stayed he
     'Having become twenty years old, and having gone to Salur, he
     stayed there four months.

Note that in example 169 the first margin has the causative infix
-wini and the second does not.

170) (M)jo   mahaaraanoka santaanum nenjaDakaci   (B)jo kicco kerlo?
     that big rajah to heir   not being able   he what did he
     'Not being able to have an heir, what did that big rajah do?'

In example 170, circumstance and not temporal sequence seems to be more
in focus.

Margin Exponent AR Cl kayi. This is a stylistic variant which
seems to indicate immediate sequence, but which certain speakers use
more than others. The subject of the margin and base tagmemes may be
the same or different. The margin can take the opt onal completative
adverb, sari. The verb of the axis of the AR Cl kayi must be in either
the imperfect or perfect aspect.

171) (M)jo sagum duuri   getikayi   (B)suuno dassul jalo.
      he some distance gone having   dog   meet   became
      'As soon as he had gone some distance, he met a dog.'

172) (M)iinjo kaam nekertikayi sari   (B)abbosi   goola   kerlo.
      this work not doing   completely   father his angry talk did
      'When he had not done this work completely, his father scolded
      him.'

173) (M)angka peeTi___ noppi_kertikayi (B)Daktar appiste   gecinde.
      me to stomach in pain doj ʔ   doctor office to go I will
      'As soon as I have stomach ache, I will go to the doctor.'

174) (dasse   taaɩ   gelle   ) (M)nowwu jonno   ge dessu
      (like this remaining complete when)   ninɩ morths or ten

      jonno ge jatikayi   sari   (B)jeeka kasTum ayili.
      months or become having completed   her to trouble came
      '(When she had remained like this) as soon as nine or ten
      months had passed, trouble came to her.'

Margin tagmeme AR Cl (taruwata). The exponent ⋅⋅ have the time
word taruwata 'after,' pimaTi 'after.' or tinto 'from' as relators.
taruwata and pimaTi are both loan words from Telugu, and represent dif-
ferent dialects of Telugu. Sequence sentences of this type typically
have only one margin tagmeme.

175) (M)iinja aTTu poddulu looga kicco jawusu jantu peTli pimaTi
      this eight days   within what become animal hit   after

      (B)teer   boodal tenu munsu boodalu maantrumu goppaga
         female persons with male persons only   much

      bokurla.
      fool about they will
      'When they have shot some kind of wild animal within these
      eight days, the men and the girls will horseplay together.'

176) (M)iinja wiTTim panDugu sumaaru sukrari saaDupa kerli tinto
      this Wittim festival about   Friday offering did   from

      (B)Demsa   mena   derula.
         dimsa dance saying begin they will
      'This Wittim festival about Friday, after making an offering,
      saying that they will dance the dimsa, they will begin.'

177) (M)appe wayjak   ayili tinto (B)satarekka eeki suTTi bajarte
      now Visakhapatnam coming from   weekly   one trip bazaar

getasi.
to go I
'Now, since my arrival time in Visakhapatnam, I go to the
bazaar once a we k.'

178) (otta tinto) (M)buudar   santa keeDa   geli taruwata (M)raati
(there from)   Wednesday market finishing gone after   night

payeDakaci (B)lekwari santa makawarum ase.
fade having   Thursday market Markavarum is
'From there (in the story) Wednesday market having finished,
night having finished, on Thursday there is a market at
Markavarum.

4.2b Sequence Sentence B.

+ BASE 1   ¦ In Cl + BASE 2   ¦ In Cl
Prior Prop ¦   Final Prop ¦

Grammatically Sequence Sentence B is a coordinate construction
consisting of only two independent juxtaposed bases. Semantically the
propositions of this sentence are in a sequential relationship. There
is no common time to the two propositions.

This sentence contrasts with the Additive sentence, not only in
the different semantic relationship between the propositions, but also
because of the obligatory presence of at least one time word in the
sentence to show sequence. Typically we have two time words, one show-
ing a prior time, and the other subsequent time.

The semantic relationship places tense restrictions upon the sen-
tence so that it is not possible for the tense of base 1 to be sub-
sequent to the tense of base 2.

179) (B)agge   tuuwi donni wanTalu oggar galte tiladi   (B)appe aaiwu
before you   two   shares more do used to keep   now I

donni wanTalu tawuki galtasi.
two   shares less   do I am
'Before you used to do two shares more, now I am doing two
shares less.'

180) (B)agge   gaDiyo   jaa   tilayi (B)appe angka sawukarimi
before lazybones becoming was I   , me to business

jarugu   jali.
accomplished became it
'Previously I was a lazybones, now I have become a useful
citizen.'

Sequence Margins at Discourse Level. Cl -a, AR Cl kayi, and Cl (taruwata) sequence margin tagmemes (and their variants) also function at paragraph and discourse level, providing sequence continuity to the events being described. Frequently the predicate of the margin is a lexical repetition of the final predicate of the previous sentence. There are other methods of signaling sequence continuity, but they are to be described elsewhere. These are shown here to form a unit with Sequence Sentence A. The examples show the last part of one sentence and the margin of the following sentence.

    a) Margin exponent Cl -a.

181) gorrelu kanDula.   (S)kanDa   kera...
     goats   kill they will   killing doing
     'They will kill goats. Having killed the goats...'

182) ambo ceTTe uTTa   gelam. (S)ambo ceTTe uTTa   geca kera...
     mango tree up going went we   mango tree up going going doing
     'We went up the mango tree. Having gone up the mango tree...'

183) ...caala andar jaa   geli. (S)jaa   gecaDakaci...
     very dark becoming went   becoming having gone
     '...it became very dark. Having become very dark...'

184) ...iinjo waagu sangilo. (S)sangaDkaci...
     this tiger said he   having said
     '...this tiger said. Having said this...'

    b) Margin exponent is AR Cl kayi.

185) ... naaDuka dilan. (S)detikayi...
     boy to gave he   as soon as he had given...'
     '...he gave to the boy. As soon as he had given...'

186) ...uTTa gela.   (S)uTTa getikayi   sari...
     out went they   out having gone completely...
     '...they went out. As soon as they had gone completely out...'

    c) Margin tagmeme Cl (taruwata).

187) ...otta tinto gerri   kaDa   aanula.   (S)gerri
     there from house in carrying bring they will   house in

     kaDa   aanli   taruwata...
     carrying bringing after
     '...from there they will bring (the things for the wedding) into the house. After having brought them into the house...'

D.   Sentence Operations.

We frequently find in Kupia, and it is supposed in most other lan-
guages, structures which have been joined together, and which occur in
either margin or base slots (in most of the sentence types that we
have posited. We are calling the joining together of structures of
the same type an 'Operation.' Operations may join structures by con-
joining (with medial link 'and'), alternation, antithesis, and para-
taxis. Operations in Kupia occur at various heirarchical levels, but
for the purpose of this paper we are only considering those pertinent
to sentence level.

The Conjoined, Antithetical, Alternative (but probably not Alter-
native-Consequent), and Additive sentence types posited in this paper
are, therefore operations in this sense of the term. These sentences
can fill the base slots of other sentence types without grammatical
change. It remains for us to describe operations as they apply to
margin slots.

Operations on Sentence Margins. The only form of joining in the
margin slot that has been found in Kupia is joining by parataxis. That
is, juxtaposed tagmeme constructions are found as fillers of the margin
slot of margin-base type sentences. In keeping with our definition,
we here require that tagmemes have the same relator, or relators which
are of the same class. That is, where two or more relators are used to
signal the same relationship, these may occur in the same margin com-
plex, and retain the same class meaning as that of a single margin.
For example, in the English sentence, "Since you come to work late
every day, and because you do not do your work efficiently, I am forced
to dismiss you." we have two cause margins. One clause is signaled by
the relator since and the other by the relator because. The two of
these preserve the same class meaning of cause. We say then, that they
are in an additive relationship to each other, both being causes of the
following result proposition. We are interested in showing some ex-
amples of Kupia sentences having propositions occurring juxtaposed in
the margin complexes. We want to examine the relationships existing
between these margin propositions.

The first examples show paratactic operations in the margin slot
of the Conditional/Temporal-Result Sentence A.

188) (M)paani neaanile   nerandile   ne geeru waDayile ne   paalalu
        water not bring if not look if not house sweep if not clothes

        keeDile ne boodaluka   kelayile   (B)(tuwwi kiecoka inne
        wash if not children to play with if   you   how   here

        tangka.)
        remain inf)
        'If you don't bring water, if you don't cook, if you don't sweep

the house, if you don't wash the clothes, if you don't look
after the children, how will you stay in the house?'

In this example the margin propositions are in an additive relationship
to each other and are permutable. They all form part of the condition
complex that if the girl does not do these things she will not be al-
lowed to stay in the house. The margin, although containing five sep-
arate propositions, cannot be called an Additive Sentence because all
od the propositions are grammatically dependent. We call such a com-
posite structure an Additive Conditional Construction.

189) (jo   maansu gullo, laTabe nay gani) (M)sangile   suunile (B)jowaka
     (that man   dumb   speak not but)   speak if hear if   him to

     kaam deyinde.
     work give I will
     '(That man is dumb; he cannot speak but) if someone speaks
     if he can hear, I will give him work.'

In this example the propositions of the margin of the Conditional/
Temporal-Result sentence are not permutable. <u>suunile</u> 'hear if' builds
upon <u>sangile</u> 'speak if.' The relationship between the two margin prop-
ositions is an additive one with a secondary sequencial component.

     The next example shows the paratactic operation in the margin of
a Conditional/Temporal-Result Sentence B.

190) (M)ja   bangar kaDa   gellekayi ja   wenDlu kaDa   gellekayi
     that gold   fetching go if   that silver fetching go if

     (B)teddoDi ja   ko   jawusu otta   palum kawula.
        then   that who becomes there   eat they will
     'If they fetch the gold, (and) if they fetch the silver then
     whoever there be will eat there.'

Here the margins are additive.

     In example 178, the paratactic operation is made in the margin slot
of Sequence Sentence A. Note that the relators are from AR Cl (<u>taruwata</u>)
and Cl —<u>a</u> clauses respectively.

     In each of the following two examples an operation by parataxis
is made in the margin slot of a Concessive-Contraexpectation sentence.

191) (M)'gani' tile   kuDa nenjile   kuDa (B)bedede.
        gani   remain if even if it is not even   it will be understood
     'Although <u>gani</u> is there, although it is not there, (the sen-
     tence) will be understandable.'

Note that <u>gani</u> is the Kupia word for 'but.'

192) (M)genle kuDa nenjile   kuDa (B)baada nay.
        buy if even if it is not even   bad   not
        'Although you buy; although you don't buy, it doesn't matter.'

In both of these examples we see Alternative relationships (pos/neg)
between the propositions of the margin. Only two propositions are pos-
sible and only one may be chosen. One may be tempted to say this may
be an additive relationship so as to say, 'Although gani is there and
although gani is not there the sentence will be understandable.'
However, in any one sentence gani is either there or not there. Be-
cause of this and because the relationship has a pos/neg contrast, we
say it is alternative.

   Summary. Operations found to date in the margin slots of subor-
dinate sentences have all been paratactic. The semantic relationships
between the propositions in the margin slots are either additive or
alternative with secondary relationships encoding with these. Opera-
tions in the margin slot using the links ci 'and,' gani 'but,' or ge
ge 'or' have not been found. It is considered that if such construc-
tions do exist in Kupia, they are of infrequent usage.

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Footnotes.

[1]Oriya is the regional language of the State of Orissa, India.
Kotia-Oriya, a dialect of Oriya, is the lingua franca among tribal
people in the area where Kupia is spoken. Oriya, Kotia-Oriya, and
Kupia are Indo-Aryan languages. For a comparison of the vocabularies
of Kotia-Oriya and Kupia, the reader may see volume four of this
report.

[2]Three definitions of a sentence are:

a) Longacre (1964:125), "Definition of a sentence: a class of syn-
tagmemes of a hierarchical order ranking above such syntagmemes as the
clause and below such syntagmemes as the paragraph and discourse."

b) Longacre (1967:18), "Both traditional classifications fail to grap-
ple with the realities of the sentence as a layer of clause combination."

c) Longacre (1970b:151), "...we derive a model of sentence structure
found in many parts of the world, viz. a unit consisting of one or
more independent clauses, plus or minus one or more dependent (sub-
ordinate) clauses."

Abbreviations.

The abbreviations used in sentence formulas.

Box 1.	BASE	Base
	D BASE	Dependent base
	LINK	Link
	MAR	Margin
Box 2.	AR	Axis-Relator
	cj	conjunction
	Cl	Clause
	Dis	Discourse
	In Cl	Independent Clause
	Indef	Indefinite
	Par	Paragraph
	Ph	Phrase
	Ref	Referent
	Sen	Sentence
Box 4.	Add	Additional
	Adver	Adversative

	Alt	Alternative
	Ant	Antonym
	Anti	Antithesis
	Conc	Concessive
	Cond	Conditional
	Conn	Connector
	Consq	Consequent
	Contr E	Contra—Expectation
	Coor	Coordinate
	Corel	Correlative
	Expec	Expectation
	Explan	Explanation
	Iden	Identity/Identification
	Neg	Negative
	Outc	Outcome
	Para	Paragraph
	Prop	Proposition
	Ques	Question
	Resn	Reason
	Resp	Response
	Restat	Restatement
	Rslt	Result
	Simul	Simultaneous
	Spec	Specific
	Thes	Thesis
	Unful	Unfulfilled
	Warn	Warning
Box 5.	asp	aspect
	contr	contrafactual
	corel	correlative
	decl	declarative
	imper	imperative
	inter	interrogative
	genr	generic
	neg	negative
	P	Predicate
	pos	positive
	pot	potential
	spec	specific
	S	Subject
General	Dep	Dependent
	Excl	Exclamation
	Voc	Vocative
	Oblig	Obligatory
	hypot	hypothetical
	subord	subordinate

Abbreviations used to label tagmemes in the sentence examples.

B	BASE

DB	Dependent Base
L	Link
M ·	Margin
S	Sentence

Abbreviations used in English gloss of Kupia sentence examples.

emp	emphasis
imp	imperative
inf	infinitive
k	causative
Q	question marker

Conventions.

The conventions used in the sentence formulas are:
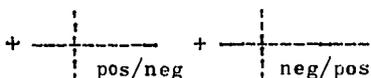
+ ⸺⸺ pos/neg + ⸺⸺ neg/pos	Shows concord and co-restrictions between tagmemes. This shows that a positive to negative contrast exists between the tagmemes—the first can be either negative or positive; the second must be the opposite.
+ (⸺⸺)^n	The tagmeme is obligatory and may be repeated any number of times.
⸺⸺ ganuka 'therefore'	Box 3 entries are only made when all the Kupia words or phrases that are exponents of the tagmeme are listed. In such cases, the gloss is given in box 6. We have only used this for the link tagmeme.
(taruwata)	One Kupia word is used to represent a grammatical class of words.
===>	Means to transform what precedes the symbol into what follows it.
...	Some unspecified Kupia language occurs here.
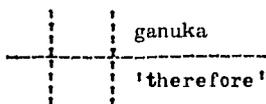
( )   a) Part of the Kupia example
             not relevant to the discussion.
             b) Encloses material in the
             free translation which has
             been added to make the full
             meaning more readable.

/   Items either side of the line
             are alternatives.

INDEX TO KUPIA

Sentence Patterns in Tamang

Fay Everitt

A. Introduction.

The purpose of this paper is first of all to provide an outline of
the sentence system of the dialect of Tamang spoken in Sahugaon, Tupche
Panchayat, Nuwacot Jilla (West No. 1) of the Bagmati Anchal; and second-
ly, to provide material which may be useful for comparison with the
grammatical systems of other languages of Nepal.

The reader must bear in mind that this paper presents a prelimi-
nary analysis only and further detailed study will be necessary.

Although both the phonological sentence and the grammatical sen-
tence have been considered, it should be noted that there is not always
a one-to-one correspondence between the two and in this paper more at-
tention has been given to the grammatical sentence. Further study of
intonation patterns is needed.

The following is a brief statement of the phonology of Western
Tamang and the orthography used for examples given in this paper.

stops	p	t		ṭ	k
	ph	th		ṭh	kh
affricates			ts		
			tsh		
fricatives			s		
nasals	m		n		ng
liquids			l		
			r		
glides	w			y	
	wh				

Figure 1. Consonants in Tamang.

197

<pre>
                    i   u

              e   o

</pre>

Figure 2.   Vowels in Tamang.

c	= (ts) affricate
capital T	= (t) retroflexed consonant
v	= short vowel
vv	= long vowel
vh	= lax vowel
'v	= tense with tone high, falling
v	= tense with tone high, basically level
'vh	= lax with tone mid, falling
vh	= lax with tone low, basically level

Initial phonetic voiced stops have been retained in transcription, though not analyzed as phonemic.

Figure 3.   Orthographic Conventions.

B.   The Tamang Sentence System.

Major sentences are characteristically composed of an optional pre-nuclear periphery; an obligatory nucleus manifested by a simple, co-ordinate, or complex construction; and an optional post-nuclear periphery.   Minor sentences such as sentence fragments, responses, exclama-

tions, and verifications which are semantically complete, but structurally incomplete, are beyond the scope of this paper.

Simple sentences are composed of peripheral items plus any single, independent clause. However, in this paper we are concerned with sentences as paired propositions only and therefore the simple sentence will not be dealt with further.

Peripheral items are regarded as such because they make little or no difference to the basic structure of the sentence and may occur with almost any sentence type. It is probable that there are some semantic restrictions of occurrence but this has not yet been fully investigated.

1. Peripheral Items.

Vocatives and Vocative Phrases. Vocatives include names and kinship terms of address, for example:

oh, 'anyii ...   Oh, Aunty, ...
ee, kon, ...   Hey, Kon, (sister's son) ...

Names and kinship terms of address occur in pre-nuclear position to engage attention and in the post-nuclear position as the usual form of address used in conversation.

Responses. Responses typically occur in the pre-nuclear position. They include:

aa/yaa, ee/yee   Affirmative responses
'dehmen   'that's true'
'anam   emphatic affirmative

Conjunctions. These are sentence introducers which form a connection with the preceeding sentence or paragraph.

'pheeri   'then'
asyihm/syihm   'and'
'taipuni '   'even then, however, therefore'
'pang-cim   'therefore'
'taale 'pang-sam   'because'

The conjunction 'taale 'pang-sam does not occur often. There are no examples in text material collected so far, but it has been heard in conversation. It is an idiomatic expression sometimes used in reply to a question using taale 'why?'.

Adverbs and Adverbial Phrases. These typically occur in the pre-nuclear position, but may permute to post-nuclear position, which is most probably for emphasis.[1] Examples:

dahpam   'up until now'
'dehre/'dehre-m   'now/now-emp'
'likkyam   'later'
'pheeri 'likkyam   'then later'

Reported Speech Particle. The reported speech particle, -ro,
occurs frequently in conversation as in the following example:

    Cutti: oh, thumpi, 'dihm-Ti kha-u-ro
             oh, thumpi, house-in come-imp-ry
             Oh, Thumpi, (you have been told) come into the house.

    Thumpi: 'khal-ce-ro
             who-A-rs
             Who said so?

    Cutti: 'meme-ce
             grandfather-A
             Grandfather (said so).

In fables -ro occurs at the end of almost each sentence and is
phonologically part of the sentence. Its function is relevant on dis-
course level where it shows the speaker's attitude as a disclaimer of
responsibility. Note the following:

    dahngpo   'kali juhk-ki   'samaai-ri nyamnya tengki bahsto
    long ago few   generation-of time-at   bird   and   animal

             'jhahkkra ta-pa-ro
             quarrel   become-pres-ro
             'Long ago a bird and an animal had a quarrel, so it is said.'

Factive Particles. The factive particles, 'Tim/'rim assert that
what has been said is really true. The use of either 'Tim or 'rim is
phonologically determined, that is, 'Tim generally occurs after a closed
syllable and 'rim after an open syllable. Free variation has, however,
been observed. These particles occur in conversation as in the follow-
ing example:

    Ques: 'cu Tup   wai
             this thread qm
             (Is) this thread?

    Answ: 'ruwa Tup   'Tim
             cotton thread fact
             (It is) cotton thread, certainly.

'Tim/'rim occur in narrative text as in the following example:

    'bhatau-ki behlo-ri 'nam 'phusphus-le   'yu-ri-pa   'rim
    Bhatau-of time-in   rain soft drizzle-advl come-hab-pres fact

'The rain usually falls in a soft drizzle in the month of Bhatau.'

It was decided to include the factive particle with the sentence
level peripheral items because it adds semantic flavour to a sentence
while not actually affecting the basic structure.

2. Nuclear Structures.

2.0 Overview.

Statement calculus of mathematical logic posits five sentential
connectives which can occur between prime sentences to form composite
sentences.[2] These are:

1. negative to positive, symbolized as $-A,A$ (read, not A,A)
2. conjunctive, $A \wedge B$ (read, A and/but B)
3. disjunctive, $A \vee B$ (read, A or B)
4. conditional, $A \rightarrow B$ (read, if A, then B)
5. bi-conditional, $A \leftrightarrow B$ (read, A if and only if B).

In systematizing the semantic structure of Tamang sentences we have
used three of these as major divisions in the sentence tree (Figure 4).
These are conjunction, disjunction, and conditional (cause-effect). Be-
sides these we have added a Temporal node for those relationships whose
primary emphasis is one of time. Negation has not proved fruitful as
a major division, but does figure in as a contrastive feature lower
down in the tree. Similarly unproductive, bi-conditional has not been
discovered to be a stateable relationship in Tamang.

We have attempted to display in the figure both semantic and gram-
matical structure. The tree itself, including its terminal nodes, is
composed of (as far as possible) purely semantic labels. Grammatical
structure is displayed by the horizontal rows which intersect the term-
inal nodes of the tree. These rows are: Co-ordination (Base-Link-Base);
Parataxis (Base-Base); and Subordination (Margin-Base). The signifi-
cance of this type of display is that it allows us to see the relation-
ship between semantic (deep) structure and grammatical (surface) struc-
ture.

Note the encoding patterns. Temporal and Cause-Effect tend to
surface in Margin-Base type structures while Conjunction and Disjunction
by and large surface as Base-Base type structures. Note also that the
Co-ordinate (Base-Link-Base) row is almost unused indicating that sen-
tence relationships are almost totally signalled by relators, affixes,
or simple juxtaposition with lexical restrictions across the Bases.

Node Labels. The first label under C use-Effect is Real. By this
is meant that the result, outcome or consequence actually occurs, where-
as in Contrafactual and Conditional either the consequent did not occur,
or is only projected. Thought under Real indicates the obligatory pres-
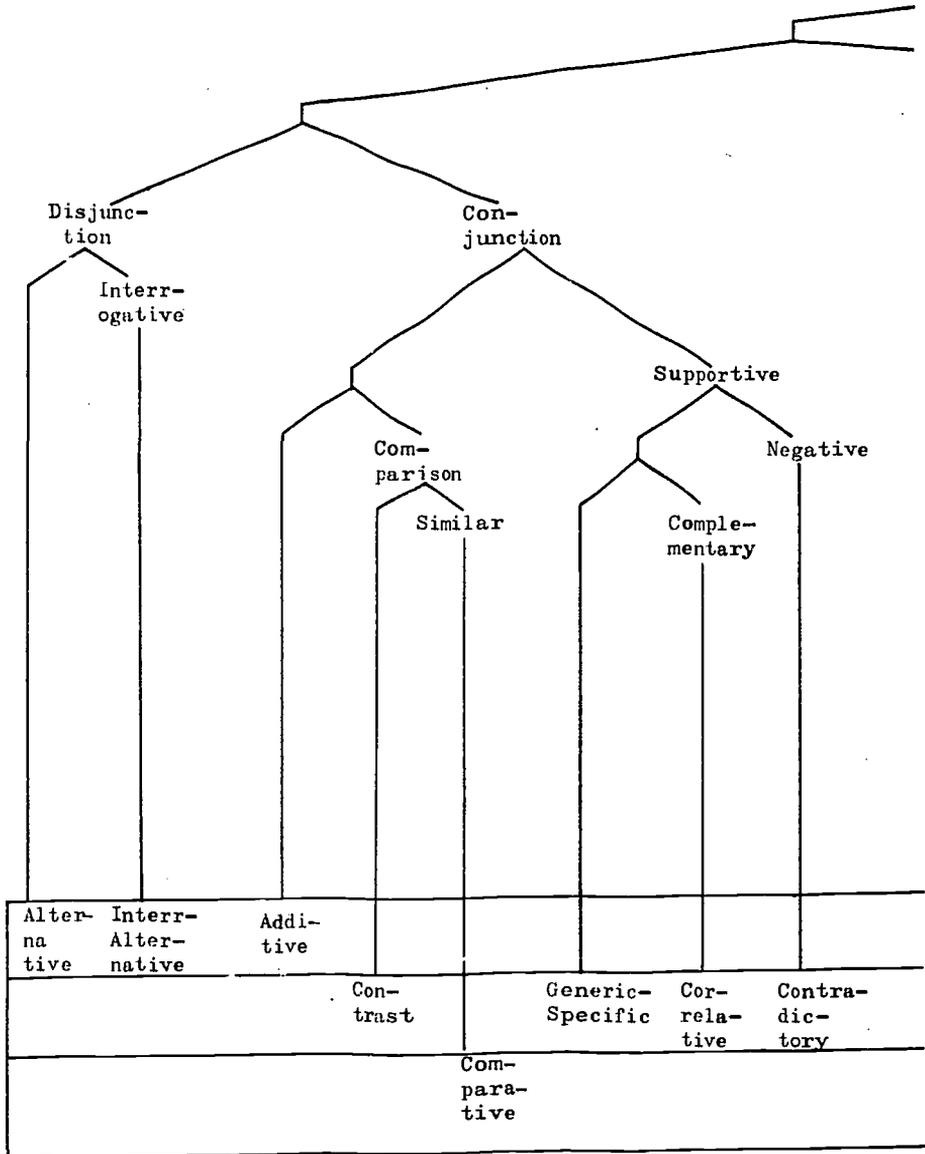
Figure 4.   Semantic Structure Tree with Grammatical Encodings.

Relationships Between Paired
Propositions in Tamang

Temporal

Cause-Effect

Sequence

Real

Past

Thought

Unex-
pected .

								Coordinate (Base-Link-Base)
			Anti-thet-ical					Paratactic (Base-Base)
Con-di-tion	Contra-fac-tual	Reason-Re-sult	Con-ces-sive	Con-cept-Res-ult	Con-cur-rent	Se-quen-tial			Subordinate (Margin-Base)
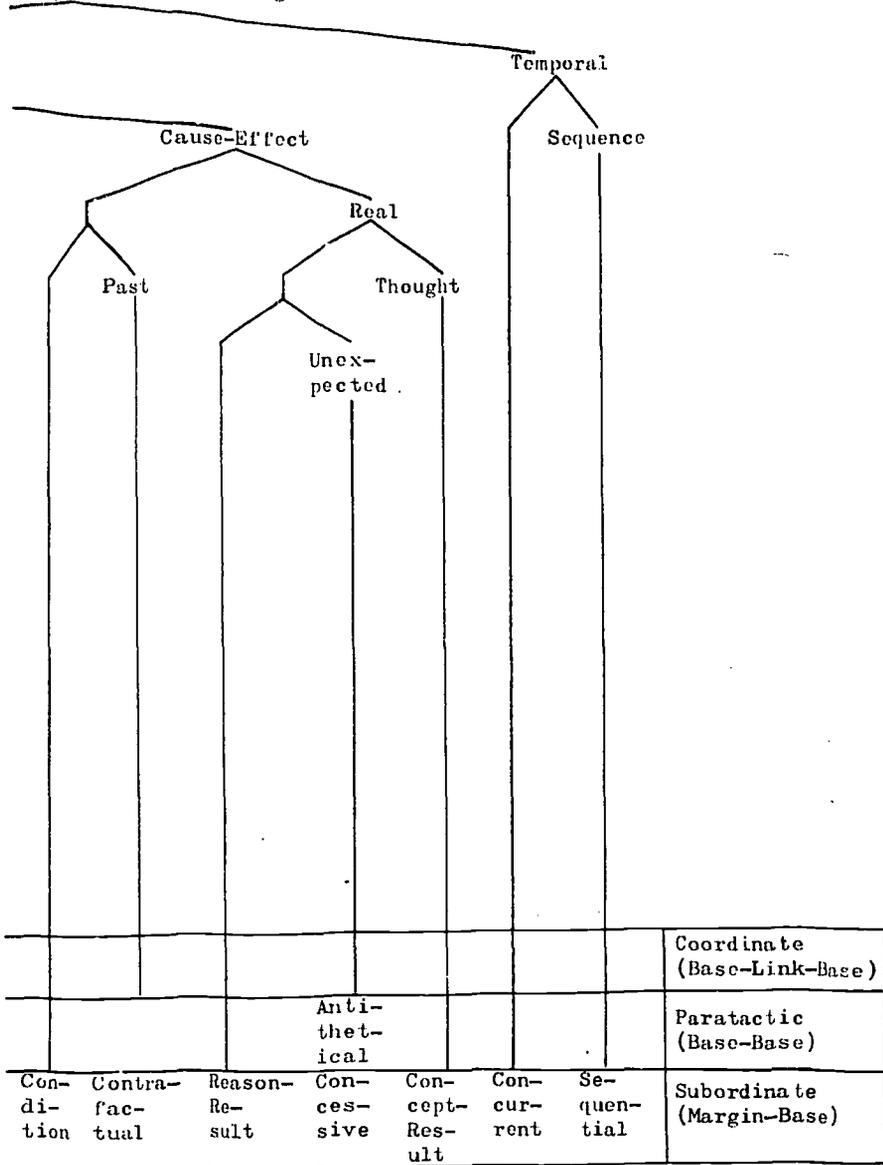
ence of thought in the Concept-Result sentence. Unexpected, second la-
belled node under Real, signifies that in both Adversative and Conces-
sive the result or outcome proposition is contrary to expectation. Past,
the remaining node under Cause-Effect, in a temporal sense is one real
contrastive feature which serves to differentiate between Contrafactual
and Conditional. Supportive indicates that one proposition supports the
other, either by supplying the positive proposition to a negative one as
in the Contradictory Construction; by supplying a tagmeme of the other
proposition such as manner, time, and location as in the Correlative
Construction; or by listing various specifics of the more generic propo-
sition as in the Generic-Specific Construction. Negative under Support-
ive comes close to a grammatical label in that it signifies the obliga-
tory presence of the formal ayihm 'is not' in the first proposition. The
Complementary node means that one proposition completes the other by
supplying a constituent tagmeme of it. Comparison signifies that the two
propositions are being compared either as Similar or as Contrastive to
each other. Interrogative means the presence of the interrogative mood
in the sentence.

   It should also be noted that a left branch need not necessarily in-
dicate the absence of the right branching feature. It does mean that
that particular feature indicated by the right branch is not a contras-
tive feature of the left branch.

   2.1   The Sequential Construction.

MAR	AR Cl		MAR	AR Cl n		BASE	Indep
	Dep Cl			Dep Cl			Cl
+ ──────┼───────	+	──────┼───────	+	──────┼─────
Prior		−	Prior			Final	
Prop			Prop			Prop	
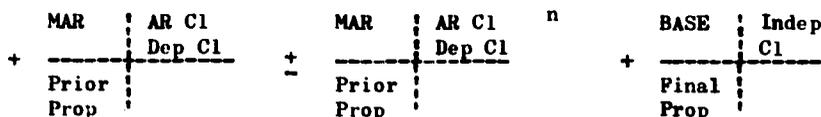
   In the Sequential Construction, the actions of the propositions
typically occur in specific chronological order. The order expressed in
the marginal clauses, however, is not necessarily the only order in which
the actions could have occurred. The only restriction seems to be that
all of the propositions of the Margin tagmemes must occur before the
proposition of the Base.

   There are three sub-types of the Sequential Construction. Co-occur-
rence restrictions of these sub-types with each other and with other de-
pendent clauses needs further investigation.

   General Sequence. General Sequence is divided into two subsets on
the basis of grammatical differences.

   a) In this subset the predicate of the Margin is manifested by:
   verb stem + gerundive participle -cim 'having done'.

As many as five dependent -cim clauses have been found to occur in one

construction before the independent base. The verb in the independent clause can take any tense suffix. See examples 1-3 and note that as in example 3 the order of the actions occurring before the independent clause can be changed.

b) In this subset the predicate of the Margin is manifested by: verb stem + gerundive participle, –cim 'having done' + the emphatic particle, –ka 'contrary to expectation'.

The marginal clause expresses the occurrence of an action which is contrary to listener expectation and the independent clause expresses the result.

In a construction containing several –cim clauses, –ka may occur suffixed to one only, usually the last in the series before the base clause. The 'contrary to expectation' meaning, however, covers all the dependent clauses in the construction. (See examples 4 and 5.)

Procedural Sequence. The axis of the Margin is manifested by a nominalized clause and the relator is manifested by the morpheme –teng 'after.'

When this form is used an unaccomplished event is being referred to. The verb in the independent clause typically takes the future or present tense suffixes, however, the past tense suffix –ci is sometimes used. As many as three dependent –teng clauses may occur in one construction, preceding the independent base. (See examples 6 and 7.)

Immediate Sequence. Immediate Sequence is also divided into two subsets on the basis of grammatical differences.

a) In this subset the predicate of the Margin is manifested by: verb stem + –teng 'after' + a– 'negative' + repeated verb stem + –no, emphatic particle 'as soon as/immediately'.

This type of dependent clause has been found to occur only once before the base clause in a given construction. (See examples 8 and 9.) However, it has been found to occur in combination with other dependent clauses in one construction. (See example 10.) When this Margin occurs, either by itself or in combination with other sequential margins, its meaning is 'immediate sequence to the action of the main verb'. The verb in the independent clause can take any tense suffix.

b) An alternate method of expressing 'as soon as/immediately' has probably been derived from Nepali. The axis of the Margin is manifested by a nominalized clause and the relator is manifested by –i-saat-cem.[3] For example:

nyi-pa-isaatcem
go-pres—as soon as
as soon as (he) went

which may be contracted to:

    i)   nyi-pi-saat-cem (the form most commonly used)
   ii)   nyi-pa-spat-cem
  iii)   nyi-pa-saat or nyi-pi-saat
   iv)   nyi-pa-cem

There appears to be no difference in the meaning of the above examples.

    This type of dependent clause has been found to occur twice in one construction preceding the independent base. (See example 13.) There are no tense restrictions on the verb in the independent clause. For examples of this subset see numbers 1t-13.

Examples:

1) (M)nyesiri-m 'nyiih-no paalo-'le   yokta la-<u>cim</u>   (B)ca-pa
     evening-emp we-emp   by turn-advl (cook food)-having   eat-pres
     'At evening, we, by turn having cooked the food, ate.'

2) (M)tit-ting bahrsa oh-le   'ki khar-cim (M)'jahmma-no
     one-time year   like that-advl water dry-having   all-emp

        nyamnya-'maah 'ki   phit-cim   (M)'jahmma nyamnya-no namting
        bird-pl   water thirst-having   all   bird-emp   sky

        'phyang-cim (B)'thau 'thau-ri 'khana 'lungpa-no 'glaah 'glaah-
        fly-having   place place-in everywhere-emp   place place-

        ri 'ki   'mai-pa-ro
        to water search-pres-rs
        'One year, the water having dried in that manner, the birds
        having thirsted for water, all the birds having flown in the
        sky, (they) searched everywhere for water.'

3) (M)ken ca-cim   (M)'tangku 'thung-cim   (M)tor mor baaht
     rice eat-having   tobacco drink-having   up   down conversation

        la-cim   (M)khimee   kor-cim   (B)'nau baace   kyor-ki
        do-having   neighbour walk-having   nine o'clock toward-of

        'Tem-Ti 'nyiih-no 'nuu-pa
        time-at we-emp   sleep-pres
        'Having eaten rice, having smoked, having talked, having visited
        a neighbour, about nine o'clock we went to bed.'

4) (M)nga-ce ciThi bah-cim-ka   (B)ee 'khet-'myang-ci
     I-A   letter bring-having-emp[3]   you read-find-pt
     'Having brought (you) a letter (which you didn't expect), you
     can read it.'

5) (M)nga-ce 'swetar 'gluh-cim   (M)bah-cim-ka   (b)'ee wen-'myang-ci
   I-A   sweater buy-having   bring-having-emp   you wear-find-pt
   'Having brought (you) a sweater (which you didn't expect), you
   can now wear it.'

6) (M)'nyang-'maah bahn-Ti   nyi-pa-teng   (B)chi   ping-eeno
   we-pl   forest-in go-pres-after   grass green-also

   ca-'myang-pa
   eat-find-pres
   'After we go to the forest we find green grass for fodder.'

7) (M)'lama 'kim-bah-pa-teng   (M)Dohmpo bah-pa-teng   (M)'Tasyi
   lama (bring)-pres-after   guests bring-pres-after   lama's

   sehng-pa-teng (B)'syita 'bihta la-pa
   work do-pres-after   (leisure time) do-pres
   'After the lama has been brought, after the guests have been
   brought, after the lama's work (ritual) has been done, there
   is leisure time.'

8) (M)'apis-ce   syol-teng 'a-syol-no (B)chyong-kha-pala
   office-from leave-(as soon as)   run-come-pt
   'As soon as I left the office, I came quickly.'

9) (M)nga-ce tam   'pang-teng 'a-'pang-no (B)the-ce 'pang-ci
   I-A   word say-(as soon as)   he-A   say-pt
   'As soon as I spoke, he spoke.'

10) (M)yee, nga-eeno iskul-ce   'kheema syol-la   ken   kheema ca-
    yes, I-also   school-from when   leave-fut rice when   eat-

    'myang-la mehn-na   la-cim   (M)syol-teng a-syol-no
    find-fut   think-advbl do-having   leave-(as soon as)

    (M)chyong la-cim   (B)Deera-ri kha-pala
        run   do-having   room-in come-pt
    'Yes, I also, having thought "when will I leave school?",
    "when will I be able to eat rice?", as soon as (I) left
    school, (I) having run, came to my room.'

11) (M)ohte   sung-pa-saatcem   (B)thenyii-'maah gyoohne-no
    like that say-pres-as soon as   they-pl   quickly-emp

    nyi-ci
    go-pt
    'As soon as he spoke like that, they went quickly.'

12) asyim (M)anna 'pura   'mim-pa-saatcem-mi   (M)nang-pa-
    then   grain completely ripe-pres-as soon as-but   reap-er-

'maah nyi—cim   (B)wahre—ce   brech—pa
pl   go—having   sickle—by cut—pres
'But then as soon as the grain ripens, the reapers go and cut
(it).'

13) (M)'namsapa—ce ca—pa—cem   (M)mun   'Deht 'Deht ta—pa—cem
    villagers—A eat—pres—as soon as   night half   become—pres—

                  (B)'jahmma—no syi—pala 'Tim
    as soon as   all—cmp   die—pt   fact
    'As soon as the villagers had eaten, as soon as it was about
    midnight, they all died.'

2.2   The Concurrent Construction.

```
     ┌──────────────────────┐  2
     │MARGIN ┊ AR Clause     │           BASE      ┊ Indep
     │       ┊               │                     ┊ Clause
+    │───────┼──────────────│      +    ───────────┼────────
     │Initial┊               │           Concurrent┊
     │Prop   ┊               │           Prop      ┊
     └──────────────────────┘
```

     The Concurrent Construction consists of a Margin expounded by a
dependent axis—relator clause and a Base, expounded by an independent
clause. The superscript 2 occurring after the Margin indicates that with
the General sub—type two Margins may bracket the Base tagmeme. In the
one instance where this occurs in text material, the second marginal
clause is a repetition of the first marginal clause and gives additional
information. It appears to be added for emphasis. (See example 5.)

     There are three sub—types of the Concurrent Construction. These
differ from each other grammatically by the choice of relator for the
marginal clause, and semantically by the nature of the temporal focus.

     Semantically, the relationship between the propositions expresses
the inclusion of a second event within the time span of the first
event.

     The sub—types which expound the Margin are:

     General. In the General Concurrent Construction, the predicate
of the Margin is expounded by:

     a) verb stem + —ma   'when/while'
     b) verb stem + —mam   'when/while'

In a) the speaker indicates that he wishes to focus attention on the
time of the action expressed by the verb stem, as in examples 1 and 2.
Whereas in b) the speaker wishes to focus attention mainly on the action
itself, rather than the time of performance. (See examples 3 and 4.)

Bo' a) and b) refer to past action and therefore the verb in the independent clause can only take a past or present tense suffix. The marginal clause can permute to post-base position.

Co-terminal. The Margin of this sub-type is expounded by:
verb stem + -na samma 'up to the time of'.

In this construction the focus is on time—the action of the independent clause being performed within the time limit set by, and tending to run co-terminal with, the action of the marginal clause. There are no tense restrictions on the verb in the independent clause. The Margin can permute to post-base position. (See examples 6 and 7).

Circumstance. The Margin of this sub-type is expounded by:
verb stem + -pa nominalizer + -ri 'time and reason'.

The Concurrent -ri clause has a cause or circumstantial flavour which can be translated 'because' or 'since'. The action expressed in the independent clause is the result of that expressed in the marginal clause and also occurs at the time of the first action. Only present or past tense suffixes can occur in the independent clause. The Marginal clause can permute to post-Base position. (See examples 8 and 9.)

Examples:

1) (M)'tirisuli-ri 'cha 'klaas-Ti 'khep-ma   (B)'ee-ce mu-pa-wa
      trisuli-at   six class-in study-when   you-A is-pres-or

      'are, 'uhcu 'baamen 'Thita   'giih
      not   that Brahmin young boy one
      'When you studies in class six in Trisuli (school), did you
      know one Brahmin boy or not?'

2) (M)'ee-ta 'naksaal-ki 'iskul-Ti 'khep-ma   (B)'katha-'maah lop-
      you-to Naksaal-of school-in study-when   story-pl   learn-

      pala-wa a-lop-pala
      pt-or   neg-learn-pt
      'When you studied in school in Naksaal, were you taught stories
      or not?'

3) (M)nahmsyo rahng syooh-ri apa   kha-mam (B)apa-ta   'tinyi
      tomorrow time morning-at father come-when father-to to-day

      muhna cen   kha-ci 'pang-pala
      night leopard come-pt say-pt
      'The next morning when father came, I said to him, "A leopard
      came last night."'

4)   (M)mun-'Deht-Ti cyaa-nyi-mam (B)gahnti 'nuu-pa-rim
         night-half-at look-go-when   river rest-pres-fact
         'When I went to look about midnight, the river was quiet.'

5)   (M)'ee-ce 'curi 'yu-ma   (B)'jahmma 'kharca 'gahte   ta-nem
         You-A here come-when   all   cost how much become-pt

             (M)'curi Yampu-ri   'khet-'yu-ma
                here   Kathmandu-to study-come--when
             'When you came here, what was the amount of money needed, when
             (you) came here to Kathmandu to study?'

6)   (M)'kola-'maah klang-na 'samma   (B)nga 'curi 'Ti-pa
         child-pl   play-(up to time of) I   here stay-pres
         'While the children play, I will stay here.'

7)   (M)asu 'aspatal-Ti syuh-na 'samma   (B)nga rooh-teng   'Ti-pa
         Asu hospital-in stay-up to time of   I   friend-with stay-pres
         'While Asu is in hospital I will stay with a friend.'

8)   (M)ohte   'samma nyi-pa-ri-no   (B)kang 'na-pa   rim
         that much up to go-pres-when-emp   foot ache-pres fact
         'When I walk about so much my feet ache.'

9)   (M)nga yampu-ri   'yu-pa-ri   (B)'Tin 'gluh-sye
         I   Kathmandu-in come-pres-while   tin buy-def fut
         'Now that I have come to Kathmandu, (I) will buy tin.'

2.3 The Concept-Result Construction.

```
+  MARGIN  | AR Clause      +  BASE   | Indep Clause
   --------+---------          -------+---------------
   Concept |                   Result |
   Prop    |                   Prop   |
```

The Concept-Result construction consists of a Margin expounded by
an axis-relator clause and a Base expounded by an independent clause.
The clause in the Base tagmeme refers to a past event so the verb can
take the past tense suffixes only. The one exception to this found so
far is with the negative form of the verb mu-pa 'is' which expresses a
present projected into the future. (See example 3.) Only one Margin
has been observed to occur in the one construction preceding the Base
tagmeme. The Margin and Base tagmemes do not permute.

Semantically, the two propositions are in a pseudo cause-effect
relationship. The Concept proposition expresses what the actor thinks
about a certain situation and the Result proposition expresses what
actually occurs. It is pseudo cause-effect because the Result may or
may not be the logical outcome of the Concept. This can be seen in
Example 3 where the opposite of the thought expressed in the Concept

occurs in the Result. The participants of both clauses must be the same. The Concept proposition can have two meanings depending on the form of the predicate.

    a) anticipation (examples 1-3)
    verb stem + -la 'indef fut' + -bih 'to think or say in mind'.

    b) intention (example 4)
   verb stem + -ke/-i + -bih 'to intend'.

Examples:

1) (M)karca   too-la-bih   (B)'baih-pala
    amt of money need-indef fut-say   bring-pt
    'I brought the amount of money (I) thought we would need.'

2) (M)apa   yampu   'yu-la-bih   (B)nga-ce 'tha-'yu-bih
    father Kathmandu come-indef fut-say   I-A   neg-come-say

     'chiTi brih-pala
     letter write-pt
     'Father said he (thought he) would come to Kathmandu (but)
     I wrote a letter telling him not to come.'

3) (ohntor   dooh-ci   'pang-sam, ohntor   dooh-pa-teng)   (M)'khren-
    up there arrive-pt if   up there arrive-pres-after   hungry-

    la-bih   (B)duhkkha 'are, kon
    indef-fut-say   trouble is not Kon
    '(If we arrive up there, after we arrive up there) I think we
    will be hungry, (but) there won't be difficulty (obtaining food).'

4) (M)nga sawang-Ti nyi-i-bih (B)kha-pala
    I   sawang-to go-intend   come-pt
    'Intending to go to Sawang, I came.'

    2.4 The Reason-Result Construction.
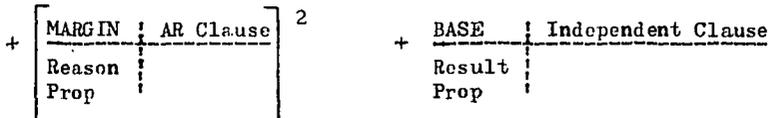
$$+ \begin{bmatrix} \text{MARGIN : AR Clause} \\ \hline \text{Reason :} \\ \text{Prop :} \end{bmatrix}^2 \quad + \quad \begin{array}{l} \text{BASE : Independent Clause} \\ \hline \text{Result :} \\ \text{Prop :} \end{array}$$

    The Reason-Result Construction consists of a Margin expounded by an axis-relator clause which is grammatically dependent upon and semantically bound to the independent clause occurring in the Base. The superscript 2 occurring after the Margin indicates that up to two Margins may precede the Base. These Margins are in a coordinate relationship to each other. (See example 4.) Permutation of Margin and Base

is not permitted. There are no tense restrictions on the verb of the
independent clause. The predicate of the Margin is expounded by:

> verb stem + -pa 'nominalizer' + -i 'gyahmee 'because'

Semantically the state or action expressed in the marginal propo-
sition gives the cause or reason of which the Base proposition expresses
the result.

Sometimes the actual cause is given in the preceding sentence or
paragraph. If this is so, the verb phrase in the marginal clause is
an anaphoric reference to the actual cause. (See example 3.)

Examples:

1) (M)'ee-ce 'curi 'yu-ri-pi 'gyahmee   (B)yampu-m   'jahmma-no
     you-A   here   come-hab-pres-because   Kathmandu-emp all-emp

         'thaa   yang-pala
         knowledge find-pt
         'Because you have come here many times you have learned much
         about Kathmandu.'

2) (M)candra bahadur 'antorong   men   'myap-pa-i 'gyahmee
     Chandra Bahadur (another place) medicine mix-pres-because

         (B)'jahmma-no tam nyen-ri-pala mu-pala
            all-emp   word hear-cont-pt is-pt
         'Because Chandra Bahadur mixes medicine in another place (other
         than this place), he hears all that is said.'

3) ('uhcu dihn-Ti duhniiyaa-ce 'kaam sehng-pa 'a-ta-pa   sa
     (that day-on   people-A   work do-pres neg-become-pres soil

     wha-pa   'a-ta-pa   sa   wha-ci 'pang-sam 'naak-ki goh-ri
     dig-pres neg-become-pres soil dig-pt say-cond snake-of back-on

     tam-pa)   (M)oh-ta-pa   i 'gyahmee (B)'naak-ki
     strike-pres)   like that-become-pres because   snake-of

     goh-ri tam-pa-teng   'paap kha-pa
     back-on strike-pres-after sin   come-pres
     (On that day, (the day of Naakpancaami) the people are forbidden
     to do work; (they are) forbidden to dig the soil. If the soil
     is dug, the snake will be struck on the back.) Because it is
     like that, after the snake's back is struck sin comes.'

4) (M)'kharca-eno   'yoo-pa   ta-pi 'gyahmee
     amt of money-also sufficient-pres become-pres- because

(M)'jahmma seeh   mu-pi 'gyahmce (B)nyii tamang-ki-la
   all   things is-pres-because   we   Tamang-of-of

grahl   sehng-pala
mourning feast do-pt
'Because the money also was enough, because (we) had all
the things (needed), we performed the mourning feast of
the Tamangs.'

There are other ways of indicating this cause-effect relationship
in Tamang which are not illustrated in this sentence type. The verb
phrase 'taale 'pang-sam is an idiomatic way of expressing 'because'.
This is used mainly in conversation and is a sentence introducer. 'pang-
cim 'therefore/for that reason' is also a sentence introducer which can
sum up a preceding sentence or whole paragraph. These are inter-sen-
tence devices whereas the relator -i 'gyahmce is an intra-sentence
device.

2.5   The Conditional Construction

$$+ \begin{bmatrix} \text{MARGIN} & \text{AR Clause} \\ \hline \text{Cond} & \\ \text{Prop} & \end{bmatrix}^2 \qquad + \begin{array}{l} \text{BASE} \quad \text{Indep Clause} \\ \hline \qquad\quad \text{Dep Clause} \\ \text{Conseq} \\ \text{Prop} \end{array}$$

The Conditional Construction consists of a Margin expounded by a
dependent axis-relator clause and a Base expounded by an independent or
dependent clause. The Base clause indicates the consequence or expected
consequence of the condition expressed by the axis-relator clause. The
superscript 2 occurring after the Margin indicates that this tagmeme
may occur twice before the Base tagmeme. The past tense suffixes can-
not occur in the Base clause. There are two sub-types of the Condition-
al Construction, based on semantic and grammatical criteria.

Indefinite Condition. In this sub-type there seems to be an equal
probability in the speaker's mind of the fulfillment of the condition as
not. The predicate of the Margin is expounded by:

verb stem + -ci 'past tense' + 'pang-sam 'conditional'.

This form also occurs simply as: verb stem + -sam 'conditional.'
There is a definite preference for present tense in the predicate of
the clause filling the Base. (See examples 1 and 2.)

Probable Consequence. In the Probable Consequence sub-type the
fulfillment of the consequence, in the mind of the speaker, is almost
sure to eventuate if the stated conditions are met. This is signalled
by the obligatory occurrence of the perfect aspect -sye-la on the predi-
cate of the Base clause which we have chosen to translate with a future
'will.' The predicate of the Margin is the same as in the Indefinite

Condition subtype.   (See examples 3-5.)

Two Conditional clauses may occur in a co-ordinate relationship. preceding the Base Clause. (See examples 6 and 7.)   The proposition in the Base expresses the final result looked for, but the second condition may be said to encode the result of the first condition.

Two conditional clauses may also occur in the one construction in an antithetical relationship. (See example 8.)

Examples:

1) (M)'pheeri kha-sam   (B)nga 'bantuk-ce 'pung-pa
      again   come-cond   I   gun-with   fire-pres
      'If (the leopard) comes again, I will fire a gun.'

2) japa (M)bahsto Daah-pa 'maih-ci 'pang-sam (B)bahsto teng
   when   animal win-pres search-pt cond   animal with

       'chip-pa-ro
       sit-pres-rs
       'If the animal wins (I'll) sit with the animal.'

3) (M)'ee-ce nga-ta 'ciThi 'arko-eeno 'pik-kha-sam   (B)nga-la sem
      you-A I-to   letter other-also send-come-cond   I-of   mind

       yahko tang-sye-la
       very happy-will
       'If you send me another letter also, I will be very happy.'

4) (M)ganga-ki 'mii jyahpa ta-pin-sam   (B)jyahpa ta-sye-la
      ganga-of eye good   become-give-cond   good   become-will
      'If (the doctor) is able to heal Ganga's eye, (everything) will
      be all right.'

5) (M)('cu 'kaam) syee-sam (B)nyi-ce rangrang-ce-no sehng-sye-la
       this work   know-cond   we-A   our own-A-cmp do-will
      'If (we) know about (this work), we will do it ourselves.'

6) (M)'ki   mu-ci 'pang-sam (M)'ti-khyap 'nyiih-khyap 'ki   lai-ti-ci
      water is-pt cond   (one time) (two times) water irrigate-

               'pang-sam (B)'mim-pa
       NL-pt cond   ripe-pres
       'If there is water, if (you) irrigate once or twice, (the
       wheat) will ripen.'

7) (M)'ee-ce 'kitaap 'apis-Ti bohr-sam bobikhan 'namsa-ri bohr-
      you-A book   office-to take-cond Bobikhan village-to take-

```
        'myang-sam (B)tang-pa
        find-cond      happy-pres
        'If you take the book to the office, if Bobikhan finds he
        (can) take it to the village, (he) will be happy.'
```

8) (M)'ki   'are-sam (M)'nam 'yu-ci 'pang-sam (B)'mim-pa
        water not-cond   rain come-pt cond   ripe-pres
        'If there isn't any water, (but) if it rains, (the wheat) will
        ripen.'

    2.6 The Contrafactual Construction.

<table>
<tr><td>+</td><td>BASE</td><td>Dep Clause</td><td>+</td><td>BASE</td><td>Dep Clause</td></tr>
<tr><td></td><td>Cond
Prop</td><td>past tense,
-pala</td><td></td><td>Conseq
Prop</td><td>perfect
aspect</td></tr>
</table>

The Contrafactual Construction consists of two mutually dependent
Bases. Base 1 is expounded by a dependent axis-relator clause and
Base 2 is expounded by a dependent clause. The verb in the Base 1
clause typically takes the past tense suffix -pala. The only exception
to this is the verb yihm-pa 'being', which indicates a state of being
or existence. (See example 3.) The verb in the Base 2 clause must
take the perfect aspect suffix -sye-la, the translation of which is
influenced by the tense of the verb in the Base 1 clause.

The semantic relationship between the propositions is that of un-
fulfilled condition to unfulfilled consequence. This is accomplished
by the combination of the conditional relator 'pang-sam 'if' and the
past tense suffix -pala in Base 1, plus the perfect aspect in Base 2.

In the material studied so far, only one conditional proposition
per sentence has been found to occur in this construction.

Examples:

1) (M)'ee 'kitaap 'khep-pala 'pang-sam (B)'syee-sye-la
        you book   read-pt   cond   know-would have
        'If you had read the book, you would have known.'

2) (M)'cu-i   'paalo 'a-nyi-pala 'pang-sam (B)'dehresye 'magh-ri
        this-of time   neg-go-pt   cond   later   magh-in

        nyi-'a-thoo-sye-la
        go-neg-comp-would have
        'If I hadn't gone (to the hospital) this time, (I) would not
        have to go again later in Magh.'

3) (M)the 'bohksyi 'a-yihn-sam (B)gahnti 'nuu-pa   'thaa   'a-yang-
        she witch   neg-is-cond   river rest-pres knowledge neg-find-

sye-la
would have
'If she is not a witch, she would not have known (that) the
river was quiet.'

2.7 The Generic-Specific Construction.

$$+ \begin{array}{|c|c|} \hline \text{BASE 1} & \text{Indep Cl} \\ \hline \text{General} & \text{non-} \\ \text{Proposition} & \text{detailed} \\ \hline \end{array} \quad + \begin{bmatrix} \begin{array}{|c|c|} \hline \text{BASE 2} & \text{Indep Cl} \\ \hline \text{Specific} & \text{detailed} \\ \text{Proposition} & \\ \hline \end{array} \end{bmatrix}^{n}$$

The Generic-Specific Construction is composed of two or more Bases
expounded by independent clauses, occurring in a paratactic relation-
ship, linked by utterance non-final intonation patterns.

Base 1 is expounded by an independent clause stating a general
proposition. In the following Base the specific proposition is given.
At the juncture of these two Bases there is level, run-on intonation.
These Bases are permutable so that the generic Base may occur last.
The superscript n following Base 2 indicates that more than one Base
containing a specific proposition may occur. The intonation pattern
at the juncture of subsequent clauses is non-final rising intonation
with vowel length (listing intonation). (See examples 1 to 3.) When
identical predicates occur in listing some undergo deletion as in ex-
ample 3. The deleted predicate is supplied in parentheses. All iden-
tical predicates, with the exception of the final one, may be deleted.

Semantically the propositions are related to each other as generic
to specific within a single topic or meaning domain.

Examples:

1) (B)lop-pa-'rim   (B)'saamaskriti-eeno jyahp-le-no   lop-pa
       teach-pres-fact   Sanskrit-also   good-advl-emp teach-pres

       (B)'maane-'maah-eeno phlem-pim-pa
          meaning-pl-also   understanding-give-pres
       '(He) certainly teaches—Sanskrit also (he) teaches well, (he)
       gives understanding of the meanings also.'

2) (B)Dahkarmi-'maah-ee 'gaahro 'rii-pa   (B)koi-ce 'hilo 'jyohp-
       wall maker-pl-A   wall   build-pres   some-A mud   mix-comp-

       thoo-pa (B)'tet-thoo-pa   (B)ril-thoo-pa   (B)dohn-thoo-
       pres   take out-comp-pres   roll-comp-pres   throw-comp-

       pa
       pres
       'The wall-makers build the wall—some mix mud, take it out,

make it into balls, throw from man to man.'

3) (B)ihsaap-eeno   jyah-pa-no   mu-pa   (B)samaskriti-eeno
    arithmetic-also good-pres-emp is-pres   Sanskrit-also

   jyah-pa-no   mu-pa   (B)nepaali itihaas-'maah-eeno jyah-pa-
   good-pres-emp is-pres   Nepali history-pl-also   good-pres-

   no mu-pa   (B)jahmma-no jyah-pa-no   mu-pa
   emp is-pres   all-emp   good-pres-emp is-pres
   'Arithmetic also is good, Sanskrit also is good, Nepali history
   also (is good)—all things are good.'

4) (B)'mane   'kulpa-i dohnta 'giih-ke mu-paa (B)ngoo
    ritual prayer-of custom one-only is-pres   lama's prayer

   sehng-pa-i phoo   sehng-pa-i dohnta 'are
   do-pres-of lama's prayer do-pres-of custom not
   '(The Brahmins) have only one special prayer for the dead;
   (they) don't have the custom of the lama's prayers (as we
   Tamangs do).'

5) (B)'meme   ruhp-pa   (B)parla ruhp-pa
    grandfather gathers-pres   dishes gather-pres
   'Grandfather gathers, (he) gathers the dishes.'

2.8 The Additive Construction.

```
  BASE 1 ¦ Indep      LINK ¦ Cj and/or ¦ Inton Pat 1 ± 'syihm
         ¦ Cl              ¦ Inton Pat ¦ Inton Pat 2*
+ ──────┼────────  + +────┼──────────┼─────────────────────
  Init   ¦            Conn ¦          ¦ 'incomplete utterance ± and'
  Prop   ¦


  BASE 2 ¦ Indep     ┌  LINK ¦ Cj ¦ Inton Pat 1      BASE ¦ Indep  ┐ n
         ¦ Cl        │       ¦    ¦ ± 'syihm              ¦ Cl      │
+ ──────┼────────  ± │+ ────┼────┼───────────   + ──────┼──────  │
  Add    ¦           │  Conn ¦    ¦                   Add ¦        │
  Prop   ¦           └                                 Prop ¦      ┘
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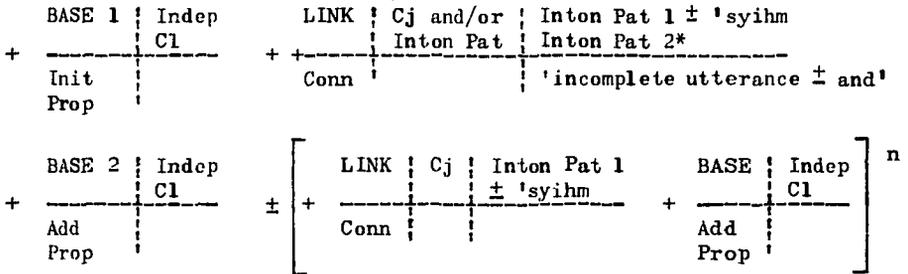
*If more than two Bases occur, Intonation Pattern 1, ± 'syihm 'and'
must link these Bases. Intonation Pattern 2 has only been observed to
link two Bases in this construction.

    Two or more Bases of equal grammatical status may be combined to
form one sentence. This can be done either by parataxis or by use of
the conjunction 'syihm, 'and'. The Bases are permutable unless there
is chronological sequence involved. Both constructions require special
intonation features. When the conjunction is omitted the Intonation
Pattern itself carries the full load of linking the Bases. Unless a

second subject is introduced, the same subject is shared by both propositions. The tense of both propositions need not be the same. The superscript n following the section of the above formula enclosed in brackets indicates that this may occur several times.

Semantically the Bases are joined together in an additive relationship. For this to be possible, there must be a close semantic relationship or tie between them.

Intonation Pattern 1 /—/. There is lengthening of the vowel on the tense suffix of the verb at the juncture of two clauses plus rising intonation. The conjunction 'syihm 'and' occurs optionally with this intonation pattern. When the conjunction is omitted it may indicate an attitude of anger on the part of the speaker (see examples 4 and 5), or may occur when listing incidents (see examples 6 and 7).

Intonation Pattern 2 /—/. There is level, 'run-on' intonation at the juncture of the two clauses. The conjunction 'syihm, 'and' does not occur with this Intonation Pattern, but there is close semantic relationship between the two propositions (see examples 8 – 10).

Examples:

1)   (B)'dehrem syee-paa (L)⌡'syihm (B)'dehresye 'byohng-'yu-pa
        now   go-pres   and   later   hon-come pres
        'Go now and please come later.'

2)   (B)'tinamsyo nga-la 'swasta 'Thik   mu-paa (L)⌡'syihm (B)'cu
        these days I-of   health alright is-pres   and.   this

        tam   nyen-'myang-mam nga-ta yahko-no tang-ci
        word hear-find-when I-to   much-emp happy-pt
        'These days my health is alright and I will be very happy when
        I hear this news (about you).'

3)   (B)'ee-i apa   ama-ta   nga-la namaste sung-jeht-oo (L)⌡'syihm
        you-of father mother-to I-of   namaste say-hon-imp   and

        (B)'ee-i roh-'maah-ta-ceno namaste sung-jeht-o
           you-of friend-pl-to-also namaste say=hon-imp
        'Please say "namaste" to your mother and father for me and say
        "namaste" to your friends also.'

4)   (B)namsyo   nga bohr-paa (L)⌡ (B)nyi-pa
        tomorrow I   take-pres   go-pres
        'Tomorrow I'll take (it and) go!'

5)   (B)nga ca-paa,   (L)⌡ (B)nyi-pa
        I   eat-pres   go-pres
        'I'll eat (and) go!'

6) (B)'uhcu ranta 'yu-i ale-i   mring 'uhcu kraa-pa-roo   (L)⌣
    that ranta yu-of yng bro-of wife she cry-pres-rs

    (B)'kola-'maah-eeno 'rup-pa-roo gaahri-ce
       child-pl-also   vomit-pres-rs car-by
    'The wife of Ranta Yu's younger brother, she cried (it is said);
    tne children were sick also because of the bus (it is said).'

7) (B)the-ce 'pang-cii (L)⌣ (B)brih-cii (L)⌣ (B)'jahmma-la-no
    she-A say-pt   write-pt   all·student-of-emp

    'kaapi 'jaanc-ti-cii (L)⌣(B)'ispiling galTi gahte 'kora
    book examine-NL-pt   spelling error how many

    'ispiling galTi ta-ci
    spelling error be-pt
    'She (the teacher) talks, writes (on the blackboard), examines
    all the student's books, (marks) how many spelling errors
    there are.'

8) (B)phyukpa-eeno syi-pa' (L)——(B)gahrip-eeno syi-pa
    rich-also   die-pres   poor-also die-pres
    'The rich (people) also die, the poor (people) also die.'

9) (B)maah   buhring-eeno kha-thoo-pa   (L)——(B)kaTapa-eeno
    bro in law clan bro-also come-comp-pres   eld & yng bro-

          kha-thoo-pa
    also come-comp-pres
    'The brother-in-law also must come, the elder and younger
    brothers also must come.'

10) (B)'meh-'maah-ce "phu phu-le" na rap-ti-pa   'rim (L)——
    cow-pl-A   "phu phu-advl nose snort-cont-pres fact

    (B)kra 'lihp-ti-pa   'rim
      head shake-cont-pres fact
    'The cows continued to snort, continued to shake their heads.'

    2.9 The Contrastive Construction.

BASE 1	Dep	-caanyi		BASE 2	Dep	-caanyi
	Cl	-mi			Cl	-mi
+			+			
Contr		contrast		Contr		contrast
Prop				Prop		

    The Contrastive Construction consists of two Bases manifested by
mutually dependent clauses. The mutual dependency of these two clauses
is governed by the occurrence of either of the contrastive emphatic
particles -caanyi or -mi. The emphatic particles occur suffixed to the

persons or items being contrasted within the sentence. The Bases are
permutable.

The semantic relationship between the propositions is one of con-
trast. Note that two factors in each proposition required to form the
contrast--the marked item plus some other constituent of the clause or
aspect of the verb. Note also that the marked contrasted items play
the same role in each proposition--Actor with Actor and Undergoer with
Undergoer.

Example	Proposition 1		Proposition 2	
	Item 1	Item 2	Item 1	Item 2
1	he	downstairs	I	upstairs
2	I	caught	he	did not catch
3	rope	put	basket	did not put
4	I	gave book	you	gave sickle

Figure 5. Item Contrast Chart.

Examples:

1) (B)the-caanyi 'duhngTi 'nuu-pa   (B)nga-caanyi pherang khyang-Ti
       he-emp   .below   rest-pres   I-emp   above   cot-on

       khyang joh-ri 'nuu-pa
       cot   top-on rest-pres
       'He lay down to rest downstairs, I rested on top of my cot
       upstairs.'

2) (B)nga-ta-mi 'serngo 'khoo-nem (B)the-ta-mi 'a-'khoo
       I-to-emp cold   move-pt   ne-to-emp neg-move
       'I caught the cold, he didn't.'

3) (B)nga-ce 'choo-caanyi 'dihm-Ti then-ci (B)bahr-caanyi 'a-then
       I-A   rope-emp   house-in put-pt   basket-emp   neg-put
       'I put the rope, not the basket, in the house.'

4) (B)nga-ci-mi apa-ta   'kitaap pin-ci (B)'ee-ce-mi wahre pin-ci
       I-A-emp   father-to book   give-pt   you-A-emp sickle give-pt
       'I gave father a book, you gave him a sickle.'

   2.10 The Correlative Construction.

+ | BASE 1 | Dep Clause | + | BASE 2 | Dep Clause |
    |---|---| |---|---|
    | Iden | + rel | | Co-rel | + rel |
    | Proposition | | | Proposition | |

The Correlative Construction consists of two mutually dependent
Bases, occurring in a paratactic relationship, with rising intonation
at the juncture of the two clauses. Semantically, the relationship ex-
isting between the clauses is that of complementation, the first propo-
sition completing the meaning of the second by further defining one of
its constituents.

The verb occurring in the Base 1 clause can only take the past
tense suffix, -ci, but the verb in the Base 2 clause may take any
tense suffix. Although a relative pronoun may occur only in the Base
1 clause (see examples 1 and 2), usually there will also be a relative
pronoun in the Base 2 clause. The relative pronouns occurring as pairs
across the Bases are as follows:

	Base 1		Base 2	
1.	+ 'kheema	'whenever'	± chteema	'then'
2.	+ 'khana	'wherever'	± 'uhcu-ri	'that place-at'
3.	+ 'khala	'whoever'	+ 'uhcu	'that' (person or object)
4.	+ 'khacu	'whichever/ whoever'	+ 'uhcu	'that'
5.	+ 'taa	'what'	+ 'uhcu	'that'
6.	+ 'khale	'however'	+ ohte	'in that manner'
7.	+ 'khatepa	'what kind'	± ohtepa-no	'that kind-emp'

Because of this cross-referencing pattern Bases cannot permute. The
numbering of the above corresponds to the numbering of the examples.

Note that in examples 1 and 2 the relative pronoun in the Base 2
clause is optional but the inclusive particle, -eeno 'also' occurs
obligatorily suffixed to the personal pronoun forming the cross-referent
link with the Base 1 clause.

Examples:

1) (B)nga 'kheema 'mrang-Ti nyi-ci (B)the-eeno nyi-pa
        I   whenever garden-to go-pt   he-also go-pres
        'Whenever I go to the garden, he goes too.'

2) (B)nga 'khana   nyi-ci (B)the-eeno nyi-pa
        I   wherever go-pt   he-also go-pres
        'Wherever I go, he also goes.'

3) (B)'khala kha-ci (B)'uhcu miih-ta pin-o
        whoever come-pt   that man-to give-imp
        'Give (the book) to whoever comes.'

4) (B)'khacu   'kitaap sem-Ti 'men-ci (B)'uhcu bohr-pa
        whichever book   mind-to like-pt   that take-pres
        'Take whichever book you like.'

5) (B)'ee-ce 'taa sung-ci (B)nga 'uhcu-no sehng-pa
   you-A what say-pt   I   that-emp do-pres
   'What you say I will do.'

6) (B)the-ce 'khale sehng-ci (B)nga-ce-eeno ohle-no
   he-A   however do-pt   I-A-also   in that manner-emp

      sehng-pa
      do-pres
      'I'll do (the work) in the same manner he does it.'

7) (B)the-ce 'khatepa 'gluh-ci (B)nga-eeno ohtepa-no   'gluh-pa
   he-A   what kind buy-pt   I-also   that kind-emp buy-pres
   'What kind he buys, that kind I will also buy.'

   2.11 The Comparative Construction.

```
  MARGIN ¦ AR  Cl        BASE ¦ Indep Cl
+ ------+------       + ------+--------
  Iden  ¦               Comp ¦
  Prop  ¦               Prop ¦
```
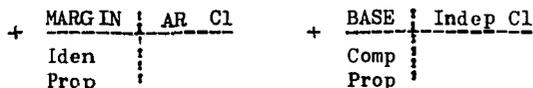
Grammatically the Comparative Sentence is a subordinate construc-
tion consisting of a Margin filled by an axis-relator clause plus a
Base filled by an independent clause. Semantically the relationship be-
tween the two propositions is one of comparison in which both similar-
ity and difference are involved. Similarity is involved in that the
two must have a common topic; difference in that an inequality is always
implied.

It is similar to the Contrastive relationship in that two differ-
ences are required between the propositions. Note Figure 6. Note also
that compared items play the same role in each proposition--Actor is
compared with Actor, and Undergoer with Undergoer.

The relator of the clause of the Margin is bihna or 'bhanna 'than'.
The latter form is probably borrowed from the Nepali bhandaa. The verb
of the Base clause may take any tense form. Permutation of Margin and
Base is not permitted.

Example	Proposition 1		Proposition 2	
	Item 1	Item 2	Item 1	Item 2
1	He	eats more	I	eat (less)
2	rice	eats more	corn	eats (less)
3	he	eats less	I	eat (more)
4	rests	more	works	(less)

Figure 6. Item Comparison Chart.

Examples:

1) (M)nga-ce 'pang-pa 'bhanna (B)the-ce yahko 'pang-pa
    I-A   say-pres than   he-A   very say-pres
    'He talks much more than I talk.'

2) (M)'makai ca-pa   bihna (B)the-ce ken ca-ci
    corn   eat-pres than   he-A   rice eat-pt
    'He ate more rice than he ate corn.'

3) (M)nga-ce ken ca-pa   bihna (B)the-ce 'cek   'kino ca-pa
    1-A   rice eat-pres than   he-A   small amt only eat-pres
   , 'He eats less rice than I eat.'

4) (M)'kaam sehng-pa 'bhanna the-ce 'nuu-pa
    work do-pres than   he-A   rest-pres
    'He rests more than he works (because he is lazy).'

    2.12 The Antithetical Construction.

BASE 1	Indep Clause		BASE 2	Indep Clause
Thesis		+	Anti-	
Prop			prop	
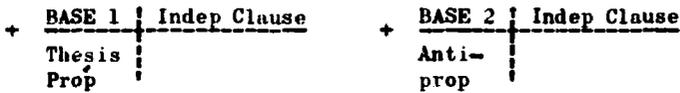
    Semantically the Antithetical Construction is a polarized construction in which proposition one arouses a certain expectation in hearer's mind based on either universally or culturally determined expectancy (cause-effect) patterns. The second proposition presents a consideration which runs counter to this expectancy. There are two sub-types based on semantic and grammatical considerations.

    Contrary to Expectation. This sub-type is characterized by a specific situation or action being stated in the first proposition and a result or situation contrary to expectation being stated in the second proposition. The two propositions are optionally linked by the adversative particle -m/-mi 'but' which is affixed to the verb in the first proposition. The propositions may be positive-positive (see examples 1 and 2) or, positive-negative (see example 3). If chronological sequence is not involved the Bases can permute.

    Mistaken Thought. Base 1 is manifested by the thought clause and Base 2 is manifested by the fact which is contrary to what was expected. The two Bases may be optionally linked by the Adversative particle -m/ -mi 'but'. The emphatic particle -ka may be optionally suffixed to the subject or the predicate in Base 2 which further emphasizes the contrast between what was thought and the actual event or state. The Bases can permute unless there is chronological sequence involved.

Examples:

1) nga rhee—cim   (B)kring-pala-mi   (B)cen-ce   nga—ta cyaa—pa
    I   got—up-having   cry out-pt-but   leopard-A I-to   look-pres
    'Having got up, I cried out but the leopard just looked at me.'

2) (B)'meh-mi 'yahm—ce 'yahm—no nga-la 'ket thee—pa-teng-mi (B)'jehn
        cow—emp again and again   I-of   voice hear-pres-after-but all

                        bahng—ce   phu phu-bih na   rap-pa
            the more strength-with phu phu—advl nose snort-pres
            '(I spoke to the cows) After they head my voice, however,
            they snorted all the more loudly.'

3) (B)'pheeri nga—m 'kyongle   'nuu-ri-palaa   (B)'gahte-eeno
        again   I—emp legs straight lie-down-cont-pt   how much-also

        mehr-pa   'a-'kham
        sleep-pres neg-able
        'Again I lay down, (but I) wasn't able to sleep.'

4) (B)'batta-ri 'sallai mu-pa   'pang-pala-mi (B)are-pala-ka 'Tim
        box-in   matches is-pres say-pt-but   not-pt-emp   fact
        '(I) thought there were matches in the box, but there certainly
        aren't.'

    2.13 The Concessive Construction.
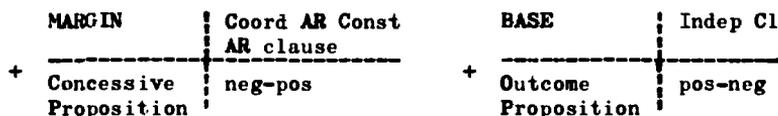
MARGIN	Coord AR Const AR clause	BASE	Indep Cl
+ Concessive Proposition	neg-pos	+ Outcome Proposition	pos-neg

The Concessive Construction consists of a Margin expounded by a
dependent axis-relator clause, and a Base expounded by an independent
clause.

In most examples there are no tense restrictions on the verb occur-
ring in the independent clause. It is probable that the few exceptions
are restricted for semantic reasons but this will need further investi-
gation.

Concession is indicated by suffixing -la-eeno or ma-eeno 'although,
even though', directly to the verb stem. While there is apparently no
difference in meaning, -la-eeno occurs only with the declarative voice
while -ma-eeno occurs with both the interrogative and declarative voices.
Usually the vowel of the suffix assimilates to the initial vowel of -eeno
to become -le-eeno and -me-eeno. The reason for the optional occurrence
of -la or -ma in the declarative voice is not yet known.

There is rising intonation at the juncture of the two clauses, but
vowel length has not been observed as in the Additive Construction.

Two Concessive clauses have been noted to occur in a Coordinate relationship to each other. As such they both apply to the following Base. Because they do not form an independent sentence, we have called the pair a coordinate axis-relator construction. (See example 5.)

Although grammatically and phonologically bound to the clause of the Margin, -le-eeno/-ma-eeno function semantically as a link indicating the Concessive—Outcome relationship between two propositions.

Semantically the relationship between the two propositions is one of contrast, in which the Outcome is always contrary to the expectancy evoked by the Concession. This is indicated in the formula by the neg-pos/pos-neg notation in Box 5. This may be signalled grammatically by a negative morpheme in either the Margin or the Base as in examples 1 and 2. Or it may be signalled only by the semantic situation. Example 3 is grammatically positive to positive, but the Outcome, '... he lay upstairs' is contrary to the speaker expectancy which would be 'He should lay downstairs as I do.' Similarly, although example 4 is grammatically negative to negative, the Concession, 'I didn't know' evokes the expectancy 'You should ask!', whereas the opposite of this occurs— 'I didn't ask.'

Examples:

1) (M)nga-ce kring-le-eeno   (B)cen-ce   'a-'yahr-pa
   I-A   cry-out—concess   leopard-A neg-go-pres
   'Although I cried out the leopard didn't go.'

2) (M)ngooh   sehng-pa-i phoo   sehng-pa-i dohnta 'are-
   lama's prayer do-pres-of lama's prayer do-pres-of custom not—

      le-eeno (B)'mane   'kulpa-i dohnta 'giih-ke mu-pa
      concess   ritual prayer-of custom one-only is-pres
      'Even though they don't have the custom of the lama's prayers
      (they) have the custom of one ritual prayer (for the dead).'

3) (M)the-caanyi 'duhngTi 'nuu-le-eeno (B)nga-caanyi pherang khyang-Ti
   he-emp   below   rest-concess   I-emp   above   cot-on

      'nuu-pa
      rest-pres
      'Although he lay down to rest below, I rested on my cot above.'

4) (M)nga 'a-'syee-le-ceno (B)the-ta 'a-nyot
   I   neg-know-concess   she-to neg-ask
   'Although I didn't know (I) didn't ask her.'

5) 'kola-'maah-ta 'ngot-cim   (M)'chyo 'chyo-ri   then-le-eeno   (M)'cu
   child-pl-to   call-having   around about-at place-concess   this

nyen-'pung-thoo-le-eeno (B)nyii-la otepa-i   'kaam mu-pa
hear-caus-comp-concess   we-of   like this-of work is-pres
'Having called the children, although (we) place them around
about us, although we have to cause them to hear this (story),
this is our work.'

2.14 The Interrogative Alternative Construction.

BASE 1	Indep Cl		LINK	Aff	-wai		BASE 2	Indep Cl
+		+				±		
Alt Prop	interr		Alt Pivot				Alt Prop	interr

The most common way of expressing alternation is by using the inter-
rogative morpheme, -wai 'or'. In this construction the clause contain-
ing the second alternative may be, and frequently is, deleted. -wai al-
ways indicates an alternative in the mind of the speaker. The alterna-
tive can be the negative of the first alternative or an alternative un-
derstood by the speaker and hearer or an alternative known only to the
hearer which the speaker is trying to elicit. Because of this, the
second Base can be deleted when -wai is used. It can be supplied in the
three instances mentioned above as shown by the following English ex-
amples:

a) Negative of Base 1.
    Shall I go alone or? (shall I not go alone?)

b) Known to Speaker and Hearer.
    Shall I go by foot or? (shall I go by cycle?)

c) Known Only to Hearer.
    Shall I first wash the dishes or? (what shall I do?)

Grammatically the two Bases, linked together by an overt conjunc-
tion, form a coordinate construction.

There is rising intonation on the interrogative morpheme -wai, and
when the second Base is stated there is utterance final falling intona-
tion.

Note that in example 4, the predicate in parentheses is deleted
from the text but added here for clarity of meaning.

Examples:

1) (B)'dehre 'syap-ce syee-la-(L)wai (B)'saikal-ce syee-la
    now   foot-A go-fut-or   cycle-A   go-fut
    'Will you go by foot or by cycle?'

2) (B)ngonkyam nga parla syal-pa-(L)wai (B)duhlu sehng-pa
       first   I   dishes clean-pres-or   sweep do-pres
       'Shall I wash the dishes first or sweep the floor?'

3) (B)'ee-ce ken-eeno   thon-ci-(L)wai
       you-A rice-also ready-pt-or
       'Did you have the rice ready also, or -? '

4) ('samaskriti lop-pa   'rim 'khacu?) (B)'baahmen 'maasTar
    (Sanskrit   teach-pres fact which?)   Brahmin   master

    (mu-pa) (L)wai (B)buih   mu-pa
    is-pres   or   Newar is-pres
    '(Who teaches Sanskrit?) Is it a Brahmin master or a Newari
    master?'

    2.15 The Alternative Construction.

    General Alternative.

BASE 1	Indep Cl		LINK	Cj	naa...naa...		BASE 2	Indep Cl
+		+				+		
Alt Prop			Alt Pivot		'either...or...'		Alt Prop	
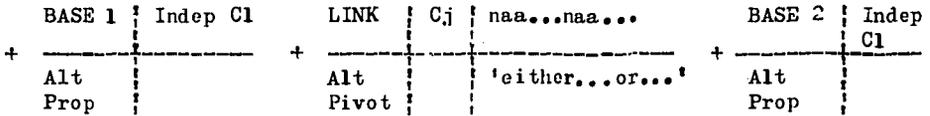
        Grammatically this is a coordinate construction in which two inde-
pendent Bases are linked together by the discontinuous link naa...naa...
'either...or...'

        Semantically the two propositions are in an exclusive disjunctive
relationship to each other in which they are offered as choices to the
listener--only one of which may be chosen. The alternation may be be-
tween positive and negative aspects of the same verb or between differ-
ent exponents of an identical role in each proposition--location A over
against location B (see example 1), time A over against time B (see ex-
ample 2). When this latter type of alternation occurs, the link naa
occurs before the constituent which is being offered as a choice.

        There is rising intonation at the juncture of the two clauses and
utterance final falling intonation at the end of the construction.   The
Bases can permute. Deletion of shared participants may occur in the
second Base. In the analysis thus far only two Bases can occur as alter-
natives. The Link is obligatory. For examples of the General Alterna-
tive sub-type see numbers 1-3.

    Dependent Alternative.

```
 +   BASE 1 | Indep Cl    +  LINK  | Cj | teng   +  BASE 2 | Indep Cl
     ---------+----------  ±  --------+----+------  +  --------+----------
     Alt      | pos           Alt     |    | 'or'      Alt    | neg
     Prop     |               Pivot   |    |           Prop   |
```

This sub-type has been labeled 'dependent' since it only occurs em-
bedded as the complement of such verbs as 'know.' The alternation is
always between positive and negative aspects of a shared predicate. The
ordering of the two Bases is fixed with the positive always preceding
the negative. The Link is optional. Only the present tense suffix -pa
has been observed to occur on the verbs. Two Dependent Alternative
Constructions can occur together in a coordinate or additive relation-
ship to each other. See example 4 where both Alternative Constructions
are complements to the verb 'know'. For further illustrations of this
sub-type see examples 5 and 6.

Examples:

1) (L)naa   (B)'asan-Ti yang-mu   (L)naa (B)indira chok-Ti
       either   Ason-in available-is uncert   or   Indira Chowk-in

       yang-mu
       available-is uncert
       'It is available either in Ason or in Indira Chowk.'

2) (B)nga 'aspatal-Ti (L)naa   'tinyi-ri   nyi-mu   (L)naa
       1   hospital-to   either afternoon-in go-is uncert   or

       (B)nyesyi-ri   nyi-mu
          evening-at go-is uncert
       'I will go to the hospital either in the afternoon or in the
       evening.'

3) (L)naa   (B)yang-mu   (L)naa (B)a-yang-mu
       either   available-is uncert   or   neg-available-is uncert
       '(I'm) not certain whether its available or not.'

4) (B)ta-pa   (L)teng (B)'a-ta-pa   (B)kha-pa   (L)teng (B)'a-kha-pa
       be-pres   or   neg-be-pres   come-pres   or   neg-come-

            ('thaa   'are   kon)
       pres (knowledge is not Kon)
       'Whether (the hay) will become (stacked) or not become (stacked),
       whether (the rice) will come or not come, (we don't know, Kon).'

5) (B)ta-pa   (L)teng (B)'a-ta-pa-m   (rahng-ki ngoh)
       become-pres   or   neg-become-pres-but (own-of   fortune)
       'Whether it will be or not, however, (is according to one's own
       fate).'

6) (B)ta-pa   (B)'a-ta-pa   ('taa yihn-ci? apa 'nyang-ce
      become-pres   neg-become-pres (what is-pt   now we-A

        'a-'syee)
        neg-know)
        'Whether it will be (or) not, (what will happen?—now we don't
        know).'

2.16 The Contradictory Construction.

+ <u>BASE 1 ¦ Indep Cl</u>   + <u>BASE 2 ¦ Dep Cl</u>

      Iden ¦ negative   Contra ¦ positive
      Prop ¦   Prop   ¦

      This is grammatically a paratactic construction consisting of an
independent Base and a dependent Base. Base 2 is dependent because of
the obligatory presence of the particle <u>-ka</u> 'on the contrary,' which
does not allow the clause to occur alone.

      Semantically this sentence might be characterized as -A, B (A is
not true, B is true). As such, certain participants in each proposition
are singled out and contrasted with each other—Actor with Actor, Under-
goer with Undergoer and so forth.

      Base 1 is negated by the obligatory occurrence of the attributive
verb plus the negative prefix <u>'a-yihn</u> 'isn't.' Base 2 contains the em-
phatic particles <u>-ka-syihm</u>——<u>ka</u> expressing 'on the contrary' and <u>-syihm</u>,
the predicative emphatic particle allowing for the deletion of the predi-
cate from Base 2. The contrasting participant of Base 1 must occur be-
fore <u>'a-yihn</u> 'isn't,' while the contrasting participant of Base 2 is
suffixed by the contrary particle <u>-ka</u>.

      The verb normally deleted from the Base 2 clause must be the same as
the verb in the Base 1 clause. In the examples given the deleted predi-
cates are enclosed in parentheses. Only the past tense suffix <u>-pala</u> can
occur on the verbs in this construction. No permutation of Bases is
allowed.

      The particle <u>-m</u>/<u>-mi</u> in most instances appears to act as an emphatic
opposition marker occurring optionally on the verb in Base 1.

Examples:

1) (B)ken ca-pala, hari-ce 'a-yihn (B)nga-ce-ka (ca-pala) -syihm
      rice eat-pt Hari-A neg-is   I-A-emp   eat-pt   emp
      'It wasn't Hari (who) ate the rice, on the contrary, it was I
      (who ate it).'

2) (B)'uhcu 'kola bacaar-Ti 'pip-pala-mi, kon-ce 'a-yihn (B)nga-ce-ka
       that child bazaar-to send-pt-emp Kon-A neg-is   I-A-emp

       ('pip-pala) -syihm
        send-pt   emp
       'Kon didn't send that child to the bazaar, on the contrary it
       was I (who sent him).'

3) (B)nga-ce ca-pala-mi 'khu   'a-yihn (B)ken-ka   (ca-pala) -syihm
       I-A   eat-pt-emp vegetable neg-is   rice-emp eat-pt   emp
       'It wasn't vegetables I ate, on the contrary, it was rice (that
       I ate).'

4) (B)choo 'dihm-Ti them-pala ale-ce ! 'a-yihn (B)nga-ce-ka (them-pala)
       rope house-in place-pt yng-bro-A neg-is   I-A-emp   place-pt

       -syihm
        emp
       'It wasn't my young brother (who) placed the rope in the house,
       on the contrary, it was I (who placed).'

Abbreviations.

Used in Formulae:

Add	addition/additional
Adver	adversative
Aff	affix
Alt	alternate/alternative
Anti	antithesis
AR	axis relator
Cj	conjunction
Cl	clause
Comp	comparative/compared
Cond	conditional
Conn	connective
Corel	correlative
Conseq	consequent
Const	construction
Coord	coordinate
Dep	dependent
Iden	identity
Incomp	incomplete
Indep	independent
Init	initial

Interr	interrogative
Inton Pat	intonation pattern
Mar	margin
Neg	negative
Pos	positive
Prop	proposition
Rel	relative
Thes	thesis

Used as Glosses for Tamang Examples:

A	actor
advl	adverbializer
amt	amount
answ	answer
bro	brother
caus	causative
comp	compulsive
concess	concessive
cond	conditional
cont	continuous
def	definite
eld	elder
emp	emphatic
fact	factive
fut	future
hab	habitual
hon	honourific
imp	imperative
indef	indefinite
neg	negative
NL	Nepali loan word
nom	nominalizer
permiss	permissive
pl	plural
pres	present tense
pt	past tense
qm	question marker
ques	question
rpd	repeated
rs	reported speech
uncert	uncertainty
vb	verb
yng	young/younger

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Footnotes.

[1]For further details about emphasis, see Taylor, Doreen. 1973. Clause patterns in Tamang (Section B.1.c, Emphatic Focus), in Hale 1973.

[2]Robert Stoll (1961 p. 161) makes the following comments on the use of the terms "prime" and "composite" when speaking about statement calculus, "Our first concern here is the analysis of the structure of a composite sentence (that is, a declarative sentence in which one or more connectives appear) in terms of its constituent prime sentences (that is, sentences which either contain no connectives or, by choice, are regarded as 'indivisible')." We are considering prime sentences in this paper as those which contain no connectives.

[3]For further information regarding the function of nominalized clauses see Taylor 1973 (Section D.1) as above.

INDEX TO TAMANG

Clause Patterns in Parengi-Gorum

F. Richard Aze

A. Introduction.

1. The Language.

The data in this paper is from the Parengi language, otherwise known as Gorum. It is spoken by about 10,000 persons in the Koraput District of Orissa (India), and extends a little southwards into the Visakhapatnam District of Andhra Pradesh.

Parengi is a member of the Southern group of Munda languages, which in turn belongs to the Austro-Asiatic phylum and bears some resemblance to the Mon-Khmer languages of S. E. Asia.

2. Research Details.

There is no earlier description of any aspect of Parengi grammar except for Arlene Zide's paper entitled "Transitivity and Causative in Gorum," which is to appear in the Journal of Linguistics in late 1972. I am indebted to her for the loan of a pre-publication copy of that paper.

The writer began his field work in Parengi under the auspices of Deccan College, Poona, in early 1969; but much of the material for this paper was prepared at a linguistic workshop held under the joint auspices of Andhra University and the Summer Institute of Linguistics in Visakhapatnam, in early 1972. During the workshop period the writer greatly benefited from consultant help given by Dr. Kenneth L. Pike and Dr. Ronald L. Trail. I am also indebted to Dr. Austin Hale for his encouragement and stimulation to develop along new lines of thought.

The person to whom the greatest acknowledgement is due is my Parengi language-helper, Dombaru Dhor Naik of Bhejaguda village (near Matili, Koraput District). He is one of the very few Parengi men who are literate. He was educated to eighth grade in an Oriya school, and can write Oriya and Parengi fluently. He is very intelligent, can

think abstractly and has spent many hours working at my desk. Without his help my understanding of the Parengi language would be considerably less.

This paper covers the simple clause types of Parengi and seeks to establish patterns of contrast between clause types. The approach is a joint development of Dr. Kenneth L. Pike and Dr. Austin Hale. This paper was in part supported by a grant from the United States Office of Education, Washington, D.C., on contract number OEC-0-9-097721-2778 (014).

The Parengi data is given in the phonemic transcription which was suggested in the writer's earlier paper, "Parengi (Gorum) Phonemic Summary" (Deccan College and Summer Institute of Linguistics, Sept. 1971, mimeo). The same transcription is used in the Parengi texts which formed the data for a concordance processed by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, and sponsored by Grant 95-270 of the National Science Foundation. Part of that body of Parengi texts appears in the same workshop report as this clause paper.

3. Method of Analysis.

Sorting by Tree Diagram. Dr. Austin Hale has conceived a chart showing the various semantic roles of the dramatis personae (persons and things involved in a drama) of the clause. It was his aim to construct a universal etics of sememic predicate function (at clause level) which would enumerate, in principle, the possible range of the sememic predicate function. Further he wanted to make clear the range of phenomena covered by each possible entry and to relate each entry to every other entry in such a way as to show its place in a coherent closed system.

The chart is organized in terms of three dramatis personae, Agent, Undergoer, and Site; and two situations, State and Event. The distinctions between animate/inanimate, effected/uneffected, complement/no complement, are below the threshold of the Hale chart. Such distinctions may give rise to different clause types under a particular terminal node (and these distinctions are relevant for various processes of clause derivation), but the basic semantic roles of the dramatis personae involved are not changed.

The following is Hale's chart:

```
                              Event
                   ┌────────────┴────────────┐
                   │                        Act
             ┌─────┴─────┐            ┌───────┴───────┐
             │          Und           │              Und
          ┌──┴──┐    ┌───┴───┐     ┌──┴──┐        ┌───┴───┐
          │    Site   │     Site    │    Site      │      Site
          │     │     │      │      │     │        │       │
          E     SR    R      DR     I     ST       T       DT
        Even-  Semi-  Recep- DiRe-  In-   Semi-  Trans-   Di-
        tive   Recep- tive   cep-   trans-Trans-  itive   Trans-
               tive          tive   itive itive           itive
          8     7     6       5      4     3       2        1
```

```
                              State
                   ┌────────────┴────────────┐
                   │                        Agt
             ┌─────┴─────┐            ┌───────┴───────┐
             │          Und           │              Und
          ┌──┴──┐    ┌───┴───┐     ┌──┴──┐        ┌───┴───┐
          │    Site   │     Site    │    Site      │      Site
          │     │     │      │      │     │        │       │
          C     SA    A      DA     D     SS       S       DS
        Cir-   Semi-  Attri- Di-    De-   Semi-  Sta-     Di-
        cum-   Attri- butive Attri- scrip-Sta-    tive     Sta-
        stan-  butive        butive tive  tive            tive
        tial
         16     15    14      13     12    11      10       9
```
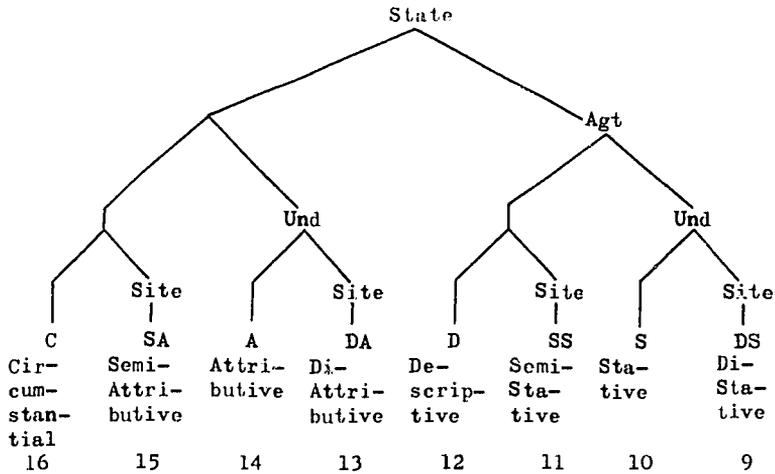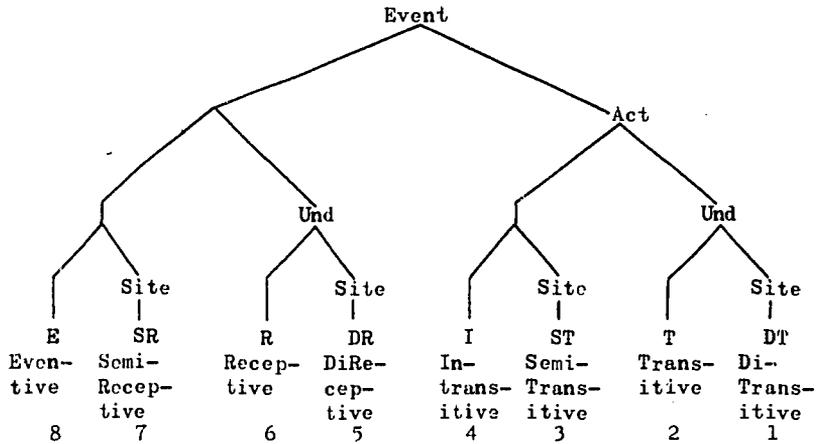
Figure 1.   Chart of Etic Clause Types

The organization of the chart is that each right-branch from a node contributes a DP (dramatis persona), while a left-branch does not do so. Starting from the top of the tree, the first node always refers to the presence or absence of an Actor, the next node to that of an Undergoer, and the third node to that of a Site.

In using the Hale chart, I have made the following definitions:

State: Mode of existence; situation.

Event: Anything that happens; an action or process. (An 'action' is an activity or doing. A 'process' is a progressive movement or state of activity--i.e. changing state.

Actor or Agent: That DP which initiates the action, whether intentionally or otherwise. It can be the causer, the initiator, or the stimulus. It may be animate or inanimate. Often, but not necessarily so, it is acting on another DP.

Undergoer: That DP which undergoes or experiences the action, process, or state.

Site: A physical location. This may be an inanimate bound location, or an animate location (typically Dative case).
          The Site is not to be confused with an Outer Locative. A site may be thought of as an intimate physical location, one which is very closely linked to the main verb of the clause and is directly involved in the Action or State. On the other hand, an Outer Locative is the 'setting' (or 'scene') of an action (or state?) and is not directly involved in the action. It may well be that the Outer Locative is a sentence level tagmeme and able to apply to more than one clause within a sentence.

The approach of the analyst is to 'file' each example of a clause in his data under one of the terminal nodes of the Hale chart (one hopes there is little residue!). Occasionally there may be some doubt in the analyst's mind as to role of the DP in a particular clause. In such a case Dr. Hale suggests that the analyst take note of the grammatical organization of the clause, as well as the sememic situation. For example, if one had doubts as to whether a DP was taking the role of Undergoer or Site, one would assign it the role of Site if it carried the marker etur, because etur typically indicates the role of Site.

A distinction needs to be made between those clauses which are basic (inherent) under a particular node, and those which are there by derivation from another clause. That is, some clauses are 'at home' under a node and others are 'visitors.' Those clauses which are basic types are dealt with in Section B of this paper, and the derived types

are dealt with under Sections C and D.

Description. After the clause types are sorted according to the Hale chart, they are described by means of a system of six-box formulas. This system is currently being developed by Dr. K. L. Pike.

The six boxes are in a two-by-three matrix and are numbered as follows:

	Func.	Class	Item
Gr.	1	2	3
Sem.	4	5	6

Figure 2. Six-box System

The upper row is grammatical and the lower row is sememic. The first column corresponds to the notion of Slot or Function; the second to Filler, Class, or Set; and the third to the actual Language Data. The various grammatical and semantic functions and the constructions which may be found in the six boxes in this paper are:

Grammatical Box 1: Subject, Object, Adjunct, Referent, Complement, Predicate

Box 2: Nominal Phrase, Noun, Adjectival Phrase, Pronoun, Infinitival Clause, Paragraph, Axis-Relator Nominal Phrase, Independent Active Indicative DiTransitive Verb Phrase, etc.

Box 3: Parengi language data

Sememic Box 4: Agent, Undergoer, Site, Predicate Extension, Action, Process, State, Time, Outer Locative, Reason, Purpose, Associate, Manner

Box 5: Item, location, goal, source, setting, animate, concrete, abstract, etc. (The exact nature of Box 5 fillers is still not definite.)

Box 6: Translation into English

In the clause formulas in this paper, a four-box representation

(i.e., with boxes 1, 2, 4, 5) has been used to describe the nuclear
tagmemes: i.e, Subject, Object, Referent and Predicate. Peripheral
tagmemes have often been described only with a Box-4 label such as
Time, Outer Locative, Reason, Purpose, Manner, Associate, as what is
in these 'boxes' does not affect the clause analysis presented here.
The grammatical function of these peripheral tagmemes is typically
Adjunct.

(It should be mentioned that Pike uses his 6-box approach on any
level of the grammatical hierarchy, not just clause level.)

The fillers of Box-1 are defined as follows:

Subject: That DP which is the topic of the clause.

Object: That DP which is affected in a dynamic action.

Referent: That DP, other than the Subject or the Object, which is
alluded to by the Predicate and is necessary to the sense of the clause.

Adjunct: Any tagmeme which is ancillary or peripheral, such as Location,
Time, Reason, Manner, etc.

Predicate: The verbal part of the clause. (It is generally marked for
aspect, voice, tense, and mode.)

Complement: Something which is needed to complete the sense of a
clause, but is not in itself a DP, or something which otherwise extends
the meaning of the Verbal Phrase.

Many of the fillers of the other boxes have already been defined
or are so widely known as to not require definition here. However, two
of the terms do need further definition.

Predicate Extension: (Box-4) It gives information which is relevant
to the clause, but is not directly involved in it. It is a 'phenomenon'
and includes such categories as item, person, abstraction, quality,
state, event, relation, fact and report. This is what, in my opinion,
M. A. K. Halliday refers to as 'Range.' It is sometimes used as an em-
bedding device to introduce a non-nuclear DP into a clause--e.g., He
is tall. He fears (when he sees) tigers. He learned (to speak) Hindi.

Nexus: (Box-2) A verb-headed construction functioning as a Nominal
Phrase--e.g., 'My going to Cuttack was stopped.'

4. Abbreviations and Symbols.

Box 1:

ADJ	Adjunct
CO	Complement
0	Object
P	Predicate
REF	Referent
S	Subject

Box 2:

Adj P	Adjectival Phrase
ARNP	Axis-Relator Nominal Phrase
ARpro	Axis-Relator pronoun
Att	Attributive
DepCl	Dependent Clause
DiAtt	Di-Attributive
DiRec	Di-Receptive
DiTr	Di-Transitive
Ev	Eventive
Int	Intransitive
NP	Nominal Phrase
Par	Paragraph
pro	pronoun
Rec	Receptive
SRec	Semi-Receptive
STr	Semi-Transitive
Tr	Transitive
VP	Verb Phrase

Box 4:

Agt	Agent
Asc	Associate
Csr	Causer
Int	Initiator
Mnr	Manner
OLc	Outer Locative
PEx	Predicate Extension
Prp	Purpose
Rsn	Reason
Si	Site
Tmp	Time
Und	Undergoer

In Illustrative Text:

Target language data is written in phonemic transcription. (A more comprehensive description of the glosses is given in the Parengi Texts published in the same series as this paper.)

F	Future tense
Fo	Focus
Lk	Link
P	Past tense
pres. cts.	present continuous
Sp	Speaker orientation (where the speaker is, in relation to the action.)
—	Morpheme break
*	In the recorded utterance the word marked by an asterisk was not actually said, but it has been reconstructed from the agreement with the Predicate so that the reader may readily realize the number of DPs involved.

Miscellaneous:

Aor	Aorist
Cts	Continuous
Dl	Dual
DP	Dramatis Persona
Fut	Future
Neut	Neutral
Perf	Perfect
Pres	Present
+	Obligatory tagmeme
±	Optional tagmeme
+/-	Conditioned occurrence of a tagmeme

$$+ \frac{\pm}{\rule{3cm}{0.4pt}} \Big|$$ A nuclear tagmeme that is optionally deletable

B. Basic Patterns.

1. The Contrastive System in Parengi.

1.1   The General Organization of the Grammatical Components within the Clause and the Marking of their Semantic Roles.

The reader will be able to follow the analysis and illustrations more readily if he is aware of the internal organization of the clause in Parengi.

All the nuclear DP's may be pronominally incorporated as affixes
into the Verb phrase. The Subject of the verb is typically prefixed
to the verb stem (though third person plural is shown by a suffix).
The Object and Referent are pronominally incorporated, but as suffixes.
However, the Object and a Referent cannot both be incorporated simul-
taneously. When both occur in a clause, then it is the Referent that
is incorporated.

The particular pronominal references are shown below. There are
no gender distinctions.

Person	Nominative	Dative	S in VP	O/Ref in TP	Gloss
1s	ming	e-ning	ne-	-ing	'I'
2s	mang	e-nom	mo-	-om	'you'
3s	no?n	e-no?n			'he'
1pl	bileng	en-leng	le-	-ileng	'we'
2pl	maing, baing	en-beng	bo-	-ibeng	'you'
3pl	no?n-gi	e-no?n-gi	-ey/-gi		'they'

Figure 3. Pronominal Reference Morphemes

In Independent Clauses, because of the pronominal incorporation in-
to the Verb Phrase, the Predicate always agrees with the Subject and
Object or Referent, in person and number. This agreement will be taken
as being understood by the reader and will not, therefore, be indicated
in the clause formulas given later in this paper. The only construction
in Parengi which does not show this concord is the first person singular
subject in the hortatory mode. (See Section C.2.2)

A very significant factor in the Parengi clause is that the roles
of Undergoer and Agent are also marked in the verb phrase. The infini-
tival form of the verb shows this most clearly, for when the Subject is
the Undergoer, then the verb stem is affixed with -nu?. Otherwise, the
verb will be affixed with -u and the Subject, if there is one, will be
the Agent. (It appears that there is no other choice for Subject, other
than Agent or Undergoer.)

Other verbal suffixes may occur affixed to -nu? in which case the
'n' or the 'u' or both may be lost, but the glottal is always retained.
In one instance the glottal remainder of -nu? turns up in the next word
as there appears to be no room left for it in the verb phrase. For ex-
ample in the conditional verb phrase:

ui ne?n ...
go if/Und
'If he goes...'

The verb 'to go' is <u>ui-nu?</u>, and <u>nen</u> is 'if.' But in conditional clauses
the verb is not inflected in any way whatsoever. Hence the appearing of
glottal on the next item, otherwise basic information would be lost.

In their full forms, animate Objects and animate Referents (i.e.,
Indirect Objects) are marked <u>etur</u> 'to.' (This feature gives some support
to Fillmore's view that animate objects are basically Dative case.)
However, when two such items co-occur only the Referent is marked.

The <u>etur</u> marking is one of the key factors in distinguishing a
Referent (Intimate Site) from an Outer Locative. Typically <u>etur</u> marks
animate nouns, in which case the marking is obligatory. An inanimate
Referent (item or place intimately involved in the action or state) is
only optionally marked by <u>etur</u>, whereas an Outer Locative is never
marked by <u>etur</u>. Examples of this phenomenon are given elsewhere in this
paper.

The nominal phrase filling the Adjunct as Associate tagmeme in a
clause is always marked by ba?tur 'with.' There is some evidence to
suggest that if the Associate is personal its role is that of an Accom-
panying DP, and if it is impersonal its role is that of an Instrument.

With the pronominal incorporation of the Subject and Object or
Referent into the Verb Phrase, together with the marking of each of the
semantic roles as just described, the order of tagmemes in the Parengi
clause is not usually critical to the meaning of the clause. The one
exception to this is that in the Attributive-Equative clause type, the
specific item must precede the generic item.

The order of tagmemes as given under 'Expanded Formula' in the de-
scription of each clause type is the most common order. Sometimes the
Sentence-Focus will be on a tagmeme other than the Subject of the
clause, and in such a case, that tagmeme chosen as sentence topic will
occur before the Subject. If at any time there are more than three of
the Adjuncts chosen, then some are placed after the Predicate (as a sort
of after-thought), but such heavily loaded clauses are not common. How-
ever, the Manner tagmeme must immediately precede the Predicate. The
Purpose tagmeme may be postposed, but this is unusual. The other Ad-
juncts such as Time, Location, and Associate are often postposed. Some-
times the Subject tagmeme itself is found after the Predicate.

At this stage in the analysis, insufficient is known of the re-
strictions inherent on these peripheral tagmemes to justify using the
occurrence or non-occurrence of any one of them as primary evidence in
distinguishing clause types.

Another factor which is not indicated in the given clause formulas--
because it is not relevant in the setting up or distinguishing of clause
types--is that the Time, Outer Locative, Subject, or Manner slots may be
filled by up to three Nominal Phrases in apposition.

1.2 The Contrastive System of Clause Types.

The basic clauses in Parengi are considered to be those Independent clauses whose predicates are in the Indicative mode and the Active or Stative voice. As we now refer back to the Hale chart of Sememic Predicate Function, we see that our basic clause types in Parengi do not use all sixteen postulated etic types. The Event (Action) side is well taken care of with all eight types occurring, but on the state side there are only the Attributive and Diattributive types.

The next fact to be noted is that the '-nu?' constructions only occur under nodes Di-Receptive and Receptive, on the Action side, and under the corresponding nodes, Di-Attributive and Attributive, on the State side. That is, -nu? verbs only occur with just an Undergoer, or an Undergoer and a Site. It is also to be noted that the term Under-goer covers a wide range of situations:

   i.   the goal in a transitive or ditransitive clause.
          he hit the <u>dog</u>
  ii.   processor in a mental, emotional or physical process.
          <u>he</u> learnt to speak English
 iii.   the attribuand (ascribed item) in an ascription.
          the <u>tree</u> is tall
  iv.   the identified item in an equation.
          <u>that box</u> is mine
   v.   the possessed item in a co-location.
          I have a <u>house</u>

It is also to be noticed that the great majority of the verbs in the Parengi dictionary fall primarily under the Transitive or Receptive nodes. This suggests that the verbs are primarily either Agent orien-tated or Undergoer orientated. Of the remaining nodes the Di-transitive and Di-Receptive are next in the number of verbs basic to them; then Intransitive and Eventive; and finally Semi-Transitive and Semi-Recep-tive. This is not entirely unexpected. The second set is like the major set (Transitive, Receptive) but has the Referent added. The third set is like the major set, but has the Undergoer missing. Then the last set (Semi-Transitive and Semi-Receptive) is more remote in that compared with the major set an Undergoer is lost and a Referent added.

This focus towards Agent orientation or Undergoer orientation re-flects the ergative structure of the language which is organized in terms of cause and effect; the changer and the changed; what started it off and what was affected by it. The clause types will then be distin-guished according to whether they are Agent or Undergoer focused.

In Parengi then, there appears to be a primary division between State and Event, and then a secondary division within Event clauses into the Receptive group and the Transitive group. The general character-istics of each are shown in the following chart.

	State	Event	
No. on Hale chart Group	13-14 Attributive	5-8 Receptive	1-4 Transitive
Dynamics (forces involved)	_Static_ Pertains to bodies at rest and shows the relations between forces in equilibrium Includes ascription (i.e., attribution) and fact. State: condition, mode of existence, situation	_Kinematic_ Pertains to pure motion (admitting conceptions of time and velocity, but excluding that of force.) Includes change of position, change of state, reception of state, mental process, etc. Passive or potential as opposed to active Process: progressive movement or state of activity	_Dynamic_ Pertains to forces in motion Involves or depends on mechanical activity. Motive, active, as opposed to potential. Action: Motive, active, as opposed to potential.
Information focus (i.e., Subject)	Undergoer (Attribuand, Statee)	Undergoer (Effected, Changee)	Agent (Causer, Changer)

Figure 4.   Dynamics of State-Event

It is very interesting to see how well the science of dynamics accounts for Parengi clause groups! But, is this not to be expected in a language which is structured ergatively?

Having used the Hale chart as a heuristic device for the sorting of basic clause types, the following common contrastive features can be seen.

Feature	State	Event
Causative	-	+
Passive, Potential	-	+
Benefactive/Reflexive	-	+
Verbal auxiliaries (except lu?n 'pres ets')	-	+
Imperative	-	+
Periphery	Restricted to Time and Reason	Unrestricted
Node-variant Derivations	-	+

All event clauses
can be stativized
by derivation.*

Figure 5. Contrastive Feature Chart

*The writer is at present unaware of any means of deriving an
Event clause from a State clause.

Some other points to note:

i. Reflexive, benefactive, and potential aspects (marked by -nu?,
but with no change in node) are only to be found in Transitive and Di-
transitive clauses. In these cases the -nu? indicates that the Agent
is himself 'affected' in the situation.
ii. Animateness does not appear to be a relevant factor in dis-
tinguishing basic clause types. However, it is noticed that a 'real'
causer (second causer) only operates on an animate item, and that the
Purpose tagmeme can only occur with an animate subject.
iii. The two peripheral items that occur on all clause types are
Time and Reason (though reason is more common in occurrence to the right
hand side of the chart.) It may well be that Time and Reason should be
treated at sentence level instead. It is also noticeable that the var-
iety and frequency of peripheral items increase towards the right hand
side of the chart.
iv. The Outer Locative slot is a particularly difficult one to
handle. As mentioned elsewhere, the border line between Outer Locative
and Referent is blurred. It may be that Outer Locative is a sentence
feature; if so, it would clarify matters. For the time being note that
Outer Locative tends to occur in the Transitive group of clauses, and in
those clauses of the Receptive group which involve a change of position.
The Outer Locative does not occur in Attributive clauses and change-of-
state or receptive-state Receptive clauses where the Outer Locative, if
it did occur, would be confused with or clash with the Referent. Only
directed motion verbs, such as 'take' or 'go,' may take an Outer Loca-
tive goal or an Outer Locative source.

2. The Contrastive Clause Types.

The following is a description of the ten basic clause types es-
tablished for Parengi. For each clause type the 'Four-Box' formula is
given for each of the nuclear tagmemes in the construction. This is
followed by a description of other features associated with that clause
type.

The ten clause types are as follows (the numbers refer to the
terminal nodes on the Hale Chart):

    1   Di-Transitive
    2   Transitive
    3   Semi-Transitive
    4   Intransitive
    5   Di-Receptive
    6   Receptive
    7   Semi-Receptive
    8   Eventive
    13 Di-Attributive*
    14 Attributive*

2.1 Di-Transitive Clause.

```
 ± S  ¦ NP,pro        ± REF  ¦ NP,ARNP,ARpro
+ ------+---------  + --------+---------------
  Agt ¦ item           Site ¦ location
```

```
    ± O  ¦  NP,ARNP,Par,DepCl     P       ¦ DiTr VP
   + ------+---------------------  + --------+--------------------
      Und ¦ item                   Action ¦ Agt re-locates Und
```

Clause Meaning: The Subject acts on the Object and re-locates it with
    respect to the Referent.

Periphery: Time, Outer Locative, Reason, Purpose, Manner, Associate.

Expanded Formula: ± T + Agt ± OLoc + Si + Und ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems: bay: 'send'   li?n   'apply, rub'
                    ra?n   'milk'   da   'do'
                    ta?y   'give'   kun   'sing'
                    za?   'solicit'   a?y   'splash'
                    bu?   'put something   zo?n   'brush or wipe
                            inside another   something off
                            thing'   something'

*Although this numbering is not consistent with the outline of this paper,
we have chosen it to run parallel with the Hale Chart.

la?mang	'reach towards	ta?	'remove or re-
	something for		locate something'
	something'	zel	'tell' (in which
sun	'say' (in which		Object is Dep.
	Object is Par.)		Cl.)

Comments:

i. All the verbs in this clause type take –u in their infinitival form.

ii. Within the set of Ditransitive verbs there is a wide range of diversity, especially as to the part played by the Referent. However, the Referent's part in the action is probably specified by the semantic content of each particular verb (e.g., the verb 'give' makes the Referent a beneficiary.)

iii. The verb ra?n 'milk' might well be a Transitive verb as the only object that it can take is ar'u?m 'milk, breast.' This may therefore be considered a Complement, in which case 'cow' would be the Object rather than the Referent.

Examples:

1) (Agt)bolram (Si)krist'el etur (Und)lorung (P)li?n-ru
   boldram   christel to   oil   rub-P
   'Boldram rubbed oil on Christel'

2) (Agt)ming* (Si)e-nom* (Und)dabu (P)ne-za?-r-om
   I   to-you   money   i-solicit-P-you
   'I solicited money from you'

3) (Agt)ming* (Si)bolram-di etur (Und)uba? (P)ne-ta?-tu
   I   boldram-Fo to   thorn   I-remove-F
   'I will remove the thorn from Boldram'

4) (T)udubun   (Agt)ming* (OLoc)zalaput' (Si)e-nom*
   yesterday   I   jalaput   to-you

   (Und)t'anka-bo?y (P)ne-ta?y-om
        rupee-one   I-give-you
   'Yesterday, at Jalaput, I gave you a rupee'

5) (Pur)lorung aku?y da?n (Agt)mang* (Si)e-ning* (Und)dabu
   oil   buy   for   you   to-me   money

   (P)mo-ta?y-ing
     you-give-me
   'You gave me money to buy oil'

6) (Agt)ming* (Si)e-nom* (Und)da?   (Asc)timpani ba?tur
         I   to-you   water   tray   with

    (P)ne-a?y-t-om
       I-splash-F-you
       'I will splash water on you with the tray'

   2.2 Transitive Clause.

± S	NP,pro	± O	NP,ARNP,ARpro	P	Tr VP
Agt	item	Und	item	Action	Agt acts on Und

Clause Meaning: The Subject acts on the Object.

Periphery: Time, Outer Locative, Reason, Purpose, Manner, Associate.

Expanded Formula: ± T + Agt ± OLoc + Und ± Asc ± M + P

Sample Verb Stems:

edang	'warm'	zum	'eat'
tagu	'scorch, burn'	gulom	'know'
zo?	'sweep'	ol	'write'
tiba?	'uproot'	pe?n	'blow'
lida	'laugh'	gi?	'see'
la?	'hit'	ki?	'herd'
ga?y	'fry'	pongi?n	'extinguish'
ru?	'open, pour'	per	'burn (of spices)'
go?n	'pick fruit'	sada?	'sting'

Comments:
    i. All the verbs found in this clause type take -u in their in-
finitival form.
    ii. The set of verbs that can function in the Predicate of a Tran-
sitive clause is a particularly large set.
    iii. There is a sub-class of impersonal verbs, viz.,
              per   'burn' (of spices)
              sada?   'sting'
              tagu   'burn, scorch'

    These form a sub-type of the Transitive Clause. It appears that a
personal subject would not meet with the semantic requirements of these
verbs. For example, tagu requires a subject that emits heat, per re-
quires a subject such as a spice, and sada? requires a subject that sets
up an irritation.

Examples:

1) (Agt)no?n (Und)e-ning (P)gulong-ing
         he   to-me   call-me
       'He called me'

2)   (Agt)kapi   (Und)e-ning* (P)tagu-r-ing-ay
         coffee   to-me   burn-P-me-Sp
         'The coffee burned me'

3)   (Agt)no?n-gi (Und)nor'ia (P)se?m-ey
         they   coconut   sacrifice-they
         'They sacrificed coconuts'

4)   (OLoc)bileng a?sung loge (Agt)asel saybu bo?y (pur)gorum sama
              we   house near   white master one   gorum story

         soy-nu?   da?n (Und)a?sung (P)gu?-ru
         learn-Inf/Und for   house   plant-P
         'A white man built a house near our house to learn Gorum
         stories'

5)   (Agt)mersa   (Rs)ne-zum-u da?n (Und)e-ning* (M)abu?n (P)per-r-ing
         chillies   I-eat-P for   to-me   much   burn-P-me
         'The chillies burned me because I ate them'

6)   (OLoc)a?sung (Agt)bileng (Asc)kar'ma?n ba?tur (Und)ao?m
           house   we   wife   with   vegetable

         (P)le-zum-tu
            we-eat-F
         'We will eat vegetables with the wife in the house'

   2.3 Semi-Transitive Clause.

± S	NP,pro	± REF	NP,ARNP,ARpro	P	STr VP
Agt	item	Site	location	Action	Agt is relocated

Clause Meaning: Subject moves in relation to the Referent.

Periphery: Time, Reason, Purpose, Associate, Manner.

Expanded Formula: ± T + Agt + Si ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems: su?n   'reach, arrive'
                     gur   'enter'
                     ua?y   'come'
                     ir   'jump (over)'

Comments:
     i. All the verbs in this clause type take -u in their infinitival
form.
     ii. The inventory of verbs in this clause type is very limited.
     iii. Those verbs involving directed motion require the Referent to
be the source or goal of the action.

iv. The verb <u>ua?y</u> 'come' is actually derived from the verb <u>ui-nu?</u> 'to go' together with the directional affix <u>-ay</u>. (i.e., ui - ? + ay ––> uia?y ––> ua?y.)

Examples:

1) (Agt)miŋ* (Si)a?suŋg (P)ne-gur-ru
        I   house   I-enter-P
        'I entered the house'

2) (T)bio?gi   (Agt)rail gar'i   (Si)puri-n   (P)su?n-tu
        tomorrow   rail vehicle   puri-Lk   reach-F
        'Tomorrow the train will reach Puri'

3) (Agt)miŋ* (Si)kurchi-di ± etur (P)ne-ir-ru
        I   chair-Fo   to   I-jump-P
        'I jumped over the chair'

4) (Agt)no?n (Asc)kurta? ba?tur (M)begi   (P)ua?-t-ay
        he   horse   with   quickly   come-F-Sp
        'He will come quickly with a horse'

5) (Agt)tile?y-di   (Rs)pu?t'a d'uka da?n (P)ua?-t-ay
        old man-Fo   stomach pain for   come-F-Sp
        'The old man will come because he's got a stomach ache'

   2.4 <u>Intransitive Clause.</u>

```
± S  ¦ NP,pro  P       ¦ Int VP
+ ––––––+–––––––– + ––––––+–––––––––––––––––
   Agt ¦ item     Action ¦ relevant to Agt
```

Clause Meaning: Subject involved in a mechanical activity.

Periphery: Time, Outer Locative, Reason, Purpose, Associate, Manner.

Expanded Formula: ± T + Agt ± OLoc ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems: ye?   'cry out'
                    ye   'run, go quickly'
                    or'ing   'walk'
                    ir   'jump'
                    ku?   'cough'
                    puŋg   'flood, collect, fill up'
                    mo?   'emit smell'
                    lum   'dissolve'

Comments:
       i. All the verbs in this clause type take <u>-u</u> in their infinitival form.
       ii. One would expect the subject of 'dissolve' to be considered as

undergoing a change of state and consequently to be marked by -nu?,
but such is not the case. On the basis of grammatical form, therefore,
it has been classified with the Intransitives.

    iii. The verbs pung 'flood,' mo? 'emit smell,' and lum 'dissolve'
appear to be impersonal verbs.

Examples:

1) (Agt)kal-di   (P)mo?r-ay-ni
        drain-Fo   smell-P-Sp-Hab
        'The drain always stinks'

2) (Agt)bo?sun (P)lum-tu
        salt   dissolve-F
        'Salt will dissolve'

3) (Agt)ming* (OLoc)lobo?-n   (P)ne-ir-ru
        I   ground-Lk   I-jump-P
        'I jumped on the ground'

4) (Agt)no?n* (Rs)kuku?zor da?n (P)ku?-ru
        he   cough   for   cough-P
        'He coughed because of a cough'

5) (Agt)bubong digin (T)pal-u-nu   kitur (P)or-or'ing-ey
        baby   Cl   born-Inf-Aj time   Neg-walk-they
        'Babies do not walk at the time of their birth'

    2.5 Di-Receptive Clause.

S	NP,pro	REP	NP,ARNP,ARpro	P	DiRec VP
Und	item	Site	location	Process	Und relates to Site

Clause Meaning: The Subject is involved with a second DP in a process
    or pure (unforced) motion.

Periphery: Time, Outer Locative, Reason, Purpose, Manner.

Expanded Formula: ± T + Und ± OLoc + Si ± Rs ± Pur ± M + P

Sample Verb Stems: All the verbs in this clause type take -nu? in their
    infinitival form. These verbs fall into four groups.

Group I - Change of Location.

    ui   'go'
    duku   'stay'
    oting   'lean'
    sa?n   'pass by'

lala?n   'flatten oneself'
ta?   'appear, re-locate oneself'

Comments:
    i. To the English speaker these verbs are similar to those found
under Semi-Transitive because he would consider that the Undergoer here
is an Agent.
    ii. When duku 'stay' (i.e., zero change of location) and ui 'go'
have an animate Referent, then the usage is figurative and implies
marriage.
    iii. It may well be that lala?n (partial reduplication of la?n)
'flatten oneself,' sa?n 'pass by,' and ta? 'appear' should be considered
as reflexive forms of the corresponding transitive verbs, which are la?n
'flatten,' sa?n 'separate,' and ta? 'remove or extract something' re-
spectively. However, in addition to their -nu? derivation these verbs
obligatorily take a Referent and are therefore classified here under Di-
Receptive.

Examples:

1) (Und)bubong-di (Si)e-ning* (P)oting-t-i?ng
            baby-Fo   to-me   lean-F-me/Und
            'The baby will lean against me'

2) (Und)bileng* (Si)komla-n ba?   (P)le-i-tu?
            we   komla-Lk place   we-go-P/Und
            'We will go to Komla's place'

3) (Und)bubong-di (Si)mang ba?   (P)lala:n-t-o?m
            baby-Fo   you place   flatten-F-you/Und
            'The baby will flatten himself against you'

4) (T)udubun-di   (Rs)ungong-u da?n (Und)ming* (Si)kinmung
        yesterday-Fo   night-P for   I   kinmung

        (P)ne-k-ru?
          I-stay-P/Und
        'Yesterday, because it got dark, I stayed at Kinmung'

Group II - Olfactory.

    mo?   'smoke (cigarette, etc.)'
    mumo?   momo?   'smell something'

Comments:
    i. The question arises as to whether these verbs are derived from,
or otherwise related to, the Intransitive verb mo?-u 'to emit a smell.'
Compare the following examples.

```
(Agt)tangku       (P)mo?r-ay
      cooked rice      smell-P-Sp
      'The cooked rice emitted an aroma'   (Intransitive)
```

```
(Und)ming (Si)tangku       (P)ne-momo?-ru?
      I          cooked rice      I-smell-P/Und
      'I smelled the cooked rice'   (Di-Receptive)
```

The writer's subjective impression is that the verbs in each ex-
ample are "at home" in their respective categories and are not grammati-
cal derivatives of each other (though they are lexically cognate).

It is to be noted that the subject of the Intransitive verb is in a
creative activity, while the subject of the Di-Receptive verb is a pro-
cessor. Also, the Agent of the Intransitive verb corresponds to the
Site of the Di-Receptive verb. This same feature is seen in the Pass-
ive derivation of some Transitive verbs (see Section D.1).

There is no known derivation to change an Intransitive clause to a
Receptive or Di-Receptive clause. The above might be an example of such
a derivation, but until there is further evidence the writer chooses to
classify these clauses under Di-Receptive.

Examples:

1) (Und)bolram-di (Si)ao?m-di   etur (P)mumo?-ty?
          boldram-Fo   vegetable-Fo to   smell-F/Und
          'Boldram will smell the vegetables'

2) (Und)no?n (Si)odol (P)mo?-tu?
          he   cigar   smoke-F/Und
          'He will smoke a cigar'

Group III — Change of State.

      da-   'become'

Comments:
      Here and in the Receptive clause type da 'become' may function in
exactly the same contexts as duku 'be' does in the Di-Attributive and
Attributive clause types respectively. At first sight da appears to be
a State verb as it indicates the coming into being of a state. However,
the fact that the verb can be 'stativized' shows it to be considered as
an event in its basic form.

Examples:

1) (Und)ar'i da?u   (Si)reil t'eson   o?tur (PEx)pa:c mail sanga?y
            that village   rail station from   five mile distant

    (P)da-tu?
        become-F/Und
    'That village will be five miles from the railway station'

2) (Si)e-nom (Und)ia?y   boros (P)da-r-o?m
        to-you   how many year   become-P-you/Und
        'How old are you'

Group IV — Transitive-Receptive.

    bam   'hit (target)'
    suy   'pierce'
    balbal   'heat'
    dum   'cover'
    miley   'please'

Comments:
        i. These verbs are clearly lexically cognate to the corresponding
transitive or receptive verbs, viz.,

    bam-u   'to receive'   (Transitive)
    su?y-u   'to pierce'   (Transitive)
    balbal-u   'to heat'   (Transitive)
    da?m-u   'to cover'   (Transitive)
    mile?y-nu?   'like, happy'   (Transitive)

    The question arises as to whether the Di-Receptive forms of the
lexically cognate verbs are grammatically derived from the transitive
or receptive verb. The transitive verbs themselves may take the Pass-
ive derivation which deletes the Agent from the frame of reference. But
the Direceptive form differs from the Passive in that there is no under-
lying Agent. Compare the following examples:

    a) (Agt)no?n (Und)bolram-di etur (P)da?m-u , (Asc)go?tung ba?tur
            he   boldram-Fo to   cover-P   cloth   with
            'He covered Boldram with a cloth' (Transitive)

    b) (Und)bolram-di   (P)dam-u? .   duku?
            boldram-Fo   cover-P/Und be/Und
            'Boldram is covered' (Passive State)

    c) (Und)go?tung (Si)bolram-di etur (P)dam-u?
            cloth   boldram-Fo to   cover-P/Und
            'The cloth covered Boldram' (Di-Receptive)

In example c) the cloth just fell on to Boldram, there was no Agent

involved. But why should the cloth be considered the Undergoer? If
the language is restricted to only being able to handle three DP's,
then the subject of c) could not be an Agent (there was none) and there
already is a Site, so the only· choice left is Undergoer. So the
Parengis may really consider the subject of c) to be a real Undergoer.

An alternative hypothesis, which perhaps is better, is to have a
disjunctive definition for the function of –nu?. In these instances,
the affix –nu? may indicate that the Subject is Non-Agent rather than
Undergoer.

For the present the writer has decided to leave these forms as a
sub-class of the Di-Receptive clause. If they are in fact derived
clauses, then it is a different derivation from the usual –nu? (Passive)
derivation. This is a matter for further investigation.

ii. It should be noted that these verb stems lose the glottaliza-
tion of their corresponding transitive or receptive verb stem. However,
the same feature has been noted when other transitive verbs take the
–nu? Undergoer derivation.

Examples:

1) (Und)nay gar'i   bo?y (Si)e–ning* (P)ar–miley–n–i?ng
          what vehicle one   to–me   Neg–please–Und–me
          'Not even one vehicle pleased me (by coming)'

(Compare this with the situation of mile?y 'happy' under the Receptive
Clause, where the Subject is the Undergoer in the sense that he is the
processor of an emotional state. In the example above, the vehicle is·
certainly not a processor of an emotional state!)

2) (Und)capi   (Si)e–ning* (P)balbal–i?ng–ay ·
          coffee   to–me   heat–me/Und–Sp
          'The coffee burnt me'

3) (Und)kula (Si)e–ning* (P)dam–i?ng
          tiger   to–me   cover–me
          'The tiger covered me' (he pounced on me and pinned me down)

4) (Und)gusi?n (Si)e–ning* (P)dam–i?ng
          ghost   to–me   cover–me/Und
          'The ghost covered me' (he siezed me held me tight all over)

5) (T)udubun   (Si)e–ning (Und)bo?y amon   (M)dat'am (P)bam–i?ng .
          yesterday   to–me   one arrow   much   hit–me/Und
          'Yesterday an arrow hit me hard'

6) (Rs)uba? ara? ba? .ne–alam–u da?n (Und)uba? bo?y (P)suy–i?ng
          thorn tree place I–touch–P for   thorn one   pierce–me/Und
          'A thorn pierced me because I touched the thorn bush'

2.6 Receptive Clause.

±S	NP,pro,DepCl	P	Rec VP
Und	item	Process	relates to Und

Clause Meaning: Subject is involved in a process or in a pure (un-forced) motion.

Periphery: Time, Outer Locative, Reason, Purpose, Associate, Manner.

Expanded Formula: $\pm$ T + Und $\pm$ OLoc $\pm$ Rs $\pm$ Pur $\pm$ Asc $\pm$ M + P

Sample Verb Stems: All the verbs in this clause type take -nu? in their infinitival form. These verbs fall into three groups.

Group I – Change of State.

    Personal Verbs:

ki?n	'die'	dima?n	'sleep'
bu?l	'be drunk'	mar	'wake up'
ara?n	'be startled'	da	'become'

    Impersonal Verbs:

asin	'become well cooked'	zo?	'fruit'
		i?r	'sound'
ba?m	'head out'	liga?n	'snap'
buga?	'shatter'	asar	'dry out'
ge?m	'kindle, blaze'	kadu?	'disappear'

Comments:
    i. The verb ki?n 'die' is unusual in that it takes both forms of the infinitive, ki?n-u and kin-nu?. E.g.,

    (Pur)ki?n-u da?n (P)ui-tu?
        die-Inf for   go-F/Und
        'He will go...to die'

    (Pur)kin-nu?   da?n (P)ui-tu?
        die-Inf/Und for   go-F/Und
        'He will go...to die'

    It is also noted that in the past and future tenses that it is the -nu? form that occurs, but in the present continuous tense the -u form occurs. It may be that the -nu? form occurs when the subject has actually succumbed to death at the 'time' of the verb.
    ii. In this clause type the verb da 'become' may function in exactly the same contexts as duku 'be' does in the Attributive clause type. At first sight da appears to be a State verb as it indicates the

coming into being of a state. However, the fact that the verb can be
'stativized' shows it to be considered as an event in its basic form.

It is particularly interesting to see that the Equative type of
Attributive clause is negated with the verb da 'become' and not with the
usual negative-state verb ingka 'not be.'

Examples:

1) (Und)no?n (P)kin-ru?
  he die-P/Und
  'He died'

2) (Und)ming* (M)dat'am (P)ne-bu?l-u?
  I   much 'I-drunk-P/Und
  'I was very drunk'

3) (Und)i?tang (Asc)yeye?n ba?tur (P)asar-tu?
  dung   sun with dry-F/Und
  'The dung will dry out with the sunshine'

4) (Und)tsent'ia (PEx)posu (P)or-da-nu?
  sparrow   quadruped Neg-become-Und
  'Sparrows are not quadrupeds' (This is the only way to
  negate an Equative type of Attributive clause.)

5) (Und)sio: kula (PEx)zont' digin-nu roza (P)da-tu?
  lion lion animal Cl-Aj king become-F/Und
  'The lion will become the king of the animals'

6) (Und)ming kat'ak ui-nu? (PEx)bond' (P)da-ru?
  I cuttack go-Inf/Und closed become-P/Und
  'My going to Cuttack was stopped' (That 'I' is part of the
  dependent clause, the Nexus, and not the Subject of the main
  verb is shown by the fact that the Predicate is in the third
  person.)

Group II - Change of Position.

  su?ng   'fall'   ur   'arise'
  gon   'lie down'   koko 'sit'
  dur'ung-sing 'set' (of sun or moon) tinang 'stand'

Comments:
 i. The verb dur'ung-sing 'set' is a little unexpected in this
clause type. All other verbs indicating meterological phenomena occur
in the Eventive clause type. This verb is clearly a compound verb
using the Transitive verb dur'ung 'lower.' The derivation of sing is
not known at present. However, as the verb dur'ung-sing does not occur

in any other clause type it has been classified as Receptive.

ii. The verbs koko 'sit' and tinang 'stand' usually do not take a Referent, but instances have been recorded with what appears to be a Referent. However, the fact that the Predicate may or may not agree with this apparent Referent suggests that such forms may be un-grammatical.

Examples:

1) (Und)yeye?n-ki?n-di (M)d'ape   (P)dur'ung-sing-u?
        sun-god-Fo   quickly   set-P/Und
        'The sun set quickly'

2) (T)saklia   (Und)ming* (Rs)dima?n do?-r-ing da?n (P)ne-gon-ru?
        morning   I   sleep feel-P-me for   I-lie down-P/Und
        'This morning I lay down because I felt sleepy'

3) (Und)ming* (PEx)pu?t'a   (P)ne-koko-tu?
        I   stomach   I-sit-F/Und
        'I will sit the stomach'   (a euphemism for 'defecate')

4) (Und)no?n* (Asc)ming ba?tur (P)koko-ru?
        he   I   with   sit-P/Und
        'He sat with me'

Group III - Activity.

Those verbs indicating Activity may be subdivided into three types, viz.,

Physical:

tay:u?	'nod off'	asong	'defecate'
pongrey	'swim'	tida?	'wallow'
o?der	'grind grain'	garum	'growl'
po?y-po?y-lang	'whistle'		

Mental:

are?	'not want, refuse'	bana	'forget'
soy	'learn'	bitsar da	'think

Emotional:

butong	'fear'	amsi?	'hate'
butu?	'despair'	mangar	'pine'
guro?y	'shy'	asa	'believe, trust'
mile?y	'happy'	badu	'unwilling, reluctant'
zigar	'angry'		

Comments:
    i. It is not uncommon for several of these verbs to incorporate a second DP as Referent and so take on the appearance of a Di-Receptive clause. However, my best informant tells me that the Referent in such cases is derived from an embedded clause which has been partly deleted. (The subject of the embedded clause would also be the subject of the main clause.) Examples of such partly deleted embedded clauses have been found in the Time, Reason, and Purpose slots of the Receptive clause type. (See examples 4 - 7.)
    ii. Not all the verbs will tolerate this ungrammatical adding of a Referent. For example, <u>zigar</u> 'angry' will not do so.
    iii. The agreement between the pseudo-Referent and the Predicate is optional.

Examples:

1) (Und)ming* (P)ne-bana-ru?
        I   I-forget-P/Und
        'I forgot'

2) (Und)ming* (Si)guni-di etur (P)ne-are?-ru?
        I   girl-Fo to   I-refuse-P/Und
        'I refused the girl'

    This is understood to be derived from:

    (Und)ming (Rs)guni-di etur biba   da-nu?   da?n (P)ne-are?ru
        I   girl-Fo to   wedding do-Inf/Und for   I-refuse-P/Und
        'I refused to marry the girl'

3) (Und)kus?on-di (Si)e-ning* (P)garum-t-i?ng
        dog-Fo   to-me   growl-F-me/Und
        'The dog will growl at me'

    This is understood to be derived from:

    (Und)kuso?n-di (T)e-ning gi?-ing sun (P)garum-tu?
        dog-Fo   to-me see-me when   growl-F/Und
        'The dog will growl when he sees me'

4) (Und)ming* (Si)e-nom (P)ne-butong-t-o?m
        I   to-you   I-fear-F-you/Und
        'I will fear you'

    This is understood to be derived from:

    (T)e-nom ne-gi?-om du   (Und)ming* (P)ne-butong-tu?
        to-you I-see-you when   I   I-fear-F/Und
        'When I see you I will be afraid'

5) (T)bio?gi   (Und)ming* (PEx)payt'i da-u   (P)ne-badu-tu?
        tomorrow   I   work   do-Inf   I-reluctant-F/Und
        'Tomorrow I will feel reluctant to work'

2.7 Semi-Receptive Clause.

$\pm$ REF	NP,ARNP,ARpro	P	SRec VP
Site	animate location	Attaching State	relates to Site

Clause Meaning: The Referent receives an attaching (temporary) state.

Periphery: Time, Reason, Manner.

Expanded Formula: $\pm$ T $\pm$ Rs + Si $\pm$ M + P

Sample Verb Stems:

zu?m	'itch'	do?	'feel'
zeng, zieng	'cold'	duku?	'stoop'
biti	'tire'	d'uka	'pain'
asu	'fever'	sit'a?m	'strain, over-exert'
butu, bu?tu	'hunger'		
ada?	'thirst'		

Comments:

    i. All the verbs in this clause type take -u in their infinitival form.

    ii. The Predicate may fluctuate between the -u and -nu? forms of the verb without any apparent change in the semantic roles of the DPs.

    iii. With the possible exception of duku? 'stoop,' all the verbs indicate an internal physical state. It may be that duku? means something like 'to have backache.'

    iv. An Outer Locative cannot occur except by embedding.

    (T)udubun   (T)zalaput' ne-i?   ne-k-ru?   du   (M)nay mad
        yesterday   jalaput   I-go/Und I-be-P/Und when   what much

        (P)ada?-r-ing-ay
            thirst-P-me-Sp
        'Yesterday when I went to Jalaput, I was so thirsty'

    v. The verb do? 'feel' requires an abstract state noun as complement. Its meaning is 'to feel internally' and though it is not cognate with any other Parengi word it is probably a cognate of the combining form of the Sora word for 'body,' which is do?ng. (Sora is the closest related language to Parengi) In Parengi this verb has been found with the following abstract nouns, all of which (except for the first two listed) may also occur as Receptive or Semi-Receptive verb stems.

bitsar	'thought'	bu?l	'drunk'
niman	'good'	dima?n	'sleep'
butong	'fear'	zu?m	'itch'
guro?y	'shyness'	zeng	'cold'
mile?y	'happiness'	biti	'tiredness'
zigar	'anger'	asu	'fever'
amsi?	'hate'	sita?m	'exhaustion'
mangar	'sorrow'	bu?tu	'hunger'
asa	'belief'	ada?	'thirst'
badu	'reluctance'	tay:u?	'doziness'
		d'uka	'pain'

vi. The Manner Adjunct is restricted to one of degree (e.g., much, less).

Examples:

1) (Si)sio: roza-di etur (P)bu?tu-ru?-ni
   lion lord-Fo to   hungry-P/Und-Hab
   'The lion-king was always hungry'

2) (T)udubun   (Si)e-ning* (M)dat'am (P)ada?-r-ing-ay
   yesterday   to-me   much   thirst-P-me-Sp
   'Yesterday I was very thirsty'

3) (Rs)pensil-nen niman-t'a da?n (Si)e-ning* (PEx)mile?y (P)do?-t-ing
   pencil-this good-Nom for   to-me   happy   feel-F-me
   'I will feel happy because this pencil is a good one'

Residue: In the examples given below there is a dependent clause with
   the verb in the infinitival form. The writer is unsure whether to
   treat the dependent clause as a DP or not. If the dependent clause
   is a DP then they are Di-Receptive clauses, otherwise they are
   Semi-Receptive.

1) (?)kunda-n ui-nu?   (PEx)butong (P)do?-t-ing
   hill-Lk go-Inf/Und   fear   feel-F-me
   'I will feel afraid to go to the hills'

2) (T)bio?gi (?)payt'i da-u (PEx)badu   (P)do?-t-ing
   tomorrow   work   do-Inf   reluctance   feel-F-me
   'Tomorrow I will feel reluctant to do work'

The second example should be compared with its synonomous forms,
see example 5 Under Group III of the Receptive Clause and this follow-
ing example:

3) (T)kilnu (?)payt'i da-u   (P)badu-n-i?ng   lu?-r-ing
   now   work   do-Inf   reluctant-Und-me pres.cts.-me
   'I am reluctant to do work now'

At this stage of the analysis the writer inclines to treat the dependent clause as a Complement and, therefore, tentatively classifies the examples above as Semi-Receptive clauses.

2.8 Eventive Clause.

```
    P      ¦   Ev VP
+  --------+---------------------------
   Action  ¦   meterological phenomena
```

Clause Meaning: A meteorological event.

Periphery: Time, Outer Locative, Reason, Manner

Expanded Formula: $\pm$ T $\pm$ L $\pm$ Rs $\pm$ M + P

Sample Verb Stems:

udu?m	'evening, dusk'
tiga?n	'rise, dawn' (daily rising of sun; also of moon)
imbur	'wind'
da? gur	'rain' (lit. water enter)
ayli?	'rise' (monthly appearing of the moon)
ungong	'night, dark'

Comments:

   i. All the verbs in this clause type take the -u form.

   ii. Reason rarely occurs and the example given below was obtained by elicitation. Manner is restricted to degree.

   iii. If the verb stem does not comprise a meteorological noun, then the verb is likely to take a meteorological noun as Complement. The verb tiga?n 'dawn, rise' could be considered as an Intransitive verb, but the range of possible subjects would be restricted to just 'sun' and 'moon.' Because of this strong restriction, the writer chooses to treat 'sun' and 'moon' as Complements.

   iv. The verb da? gur 'rain' might also be considered as an impersonal Intransitive verb. However, it differs from the Semi-Transitive verb gur 'enter' in that it does not take a Referent. Also, if 'rain' is considered an impersonal verb it would be restricted to one subject only, da? 'water.' Because of these restrictions the writer prefers to treat this verb as having a Complement and to classify it under Eventive.

Examples:

1) (P)udu?m-ay
      evening-Sp
      'It became evening'

2) (T)udubun   (OLoc)zalaput' (M)abu?n (P)imbur-r-ay
   yesterday   jalaput   much   wind-P-Sp
   'Yesterday it blew heavily at Jalaput'

3) (Rs)taru?m da?   da-r-ay   da?n (PEx)da?   (P)gur-r-ay
   cloud water become-P-Sp for   water   enter-P-Sp
   'It rained because the rain-clouds came'

4) (PEx)anga?yta (P)tiga?n-t-ay
   moon   rise-F-Sp
   'The moon will rise'

2.13 Di-Attributive Clause.

S	NP,pro	REF	NP,ARNP,ARpro	± P	Stative VP
Und	item	Site	location	State	Und & Si co-exist
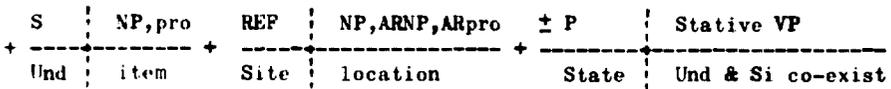
Clause Meaning: Subject and Referent exist together or are located
    together.

Periphery: Time, Reason.

Expanded Formula: $\pm$ T $\pm$ Rs + Und + Si + P

Sample Verb Stems: duku   'be'
                     ingka   'not be'

Comments:
     i. All the verbs in this clause type take the –nu? form.
     ii. A change in the order of occurrence of Subject and Referent
does not effect the meaning.
     iii. Prefers neutral tense to present continuous.
     iv. In the third person of the non-negative neutral tense the
predicate (but not the complement) may be optionally deleted.
     v. The Di-Attributive clauses may be split into two sub-types—
Possessive and Locative. (The Locative sub-type also has an Existive
sub-type of its own.)

     The general differences between the Possessive and Locative sub-
types are the preferred order of occurrence of the Subject and Referent
tagmemes, and the different shades of meaning given by the Predicate
(though both sub-types have the general meaning of the co-location of the
Undergoer and the Site).

2.131 Possessive.

Comments:
     i. The usual order of the tagmemes is Referent–Subject–Predicate,
though the Referent and Subject may occur in the reverse order.
     ii. The Subject slot is rarely filled by a pronoun.

iii. The Referent is usually animate, though inanimate Referents
may also occur. In both cases the Referent is marked _etur_. When the
Referent is inanimate, the Undergoer is an integral part of the Ref-
erent. (See examples 2 and 4.)
    iv. The Predicate has the meaning of 'possession' and is trans-
lated into English by the word 'have.'

Examples:

1) (Si)e-ning (Und)a?sung (P)duk-i?ng
         to-me   house   be-me/Und
         'I have a house'

2) (Si)a?sung etur (Und)alang (P)duku?
         house   to   thatch   be/Und
         'The house has thatch'

3) (Si)puzari-n etur (Und)bo?y ango?n (P)duku?
         puzari-Lk to   one son   be/Und
         'Puzari has a son'

4) (Si)put'put'i etur (Und)kol   (P)duku?
         motor-bike to   engine   be/Und
         'The motor-bike has an engine'

5) (Si)e-no?m (Und)zieng (P)ingko?
         to-him   cold   not be/Und
         'He is not cold' ('He does not have coldness')

6) (Si)areng ± etur (Und)zibon (P)ingko?
         stone   to   life   not be/Und
         'Stone does not have life'

7) (Si)e-ning (Und)tang-dey-nu?   payt'i (P)duk-i?ng
         to-me   pound-cook-Inf/Und work   be-me/Und
         'I have rice-preparing work'

8) (Und)mang* (Si)e-ning (PEx)saka   (P)mo-k-i?ng
         you   to-me   brother   you-be-me/Und
         'You are (like) a brother to me'

9) (Rs)kundem deray ne-ong-u da?n (Si)e-ning* (Und)abu?n dabu
         rice   millet I-sell-P for   to-me   much money

         (P)duk-i?ng
           be-me/Und
         'I have much money because I sold rice and millet'

2.132 Locative.

Comments:
    i. The usual order of tagmemes is Subject–Referent–Predicate, though the Subject and Referent may occur in the reverse order.
    ii. The Referent is inanimate and unmarked.
    iii. The Predicate has the meaning of 'geographical location.'
    iv. There is an Existive sub-type of this clause.

Examples:

1) (Und)ming (Si)a?sung (P)ne-k-u?
        I   house   I-be-Und
       'I am in the house'

2) (Und)no?n (Si)a?sung (P)ingko?
        he   house   not be/Und
       'He is not in the house'

3) (Si)biel   (Und)bo?y lu?ng (P)Juk-ru?
        field   one hole   be-P/Und
       'There was a hole in the field'

4) (Und)ar'i da?u   (Si)reil t'eson o?tur (PEx)pa:c mail sanga?y
        that village   rail station from   five mile distant

   (P)duku?
      be/Und
   'That village is five miles from the railway station'

   2.1321 Locative-Existive.

   Under certain conditions the Referent does not occur. This is when the location is not known to the speaker and could have been anywhere, but it is understood that there was a location. This typically occurs as the opening sentence of a folk story and gives the 'setting' for the story. Therefore it is classified here as a discourse-conditioned variant of the Di-Attributive (Locative) Clause.

   In this Existive sub-type, the Predicate is optionally deletable. Also, the verb is in the simple past tense and negates with the negative of duku 'be' rather than the negative verb ingka 'not be.'

Examples:

1) (Und)bo?y kunda bo?y (P)duk-ru?
        one hill one   be-P/Und
       'There was a certain hill'

2) (Und)bo?y mod'u sun-u   lok   bo?y (P) $\pm$ duk-ru?
        one mod'u say-Inf folk one   be-P/Und
        'There was a certain person called Modu'

3) (Und)bo?y lok   (P)ar-ku-n-e?y
        one folk   Neg-be-Und-they
        'There was not one person' (or 'Not one of them stayed')

    2.14 Attributive Clause.

S	NP,pro,DepCl	P	Stative VP
Und	item	State	relates to Un.

with `+ ---+---------------- +/- ------+----------------- ---`

Clause Meaning: Ascription, attribution, or identification of Subject.

Periphery: Time, Reason.

Expanded Formula: $\pm$ T $\pm$ Rs + Und + P

Verb Stems: duku   'be'
             ingka   'not be'

Comments:
    i. All the verbs in this clause type take the -nu? form.
    ii. The Predicate requires Complement.
    iii. The Attributive Clause with an Adjectival Complement may be
called the Descriptive sub-type, and the one with a Nominal Complement
the Equative sub-type. These two sub-types might be sufficiently dif-
ferent to be contrastive clause types, but the evidence available at
present is not conclusive. The two sub-types will be described sepa-
rately below.

    2.141 Descriptive-Attributive.

Comments:
    i. The Complement is filled by an Adjectival Phrase.
    ii. The Subject is the Attribuand (described item) in an
ription.
    iii. The Predicate is conditioned in its occurrence. If the State
a stable unalterable one, then the Predicate will not occur.
    iv. It commonly takes the neutral tense rather than the present
continuous, though the latter may be used to refer to something that
continues for some time but is likely to change (e.g. 'Daily Boldram
is being good').
    v. There is some doubt as to whether the occurrence of ingka in
this clause type is legitimate. Very often the clause is negated with
the negative of da 'become'--which would then be a Receptive clause.
Only two examples of a negative Descriptive clause are found in the
writer's data.

(T)mɪta?n (Und)baing (PEx)niman (P)ingko?
today   youPl   good   not be
'Today you are not good'

(Und)tarbulda?n-nu lok (PEx)niman (P)ingko?
        talabireda-Aj folk   good   not be
        'The Talabireda folk are not good'

Examples:

1) (Und)ar'i lok-di (PEx)ra?   lu?kun (P)duku?
        that folk-Fo   elephant like   be/Und
        'That person is like an elephant'

2) (Und)ming* (PEx)d'os kedzi lagun (P)ne-ku?
        1   ten k.g. heavy   I-be/Und
        'I weigh ten k.g.'

3) (Und)imbur*   (PEx)balbal (P)duku?
        wind   hot   be/Und
        'It (the air) is hot'

4) (T)d'os anum aki   (Und)ar'i ara? (PEx)deli? (P)duk-ru?
        ten year below   that tree   small   be-P/Und
        'Ten years ago that tree was small'

5) (Und)ar'ɪ dam (Rs)abu?n da?   a?b-d'ar-u da?n (PEx)lu?p (P)duku?
        that dam   much water C-grasp-Inf for   big   be/Und
        'That dam is big so as to hold back much water'

6) (Und)bubong digin aba-nu   sama d'ar-u   (PEx)niman
        baby   Cl   father-Aj story grasp-Inf   good
        'It is good that children keep their father's words'
        (Notice that there is no Predicate; see Comment iii above).

    2.142 Equative-Attributive.

Comments:
    i.   There is no Predicate; but see Comment iii under 14.1.
    ii. Negates with the negative of da 'become' and not with ingka
'not be.'
    iii. The Complement is filled by a Nominal Phrase.
    iv. The Subject is a specific item and the Complement is a generic
item.
    v.   The periphery is very restricted. Time cannot occur because,
without a Predicate, the clause is timeless. Reason has not been found,
though that is not to say that it couldn't possibly occur. The last ex-
ample given below appears to be a comparative form of the Equative and
incorporates an Outer Locative. It constitutes a residual variant of
clause which needs further investigation.

Examples:

1) (Und)en   (PEx)t'ebul
      that thing   table
      'That is a table'

2) (Und)no?n-nu mol   (PEx)iag   t'anka
      he-Aj   price   three rupee
      'Its price is three rupees'

3) (Und)ar'i no?n (PEx)ming-nu-t'a
      that he   I-Aj-Nom
      'That item is mine'

4) (Und)mahanadi (OLoc)or'isa-nu sobu kinda? ba?   o?tur (PEx)lup
      mahanadi   orissa-Aj all river place from   hig

   kinda?
   river
   'The Mahanadi is the biggest of all the rivers of Orissa'

C. Inflected Patterns (Node-Invariant Derivations).

Foreword. The preceding section has dealt with the basic simple
clause types in the Indicative Active/Stative Independent frame of
reference. Other simple clause types may be derived from them. Such
a derived clause might fall under the same terminal node or under a
different terminal node on the Hale chart when compared with the termi-
nal node of the basic clause. The derived clauses that remian under
the same node on the chart will be considered in this section on 'In-
flected Patterns.' Those derived clauses that are re-located on the
chart will be considered in Section D on 'Derived Patterns.'

1. The Tense-Aspect System.

1.1 Tense-Aspect.

The verb itself is marked for past tense (-ru, -r-) or future
tense (-tu, -t-). If neither of these occur, then the tense is neu-
tral. This unmarked neutral tense occurs with the infinitive, negative,
and present continuous forms of all verbs and with the present tense of
the state verbs. The continuance of the action is shown by the auxil-
iary verb lu?(n) or by the word olku. The duration of the effect of
an action is shown by the auxiliary verbs duku 'be' (see also Section
D.4.1 on 'Stativisation'), and ku?n 'temporary state.'

The following table shows the normal range of tenses.

Time	Aspect	Label	Example da 'do'	Gloss
	Punctiliar			
Past -ru*	–	Past Aor	da-ru	'He did'
Neut ≈	–	Present, Timeless, or Neg.	or-da	'He will not do'
Fut -tu	–	Fut Aor	da-tu	'He will do'
	State			
Past -ru	Past duku-ru**	Past Perf	da-ru duk-ru?	'He had done'
Past -ru	Neut duku-? ku?n	Pres Perf	dä-ru duku-?	'He has done'
Fut -tu	Fut duku-tu?	Fut Perf	da-tu duk-tu?	'He will have done'
	Continuous			
Past -ru	olku	Past Cts	da-ru olku	'He was doing'
Neut ≈	lu?(n)-ru***	Pres Cts	da-u lu?-ru	'He is doing'
Fut -tu	olku	Fut Cts	da-tu olku	'He will be doing'

Figure 5. The Tense-Aspect System

*Sometimes the r of the past tense affix is obscured by the following
morpho-phonemic changes when the verb stems end with certain consonants:

```
m + ru -->  mmu            i + ru -->  i
ng + ru -> ngngu           y + ru -->  y
l + ru --> llu             v: + ru --> y:
n + ru --> rru, ndru
```

**When the verb duku carries a person (subject) prefix, then the verb
stem is shortened to k.

```
ne-da-ru ne-k-ru?
I-do-P    1-Aux-P/Und
'I had done'
```

***The n is overtly present in the negative or other uninflected forms,

but elsewhere the n obligatorily takes its zero allophone ∅. Also,
when this auxiliary verb carries a person (subject) prefix then the
verb stem is normally shortened to ?.

  da-u mo-?∅-ru = = => da-u mo-r-lu?n
  do-Inf you-Aux-P   do-Inf you-Neg-Aux
  'You are doing'   'You are not doing'

  In my data there is only one example of ku?n- as an auxiliary
verb, where it indicates that the affect of the action was temporary.
In this example it occurs in the neutral tense.

  (OLoc)indi basa-n (P)le-reng-u le-ku?n-u
     this base-Lk we-leave-P we-Aux-Neut
     'We temporarily leave (our stuff) at this base'

  1.2 Habitual-Aspect.

  The writer is unsure as to the precise meaning of the verbal suf-
fix -ni. It occurs as the last of the series of verbal suffixes. Ten-
tatively two meanings have been postulated for -ni:

  i. Habitual action

  ii. Another form of Speaker Orientation (see Section C.2.1) in
which the speaker is referring to an action which is taking place at
a very remote distance from him, so that he can neither see nor hear
it nor quickly verify it.

  The examples that are available at present split into two groups.
Those that add -ni to a normal past (or future) tense, the clause re-
maining independent; and those that add -ni to the infinitival form of
the verb and do not carry tense—the resulting clause being a dependent
one.

Examples: Set A

(Und)tsit'i (P)sa?-ay ne?r-ay   = = =>
  paper tear-Sp/Inf I-pres cts-Sp
  'I am tearing paper' (said to a close, unseen questioner; e.g., on
  the other side of the door)

  (Und)tsit'i (P)ne-sa?-r-ay-ni
    paper I-tear-P-Sp-?
    'I am tearing paper' (said to a distant, unseen questioner)

(Und)no?n (Si)a?sung o?tur (P)ui?-nu? lu?ru = = =>
  he   house from go-Inf/Und pres cts
  'He is going from the house'

(Und)no?n (Si)a?sung o?tur (P)ui?-<u>ni</u>
    he   house from   go/P/Und-?
    'He is going from the house' (as usual; as he did yesterday
    and will do tomorrow)

<u>Set B</u> (Infinitive + <u>ni</u>)

(Und)ar'i gar'i (P)ui-nu?-<u>ni</u> // (P)tinang-u
    that bus   go-Inf/Und   stand-P
    'That bus went and stopped'

(Si)iskul o?tur (P)o?bay-<u>ni</u> // (Und)tangk (P)ga?-ru
    school from   come-?   rice   eat-P
    'Coming from school, I ate rice'

Comments:
    Set A has independent clauses, and the verb is declined for person
and tense. It suggests an action that is begun in the past and is still
in progress, and that this is an habitual action.
    Set B has dependent clauses, and the verb is not declined for per-
son or tense. It suggests that one action was on its way and it gave
way to another action.

    1.3 Negation.

    The negative aspect is shown for the Event clauses by the prefixes
<u>ar-</u>, <u>or-</u> on the verb stem. The negated verb is inflected for person but
not for tense, though then tense may be known to some extent by the
choice of negative prefix (<u>ar-</u> indicates past; <u>or-</u> indicates non-past)
and by any modal auxiliaries that occur. Though the verb is not suf-
fixed for tense (-<u>tu</u> 'future', -<u>ru</u> 'past'), it is suffixed by the in-
finitival markers -<u>u</u>, -<u>nu</u>? (the -<u>nu</u>? form indicating, as usual, that
Subject is the Undergoer).

Examples:

(Und)no?n (P)bu?l-(1)u? duku? = = => (Und)no?n (P)<u>ar</u>-bul-nu?
    he   drunk-P/Und be/Und   he   Neg-drunk-Und
    'He is drunk'
                                 <u>ar</u>-ku-(nu?)
                                   Neg-be-(Und)
                                   'He is not drunk'

(Und)ar'i a?sung (P)gi-n-a?y = = => (Und)ar'i a?sung (P)gi-n-a?y
    that house   see-Und-Sp   that house   see-Und-Sp

lu?-r-ay   <u>ar</u>-lu?n
pres cts-Sp   Neg-pres cts
'That house is being seen'   'That house is not being
                                       seen'

                                              (It could be seen, but the
                                              person is not wanting to
                                              look that way.)

(Si)at'-un   (P)ne-i?   = = =>   (Si)at'-un   (P)ne-r-ui-(nu?)
   market-to   I-go/P/Und   market-to   I-Neg-go-Und
   'I went to market'   'I did/will not go'

     The word ar-lang means 'not yet.' It occurs in the infinitival
form with referent agreement, but without subject agreement.

(Agt)bar-bo?y   lok (P)ar-lang o?bay
     again-one   folk   not yet come/Inf
     'Someone else has not yet come'

(Agt)ming (Und)on-ek   (P)zum-u   ar-lang
      I   anna-one   eat-Inf not yet
     'I have not yet consumed (i.e., spent) one anna'

(Und)a?sung (P)gi-n-ay   ar-lang
     house   see-Und-Sp   not yet
     'The house has not yet been seen'

     The Attributive and Di-attributive clauses (having duku-nu? 'to
be') are unusual in that they are not normally negated by ar- or or-,
but they have a special negative state verb, ingka-nu? 'to not be.'
Examples have already been given in Section B.2.13 and 14. Imperatives
may be negated as regular verbs, or they may carry the pre-verb ambu
'don't.'

(P)ambu   alam   (P)or-alam
   don't   touch   Neg-touch
   'Don't touch'   'Don't touch'

     2. Mode.

     2.1 Speaker Orientation.

     There is a verbal affix -ay which indicates something of the
relation between the action and the speaker and treats the speaker as
a secondary Referent. It seems to carry three or four meanings:

     Remoteness. The action occurs in a different place than where the
speaker is. It may also apply to remoteness in time.

(Agt)no?n (Und)o?an (P)la?-tu = = = > (Agt)no?n (Und)o?an (P)la?-t-ay
     he   dance   hit-F   he   dance   hit-F-Sp
     'He will dance (somewhere)'   'He will do a dance (over
                                           there)

(P)sun-ru   = = =>   (P)sun-r-$\underline{ay}$
  say-P   say-P-Sp
  'He said'   'He said (a long time ago)'
                      (occurs in folk-tales)

(C?)gotia-nen   (Agt)ingay kurong-nu pori?n (P)ye?-r-$\underline{ay}$
   visitor-this   which path-Aj bird   cry-P-Sp
   'The birds of which area cry out (remote) because of this visitor?'
   (A figurative expression asking where a stranger is from.)

    <u>Direction towards the speaker</u>. This applies to directed motion
verbs. This may be part of the meaning of the previous section, as
the source of the directed motion is 'remote.'

(P)le-d'on-tu   = = =>   (P)le-d'on-t-$\underline{ay}$
  we-take-F   we-take-F-Sp
  'We will take'   'We will bring'

    <u>Urgency</u>. This occurs with the first person of the Hortatory
paradigm. It seems to indicate that the subject must do the action
immediately or it will be too late. (See also Section C.2.2 Imper-
ative-Hortatory.)

(Und)ming (P)ne-i-tu?   = = =>   (Und)ming (P)ui-t-$\underline{a?y}$
  I   I-go-F/Und   I   go-F-Sp/Und
  'I will go'   'I must go (now)'

    <u>Speaker is the Referent</u>. Often this suffix appears in conjunction
with, or even in place of, a Referent which is in the first person
singular.

(PEx)guro?y (P)do?-r-ing = = => (PEx)guro?y (P)do?-r-ing-$\underline{ay}$
  shy   feel-P-me   shy   feel-P-me-Sp
  'I felt shy'   'I felt shy'

(Agt)saybu-di (P)zel-ing = = => (Agt)saybu-di (P)zel-ing-$\underline{ay}$
  master-Fo   tell-me   master-Fo   tell-me-Sp
  'The master told me'   'The master told me'

    2.2 Imperative-Hortatory.

    The Imperative is part of the Hortatory paradigm. This Horta-
tory paradigm is the only place in the Parengi language which distin-
guishes between Inclusive and Exclusive forms, and which also has
dual number as well as plural number. Dual number is restricted to
first person only.

    The —$\underline{u}$, Subject as Agent, verbs give the basic shape to this

paradigm. Given the -u form, then the -nu? (Subject as Undergoer)
and -ay (Speaker Orientation) suffixes are added in a mechanical fa-
shion to the paradigm.

Inclusive (of addressee) forms

Person	-u	-nu?	-ay	-nu? & -ay	Comments
Sg 1	--	--	-	-	Cannot occur
2	-∅	-na?	-ay	-n-a?y	∅= no affix; No subject concord
3	-e-tu	-ne?-tu	-ay-tu	-n-a?y-tu	Subject concord (∅)
Dl 1	-u	-nu?	-ay	-n-a?y	Subject concord (le-)
2,3	--	-	--	--	Does not occur
Pl 1	-bu	-nu?-bu	-ay-bu	-n-a?y-bu	Subject concord (le-)
2	-ab(u)	-n-ab(u)	-(ay)-bu	-n-a?y-bu	No subject concord
3	-e-t-ey	-ne?-t-ey	-ay-t-ey	-n-a?y-t-ey	Subject concord (-ey)

     Figure 6. Hortatory Paradigm.

(The third person forms take -tu, -t- the future tense marker)

Examples:

1)   (P)duk-ne?-tu
       be-Und/Impv-F
       'Let it stay'

2)   (Si)e-ning (P)tay-ing
       to-me   give-me
       'You (s) give it to me (for me)'

3)   (Und)indi kumda   (Si)e-no?n (P)le-ta?y-bu
       this pumpkin   to-him   we-give-Impv
       'Let us give him this pumpkin'

4)   (P)le-i
       we-go
       'Let us (dual) go'

5)   (P)tay-ing-bu-nu?
       give-me-Pl/Impv-Und
       'Let you (pl) give to me and vice-versa'
       (This is the Imperative form of a reciprocal action)

6) (P)ye?
        cry
        'Cry!'

7) (P)gon-na?
        lie-Und
        'Lie down!'

8) (P)dima?n   (P)dima?n-na?
        sleep   sleep-Und
        'Sleep!'   'Sleep!'

9) (P)d'on   (P)d'on-na?   (P)d'on-ay
        take   take-Und   take-Sp
        'Take it!'   'Take it (for yourself!'   'Bring it!'
                                 (i.e., Benefactive)

        Exclusive (of addressee) forms. This is the 'urgency' form which
is also alluded to under 'Speaker Orientation' (Section C.2.4) as it
always occurs with the affix -ay. These forms are found in the first
person singular and plural, but in the former case there is no subject
concord.

(Und)ming (P)ne-i-tu?   = = = >   (Und)ming (P)ui-t-a?y
    I   I-go-F/Und   I   go-F-Sp/Und
    'I will go (sometime)'   'I must go (now)'

(Und)bileng (P)le-i-tu?   = = = >   (Und)bileng (P)le-i-t-a?y
    we   we-go-F/Und   we   we-go-F-Sp/Und
    'We (excl?) will go'   'We (excl?) must go'

(bileng and le- 'we' are not necessarily exclusive pronouns but they
are often considered so, as the speaker has the option of choosing
the inclusive form if he wishes.)

(Agt)ming* (P)ne-gi?-tu   = = = >   (Agt)ming* (P)gi?-t-ay
    I   I-see-F   I   see-F-Sp
    'I will see it'   'I must see it'

        Residue. Consider the following paradigm:

(Und)ming (P)gon-t-a?y
    I   lie down-F-Sp/Und
    'I must lie down'

(Und)mang (P)gon-na?-t-ay
    you   lie down-Und/Impv-F-Sp/Und
    'You must lie down'

(Und)no?n (P)gon-ne?-tu
    he   lie down-Und/Impv-F
    'He must lie down'

The first is an example of the 'Urgency' type and the third fits the normal Hortatory paradigm, but it is not clear where the second belongs. (The above paradigm occurs with da?y- 'climb,' zel- 'tell,' and so is probably a regular one.)

    <u>Imperative-Hortatory</u> with <u>long range effects</u>. This paradigm indicates that when the action or state is completed, which will be in the very near future, then its effects will continue with the Referent indefinitely.

    The construction of the verb phrase is peculiar in that the Referent is obligatorily incorporated after the infinitival form of the verb stem and before the tense marker, but is only optionally incorporated in its normal place after the tense marker.

    This form is particularly appropriate in uttering curses!

(Si)e-nom   (Und)kude mat'i (P)ingka?-nom-tu?
    to-you   wall earth   not-be-you-F/Und
    'May you not have walls and earth!'

(Agt)tile?y-di   (PEx)ne? (P)zel-om   tay-om-t-o?m   dom
    old man-Fo   it   tell-you Aux-you-F-you/Und must
    'It's the old man, let him tell you'

    2.3 Subjunctive.

    There is an infix -y- that can occur between the subject pronominal prefix and the verb stem. It seems to indicate an event whose possible occurrence is dependent upon an uncertain issue (such as an hypothesis).

(Si)tite? (P)ne-y-ku?   ki, (P)ne-y-ting   (P)ne-y-ting dom
    there   I-Sbj-be/Und or   I-Sbj-shoot   I-Sbj-hit   must
    'Should I have stayed there,I would definitely have shot it hard'

(T)agay ki (Agt)ming (P)ne-y-da
   when Q   I   I-Sbj-do
   'When should I do it?'

    2.4 Modal Auxiliaries.

    The following main verbs may also be used by the speaker as auxiliary verbs to indicate something more of what he assesses the sub-

ject's frame of mind to be.

The modal auxiliaries under discussion here are:

	Main Verb	Auxiliary Verb
ta?y	'to give'	deliberate action
ui	'to go'	non-deliberate action, unvolitional
ua?y	'to com' '	as ui above (directional derivation of 'go')
pu?n	'to bloom'	an action moving outwards from a center
la?	'to hit'	vigorous action
ku?n	'to sit a child on one's hip'	temporary action

There are two other auxiliaries: duku (indicating state) and lu?n (indicating present continuous), but these will be dealt with under 'Tense' (See Sections C.1.1 and D.4.1).

1) (Agt)ming* (Si)baing a?sung (P)ne-gur-r-ay ne-ta?y-ay
        I   youPl house   I-enter-P-Sp I-Aux-Sp
        'I deliberately entered your house'

2) (T)kula ne-gi? sun (Und)ming* (P)ne-butong-tu? ne-i-tu?
        tiger I-see when   I   I-fear-F/Und   I-Aux-F/Und
        'When I see the tiger I will become afraid'

3) (Und)ara?-di (P)liga?n-t-a?y   ua?-t-ay
        tree-Fo   break-F-Sp/Und Aux-F-Sp
        'The tree will break (towards me)'

4) (Und)no?n (P)turia? pu?n-nu?   lu?ru
        he   kick   Aux-Inf/Und pres cts
        'He is kicking his leg'

    (It may be that turia? should be considered a Manner Adjunct, but there is insufficient data to make a judgement.)

5) (Agt)ming* (P)ne-ga?-ru ne-la?-ru
        I   I-eat-P   I-Aux-P
        'I ate vigorously'

6) (OLoc)indi basa-n (P)le-reng-u le-ku?n-u
        this base-Lk   we-leave-P   we-Aux-Neut
        'We temporarily leave (our stuff) at the base'

A Note of Caution:

In reading Parengi text one must be careful when one of these verbs is found as the second of a verbal pair. The second verb could be a modal auxiliary, or it could be an independent verb which is not part

of the same predicate as the first verb, or it could be forming a com-
plex predicate. This situation commonly arises with the verbs _give_ and
_go_.

The tests for deciding that a second verb is not a modal auxiliary
are:

i. Is another tagmeme introduced—one that the first verb does
not usually take? For example:

ta?y 'give' as a main verb can introduce a benefactive Referent
            slot.

ui   'go'   as a main verb can introduce a locative goal (or
             source).

ii. Can the two verbs be separated by a conjunction or a clause-
relator term? If so, the second verb is not an auxiliary verb.

In some cases there is ambiguity, and the context must be consid-
ered as to which interpretation is more likely.

Examples of non-auxiliary second verbs:

(Agt)mang (Und'bo?y tsit'i (Si)e-ning (P)mo-ol-t-ing   (P)mo-ta?y-t-ing
    you   one letter   to-me   you-write-F-me   you-give-F-me
    'You will write a letter and you will give it to me'

The above is an example of a complex clause. This paper is only treat-
ing simple clauses.

(Agt)ming* (Und)ming-nu pensil (Si)e-nom   (P)ne-ong-t-om
    I   I-Aj   pencil   to-you   I-sell-F-you

    (P)ne-ta?y-t-om
      I-give-F-you
    'I will sell my pencil to you'

(Agt)bubong-di (Und)kat'i (P)kabdu?-ru   ± du (P)ui?
    baby-F   knife   disappear/C-P   Cj   go/P/Und
    'The baby caused the knife to disappear and then he went'

compare: (Agt)bubong-di (P)kadu?-ru   ui?
              baby-Fo   disappear-P/Und go/P/Und
              'The baby just disappeared'

In the latter clause 'go' is an auxiliary verb showing non-intentional
action. The conjunction _du_ cannot occur.

3. Voice.

· 3.1 The Undergoer Function.

In Section B of this paper it was shown that when the subject of
the verb was the Undergoer--as in the Di-Receptive, Receptive, Di-
Attributive, and Attributive clauses--then the verb was marked by -nu?.
In the other clause types, in which the Subject was the Agent or there
was no Subject, the verb was marked by -u.

This same -nu? marker may be applied as a derivation to the Tran-
sitive group of clauses. If the Agent still remains the Subject of the
clause, then the derivation is node invariant and the meaning is Re-
flexive, Reciprocal, Benefactive, or Capabilitive. These inflectional
derivations will be considered below. However, if the Agent is no
longer the Subject of the clause, then the Undergoer--which was the
Object of the basic Transitive clause--becomes the Subject of the de-
rived clause. This derived clause is Passive (or Potential) voice and
will then fall under the Receptive (or Di-Receptive) node on the Hale
chart. This Passive derivation will be described in Section D.1.

The reader is reminded that the -nu? affix has various allomorphs
in which the n or u or both may be lost, but the glottal will always be
present.

3.11 Reflexive.

This is derived from a Transitive clause by marking the verb -nu?
and the Object slot is then not overtly filled unless the Object is
part of the Subject (e.g., a body part). The Subject then has the com-
bined roles of Agent and Undergoer. (The Hale chart does not allow for
combined roles, but if we choose to consider there to be two underlying
DP's, then it will still fall under the Transitive node).

```
(P)ne-la-t-om         = = =>    (P)ne-la?-tu?
   I-hit-F-you                  I-hit-F/Und
   'I will hit you'            'I will hit myself

(Agt)ming* (Und)si?-doy (P)ne-po?-tu   = = =>   (Agt, Und)ming* (Und)si?-ning
   I             arm-his   I-stab-F                  I               arm-my
'I will stab his arm'

                                             (P)ne-po?-tu?
                                                I-stab-F/Und
                                             'I will stab my arm'
```

3.12 Reciprocal.

This is derived from the Transitive or Di-Transitive clauses by
the adding of -nu? to the verb indicating that the Subject is also

undergoing the action. This is parallel to the Reflexive, in that the
Subject is both Agent and Undergoer, but different in that there is
not just one Agent operating on himself, but there are two Agents, each
one operating on the other. It is common for the action to be inten-
sified by reduplicating the verb stem.

(Agt)bileng (Und)dabu (P)le-ta?y   = = =>
     we   money   we-give/P
     'We gave (someone) some money'

     (Agt, Und)bileng (Und)dabu (P)le-ta?y-ta?y-?
               we   money   we-give-give-P/Und
               'We gave money to each other'

     3.13 Benefactive.

     The Benefactive is derived from the Transitive or Di-transitive
clauses by merely marking the verb by -nu?. It then indicates that
the subject benefits himself by the action. Only the Subject is af-
fected by this derivation—all the other DP's remain as they were.
This then gives rise to two different Undergoers in the clause, as
happened in the Reciprocal type. The Object is still the Undergoer
of the verb, but the Subject, as well as being Agent, is also an
undergoer in the sense that he is changed (but indirectly) by the
action. The change may be in his status, or personal possessions, or
something like that. It may be that the Subject has the combined
roles of Agent and Referent (for Referent may be thought of as a second-
ary undergoer).

     There are other ways of specifying a benefactor who is not the
Subject of the clause. The most common is to have a compound clause
in which ta?y 'to give' is collocated with the basic verb. This adds
another slot to the clause, namely, Referent as Benefactor.

(Agt)no?n (Und)adia-kur   (P)tay:-u   lu:ru   = = =>
     she   waist-cloth   weave-Inf pres cts
     'She is weaving a waist-cloth (for anyone)'

     (Agt, Und)no?n (Und)adia-kur   (P)tay:-nu?   lu?ru
               she   waist-cloth   weave-Inf/Und pres cts
     'She is weaving a waist-cloth (for herself)'

(Agt)ming* (Und)indi areng (Si)e-nom* (P)la?mang-om
     I   this stone   to-you   reach out-you/Inf

          ne-?r-om   = = =>
          I-pres cts-you
          'I am holding out this stone to you'

(Agt, Und)ming* (Und)ar'i areng (Si)e-nom* (P)la?mang-<u>n</u>-o?m
       I   that stone   to-you   reach out-Und-you/Inf

ne-?r-om
I-pres cts-you
'I am reaching out to you for that stone'

3.14 Capabilitive.

This is an instance in which a -nu? variant of an Intransitive
clause is found. It is akin to a 'reflexive' in that one might say,
"The baby is walking herself," except there was no object in the un-
derived clause. It is also akin to the 'potential' (a node variant
derivation) in that one might say, "The baby can walk." In the case
of the verb 'walk,' this -<u>nu?</u> derivation applies to an acquired skill.
It seems to indicate that the Subject has the potential for acquiring
a skill, whereas the verb <u>gangi?</u> 'to be able' assumes that the skill
is already known (e.g., a man with a broken leg knows how to walk,
but he is not able--<u>gangi?</u>--to do so at the present time).

(Agt)bubong-di (P)or'ing-u lu?ru   = = = >
    baby-Fo   walk-Inf pres cts
    'The baby is walking'

    (Agt, Und)bubong-di (P)or'ing-nu?   lu?ru
            baby-Fo   walk-Inf/Und pres cts
    'The baby is trying to walk but fails'

Consider also the following Question and Answer:

Q. (Agt)bubong-di (P)or'ing-u-ni ki arlang   = = =>
        baby-Fo   walk-P-Hab or not yet
        'Is the baby habitually walking or not yet?'

A. (P)ingku? (P)or-or'ing-<u>nu?</u>
      no   Neg-walk-Und
      'No, he is not (capable of) walking'

3.15 Residue.

<u>turya?</u> 'to kick' is a transitive verb and typically functions as
other transitive verbs do in a Transitive clause.

(Agt)no?n (Und)balt'i (P)turya?-u lu?ru
    he   bucket   kick-Inf pres cts
    'He is kicking the bucket'

But compare:

(Agt, Und)no?n (P)turya?-<u>nu?</u>   lu?ru
   he kick-Inf/Und pres cts
'He is kicking'

  The meaning in the specific instance given above was not the
reflexive form, 'He is kicking himself.' It is said when the person
is performing the kicking action and there is no object at all (e.g.,
a person is sitting on a table and swinging his legs; or of a child
who is kicking in anger).

  This example does not fit neatly under Reflexive, Reciprocal
(unless perchance, the speaker is thinking of the one leg moving in the
opposite direction to the other), or Capabilitive. In fact, as it is
a pure motion (kinematic), it would fit very neatly under the Recep-
tive node. That would imply that the Subject is only an Undergoer,
and that either there was no Agent involved or the Agent was deleted.
It is difficult to see how this is derived from any transitive verb.
That being so, the verb !urya?-nu? 'to swing the legs' may well be
basic to Receptive. (The example given is certainly not passive, and
the passive derived clauses cannot take the present continuous tense
either.) This has strong implications for the border line cases dis-
cussed under the Receptive clause.

  4. <u>Possessed Item Agreement</u>.

  In some cases the verb phrase appears to take Referent agreement
even when the Referent slot cannot be overtly filled. This agreement
is not obligatory, and occurs when the preceding DP is an intimately
possessed item (i.e., a possessable item actually in the possession of
the owner), in which case there is a mock agreement between the Refer-
ent and the possessor. This feature has a strong parallel in English.
e.g., In 'My finger is hurting me,' the word 'me' is redundant, is not
obligatory, and is there only by agreement with the Subject which is a
possessed item.

  With a Transitive Clause:

(Agt)ming (Und)pensil-(nom) (P)ne-gi?-t-om
  I   pencil-your I-see-F-you
  'I will see your pencil'

(Agt)mang* (Und)ming-nu pensil (P)mo-ra?m-t-ing
  you   I-Aj pencil you-snatch-F-me
  'You will snatch my pencil (off me)'

  With an Intransitive Clause:

(Agt)put'put'i-nom (P)ir-om lu?r-om
  heart-your   jump-you pres cts-you
  'Your heart is beating (you)'

(Agt)zibon-ning (P)ye?-r-ing-ay
  life-my   cry out-P-me-Sp
  'My soul cried out from inside me'

D. Derived Patterns (Node Variant Derivations).

 1. Deletion of a DP.

  The Undergoer Function--Passive Derivation. The Undergoer Func-
tion, already mentioned in Section C.3.1, may be used to convert the
Object of an active Transitive or Di-transitive clause into the Sub-
ject of a passive clause which will then fall under the Receptive or
Di-Receptive node on the Hale chart. The Agent of the underived
clause is, in most cases, deleted from the frame of reference. It is
this passive Undergoer-focussed form which is used when the speaker
does not know who the Agent was, but he knows that an object has been
effected by some force.

  The Subject of the passive derived clause is always the Under-
goer and the verb is therefore marked with the -nu? affix. The reader
is reminded that this -nu? affix has various allomorphs in which the
n or u or both may be lost, but the glottal will always be present.

  However, this passive derivation is not applicable to all Transi-
tive or Di-transitive clauses; it depends on the degree to which the
Object (Undergoer) is affected. The Transitive clauses are consequently
sub-classified into the three types below. 'Affected' indicates that
the Object--if it were animate--would know that it had been operated
on, but it would be unchanged in state or position. 'Effected' indi-
cates that the Object underwent a change in state or position, this
change usually being a visible one.

  Type I - the object is effected
        'coil,' 'swallow,' 'open'
  Type II - the object is unaffected
        'see,' 'recognize'
  Type III - the object is affected, but not effected
        'hit,' 'shoot,' 'burn (spice)'

  Type I comprises clauses in which the Object is effected. In
these cases the Undergoer derivation which transforms the clause from
an active Transitive (or Di-transitive) type to a passive Receptive
type is applicable. The Agent is deleted from the frame of reference
either because the Agent is not known to the speaker or the Agent
could be anyone.

When the Agent is not known, the Predicate often takes the aux-
iliary verb ui 'go' indicating unintentional action. This is parti-
cularly so in the past and future tenses. I have chosen to refer to
this passive derivation with the auxiliary verb ui, as the 'Real Pass-
ive.'

When the Agent could be anybody (including the speaker) then the
derived clause may take on a 'Potential' meaning (especially with the
negative or in the future tense). This potential flavour is parti-
cularly noticed following a dependent clause ending with nen zi?
'although.' (See also Section E.)

```
(Agt)no?n (Und)muiri (P)pe?n-u    lu?ru
     he         muiri    blow-Inf pres cts
     'He is blowing a muiri'
```

```
Compare:  (Und)muiri (P)pe?n-nu?      lu?ru
               muiri    blow-Inf/Und pres cts
          'A muiri (reed instrument) is being blown' (by someone the
          speaker cannot see)
```

```
(T)taras la?-r-ay    sun, (Und)ma?n-ning (P)pongi?n-tu?
   light strike-P-Sp when      eye-my        extinguish-F/Und
   'When the light strikes me, my eyes will be blinded'
```

```
Compare:  (Agt)no?n (Und)kudong (P)pongi?n-tu
               he         fire       extinguish-F
          'He will put out the fire'
```

```
(Agt)no?n (Und)ar'i payt'i (P)di?-ru
     he         that work    finish-P
     'He finished that work'
```

```
Compare:  (Und)ar'i payt'i (P)di?-ru?      ui?
               that work    finish-P/Und go/P/Und
          'That work was finished'
```

```
(Agt)no?n (Und)ar'i t'ablet' (P)lu?m-tu    = = = >
     he         that tablet      swallow-F
     'He will swallow that tablet'
```

```
          (Und)ar'i t'ablet' (P)lu?m-tu?      = = = >
               that tablet      swallow-F/Und
          'That tablet will/can be swallowed'
```

```
          (Und)ar'i t'ablet' (P)or-lu?m-nu?
               that tablet      Neg-swallow-Und
          'That tablet will/can not be swallowed'
```

The only examples yet found of a passive derivation from Di-transitive verbs are with sun 'say,' and a?y 'splash':

(P)sun-ru?
   say-P/Und
   'It was said' (This occurs at the end of a story, where the Subject
   is the story itself.)

(Und)da?   (P)ay-?   ui?
   water   splash-P/Und go/P/Und
   'The water was splashed (away)'

Type II comprises clauses in which the Object, even though it is
the Undergoer, is completely unaffected by the action. As yet, only
two verbs have been found in clauses of this type, namely, gi? 'to see'
and sama?n 'to recognize.' In these cases the object would be entirely
unaware that it was undergoing any action.

When the Passive derivation is applied to these clauses, the
Undergoer is made the Subject, and if there is a specific Agent, it
is not deleted but becomes the Referent. The resulting clause then
falls under the Di-Receptive node. In this Passive derivation, if the
Agent were not specified, then it could be anyone (including the speak-
er) and the clause again takes on a Potential meaning (especially in
the present continuous and future tenses).

(Ag)ming (Und)ar'i poti (P)ne-sama?n-ru
   I   that book   I-recognize-P
   'I recognized that book'

Compare: (T)en   ne-sama?n-ru zi? (P)ar-sama?n-n-i?ng
             that I-recognize-P when   Neg-recognize-Und-me
            'When I tried to recognize that thing, it was not recognized
            by me'

(Und)en   (P)ne-sama?n-ru zi?, ar-sama?n-n-i?ng
      that   I-recognize-P when Neg-recognize-Und-me
      'When I tried to recognize that thing, it was not recognized by
      me'

(Agt)mang (Und)pensil (P)gi?-ru
   you   pencil   see-P
   'You saw the pencil'

Compare: (Und)pensil (P)ar-gi?-n-o?m
              pencil   Neg-see-Und-you
            'The pencil was/could not be seen by you'

Type III comprises clauses in which the Object is affected, but not effected. In these cases the Passive derivation is not applicable (though these clauses may take the node invariant Undergoer derivations of Reflexive, Reciprocal, and Benefactive).

The following are some of the transitive verbs whose Object is an Undergoer which is affected but not effected (the latter being Box 5 entries).

solo?	'hide'	per	'burn' (of chillies)
bam	'receive'	sada?	'sting'
ting	'shoot'	lom	'bite'
san	'chase'	po?	'stab'
ol	'write'	gulom	'know, understand'
irsur	'offer liquid drop by drop'	gu?n	'scratch' (an itch)
		la?	'hit'

With these clauses, if the Agent is unknown to the speaker, then he substitutes 'who' for the Agent. For example, when the speaker sees a child coming towards him and crying, he could say,

(Rs)nay da?n (P)ye?-u   mo?-ru   (Agt)moy ki (P)la?-r-om
    what for   cry-Inf you-pres cts   who or   hit-P-you
    'Why are you crying'   'Who hit you'

but he could not say, 'The child was hit.'

Comment:

This approach of dividing the transitive clauses into three types, depending upon the extent to which the Undergoer is affected, has worked well and is almost water-tight. One exception that the writer has found is:

(Und)sorte (P)gi?-ru?   ui?
    all   see-P/Und go/P/Und
    'All was seen'

This is said, for example, when a person comes into the house and glances all around and goes out again. Here a Type II clause is be-having as though it were Type I.

This example would not be exceptional if the -nu? form of the two verbs under Type II were considered to be basically under the Di-Receptive node, rather than there by derivation. That would clear the treatment of the Passive derivation, but would mean adding new entries to the lexicon, namely, gi?-nu? 'to be seen,' and sama?n-nu? 'to be recognized.' (See the discussion under the Di-Receptive clause on other verbs which might be derived.)

The other exceptions to the system are the two verbs taki?n 'to
beat to death' and kai?n 'to kill, murder.' These are exceptions in that
though the Object (Undergoer) is undoubtedly effected, they will not
take a Passive derivation (nor even the Reflexive derivation). One can-
not say 'he was killed:' one can only say 'he died'—the verb 'to die'
being ki?n. The reason for this is probably that these verbs themselves
have been derived from the Receptive verb ki?n 'to die' by a causative
derivation and causative constructions normally reject the Passive deri-
vation. Rather than using a second derivation, the Parengi speaker re-
verts to using the more basic verb. (kai?n 'kill' is derived from ab + ki?n
'cause to die.' ta-ki?n 'beat to death' is also causative in flavour,
though the precise meaning of ta- is not known. I suspect that ta-ge?m
'to ignite something' (Trans) would behave similarly being derived from
ge?m 'to blaze' (Receptive).)

Sometimes ambiguity arises because the Undergoer (-nu?) derivation
has so many uses.

(?)no?n (P)gi-n-a?y   lu?r-ay
   he   see-Und-Sp pres cts

This could mean 'He (remote) is seeing himself' or 'He can be seen (by
someone or other)', depending on whether the Subject is Agent-cum-
undergoer, or Undergoer alone.

   2. Addition of a DP.

   Causative. The causative marker is an affix to the verb stem in
the form of ab- or -b-, though it has many allomorphs. Any clause on
the Event side of the Hale chart (i.e., the Transitive and Receptive
groups) may take a causative derivation. In the causative derivation
the Subject of the initial clause becomes the Object of the causative
clause, with the Causer becoming the new Subject. E.g., 'X hit Y'
would become 'W caused X to hit Y.' This causative transformation
maps any Event clause on to the Transitive side of the tree with the
obligatory Agent being the Causer. It is to be noted that the Causa-
tive clauses still stay within the system of the Hale chart; e.g., if
you causativize a Ditransitive clause, then one of the original DPs
must be deleted from the frame of reference (though it may be alluded
to in the Associate slot or in the following clause). It is also to be
noted that Stative clauses do not take the causative derivation.

   However, for the Intransitive or Receptive clauses the causative
derivation is a particularly effective device in that it may distin-
guish between first and second causers. If an Intransitive or Recep-
tive clause is causativized it will then fall under the Transitive node
on the Hale chart. This derived clause may then itself be causativized
a second time. But it is to be noted that the Transitive and Ditrans-
itive clauses themselves can only be causativized once. So for the In-
transitive and Receptive clauses the first causation makes the clause
'Transitive' in appearance and the second causation makes it a Causa-

tivized Transitive clause (which would then fall under the Ditransi-
tive node). This is very similar to Halliday's treatment of the English
Verb Phrase, where the first causer has the role of Agent-Initiator and
where the second causer has the role of Agent-Causer. The Agent-Init-
iator is directly involved in the action of the main verb, whereas the
Agent-Causer is indirectly involved (e.g., by telling someone to do
something). For example, in 'Mary lay the baby down,' or 'Mary caused
the baby to lie down,' Mary is an Agent-Initiator; but in 'Bill caused
Mary to lie the baby down (by commanding her),' Bill is an Agent-Causer
and Mary is still an Agent-Initiator.

The causative infix -b-, which is probably the same morpheme as
ab-, is of particular interest. It is only, but not necessarily, found
with verb stems of the syllable structure CVCV(C) and is particularly
common with those Receptive verbs which do not have an animate Under-
goer. When the infix -b- occurs, the Subject will be an animate Agent-
Initiator. There is only one exception to -b- occurring on a Receptive
verb with an inanimate Undergoer, and that is the verb butong 'fear' (a
Receptive verb that requires an animate Undergoer) which occurs with the
infix -b- as boptong 'to frighten.' This seems to be some sort of histor-
ical freak form. It is to be noticed that other Receptive verbs with an-
imate Undergoers and the same syllable structure do not take the -b- in-
fix (e.g., mile?y 'happy' becomes ab-miley; the form mibley is not allowed).

At first sight, the following example of an infixed -b- also looks
as though it is an exception to the norm as it involves the Transitive
verb tagu 'to burn or scorch something.'

(Agt-In)bolram-di (Und)bo?y ara? (P)tabgu-ru
       bolram-Fo   one tree   burn/C-P
       'Boldram caused a tree to get scorched'

However, the underlying clause which was causativized was not a Transi-
tive clause but a Receptive clause which had been derived from the Tran-
sitive clause by means of the Passive derivation. The underlying clause
was in fact:

(Und)bo?y ara? (P)tagu-ru?
     one tree   burn-P/Und
     'A tree got scorched'

which is a Receptive clause but with an animate Undergoer.

Therefore the following general statement can be made: The
causative infix -b- is found to operate only on clauses of the Recep-
tive form (whether basic or derived) which have an inanimate Under-
goer. With respect to the feature of 'inanimateness' two exceptions
have been found, butong 'fear' and tagu 'get scorched.' It is also to
be noted that the causative infix -b- always indicates a first causer

(Agent-Initiator) and that if the verb is one of those that normally
takes the -b- infix, then it must take it if the Causer is directly
involved as an Initiator.

kadu?   'disappear' (Subject is Undergoer)
kabdu?   'cause something to disappear (Subject is Agent-Initiator)
ab-kabdu?   'cause someone to cause something to disappear' (Subject
             is Agent-Causer)

ab-kadu? is of dubious occurrence. My informant reckons it to be
equivalent to kabdu?. However, the behaviour of another Receptive verb,
poy 'turn round,' suggests differently. This verb is not of the syl-
lable structure that may take the -b- infix, but notice in the follow-
ing examples the extent to which the causative affix ab- is assimilated
to the verb stem, and the accompanying change in meaning. For the sake
of clarity the data is given phonetically.

(Und)bubong-di (P)poy-tu?
      baby-Fo   turn-F/Und
      'The baby will turn round'

(Agt-In)ming* (Und)bubong-di (P)ne-a?poy-tu
        I   baby-Fo   I-C/turn-F
        'I turned the baby round'

(Agt-C)ming* (Und)bubong-di (P)ne-ab-a?poy-tu
       I   baby-Fo   I-C-C/turn-F
       'I caused someone to turn the baby round' (An Agent-Initiator
       is also involved)

(Agt-C)ming* (Und)bubong-di (P)ne-ap-poy-tu
       I   baby-Fo   I-C-turn-F
       'I caused the baby to turn round' (by my calling to him or by
       my telling him to turn round) (No Agent-Initiator is involved)

From this data one concludes that the Parengi language does main-
tain some distinction between the roles of first and second causers.
This distinction is clearly seen with the Receptive clauses; elsewhere
the role of first causer (Agent-Initiator) is not made explicit. The
second causer may, however, be made explicit by double causation (ab-
ab-), but in most cases the single occurrence of the causative affix
may be construed as first or second causer.

The following examples are taken from each of the basic Event
clause types. (The State clauses do not take the causative derivation.)

Basic Node	Basic Clause	Derived Clause	New Node
1	(Agt)mang (Si)ur'i lok etur (Und)bo?y kans you other folk to one bottle (P)mo-ta?y-tu you-give-P 'You will give a bottle to someone else'	(C)ming* (Si)e-nom (Und)bo?y kans (P)ne-ab-ta?y-t-om; I to-you bottle I-C-give-R-you (Ass)ur'i lok ba?tur other folk with 'I will cause you to give a bottle; to someone else' (Note that if the fourth DP was to be made explicit, then it had to be handled as an Adjunct.)	1
2	(Agt)bubong-di (Und)gaga? (P)lu?m-tu baby-Fo food swallow-P 'The baby will swallow the food'	(C)ming (Und)bubong-di etur (Si)gaga? (P)ne-ab-lum-tu I baby-Fo to food I-C-swallow-P 'I will cause the baby to swallow the food'	1
3	(Agt)bubong-di (Si)e-ning* (P)lala?n-t-ing baby-Fo to-me flat.-P-me 'The baby will flatten himself against me'	(C)no?n (Und)bubong-di etur (Si)e-ning* he baby-Fo to to-me (P)ab-lala?n-t-ing C-flatten self-P-me 'He will cause the baby to flatten itself against me'	1
4	(Agt)sua-bo?y (P)ye-ru la?-ru parrot-one run-P Axvg-P 'A certain parrot ran away'	(Agt-Ln)ming* (Und)sua-bo?y (P)ne-ab-ye-ru ne-la?-ru I parrot-one I-C-run-P I-Axvg-P 'I caused a certain parrot to run away' (by releasing it from my hand) (Agt-C)ming* (Und)sua-bo?y (P)ne-ab-ab-ye-ru ne-la?-ru I parrot-one I-C-C-run-P I-Axvg-P 'I caused (someone) to cause a certain parrot to run away' (by my telling him to release the bird from his hand)	2 1

Basic Node	Basic Clause	Derived Clause	New Node
5	(Si)tin* (Und)mang (P)mo-k-tu? here you you-stay-P/Und 'You will stay here'	(Si)tin* (C)ming* (Und)e-nom (P)ne-ab-luku-t-om here I to-you I-C-stay-P-you 'I will delay you'; 'I will cause you to stay'	2
6	(Und)bubong-di (P)mangur-ru? baby-Fo pine-P/Und 'The baby pined'	(Agt-In)mang* (Und)bubong-di etur (P)mo-a?m-mangar-ru you baby-Fo to you-C-pine-P 'You caused the baby to pine' (by your going away) (For Receptive clauses with emotional-state verbs, if only one causer is mentioned it will be the Agent-Initiator.)	2
6	(Und)ming (P)ne-butong-tu? I I-fear-F/Und 'I will be afraid'	(Agt-In)no?n (Und)e-ning (P)boptong-t-ing he to-me fear/C-P-me 'He frightened me'	2
		(Agt-C)no?n (Und)e-ning (P)ab-boptong-t-ing he to-me C-fear/C-P-me 'He caused someone to frighten me'	1
6	(Und)kuso?n-di (P)ur-ru? dog-Po arise-P/Und	(Agt-In)ming* (Und)ar?i kuso?n-di (P)ne-a?b-ur-ru I that dog-Po I-C-arise-P 'I caused the dog to get up' (by hitting it or shouting at it)	2
		(Agt-C)ming* (Und)guni-di etur (Si)ar?i kuso?n-di I girl-Fo to that dog-Po (P)ne-ab-a?b-ur-ru I-C-C-arise-P 'I caused the girl to cause the dog to get up'	1

Basic Node	Basic Clause	Derived Clause	New Node
7	No Data Available. (It may be that the Semi-Receptive clause undergoes the Focus derivation, to become Receptive in form, and is then causativized. According to my informant, the Semi-Receptive verb do? 'feel' does not take the causative derivation.)		
8	(OLoc)biel (P)da? gur-t-ay field water enter-R-Sp 'It will rain on the fields' The causative of an Eventive clause is not to be taken literally. The Causer seers to be playing the part of a 'wisher,' 'inciter,' or 'inducer.'	(C)ming* (OLoc)biel (P)da? ne-a?b-gur-tu I field water I-C-enter-P 'I will cause it to rain on the field' (because the fields are dry)	4

<u>Direct Initiation</u>. A few verbs, usually receptive, have been found to fall under the Transitive node having an Agent-Initiator as the subject but occurring without the causative affix. The verb is merely changed from a -<u>nu?</u> form to an -<u>u</u> form and another DP is added. However, this procedure of not using the causative affix to make a non-transitive verb transitive is considered, by my best informant, to be poor grammar. This procedure cannot be adopted for a Causer who is not the Initiator. In all the examples yet found, mostly in text, it is noted that the Undergoer is animate.

(Und)bubong-di (P)gon-ru?   = = = >
    baby-Fo   lie-P/Und
    'The baby lay down'

    (Agt-In)ming* (Und)bubong-di (P)ne-gon-ru   = = = >
        I   baby-Fo   I-lie-P
        'I lay the baby down'   (Direct Initiation omitting the
        causative.)

    (Agt-In)ming* (Und)bubong-di (P)ne-ab-gon-ru
        I   baby-Fo   I-C-lie-P
        'I caused the baby to lie down'

The Subject of this latter example could also be construed as second Causer.

(Und)mang (P)mo-k-tu?   = = = >
    you   you-stay-F/Und
    'You will stay'

    (Agt-In)ming* (Und)e-nom* (P)ne-duku-t-om   = = = >
        I   to-you   I-stay-F-you
        'I will delay you'   (Direct Initiation omitting the
        causative.)

    (Agt-In)ming* (Und)e-nom* (P)ne-ab-duku-t-om
        I   to-you   I-C-stay-F-you
        'I will delay you'

The Subject could also be construed as second Causer.

However, the writer has found one instance where what looks like direct initiation turned out to be otherwise. The verb <u>asong-nu?</u> 'to defecate' typically occurs in Receptive clauses. So one would expect the form <u>ne-asong-t-om</u> to mean 'I will cause you to defecate' (perhaps said by a parent sending his child into a field to do his daily performance), but this phrase was found in a story where a lion says to a rabbit, 'I will eat you whole, and I will defecate you whole." Here the verb has either been considered as a basic transitive verb, <u>asong-u</u>

'to defecate something,' or else there is a passive feature involved
of which the writer is unaware (so that the phrase would then be trans-
lated, 'I will cause you to be defecated').

3. Permutation of DPs.

Focus. In the basic clause types there is generally no choice as to
which DP is the subject of the verb and therefore the focus of the clause.
For example, the Transitive group of clauses must have the Agent as the
Subject; the Undergoer can only be made the Subject if the Agent is un-
known or could be anyone, in which case the clause takes on the Receptive
form by means of the Passive derivation. As for the Receptive and Di-
Receptive clauses, the Subject must be the Undergoer.

However, in the Semi-Receptive clause there is some fluidity. As they
stand, the Semi-Receptive clauses in Parengi are subject-less, the sole
DP being Site which occurs in the Referent slot. Most Semi-Receptive
clauses may be transformed to make the Referent the Subject, in which
case the clause becomes Receptive with the verb marked as having its Sub-
ject as Undergoer. This transform brings into focus the fact that the
sole DP is undergoing the process and is not just the Site of the process.

Examples:

(Si)e-ning* (P)ada?-r-ing-ay   = = = >
    to-me   thirst-P-me-Sp
    'I was thirsty' (Semi-Receptive)

    (Und)ming* (P)ne-ada?-ru?   ne-k-ru?
        I   I-thirst-P/Und I-be-P/Und
        'I was thirsty' (Receptive, derived)

(Si)e-ning* (PEx)butong (P)do?-r-ing   = = = >
    I   fear   feel-P-me
    'I felt afraid' (Semi-Receptive)

    (Und)ming* (PEx)butong (P)ne-do?-ru?
        I   fear   I-feel-P/Und
        'I felt afraid' (Receptive, derived)

Compare also: (Und)ming* (P)ne-butong-u?
                 I   I-fear-P/Und
           'I was afraid' (Receptive, underived)

(The verb do? 'feel' is a more intensive form than the above example.)

The following restrictions have been noticed when a Semi-Receptive
clause is changed to a Receptive clause:

    i. The derived form does not take the present continuous tense.
    ii. The verbs d'uka 'pain' and zu?m 'itch' can only occur in the
basic (Semi-Receptive) form.

iii.   It may be that the derived clause more readily takes the modal auxiliaries <u>duku</u> 'be' and <u>ui</u> 'go.'

iv.   The derived clause has the same limitations on its periphery as did the basic clause. In particular, an Outer Locative can only occur in an embedded clause functioning in an Adjunct slot.

(The above is dealing with clause-level focus. At sentence level a particular DP, other than the Subject of the independent clause, may be brought into Topic focus by bringing that DP forward in the sentence.)

4.   <u>Combinations.</u>

4.1   Stativization.

The state verb <u>duku</u> 'to be' has been mentioned in Section C.1.1 on tense, where it signifies that the effects of an event continue as a state.

```
no?n koko-ru?  duku?
he   sit-P/Und be/Und
```
'He has sat down' i.e., he sat down and is still seated.

Here the state (not the action) has continued for some time. The adding of the verb <u>duku</u> to an Action clause combines an Event with a State to form a State clause. This derived State clause will then occupy a similar position on the State side of the Hale chart as the basic (underived) clause by merely deleting the auxiliary verb together with affixes attached to it.

The reader is reminded that when the verb <u>duku</u> is prefixed in any way, the verb stem may be shortened to <u>ku</u> or <u>k</u>.

Basic Node	Stativized Clause	New Node

1	(Agt)bileng* (Und)kar'a-di etur (Si)sio mapru-n ba?
	     we rabbit-Fo to lion god-Lk place
	
	 (P)le-bay: le-<u>k</u>-ru?
	     we-send/P we-Axst-P/Und
	 'We had sent the rabbit to the lion-god's place'
		9

2	(Agt)ming* (Und)bo?y tsoka (P)ne-aku?i ne-<u>k</u>-u? I one shirt I-buy I-Axst-Und 'I have bought a shirt (and still have it)'	10

Often, but not necessarily so, Transitive verbs with effected (changed) objects take the Passive Transformation to the Receptive form (see Section D.1) before they are stativised. For example:

Basic Node	Stativized Clause	New Node

(Agt)no?n (Und)ar'i sisi?n (P)ga?n-ru <u>duku?</u>
    he   that meat   cut-P   be/Und
    'He has cut the meat'

(Und)ar'i sisi?n (P)ga?n-ru? <u>duku?</u>
    that meat   cut-P   be/Und
    'The meat has been cut'

3   (Agt)bubong-di (Si)e-ning* (P)oting-i(?)ng <u>duk-i?ng</u>   **11**
    baby-Fo   to-me   lean-me/Und Axst-me/Und
    'The baby has leaned against me'

4   (Agt)put'a-ning (P)pung-i(?)ng*   <u>duk-i?ng</u>   **12**
    stomach-my   fill up-me/(Und) Axst-me/Und
    'My stomach is full/bloated'

*(?) indicates the glottal stop is optional and non-
phonemic. It may occur because the body is involved
in the action. Also see the Section on Possessed
Item Agreement (C.4).

5   (Und)bo?y amon (Si)e-ning* (P)bam-(m)-i?ng <u>duk-i?ng</u>   **13**
    one arrow   to-me   hit-P-me/Und Axst-me/Und
    'An arrow has hit me'

6   (Und)zi?ng-doy (P)liga?n-ru? <u>duku-?</u>   **14**
    leg-his   break-P/Und Axst-Und
    'His leg is broken'

7   Lack of data   **(15?)**

The following examples suggest that it might be usual
to make the Semi-Receptive clause of Receptive form
before stativizing it.

(Und)ming* (P)ne-asu-ru? ne-<u>k</u>-u?
    I   I-ill-P/Und I-Axst-Und
    'I have been ill (and still am)'

(Und)ming* (P)ne-ada?-ru?   ne-<u>k</u>-ru?
    I   I-thirst-P/Und I-Axst-P/Und

8   Lack of data   **(16?)**

The unavailability of informant help at this time is unfortunate

as a search of the Parengi concordance and texts does not furnish one
with any example of the stativization of the Semi-Receptive or Eventive
clauses.   The writer feels it to be unwise to presume that Eventive and
Semi-Receptive clauses may be stativized (particularly the latter).
However, the data that is given here is at least sufficient to show
that more terminal points on the Hale chart are needed to account for
derived clauses than for the basic clause types of Parengi.

    4.2   Combinations of Derivations.

    Most of the nude-variant derivations described in this paper may
also act on a clause that has already undergone derivation, but the
following restrictions have been noticed with respect to the order of
application of derivations:

    i.   If the Focus permutation occurs, this must be the first der-
ivation to be used.   The Focus permutation only applies to clauses
under the Semi-Receptive node.
    ii.   Only the Causative derivation may be applied twice.   The
Causative derivation may be applied to any Event clause.
    iii.   Stativization is applicable to any Event clause and is the
last of the derivations to be used.   A State or stativized clause has
not been found further derived.

    <u>Passive</u> <u>and</u> <u>Causative</u>.

(Agt-In)bolram-di (Und)bo?y ara? (P)tabgu-ru
       bolram-Fo   one tree   C/burn-P
       'Boldram caused a tree to get burnt'

    (See also the discussion of this clause in Section D.2)

    <u>Passive</u> <u>and</u> <u>State</u>.

(Und)indi kumda   (P)suy-<u>?</u>   <u>duku-?</u>
       this pumpkin   pierce-P/Und be-Und
       'This pumpkin has been pierced'

    <u>Causative</u> <u>and</u> <u>State</u>.

(Und)angal (P)<u>ab</u>-oting-u <u>duku-?</u>
       wood   C-lean-P   be-Und
       'The wood has been caused to lean' (i.e., someone unknown.had
       stacked the wood against a wall.)

Causative, Passive, and State.

(Und)kamas rao-n   (P)a?p-po?-ru?   duku?
      kamas rao-Lk   C-stab-P/Und be/Und
      'Kamas Rao has been stabbed'

(This is an uncommon construction and is the only example that has been found of a Causative and a Passive together. The causative affix and verb stem have been treated as though they together form a transitive verb. This transitive verb has then undergone the Passive derivation that deletes the A, nt (in this case, Causer) from th, frame of reference. The situation ...s that Kamas Rao is seen lying with a dagger in his chest, but the assailent is unknown. So the speaker says, "Kamas Rao has been caused to be stabbed.")

Focus and State.

(Und)ming* (P)ne-asu-ru?   ne-k-ru?
      [I-fever-P/Und I-be-P/Und
      'I had been ill'

E.   Dependent Patterns.

Foreword. With respect to the Dependent clauses, the description given in this paper is very tentative and does not claim to be exhaustive. The writer has not been able to study them intensively with the help of a good informant. Also, an analysis of sentence structure is an essential pre-requisite to a reliable description of the dependent clauses, and this has not been done for Parengi.

1.   Embedding within the Nominal Phrase.

Adjectival Embedding. The affix -nu may be added to an independent clause so that the whole may function as the Modifier in a Nominal Phrase.

Comments:

i.   The clause is inflected for person and tense.
ii.   The Nominal Phrase containing this embedded clause may function in any clause level slot that would normally take a Nominal Phrase as filler.

Examples:

(T)le-ga?-ru-nu kitur
    we-eat-P-Aj   time
    'At the time (when) we ate...'

(OLoc)le–ga?–ru–nu ba?
   we–eat–P–Aj place
   'At the place (where) we ate...'

(Agt)kuso?n–di e tur bo?y za?ng ta?i–nu   adu?n–di (PEx)dungka (P)duku–?
   dog–Fo   to one bone give/P–Aj boy–Fo   tall   be/Und
   'The boy who gave the dog a bone, is tall'

(Und)ming–nu liga?n–ru?–nu–t'a (Si)a?sung (P)duk -a?y
   I–Aj   break–P/Und–Aj–Nom   house   be–Und/Sp
   'My broken one is at home'

2. Embedding within the Clause and/or functioning in the Sentence.

The Function of the following clause-relator words and affixes is
to embed a clause in one of the slots of an independent clause, so re-
lating the action of the embedded clause to the action of the indepen-
dent clause in which they are embedded. These relator words and affixes
are listed in the table below, together with a note of their function.
(Some of these words and affixes may also cause the clause to fill slots
on Sentence level.)

Function / Form	Adjunct		Subject	Gloss
	Temp. ± Cond.	Reason, Purpose		
sun	+			'when' (F)
du	+			'when' (P)
zi?(n)	+			'when, although'
nen, den	+	+		'if'
sunen	+	+		'when and if'
nen zi?	+	+		'even though'
da?n			+		'for, because'
–nu?, –u			+	+	participle

Figure 8.   Clause Function Chart

sun 'when'   (future perfect)

   i. The dependent verb is past aorist and is inflected for person
and number.
   ii. In the Parengi concordance of text materials three instances
are found with the dependent verb in the future tense, but none of these
have been recently checked with an informant.

(T)bio?gi   ne–gi? sun (PEx)butong (P)ne–do?–tu
   tomorrow I–see/P when   fear   I–feel–F
   'When I see it tomorrow, I will feel afraid'

(T)liyong le-ti?-ru le-di?-ru <u>sun</u> (M)bar (Und)deray (P)le-ti?-tu
  paddy we-weed-P we-finish-P <u>when</u>   again   millet   we-weed-F
  'When we finish weeding the paddy, we will again weed the millet'

...(T)ingk? <u>sun</u> (P)ingku?
   not be when   not be
   '...(and) when it is not, it is not'

   <u>du</u> 'when' (past), '<u>and then</u>' (past perfect)

   i. Dependent verb is often in past aorist.
   ii. Subject of the two clauses is the same.

(T)udubun   ne-gi? <u>du</u>   (PEx)butong (P)ne-do?-ru?
   yesterday I-see/P <u>when</u>   fear   I-feel-P/Und
   'When I saw it yesterday, I felt afraid'

(T)zalaput' ne-i? <u>du</u>   (Und)redio (P)ne-gi?
   jalaput I-go/P when   radio   I-see/P
   'When I went to Jalaput I saw a radio'

   <u>zi?(n)</u> 'when' (in the near past) 'although'

   i. Commonly takes negative independent clause.
   ii. The Subject of the independent clause must be one of the DP's—
but not the Subject—of the dependent clause.
   iii. Dependent clause is past aorist and inflected for person and
number.

(T)en   ne-sama?n-ru <u>zi?</u> (P)ar-sama?n-n-i?ng
   that I-recognize-P when   Neg-recognize-Und-me
   'Although I tried to recognize it, it was not recognized by me'

(T)anding-ay   gi?-ay <u>zi?</u> (PEx)besi d'ur ne? (P)duk-ru?
   backwards-Sp see-Sp when   much far it   be-P/Und
   'When he looked down, it was a long way'

   <u>nen</u>, <u>den</u> 'if'

   i. Dependent verb is uninflected for person and tense. The
Undergoer function is marked on the relator itself, an -u construction
taking <u>nen</u>, and a -nu? construction taking <u>ne?n</u>.
   ii. If the dependent clause contains a main verb and an auxiliary
verb, then both are marked with <u>nen</u>.
   iii. <u>den</u> is a dialectical variant of <u>nen</u>.

(T)silay <u>nen</u> ta?y <u>nen</u> (M)bar (PEx)tsot' (P)da-ru?   ui?
   sew if Axbf if   again   short become-P/Und Axp
   'If it were sewn, it would again become shorter'

(T)payt'i di?   ne?n   sina (Agt)ming (P)n-a?-t-ay
work   finish if/Und Emp   I   I-come-F-Sp
'If the work is finished, 1 will come'

    sunen 'when   (future) and if'

    i.   The dependent verb may be in the future or past aorist.
    ii.   It is sometimes used in the sense of 'in the unlikely event of.'
    iii.   Often the verb 'to be' or 'to say' is omitted and taken as
understood.

(T)ingĸ?   sunen   (Und)gaga?-gigi? (P)ga?-tu la?-tu
not be when and if   food-Tag   eat-F Axvg-F
'Should it not be so, he will gobble up all the food'

(T)bam-u?   sunen   (Und)amon   d'ar-ru r'ey (P)sun-t-ey
hit-Und when and if   arrow grasp-P 'Excl   say-F-they
'When it is hit they say, "The arrow got it!"'

    nen zi? 'if, although'   (gloss uncertain)

    i.   The object of the dependent clause is the subject of the in-
dependent clause.   (This means that the dependent clause must have a
transitive verb.)
    ii.   One clause--usually the independent one--occurs in the nega-
tive and the other clause will be positive.
    iii.   All the restrictions that apply to nen apply to nen zi?.

(T)inger la? nen zi? (P)or-ye?
youth hit if when   Neg-cry
'Even though you hit a youth, he will not cry'

(T)gi? nen zi? (P)or-gi-n-a?y
see if when   Neg-see-Und-Sp
'Although one looks, it cannot be seen'

    da?n 'because, for'

    i.   If the dependent clause has the verb in the Infinitival form,
then it often indicates Purpose.   Otherwise, it indicates Reason.   How-
ever, the boundary between Reason and Purpose in Parengi is not clear
to the writer at present.
    ii.   This same relator might be used to relate two clauses that have
different subjects, and in that context, it is similar in meaning to du.

(Rs)angoy-di ui? da?n   (P)le?n-ru zum-u
hen-Fo   go/P because   catch-P cat-P
'Because the hen went, (the lion) caught it and ate it'

(Pur)dabu za?-u   da?n (P)ne-i?
      money solicit-Inf for   I-fo/P
      'I went to solicit money'

The above relators may themselves occur in strings:

a?sung duk ne?n sun zi? bo?y nay-t'a bay-ay sun zi? bo?m-tu
house be if/Und when when one what-Nom come-Sp when when bark-F
'When he (the dog) is in the house and someone comes, he will bark'

-nu?, -u Participle.

    i. The infinitival affixes -nu? and -u have two functions. One is
to allow a clause to fill the Subject slot of an independent clause.

(Und)bubong digin aba-nu   sama d'ar-u   (PEx)niman
      child Cl   father-Aj story grasp-Inf   good
      'It is good for children to keep their father's words'

(Und)ming kat'ak ui-nu?   (PEx)bond' (P)da-ru?
      I   Cuttack go-Inf/Und   closed   become-P/Und
      'My going to Cuttack was stopped'

    ii. The other function is to embed a clause in the Purpose slot of
an independent clause. (This form of embedding has only been found with
the verb 'to go.' The embedded clause could be considered as a Comple-
ment also.)

(Und)bileng* (Pur)ur'a yu?-u   (P)le-i?
      we   mango remove-Inf we-go/P/Und
      'We went to collect mangoes'

(Pur)demsa a?n-u   (P)ui-nu?   lu?r-ey
      demsa dance-Inf   go-Inf/Und Axpc-they
      'They are going to dance the Demsa'

    3. Functioning as a Coordinate Clause.

    The suffix -or 'Immediate Sequential Action' immediately follows
the verb stem. It indicates that the action of the dependent clause
immediately precedes the action of the main clause and is coordinate to
it. (It requires that is subject be the same as that of the main clause.)

(P)ne-tinang-or-tu? (Si)at'-un   (P)ne-i-tu?
   I-stand-IA-F/Und   market-to   I-go-F/Und
   'I will stand up and immediately go to the market'

(Und)bubong-di etur (P)ne-ur-<u>or</u>-ru?   (P)ne-la?-ru
      baby-Fo   to   I-arise-IA-P/Und   I-hit-P
      'I got up and immediately hit the baby' (A 'merged' clause.)

(P)ne-ga?-<u>or</u>-ru (P)ne-asi-ru?
    I-eat-IA-P   I-wash hands-P/Und
    'I ate and immediately afterwards washed my hands'

The affix -<u>ni</u> might also be used to make a clause dependent, though
there is some doubt at this point as the clause to which the -<u>ni</u> is
attached is already in the infinitival form and therefore already a
dependent clause. See the discussion and further examples under Habi-
tual Aspect (Section C.1.2).

(Si)iskul o?tur (P)o?bay-<u>ni</u> // (Und)tangk (P)ga?-ru
      school from   come-?   rice   eat-P
      'Coming from school, I ate rice'

Dependent clauses may also occur in strings, as is shown by the
following examples:

(T)le-lu?n-ru <u>sun</u> (T)ayu? ba?y-gi <u>sun</u> (P)le-le?n-tu
    we-lift-P when   fish come-Pl when   we-catch-F
    'When we lift (the net), when the fish come, we will catch them'

(T)soka-siki kuy <u>ne?n</u>   duk <u>ne?n</u>   ne? (T)go?tung-gi?ting ay-ne?
    shirt-Tag wear if/Und Axst if/Und it   cloth-Tag   like this

    gusa?y <u>ne?n</u>   du   (T)go?tung-di a?y-nu   bil   <u>nen du</u>
    wrap   if/Und   and then   cloth-Fo   like this lay out if and

          (T)gon   <u>ne?n</u>   ta?y <u>nen</u> ne? (M)kondek (P)or-lom-ay-gi
    then   lie down if/Und Axbf if it   little   Neg-bite-Sp-Pl
    'If we are wearing shirts, (or) if we are wrapped up in blankets
    like this, and then if the blanket is laid out and one lies down,
    they (bed-bugs) will not bite so much.'

F. Summary.

    1. With Respect to the Hale Chart.

In Section B it was shown that ten terminal nodes (eight action
and two state) on the Hale chart accounted for the basic underived clause
types in Parengi. Sections C and D have shown that from these basic
clauses other clause types may be derived, some of which move the clause
to another node on the Hale chart. In particular, it was seen that
other nodes were needed than the basic ten, and also that any deriva-
tion stayed within the Hale chart (i.e., the Hale chart represents a

'closed' system). The matter of whether all sixteen nodes of the Hale
chart are used in the Parengi language is left open as data is lacking
for the Semi-Attributive and Circumstantial nodes.

   2.   The Ergative Structure of Parengi Clauses.

   This was commented on at the close of Section B.1 where three basic
situations were shown to exist:

a. State   b. Kinematic Action ·   c. Dynamic Action
    (typically   (typically   (typically
    State verbs)   Receptive verbs)   Transitive verbs)

   In Section D it has been seen that action clauses can be stativized,
that Receptive clauses can be transitivized (by the use of Causative),
and that Transitive clauses can be Receptivized (by the use of the Under-
goer-Passive transformation). This gives rise to two chains of clause
types, as shown in the diagram below:

   Receptive   .   Transitive   Causative

1) [S as Und]   ─C─>   S as Agt-In   ─C─>   S as Agt-C

2) S as Und <─P─   [S as Agt].   ─C─>   S as Agt-C
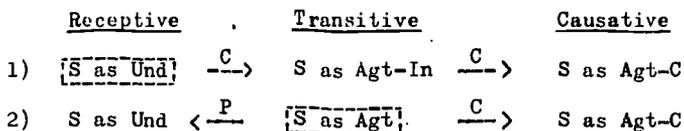
Key: ─C─>   Causative transformation
          ─P─>   Passive transformation
          ───>   Direction of transformation
          [──────]   Basic clause type

   The first chain of transformations begins with the basic Receptive
Clause, which can be causativized to fall under the Transitive node on
the Hale chart, and may be causativized a second time. The second chain
of transformations begins with the basic Transitive Clause which may
either take the Passive derivation to become Receptive in form or it may
be causativized. Most verbs in Parengi fall clearly into one or other
of these two 'chains' depending on whether they are primarily Undergoer
orientated or Agent orientated.

   The approach developed in this paper gives rise to finer distinc-
tions among clauses traditionally classified as Transitive or Intransi-
tive because the sememic roles of the DPs have also been taken into con-
sideration. For example the two English clauses 'he ran' and 'he sat'
would both be considered Intransitive. But in Parengi the former would
be Intransitive, the Subject being marked as Actor, and the latter would
be Receptive, the Subject being marked as Undergoer.

Appendix.

If one sets up the hypothesis that "Semantic roles of dramatis personae are preserved under derivation," then there are one or two interesting changes in the basic clause types of Parengi.

First let it be said that the above hypothesis does not exclude the fact that a DP may have as additional or combined role when it is derived; rather, it maintains that the original role will still be there.

This feature of semantic roles being preserved under derivation is seen in the Undergoer Transformation (see Section D.1). In the follow-ing example the basic clause has Subject as Agent and Object as Under-goer, whereas the derived clause has Subject as Undergoer and Referent as Agent.

(Agt)ming (Und)ur'a-zadz (P)gi?-u   ne?ru   = = =>
    I   plane   see-Inf I/pres cts
    'I am seeing the plane' (Active, Basic)

    (Agt-Si)e-ning (Und)ur'a-zadz (P)gi-n-i?ng lu?r-ing
              to-me   plane   see-Und-me pres cts-me
    'The plane is being seen by me' (Passive, Derived)

This latter clause would fall under the Di-Receptive node of the Hale chart, but it is different from the basic Di-Receptive clause in that the Referent is the Agent-cum-Site.

This has implications for the basic Semi-Receptive clause type. All of the Semi-Receptive clauses (except those with the verbs 'pain' and 'itch') will take the Focus derivation (see Section C.3) which makes the Referent into the Subject instead, and the predicate then indicates that the Subject is Undergoer.

    Semi-Receptive, basic: (P)ada?-r-ing   = = =>
                                thirst-P-me
                                'I was thirsty'

    Receptive, derived: (P)ne-ada?-ru?
                                I-thirst-P/Und
                                'I was thirsty'

If the two examples above are semantically the same (as in accord with the hypothesis)--though rearranged grammatically--then it suggests that in the Semi-Receptive formula we should have Referent as Undergoer rather than Referent as Site.

The situation is that in this paper as a whole, the grammatical
form has taken precedence over the semantic form in places of doubt
(e.g., because a slot is marked Dative, i.e., by _etur_, we have taken
it as Site). Now, in this Appendix, we want to let semantics take the
upper hand. This being so, the structure of the Semi-Receptive clause
in Parengi would be

+ Ref/Und + P: SRec VP

which would no longer be Semi-Receptive at all, but would be Receptive.
With this move there is now no data left for Semi-Receptive and a hole
is made in the Hale chart. One would then expect a matching hole on the
State side under Di-Attributive (as Di-Attributive could only result
from a stativized Semi-Receptive).

The question to ask now is, "Is it reasonable to have such a hole
in the Hale chart?" With the hole in the chart it would imply that in
any Parengi clause, if there are any dramatis personae at all, then one
of them must be Agent or Undergoer. A similar situation has been de-
scribed by some linguists studying English syntax. For example, Evelyn
Pike, in her recent work on the English Verb Phrase, has not been able
to find any example of an English clause that would inherently belong
under the Semi-Receptive node. Also, Halliday, in his study of English
clauses, concludes that if any DPs occur then the Undergoer is obliga-
torily one of them. Therefore it appears that it is reasonable not to
find the Semi-Receptive clause as a basic clause type because of the
ergative structuring of the language. If this system is followed it
would mean that the Undergoer can function in one more situation, namely
that of Recipient of a physical state (the other situations are given
in Section B.1.2).

The basic clause types for Parengi could then be displayed as
follows:

Action/Event

State

+Agt

-Agt

+Und   -Und   +Und   -Und

+Si   -Si   -Si   +Si   -Si   +Si   -Si
DT   T   I   ST   R   DR   E

+Und
-Si   +Si
 A   DA

Di-   Trans-   In-   Semi-   Recep- DiRe-   Even-   Attri-   Di-
Trans-   itive   trans-   Trans-   tive   cep-   tive   butive   Attri-
itive   itive   itive   tive   butive

  1   2   4   3   6   5   8   14   13

Dynamic   Kinematic   Static
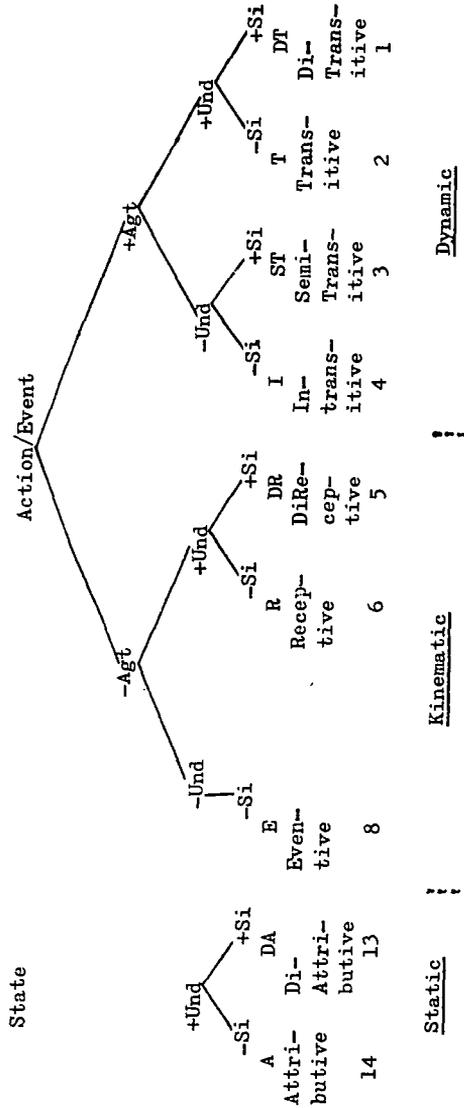
Figure 9.   Parengi Clause Tree.

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INDEX TO PARENGI

Paired Semantic Components,

Paired Sentence Reversals and the
Analysis of Dhangar-Kudux Discourse

Kent H. Gordon and Kenneth L. Pike

A. Introduction.

The purpose of this paper is to explore further the practical and
theoretical implications of using paired semantic components and paired
sentence reversal as tools for linguistic research. For the paired se-
mantic components approach we build on the work of others such as Wise
and Green (1971) but with our emphasis shifting here to analysis of lev-
els above the Sentence. For the sentence reversal approach we build on
the work of Pike and Pike (1971) and Pike and Schoettelndreyer (1972).

The mechanics of our approach is simple. Given a story with sen-
tences numbered in order,[2] we take each possible combination of jux-
taposed paired sentences, 1-2, 2-3, 3-4, etc., and perform two experi-
ments. First, we attempt to describe explicitly for each pair of sen-
tences what the semantic relation is that lies between them. Whenever
it turns out that we are unable to describe for a given pair of sen-
tences what that specific relation is we try to describe the relation
between that sentence pair, taken as a whole, and the next sentence.
And so on. Second, we attempt to reverse the order of each possible
pair of juxtaposed sentences so that we obtain 2-1, 3-2, 4-3, etc. As
we proceed with this experiment we check with native language assistants
to see if the particular reversals are acceptable to them.[3] Often their
acceptance of a particular reversal is accompanied by various degrees of
insistence that some grammatical adjustments be made (e.g., readjustment
of particles, tenses, etc.) to compensate for the 'upset' caused by the
reversal. In each case, furthermore, the reversal is rejected unless it
is possible (after the grammatical adjustments indicated) to preserve
the original truth-value and content of the narrative. That is, all
chronological and logical relations existing among the various parts of
the original text must be preserved after the reversals and concomitant
adjustments have been made.

Parallel to the procedure with paired semantic components, whenever
a pair of sentences do not appear to be reversible, we proceed to ask if
that particular pair of sentences, taken as a whole, is reversible with
the next sentence in the text. Thus, we are interested not only in the

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reversibility of sentences, but in the reversibility of parts of texts
larger than sentences. Similarly, we are interested in describing the
semantic relations existing between parts of texts larger than sentences.

These mechanical manipulations should be considered as no more than
easily usable devices to study the structures which interest us. We wish
to see if we can find firm experimental evidence (experimental in terms
of these mechanisms) which will help us to discover and study the char-
acteristics of units larger than the sentence; and to study these units
phonoligically, semantically, and grammatically with their inter-rela-
tionships. The emphasis is on alternative, but semantically similar,
grammatical structures (forced by the mechanics of sentence-reversal),
since we have stated the requirement that the truth-value must not be
changed.

Before discussing these matters, however, we must first specify
certain assumptions relevant to the inquiry.

B. Assumptions About Universals of Human Nature Underlying the Validity
    of our Results.

Coherence of Discourse. We assume that the speaker of a discourse
intends that his discourse be coherent. We at this point are not inter-
ested in texts where the speaker is known to be attempting to obfuscate
an issue, or is known to be insane.

Assuming, then, that coherence is intended by the speaker, how can
we, as hearers and interpreters, demonstrate that his text is in fact
coherent? Perhaps, as Bellert (1970) tells us, it will not be possible
to demonstrate that his text is, in fact, coherent. The speaker may fail
to make explicit certain semantic relations between parts of his narra-
tive because he assumes that his hearers know certain things, which in
fact they do not.[4] At such points we are unable to demonstrate that the
text is coherent. Or, to put it another way, if we assume that he in-
tended his text to be coherent but find it is not completely so, we shall
conclude that we are unable to specify what the semantic relations are
between certain parts of the text. In general, therefore, a text is de-
monstrated to be coherent if and only if the semantic relations existing
among its parts are specifiable, unambiguously, at time of authorship by
the audience it was intended for. We say 'at time of authorship' because
it may be possible for a text to be interpreted unambiguously by some of
the hearers and yet for their interpretation to be incorrect. Only the
author would be able to make such a judgment.[5]

Intelligibility. We assume that it is possible for a hearer to
understand a text in his language within a universe of discourse which
is familiar to him.

How can the hearer demonstrate that he does so understand? One kind
of evidence is a performative one. If the text says to shut the door,
the hearer can show his understanding by proceeding to shut the door. A
second kind of evidence--and the one which concerns us vitally here--is
his ability to paraphrase the text which he has heard. Unless he can
paraphrase the text in such a way that the author of it can say, "Yes,
that is what I said," there may be no strong evidence that he has under-
stood it. (We do not distinguish here between paraphrases which are
either expansions or abbreviations (or summaries), from paraphrases which
are of approximately equal length.) If the text is to be coherent, and
if the hearer is to understand, the speaker will be talking or writing
about the real world of his audience or the putative real world of his
universe of discourse, or he will not get the work done which he wants.
He will fail to get verbal or other response in terms of agreement, learn-
ing, or some other form of paraphrase; or else he will be treated as mad,
outside the community, or a buffoon.

Focus Shift. We assume that a universal human capacity allows an
individual to change focus of attention from one part of a discourse to
another or from one characteristic of an event to another and that these
changes of focus, when involving repetition of a discourse, result in a
re-focussed paraphrase of that discourse. This ability to change focus
is a prime epistemological capacity universal to human speakers, and para-
phrase is one result of that capacity. We assume, that is, that an ac-
ceptable reversal of sentence order with the accompanying necessary gram-
matical adjustments is an experimental analogue of a paraphrase which
might have resulted naturally from an appropriate change of focus.

Since the native speaker is able to change focus and thereby to
generate different paraphrases of a given description of an event, it is
similarly assumed that the native assistant of our reversal sets is often
able to adjust the reversed forms grammatically to be appropriate to some
paraphrase potentially acceptable within his own system. If he is unable
to find any such adjusted grammar, we may assume tentatively, subject to
later revision, that such a focus change may have been blocked by some
semantic or grammatical constraint somewhere in the system.

It has been previously reported (Pike and Pike, 1971) that Gleason
states that inversion of chronological sequence is not allowed in Kate
(New Guinea) narratives, and that, therefore, words like 'after' and
'before' do not occur in Kate. Thus, we affirm that focus changes are
possible, including some kinds of reordering, but we do not attempt to
specify as a universal precisely what the limits of focus change are, nor
exactly where they will be seen. That study must be an empirical one.
And it is for this reason that we are interested in the Dravidian material
given here, as over against the Tibeto-Burman materials of Sherpa and the
English material of the initial articles (Pike and Schoettelndreyer, 1972,
and Pike and Pike, 1971). Eventually the studies need to be extensive
enough to allow careful comparison--a goal still far in the future.

Context Sensitivity. It is further assumed that in normal language usage a <u>sentence does not mean anything apart from discourse</u>, but that a sentence only has meaning as a point in a larger structure. That is, we are interested not in the meaning of <u>abstracted</u> sentences—which in some sense do not occur "in nature"—but in the relationship of sentences to discourse both in meaning and in form.

This, then, relates to questions about the "grammaticality" or appropriateness of any one sentence. Rather than attempting to say that a sentence does or does not occur, is or is not grammatical, is or is not aberrant, we ask whether or not a sentence is or is not a <u>paraphrase of another within the context of the given discourse.</u>

C. The Sample Text.

The text which we now wish to analyse in the light of the preceding assumptions is given with interlinear literal translation, followed by a key to morph abbreviations, and the free translation.[6] Single slash represents sentence boundary; double slash, paragraph boundary; and triple slash, discourse boundary.

```
1.  eek  din  mankhu-s-hi    tanGg-io      tam-ba-r-nu
    one  day  Mankhu-m,s-NR  3,Rfl-mother  3,Rfl-father-hpl-iLoc

jhagRa  manj-a       ker-a       /  2.  tam-ba-s        ba'-d-as
fight   become,pt-3,s  Aux,pt-3,s        3,Rfl-father-m,s  say-prt-3,m,s

eeee  mankhu  kal-a     paRh'-a-ge     iskul  /  3,  tánGg-io     bi'-i
hey!  Mankhu  go-impv   read-IA-PrpInf  school       3,Rfl-mother  say-3,s

jee  mala  maa-kaal-o-s   /  4.  i-san       kaam-dhandha nee  na'-o     /
     no    neg-go-ft-3,m,s          this-Loc    work         who  do-ft,3,s

5.  khiti-kola baari-jaari too  i-san      nee na'-o     /  6.  see  mala
    farming    gardening   then this-Loc who do-ft,3,s        so   not

too   maa-kaal-o-s     paRh'-a-ge     //  7.  ho-n:e-m    hoy-te
then  neg-go-ft-3,m,s  read-IA-PrpInf        that-Mnr-E  become-Mnr

hoy-to-m      du-nu-goRe-ne   jhagRa manj-a       ker-a       /  8.  bas
become-Mnr-E  two-IA-hC-iLoc  fight  become,pt-3,s  Aux,pt-3,s

mankhu-s    huN   tanGg-io-hi       baat-an    khanDi-as-ki    cala
Mankhu-m,s  also  3,Rfl-mother-NR  word-Acc   cut,pt-3,m,s-ptc  go

ker-as        //  9.  aa-s      huN   paRh-te   paRh-te   cha-Th-ma  kalas
Aux,pt-3,m,s          that-m,s  also  read-Mnr  read-Mnr  six-IA-ord  class
```

paRhc-as   / 10. tekar-baad-nu   ambi-as   cic:-as
read,pt-3,m,s   this-after-iLoc   leave,pt-3,m,s   Aux,pt-3,m,s

paRh-na-n   / 11. tam-ba-s   huN   baac-as   amb-a
read-nom-Acc   3,Rfl-father-m,s also   say,pt-3,m,s   leave-impv

ca'-a   baw:a   paRh-na-n   / 12. ni-nG-hai   kaam   jokar
Aux-impv   son   read-nom-Acc   2-s-NR   work   appropriate

manj-a   ker-a   / 13. see   ambi-as   cic:-as   //
become,pt-3,s   Aux,pt-3,s   so   leave,pt-3,m,s   Aux,pt-3,m,s

14. ambi-as   cic:-as   khiti-kola   na'a   hel-r-as   /
     leave,pt-3,m,s   Aux,pt-3,m,s   farming   do-Inf   begin-mid-3,m,s

15. pac-ma   cha-Th-ma   kalas   paRhc-as   / 16. ak:u   dunia-
     five-ord   six-IA-ord   class   read,pt-3,m,s   now   world

daari   kud:i-as   nanj-as   kud:-a   lag-d-as   ///
        travel,pt-3,m,s   Aux,pt-3,m,s   travel-Inf   ImpAux-prt-3,m,s

Key to Morph Abbreviations:

m	masculine	Imp	imperfective
s	singular	PrpInf	purpose infinitive
NR	nominal relator	neg	negative
3	third person	ft	future tense
Rfl	reflexive	Mnr	manner
hpl	human plural	E	emphatic
iLoc	inner locative	hC	human classifier
pt	past tense	Acc	accusative
Aux	auxiliary	ptc	participle
prt	present tense	ord	ordinal
impv	imperative	nom	nominaliser
IA	inflectional augment	2	second person
mid	middle voice	Loc	locative

Free Translation.

1. One day Mankhu's mother and father had a fight. 2. His father said, "Hey, Mankhu, go to school and study." 3. His mother said, "No, he will not go! 4. Who will do the work around here? 5. Who will do the farming and gardening? 6. So there! He will not go to school!"

7. In just that manner, back and forth, they quarreled between themselves. 8. At any rate, Mankhu disregarded his mother's word and went off to school to study.

9. He studied and studied; he studied up to the sixth class.

10. After this he left school. 11. His father also said, "Leave school, son. 12. It is time for you to begin the work you were cut out to do." 13. So he left school.

14. He left school and began to farm. 15. He studied into the fifth or sixth class. 16. Now he has begun to travel around—he is now traveling around.

D. Phonological Groupings.

Major phonological breaks occur between Sentences 6 and 7, between 8 and 9, and between 13 and 14. Phonologically we need to specify how these breaks differ in kind from phonological breaks which mark the end of other sentences. At the end of such 'other' (non-final) sentences a pause may occur, but the pitch right after the pause may take up where it left off with no appreciable change in height. During such sentences there may be a slight downdrift, and the overall effect is such that these non-final sentences, taken as a group, drift downward with respect to pitch. At the end of such sentence-groups (1 through 6, 7 and 8, 9 through 13, and 14 through 16), however, there is a further general drop in pitch accompanied by fading intensity. Then across the phonological boundary to the next sentence-group a sharp upstep in pitch occurs. This upstep in pitch is notably lacking at the onset of other (non-final) sentences.

In the sample text we have represented the major phonological breaks with double-slash lines. We will call the phonological groups, which these breaks delimit, phonological paragraphs.

Paragraph 1	Sentences 1-2-3-4-5-6
Paragraph 2	Sentences 7-8
Paragraph 3	Sentences 9-10-11-12-13
Paragraph 4	Sentences 14-15-16

E. Semantic Groupings.

In this section we discuss what we mean by semantic linkage (1), and by indeterminacy of paragraph boundaries (2). We then discuss the notion of semantic relations across parts of the text and their importance for positing semantic groupings (3). Then, we illustrate what we mean by semantic immediate constitutents with mention also of embedding as a feature of paragraph structure (4). There follows a tabulated account of the semantic relations we posit for the text (Figure 1), two diagrams illustrating how to make use of Figure 1 in plotting the semantic structure of the text, and then a detailed discussion of inter-paragraph and intra-paragraph semantic structure with formulas illustrating the latter (5). Finally we present a tree-structure representation of the results of our

preliminary semantic analysis (6). See Figure 4.

1. Linkage.[7]

The surprising element in the phonological analysis given above is that Sentence 7, at the beginning of the second phonological paragraph, is very closely linked, semantically, with what has been narrated in the first paragraph. If we allow the boundaries of _semantic_ paragraphs to be set up on the basis of the posited phonological groupings--and such we wish to do barring overriding semantic pressures to the contrary--then we may choose to view Sentence 7 as having primary semantic linkage with what is narrated in the second paragraph, its linkage with the first paragraph being viewed as secondary. To do this involves making the judgment that Sentence 7 recapitulates the event narrated in the first paragraph for the purpose of giving a proper _setting_ to the event narrated in the second paragraph. Viewed as a setting, then, Sentence 7 identifies the event narrated in the second paragraph as belonging to the same discourse as that narrated in the first paragraph. On this view we may conclude, therefore, that Sentence 7's primary semantic linkage is with the paragraph in which it falls phonologically. In so doing, we define 'linkage' as including the notion of _logical function_. That is to say 'linkage' is not here to be viewed primarily as the degree to which Sentence 7 _refers_ to what is narrated in Sentences 1-2-3-4-5-6.

2. Indeterminacy of Boundaries of Semantic Groupings.

Alternatively, some may not wish to allow the phonological breaks to dictate, in general, what the semantic boundaries between paragraphs will be. The semantic boundary, assuming there is one, between the first and second phonological paragraphs may appear to them to be indeterminate. This view relates to an assumption of the possibility of the indeterminacy of _borders_ between units which themselves may have determinate _nuclei_. That is, it is possible for a text to be analyzed as having a certain number of semantic paragraphs, even though from semantic considerations alone the borders are subject to debate.

3. Semantic Relations and Their Importance for Positing Semantic Groupings.

In attempting to show semantic groupings we have relied more or less completely on our ability to state explicitly what the semantic relations are between any two juxtaposed parts of the text. The notion 'parts of the text' is important. It is not always possible to specify just what semantic relation exists between a given pair of juxtaposed sentences. Rather, we find quite often that a given sentence relates semantically to a juxtaposed _sequence of sentences taken as a whole_. Thus, in the sample text Sentence 1 does not relate semantically in any specifiable way to Sentence 2. Rather, it relates to the sentence sequence 2-3-4-5-6 taken as a unit. See Figure 1.

It is at this point that the notion 'semantic groupings' is seen to be <u>a function of specifiable semantic relations between parts of texts.</u> On the one hand, our inability to specify a relation between Sentence 1 and Sentence 2 is taken to mean that the sentence-sequence 1-2 is not a semantic group that has any relevance for the semantic structure of the text. On the other hand, our ability to specify a relation between 1 and 2...-6 is taken to mean that 1...-6 is a semantic group that has relevance for the structure of the text.

4. Semantic Immediate Constituents and Paragraph Embedding.

We shall call Sentence 1 and Sentence-sequence 2...-6 (=2-3-4-5-6) immediate constituents of the first paragraph. It will be seen in what follows that the constituent 2...-6 itself has semantic immediate constituents embedded within it. With this embedding of paragraph within paragraph we find that the principles of semantic organization of the embedded paragraph are the same as the principles of semantic organization of the matrix paragraph within which it is embedded. That is to say, embedding of semantic paragraph within semantic paragraph has potentially the same kind of organization on the two levels. This in turn supports Longacre's view of paragraph materials where multiple embedding of paragraph types are both possible and frequent.[8]

5. Table of Semantic Relations Holding Between Parts of the Text.

In Figure 1 we suggest certain tentative impressions (not formally justified at this point in the analysis) concerning semantic relations between any one sentence of the text and the sentence immediately following it. In addition, we give similar preliminary judgments concerning the semantic relations between certain sentence-sequences and some other sentence or sentence-sequences. These latter choices are those which appeared to us to have some potential interest or significance--but so far as we can see, a different selection by other analysts would not prevent them from arriving at many of our same conclusions. That is, we are developing a heuristic device, not a formal decision procedure; intuitive judgments (etic guesses in heuristic procedures) at this stage cannot be avoided.

In the Figure the first column lists a sentence by number which comprises a potential constituent of a semantic relation. The second column suggests a second such potential constituent. The third column suggests a possible semantic relation between the two constituents when such a relation appears reasonable. When, however, the elements from the two columns do not seem to us to comprise a relation that is specifiable in terms of conceptual frameworks we are familiar with, we affirm that there is no relation between them, insofar as our first guess is concerned-- as with all cross-cultural research such guesses are open to error.

In the latter instance, where the relation is empty, we continue to

add further sentences to the second column (or to the first column) until
some specifiable semantic relation appears. It will not follow that when
some such specifiable relation does finally appear that we at that point
proceed to group the constituents that are linked by this relation into a
unit of semantic structure (say, a paragraph). For example, the sentence-
sequence 2-3 bears a specifiable relation to Sentence 1; but in terms of
the semantics of the text as a whole the relation posited as existing be-
tween them is a truncated one. It is only after Sentences 4, 5, and 6
have been added to 2-3 that we have a semantic relation with Sentence 1
that meets the contextual requirements of the text. We shall call these
semantically truncated relations <u>intermediate</u> relations and mark them in
Figure 1 with an asterisk * in the third column. Relations which we have
labelled as 'empty' we have indicated by writing 'none' in the third
column.

The presence of these empty and intermediate relations puts some con-
straint on the arbitrariness of the possible selection of sentence-se-
quences which we investigate.

<u>Given A</u>	<u>Given B</u>	<u>Semantic relation</u> (<u>A</u> <u>to</u> <u>B</u>)
1	2	none
1	2-3	*identity vs. equivalence
1	2-3-4	*identity vs. equivalence
1	2-3-4-5	*identity vs. equivalence
1	2-3-4-5-6	identity vs. equivalence
2	3	*initiating speech vs. response speech
2	3-4	*initiating speech vs. response speech
2	3-4-5	*initiating speech vs. response speech
2	3-4-5-6	initiating speech vs. response speech
3	4	*statement vs. reason
3	4-5	*statement vs. reason
3	4-5-6	topic vs. development
4	5	identity vs. equivalence
4	5-6	none
4-5	6	reason vs. consequence
5	6	*reason vs. consequence
6	7	none
2-3-4-5-6	7	*event vs. summary
1-2-3-4-5-6	7	*event vs. recapitulation
1-2-3-4-5-6	7-8	setting vs. event
1-2-3-4-5-6-7	8	setting vs. event
7	8	setting vs. event
8	9	*event vs. event transition
7-8	9	*event vs. event transition
1-2-3-4-5-6-7-8	9	*event vs. event transition
9	10	*foreshadowing vs. event
9	10-11	*foreshadowing vs. event
9	10-11-12	*foreshadowing vs. event
9	10-11-12-13	foreshadowing vs. event

10	11	*initiating action vs. response action (speech)
10	11-12	*initiating action vs. response action (speech)
10	11-12-13	initiating action vs. outcome
10-11	12	none
11	12	imperative vs. reason
12	13	*initiating action (speech) vs. consequence
11-12	13	initiating action (speech) vs. consequence
7-8	9...-13	*event vs. event
1...-8	9...-13	*event vs. event
7-8-9	10...-13	*event vs. event
13	14	*event vs. recapitulation
9...-13	14	*event vs. recapitulation
14	15	none
14	15-16	setting vs. event
15	16	setting vs. event
9...-13	14-15	none
9...-13	14...-16	setting vs. event
10...-13	14...-16	*setting vs. event
1...-13	14...-16	*event sequence vs. corollary event
1...-8	9...-16	setting vs. event

Figure 1.   Table of Semantic Relations.

Two Dimensional Array.   The relations posited in the Figure between Sentence-sequence 1...-6 and Sentence-sequence 7-8 and between sequences 9...-13 and 14...-16 can be viewed as giving the following structure, charted here in a two dimensional array.[9]

	EVENT-1	EVENT-2
SETTING OR PRE-EVENT	Parents' Quarrel (1...-6)	Mankhu Leaves School (9...-13)
POST-EVENT	Mankhu Goes to School (7-8)	Mankhu Travels Widely (14...-16)

Figure 2.   Four-Cell Display.

Each column represents an event--and that event is broken down into
a sequence of two sub-events, chronologically. The rows are not chrono-
logically arranged but refer respectively to an introductory phase (or
setting) of the event and to a resultant relation of that pre-event to
the post-event. The first event begins with a quarrel between the pa-
rents, and this forms the setting for the end of the event, i.e. Mankhu's
schooling. The second event is set up by the boy's leaving school and
results in his traveling widely.

Each of the four cells, resulting from the intersection of the two
event sequences with their respective pre and post components, can be
seen as a semantic paragraph. Thus, sentence-sequences 1...-6, 7-8,
9...-13 and 14...-16 are semantic paragraphs paralleling the phonological
paragraphs discussed in Section D.

Two-Cell Diagram. The relation posited in Figure 1 between sentence-
sequences 1...-8 and 9...-16 gives us a different diagram--a two-cell
diagram which reflects the fact that two semantic components are involved
instead of four. Figure 3, then, shows the semantics of the story at a
higher level of discourse structure than Figure 2.

	SETTING	EVENT
NARRATIVE DISCOURSE	Mankhu Goes to School (1...-8)	Mankhu Leaves School and Travels Widely (9...-16)

Figure 3. Two-Cell Display.

Combining the Diagrams. Combining the structures posited in the two
Figures we arrive at the following formula representing high-level seman-
tic groupings: ((1 2 3 4 5 6) (7 8)) ((9 10 11 12 13) (14 15 16)). That
is, at the highest level, there are two constituents: the setting com-
prised of sentence-sequence 1...-8 and the event comprised of sentence-
sequence 9...-16. Embedded in the setting are two semantic paragraphs: a
setting comprised of 1...-6 and an event comprised of 7-8. Similarly,
embedded in the event are two paragraphs: a setting comprised of 9...-13
and an event comprised of 14...-16.

Setting vs. Event. The relation posited between sentence-sequences
7-8 and 9...-13, between 1...-8 and 9...-13, between 7...-9 and 10...-13,
and between 1...-13 and 14...-16, is that of EVENT vs. EVENT (in the case
of 1...-13 and 14...-16, EVENT SEQUENCE vs. COROLLARY EVENT). We have
labelled the relation between these various sentence-groups as EVENT vs.
EVENT because the focus of the intended narration concerning "what hap-
pened" is more or less equally present in each event sequence. With SET-
TING vs. EVENT, on the contrary, the focus of the intended narration is
not on one event followed by another of equal interest, as beads on the
same event chain. Rather, with SETTING vs. EVENT (as in 1...-6 vs. 7-8),
the narrator's intent is basically to record one focal event (7-8), while
other materials (1...-6) are added as background for understanding the
time, place or attendant circumstances of that event. This is to say,
settings are semantically peripheral. Events are semantically nuclear.

Other Instances of Setting vs. Event. From Figure 1 other instances
of the SETTING vs. EVENT relation are observed, viz., between 7 and 8,
between 14 and 15-16, and between 15 and 16. These instances occur at a
lower level of narrative structure than those discussed in E.5 under the
paragraph headings Two Dimensional Array and Two-Cell Diagram. Sentences
7, 14, and 15 are semantic immediate constituents respectively of para-
graphs 7-8, 14...-16, and 15-16 (the latter being embedded within 14...-
16). Settings, therefore, occur within as well as across boundaries of
matrix paragraphs in this particular text.

The question arises: Is Sentence 9, which we characterize seman-
tically as foreshadowing the event narrated in 10...-13, parallel to
sentences characterized as settings, viz., 7, 14, and 15? Our tentative
answer is that the foreshadowing itself appears to be a kind of setting
and that we find it difficult to draw a sharp line between foreshadowing
as setting and recapitulation as setting. Perhaps they are semantic var-
iants of some underlying semantic unity. That is, the setting part of a
new paragraph may be semantically either a summary of the preceding para-
graph or a preview of the event recorded in the paragraph which it begins.
Sometimes the two seem to be combined: Compare, for example, the first
part of 9 ('He studied and studied...'), which relates backward to his
going to school, with the second part ('...into the sixth class he stu-
died.'), which by implication refers to the time when he left school
(after having reached the sixth grade). We therefore choose to treat the
foreshadowing relation as a variant of what is basically a setting for
the event narrated in 10...-13.

With this discussion in mind we take another look at the relation
we posited between sentence-sequences 1...-8 and 9...-16 to see if our
initial semantic guess was correct. Initially, we labelled the rela-
tion between them as SETTING vs. EVENT. But unlike other setting con-
stituents, 1...-8 does not recapitulate a preceding event or event-
sequence. That is, the narrator does not give us any information ante-
cedent to 1...-8 which 1...-8 then recapitulates as a setting for the
ensuing event. Moreover, 1...-8 does not seem to foreshadow or preview

what follows in 9...-16. In other words, the highest-level setting in
the text--the setting for the focal event of this particular narrative
taken as a whole--does not have the same properties as paragraph level
settings. We conclude, tentatively, that recapitulation and foresha-
dowing are features characterizing inter-paragraph linkage and that such
features need not characterize inter-discourse linkage in Dhangar. To
put it another way, a Dhangar narrative <u>discourse</u> is identifiable as
such without the kind of backward and forward references that narrative
paragraphs frequently exhibit in order to identify them as <u>paragraphs</u>
within a discourse.

<u>Formulas for Intra-Paragraph Groupings</u>. Embedded in the four ma-
jor semantic groupings we posited in E.5 under the paragraph heading
<u>Two Dimensional Array</u> are various sub groupings the boundaries of which
we delimit via the semantic relations posited in Figure 1, as follows:

Formula for the first major semantic group:

$$(1 \ (2 \ (3 \ ((4-5) \ 6))))$$

That is, 4-5 is embedded semantically in 4...-6, then 4...-6 is em-
bedded in 3...-6, then 3...-6 in 2...-6, and finally 2...-6 in 1...-6.
But a problem of interpretation arises. In Figure 1 it is seen that
3 can be related to 4...-6. Query: is 6 to be related as an IC (Im-
mediate constituent) with 4-5 (whereupon 4...-6 is related to 3), or is
4-5 first to be related to 3 and then 3...-5 to be related as an IC
with 6? Our answer: if 6 were not present in the text, the relation
of 3 to 4-5 would be that of immediate constituents of an embedded pa-
ragraph. But, in fact, 6 does occur, and a very close semantic link
between it and 4-5 is clearly shown on two counts--the semantic REASON
vs. CONSEQUENCE link, and a very tight formal link by particle sequence
glossed as 'therefore' (see <u>mala too</u> in the Dhangar). For these rea-
sons we consider 3 to be linked in an IC relation with 4...-6 rather
than 6 linked in an IC relation to 3...-5.

Similar kinds of arguments affect judgments throughout. These
kinds of considerations lead to our emic reworking of the preliminary
possibilities given in Figure 1.

In this first group then, a quarrel is announced (1) and the quar-
rel is described (2...-6) in which the father speaks (2) and then the
mother speaks (3...-6) with her opening statement (3) followed by the
development of her argument (4...-6): her reasoning (4-5) and its lo-
gical consequence (6).

Formula for the second major semantic group:

$$(7-8)$$

That is, 7 pairs off semantically with 8 at the same level of structure.
There is no embedding. Sentence 7 recapitulates the event narrated in
1...-6 in order to give the proper setting for the event narrated in
Sentence 8.

Formula for the third major semantic group:

$$(9\ (10\ ((11\text{-}12)\ 13)))$$

That is, 11-12 is embedded in 11...-13, then 11...-13 is embedded in
10...-13. Finally, 10...-13 is embedded in 9...-13. In 9 we are given
continuity with the preceding paragraph and a preview of what is to
come in 10...-13. In 10 Mankhu initiates an action the outcome of which
(11...-13) is seen in his finally leaving school (13) after commanded to
do so by his father (11-12).[10]

Formula for the fourth major semantic group:

$$(14\ ((15)\ 16))$$

That is, 15 is embedded in 15-16 and 15-16 is embedded in 14...-16.
Sentence 14 recapitulates 9...-13 to give proper setting to the event
narrated in 15-16.[11] Sentence 15 then recapitulates 1...-8 in general
and 9 in particular (the latter having an explicit backward reference
to 7-8) in order to give the setting for 16.

Tree Representing Semantic Structure of the Sample Text. The fol-
lowing tree diagram represents our emic re-working of the preliminary
semantics posited in Figure 1—it is also representative of our emic re-
working of the results of sentence reversal in Section F, though the
labels for the nodes are semantic labels, not grammatical.
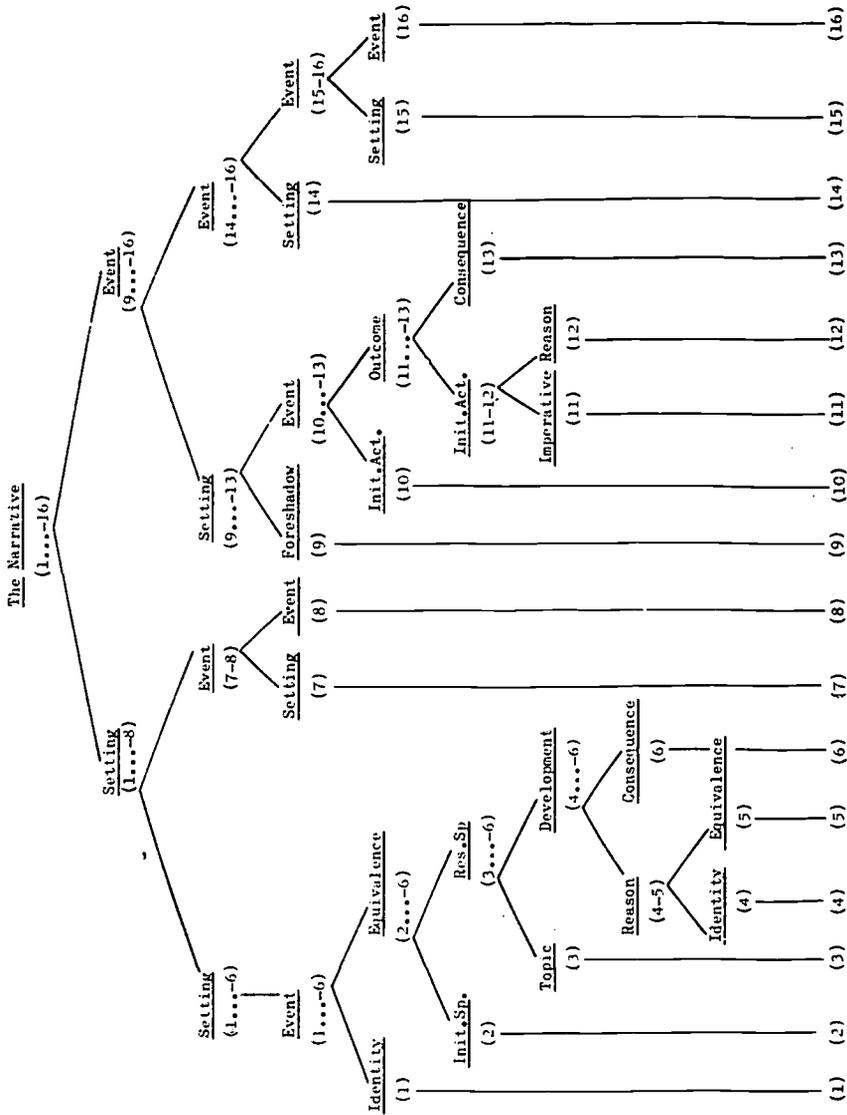
Figure 4. Tree Structure of Sample Text.

F. Grammatical Groupings.

    In this section we discuss, first of all, the general usefulness
of sentence-reversal as a tool for discourse analysis (F.1), after which
we exhibit via Figure 5 the specific reversals which our language as-
sistants allowed (F.2). We then proceed to discuss the relation of our
sentence-reversal material to the semantic material of Section E.5 at-
tempting to show how certain reversals were blocked because of co-
occuring semantic constraints. Here also we present formulas for intra-
paragraph sub groupings on the basis of our table of reversals (F.3).

    1. Sentence Reversal as a Tool for Discourse Analysis.

    We view the usefulness of sentence reversal as a tool for gramma-
tical analysis of high level structures as directly related to the ob-
servable and testable fact that, given a coherent text or story, not
all of its sentences or sentence-sequences are equally reversible. We
assume, that is, that differences in reversibility among parts of texts
correlate with differences in grammatical structure. (By grammatical
structure we mean combined grammatical and semantic structure. This is
in keeping with a basic assumption of Tagmemic theory to the effect that
grammatical structure is a composite of form and meaning.)

    We illustrate these differences in reversibility and in grammatical
structure from our sample text: In the first major grouping, 1...-6, we
find it very difficult to readjust the grammar of Sentence 2 (father's
speech) and Sentence 3 (beginning of mother's response) in any fashion
which allows the mother's speech to begin (3), the father's then to be
given (2), and the mother's finally to be given in its remaining parts
(4...-6). There is, then, a resistance to the splitting or interruption
of this kind of chronological-logical sequence (3...-6) via sentence
reversal because of the very close-knit grammatical and semantic unity or
coherence among its parts. But, we encounter no apparent resistance
when we attempt to interrupt the original sentence-sequence 5-6 by re-
versing Sentence 4 with Sentence 5 (getting 5-4-6). This is so because
the semantic unity or coherence existing between 5 and 6 is not upset
when 4 is allowed to interrupt it. Sentences 4 and 5 both narrate the
mother's reason (in an IDENTITY-EQUIVALENCE relation) for concluding in
6 that Mankhu should not go to school. That is to say, 4 and 5 are more
united to each other than either of them is to 6. This means that there
is no close-knit unity or coherence between 5 and 6 which, when inter-
rupted by 4, is violated. To the contrary, the close-knit unity lies
between 4 and 5, and is so tight that 6 is not allowed to interrupt it.

    We conclude from this illustration that sentence reversal proved
useful in showing that the grammatical structure of 3...-6 in relation
to 2 is different from that of 5-6 in relation to 4. But sentence re-
versal did more than show that their structures were different; it
implied what their structures would actually look like if we tried to

map them on to a tree diagram (Figure 4), or give formulas for them simi-
lar to those we gave for the semantic materials in Section E. Sentence
reversal as applied to the first six sentences of the text, for example,
implied that Sentence 2 and Sentence-sequence 3...-6 are ICs at the same
level within the larger structure 1...-6. That is, as Figure 5 shows, 1
reverses with 2...-6 taken as a whole, but not with 2. (If the latter
reversal were possible then we would conclude that 1 and 2 were ICs at
the same level of embedding.) Proceeding just this far with the rever-
sals we are able to give a formula for the structure of 1...-6 as
(1 ((2) (3...-6))): Sentence 2 pairs off at the same level of structure
as 3...-6, and taken together they embed within the major paragraph 1...-
6. See Section F.3 for formulas of major paragraphs.

     We do not wish to imply from the preceding discussion that sentence
reversal may be considered as a mechanical discovery procedure which
guarantees automatically correct results. The contrast implied is not
between reversals which are absolutely acceptable versus reversals which
are absolutely rejected. Rather the contrast seems to be between easy
reversibility and difficult reversibility, and we will have to grant at
the present stage of our research that the terms "easy" and "difficult"
are left undefined.

     Yet the fact that the scale of reversibility has indeterminate
boundaries by no means changes the fact that as a heuristic it can most
certainly lead to a preliminary hypothesis--a hypothesis which must be
checked against other formal criteria (which are not under consideration
here) in order to show that the internal consistency of the posited sys-
tem is well represented by it.

     Our preliminary hypothesis--to repeat by way of summary--is that
sentence reversal as a heuristic procedure does give some experimental
support to the assumption that different degrees of resistance to the
interruption of two sentences or sentence-sequences is likely to suggest
that there are different degrees of coherence or unity between their
parts; and further, that these different degrees of resistance to inter-
ruption, when tabulated for a whole text, are convertible into prelimin-
ary structural descriptions of that text's discourse and paragraph gram-
mar. But in accomplishing the latter we make parallel use of tabulated
semantic information (Section E.5).

     2. Table of Reversals. In Figure 5, the first column lists a
sentence or sentence-sequence by number that comprises a potential con-
stituent of a paired-sentence reversal. The second column lists a sec-
ond such potential constituent. The third column lists the resulting
combinations (orderings) of our attempts to reverse constituents from
the first and second columns. If no reversal is permitted we list only
the unreversed (original) combination. If a reversal is permitted which
is clearly intermediate (i.e., it is eventually blocked when further
sentences are added to the second column) we mark it with an asterisk *.
Not all possible reversals for the text have been attempted. Our choices

were those which appeared to us to have some potential interest or
significance.

Given A	Given B	Result of reversing A with B
1	2	1-2 (i.e., none allowed)
1-2	3	1-2-3/*2-3-1
1-2-3/*2-3-1	4	1-2-3-4/2-3-4-1/*1-2-4-3/*2-4-3-1
1-2-3-4/2-3-4-1/etc.	5	1-2-3-4-5/*2-3-4-5-1/*1-2-4-5-3/
		*2-4-5-3-1/1-2-3-5-4/*2-3-5-4-1/
		*1-2-5-4-3/*2-5-4-3-1

('etc.' here means 'in addition to all forms in the third column of the
immediately preceding row.')

Given A	Given B	Result of reversing A with B
1-2-3-4-5/etc.	6	1-2-3-4-5-6/2-3-4-5-6-1/1-2-3-5-4-6/
		2-3-5-4-6-1
1-2-3-4-5-6/etc.	7	1-2-3-4-5-6-7/1-2-3-5-4-6-7
1-2-3-4-5-6-7/etc.	8	1-2-3-4-5-6-7-8/1-2-3-5-4-6-7-8/
		2-3-4-5-6-1-7-8/2-3-5-4-6-1-7-8/
		8-1-2-3-4-5-6-7-8/8-1-2-3-5-4-6-7-8
1-2-3-4-5-6-7-8/etc.	9	1-2-3-4-5-6-7-8-9/etc.
		('etc.' here means 'in addition to all combinations in the third column of the immediately preceding row.')
1-2-3-4-5-6-7-8-9/etc.	10	1-2-3-4-5-6-7-8-9-10/etc.
1-2-3-4-5-6-7-8-9-10/etc.	11	1-2-3-4-5-6-7-8-9-10-11/etc.
1-2-3-4-5-6-7-8-9-10-11/etc.	12	1-2-3-4-5-6-7-8-9-10-11-12/etc./
		1-2-3-4-5-6-7-8-9-10-12-11/etc.
1-2-3-4-5-6-7-8-9-10-11-12/etc.	13	1-2-3-4-5-6-7-8-9-10-11-12-13/etc.
1-2-3-4-5-6-7-8-9-10-11-12-13/etc.	14	1-2-3-4-5-6-7-8-9-10-11-12-13-14/etc.

Given A	Given B	Result of reversing A with B
1-2-3-4-5-6-7-8-9-10- 11-12-13-14/etc.	15	1-2-3-4-5-6-7-8-9-10-11-12-13-14- 15/etc.
1-2-3-4-5-6-7-8-9-10- 11-12-13-14-15/etc.	16	1-2-3-4-5-6-7-8-9-10-11-12-13-14- 15-16/etc./1-2-3-4-5-6-7-8-15-16- 9-10-11-12-13-14-15-16/etc./16-9- 10-11-12-13-14-15-16-1-2-3-4-5-6- 7-8-14-15-16/etc.

Figure 5.   Table of Sentence Reversals.

3.   Comparison of Tabulated Reversals (Figure 5) and Semantic
     Relations (Figure 1).

Relation of Reversibility to the Distinction Between 'Nuclear' and
'Peripheral.'   From Figure 5 we observe that Sentence 1 reverses easily
with contiguous sentence-sequences such as 2-3, 2-3-4, etc.   Sentences
7, 9, and 14, however, do not easily reverse with contiguous sentences
or sentence-sequences.   Similarly, Sentence 15 does not reverse with
contiguous sentences or sentence-sequences.   Now looking at Figure 1 we
see, on the one hand, that sentences 7, 9, 14, and 15 have been described
as settings, and on the other hand, that Sentence-1 has been described
as a non-setting (i.e., it relates to 2...-6 as IDENTITY to EQUIVALENCE).
Settings are semantically peripheral; non-settings are semantically nu-
clear.   We feel that our use of 'peripheral' and 'nuclear' as contrasting
terms applying to elements of paragraph structure is supported by the
observation here to the effect that the opening sentences of paragraphs
7-8, 9...-13, 14...-16 and 15-16 are not as easily reversible with con-
tiguous parts of the text as the opening sentence of paragraph 1...-6 is.
We conclude that a pair of nuclear items reverses more easily than a
pair of sentences one of which is peripheral and one nuclear.

Semantic Constraints Governing Difference of Reversibility Among
Intra-Paragraph Nuclear ICs.   We said in Section F.1 that the usefulness
of sentence reversal as a research tool was related to the fact that not
all sentences or sentence-sequences are equally reversible.   We wish to
build on to that preliminary discussion by observing from Figure 5 that
reversals are allowed between some nuclear semantic ICs but not all.   We
ask: Are there semantic constraints which govern this difference of re-
versibility among nuclear ICs?   (See Section E.5 under paragraph heading
Formulas for Intra-Paragraph Groupings for IC analysis of semantic para-
graphs.)   Our answer is affirmative.   By comparing the two figures we see
that nuclear constituents linked semantically by solely logical relations
are more easily reversed than those linked by chronological relations.

(Here the contrast is being made between constituents having logical
linkage <u>only</u> versus those which have chronological linkage plus or minus
logical linkage.)

Hence, we find that the nuclear reversible constituents 1 and 2...-6
are related logically as IDENTITY to EQUIVALENCE with no accompanying
chronological link (i.e., there is logical sequence involved, but not
chronological sequence). But <u>non</u>-reversible nuclear constituents 10 and
11...-13 are related chronologically as INITIATING ACTION to OUTCOME (or
SEQUENT ACTION). Within paragraph nucleii, then, it appears easier to
reverse logically related ICs than it is to reverse chronologically re-
lated ones, so far as our sample text is concerned.

<u>Semantic Constraints Governing Difference of Reversibility Among
Inter-Paragraph ICs</u>. If the preceeding holds true in general for <u>intra</u>-
paragraph nuclear ICs, we wish to know if it holds true, also, for <u>inter</u>-
paragraph ICs at the discourse-level. At first glance, it appears that
the logical versus chronological semantic constraint does not apply. For
example, Sentence 8, the nuclear constituent of the second paragraph—and
chronologically sequent to the event narrated in the first paragraph—
reverses with 1...-6. In this instance, however, Sentence 8, accompanied
by 7, reappears at the end of the reversed sequence 8-1-2-3-4-5-6 giving
8-1-2-3-4-5-6-7-8. Hence, chronological upset of this kind or degree is
accompanied by major compensating grammatical adjustment, viz. the repi-
tition of 8 (with 7) at the end of the reversed sequence. This is an im-
portant aspect of the sentence reversal technique which we shall come back
to in Section G. We conclude, tentatively, that inter-paragraph chrono-
logical reversal is not terribly difficult, so far as this text is con-
cerned, provided the reversed constituent is repeated in normal chrono-
logical sequence after the reversed sequence. Unfortunately, this parti-
cular text has no inter-paragraph links that are merely logical and,
therefore, we are not able to say conclusively that logically related
constituents reverse more easily than chronologically related ones. We
assume that logically related constituents reverse more easily than
chronological ones in terms of economy of accompanying grammatical ad-
justments— the adjustments accompanying logical reversals will be more
economical. See Section G.

<u>Discourse-Level Grammatical Boundaries</u>. One particular reversal
more than others which our language assistants allowed gives us an in-
sight into the structure of this narrative's highest-level grammar. That
is the reversal which gives us the combination 16-9-10-11-12-13-14-15-16-
1-2-3-4-5-6-7-8-14-15-16. We interpret the embedding, via major chrono-
logical reversal, of 9...-16 within 16-9-10-11-12-13-14-15-16 taken to-
gether with the embedding of 1...-8 within 1-2-3-4-5-6-7-8-14-15-16 as
indicating that we have two major discourse-level constituents for this
text: 1...-8 and 9...-16. There seems to be no way that we can split
either of these sentence-sequences (1...-8 or 9...-16) via further re-
versal. But we can split the original sequence of the narrative by re-

versing these two, the one with the other. That we can make this parti-
cular high-level reversal but not others is taken here to mean that we
have <u>a</u> <u>grammatical</u> <u>structure</u> <u>for</u> <u>the</u> <u>narrative</u> <u>paralleling</u> <u>that</u> <u>posited</u>
<u>via</u> <u>our</u> <u>paired</u> <u>semantic</u> components <u>approach</u> (Figure 1) where we said that
1...-8 related semantically to 9...-16 as SETTING to EVENT. See also
Figure 3.

   <u>Paragraph Boundaries</u>. The placing of grammatical boundaries paral-
lel to those we posited for the semantic and phonological paragraphs is
supported by the sentence reversal tabulation (Figure 5). Specifically,
the permitted reversal by which we get 2-3-4-5-6-1-7-8 supports the plac-
ing of the boundary of the first grammatical paragraph between Sentence 6
and Sentence 7. Sentence 7's supposed indeterminacy as to paragraph mem-
bership (See Section E.2) is reduced considerably when we consider its
juxtaposition, via the reversal, to Sentence 1—particularly since we
would have expected 7 to disappear, rather than to appear juxtaposed to
1, if it had belonged to the first paragraph. That is to say, Sentence
7, which has the same grammar as reversed Sentence 1 (see Section G),
would be gramatically redundant if its membership was with the first
paragraph. Its proposed membership in the second paragraph keeps us
clear of such redundancy.

   Placing the grammatical boundary for the second paragraph between
8 and 9 is supported by the permitted reversal 1-2-3-4-5-6-7-8-15-16-9-
10-11-12-13-14-15-16 in which the sequence 15-16, a constituent from the
fourth paragraph, comes between 8 and 9. To say that 8 and 9 belong to
the same paragraph means that 15-16 must also belong to that paragraph,
via the reversal—and that is difficult to sustain in view of 15-16's
consistent co-occurrence with 14 (as in the end of the above reversal).
In addition, we note 14-15-16's consistent co-occurrence with 9...-13,
as above, and under reversal such as in the permitted combination 16-9-
10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16.

   For the third and fourth paragraphs the placing of the boundary
between 13 and 14 is supported by the reversal cited immediately above,
in which the last instance of 14 does not occur contiguous to 13 but to
8. This is not very conclusive evidence for positing a grammatical
boundary between 13 and 14. If we found that we could reverse the larger
sequence 9...-13 with 14...-16 giving *14-15-16-9-10-11-12-13 we would
thereby have stronger evidence for placing the boundary between 13 and
14. However, this particular reversal has not yet been attempted.

   We conclude that sentence reversal in general supports the division
of the text into four grammatical paragraphs: 1...-6, 7-8, 9...-13, and
14...-16. This agrees with our earlier divisions of the text on the
basis of the phonology and semantics. Compare with Figure 4.

   <u>Formulas</u> <u>for</u> <u>Intra-Paragraph</u> <u>Groupings</u>. Embedded in the major
paragraphs which we set up in Sections D and E.5 are various sub group-

ings the boundaries of which we attempt to delimit here via the reversals
in Figure 5—in our formulas, all sentences of a paragraph which are con-
nected by hyphen are nuclear; in cases where paired sentences are not so
connected the first such sentence is peripheral, the second nuclear.

Formula for the first paragraph:

$$(1-(2-(3-((4-5)-6))))$$

Beginning at the deepest level of embedding and working up and out, we
note, first, that 4-5 does not get interrupted, via reversal, by either
3 or 6. But both 3 and 6, provided one or the other is not counted as
present in the text, may reverse with 4-5 taken together—we have not
shown, via Figure 5, 6 reversing with 4-5 since, there, we were not con-
cerned to show reversals involving deletion of sentences which had already
been added in the second column. Hence, we place parentheses around 4-5
to indicate that taken as a whole it pairs off with another constituent
to form an embedded paragraph. In our formula we have shown 4-5-6 as
that embedded paragraph, and in doing so we have not relied on
sentence reversal but on the close grammatical link between 4-5 and 6
via the particle sequence see mala too, the Dhangar equivalent of 'there-
fore.' By way of this close link with 4-5, Sentence 6 and 4-5 form to-
gether a constituent that as a unit may be linked semantically to Sentence
3; hence, we have drawn parentheses around 3-4-5-6 to indicate that it
forms the next ascending level of embedding. At this point then our
formula is derived not only from the results of sentence reversal but
from the results of our semantic analysis in Section E.

Our parentheses around 3-4-5-6 reflects the fact that 2 does not
interrupt that sequence at any point (i.e., does not reverse with any
part of 3-4-5-6). It follows that 2 is grammatically related to 3-4-5-6
as a whole and not to any part of it in isolation from the rest—this
is confirmed by the overt grammar that connects 3-4-5-6 with 2, viz.,
the direct quote marker at the beginning of 3 which embraces 3-4-5-6 as
a unit. Finally, 2-3-4-5-6, because it cannot be interrupted by Sen-
tence 1, is contained within parentheses. Sentence 1 and sentence-
sequence 2...-6 pair off at the same level to form the immediate con-
stituents of the first matrix paragraph of the text.

Formula for the second paragraph:

$$(7\ 8)$$

There is no embedding within this paragraph. Sentence 7 does not
reverse with Sentence 8. That 7 is, however, peripheral to 8 is seen
via the permitted reversal 8-1-2-3-4-5-6-7-8 in which 8 may occur in-
itially in the text without being accompanied by 7. Hence, we have not
used a hyphen in the formula for this paragraph. This contrasts with
our use of the hyphen in the first paragraph to indicate that Sentence 1,
because it does reverse with 2...-6 and because it does not appear to be
deletable, is nuclear, as well as 2...-6—we note that peripheral ele-

ments such as paragraph settings (Sentences 7, 14, and 15) are deletable
upon major chronological reversal. See Figure 5.

Formula for the third paragraph:

$$(9 \ (10-((11-12)-13)))$$

This formula is similar to that for the first paragraph except that
the latter contained one more constituent and, thus, one more level of
embedding than this paragraph. It differs also in that 9 is peripheral
to 10...-13, unlike the first paragraph in which 1 is nuclear as well as
2...-6. This difference is not demonstrated by any reversal we have at-
tempted thus far; so at this point we are relying on the semantics of
Section E.5.

Sentence-sequence 11-12 is not interrupted by either 10 or 13. It
forms a unit constituent that pairs off with some other constituent to
form an embedded paragraph. In this case 11-12 pairs off with sentence
13, the grammatical relation between them being overtly marked by the
Dhangar particle see translatable by English 'so.' Then, 11-12-13 pairs
off with 10 with the accompanying grammatical link marked by Dhangar huN
translatable by English 'also.' We rely pretty much on the semantics for
this particular pairing of ICs. Finally, Sentence 9 pairs off with 10-
11-12-13 linked as they are by Dhangar tekar-baad-nu translatable by
English 'after this.' The 'after this' begins a sequence inclusive of
10 through 13.

Formula for the fourth paragraph:

$$(14 \ (15 \ 16))$$

From Figure 5 we note that in the resulting combinations of the
major chronological reversals, 15-16 occurs once without being accom-
panied by 14 (15-16-9-10-11-12-13-14-15-16), and that 16 occurs once
without being accompanied by 15 (16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-
7-8-14-15-16). This kind of behavior we have interpreted above as indi-
cating a distinction between peripheral and nuclear paragraph consti-
tuents. In the first instance, 15 is a peripheral constituent (semanti-
cally, a setting) that pairs off with 16, the nucleus, to form an em-
bedded constituent that in turn pairs off with 14 to form the primary
ICs of the matrix paragraph. In the second instance, 14 is a peri-
pheral constituent (semantically, a setting) that pairs off with 15-16,
the nucleus of the matrix paragraph. We have indicated the peripheral
status of these constituents in the formula by not hyphenating between
14 and 15-16 nor between 15 and 16.

In this section we have tried to show that our tool of sentence
reversal yields results that are convertible into preliminary structural
descriptions of inter-paragraph and intra-paragraph grammar. That we
have not succeeded in doing so without cross-reference to the results of
our approach to paired semantic components (Section E) underscores one of

our basic assumptions which we repeat here: Grammatical structure is a
composite of form and meaning. We have not been able to rely solely on
one approach as over against the other in setting up our formulas. We
have had to combine both kinds of approach and both kinds of results.

The general principle underlying our use of sentence reversal re-
sults as a means of formulating preliminary structural descriptions is
that different degrees of resistance to the interruption of a given sen-
tence-sequence via reversal enable the analyst to delimit the grammatical
boundaries between immediate constituents of the text at a particular
level of embedding and, that given sufficient information of the types
displayed in Figures 1 and 5, the analyst is able to do this systemati-
cally for the text as a whole and for all levels of embedding. We have
applied the reversal technique to only one text for one language. We
are confident that this technique will be equally useful in applications
to other Dhangar texts and to texts of languages other than Dhangar.

G. Hypothesis to Account for Semantic Upset in Relation to the Gramma-
    tical Adjustments Forced by our Tool of Sentence Reversal.

We wish to propose a hypothesis which will explain the phenomenon
of chronological upset as we encountered it in Section F.3, under the
paragraph heading Semantic Constraints Governing Difference of Reversi-
bility etc., and which will delimit for us the boundaries of its occur-
rence in terms of a scale of greater versus lesser upset. (This re-
lates to the preliminary discussion in Section B.3 regarding change of
focus in attention and re-focussed paraphrases of a discourse. Here,
we are attempting to grapple with the question: What are the limits of
focus change?) We wish such a hypothesis to be able to cover instances
of logical as well as chronological upset--we are not, however, trying
to contrast logical versus chronological upset in an absolute sense; in
many instances they overlap. In general, therefore, we wish our hypo-
thesis to handle all varieties of semantic upset. At this stage of our
research, however, our hypothesis and the testing of its worth will be
tentative, preliminary, and sketchy.

1. Hypothesis. Our hypothesis will be that the greater the seman-
tic upset the more uneconomical or complex will be the accompanying ad-
justed grammar. Corollary judgments spawned by this hypothesis are
1. that the greater the semantic upset (as this has been evaluated by
the narrator's audience, and then communicated to him) the more costly
will be the narrator's attempt to remedy the upset in terms of narrative
energy. And 2. that the greater the semantic upset the greater will be
the hearer's expenditure of perceptual or cognitive energy (the energy
expended in order to understand what the speaker is narrating).[12]

2. Assumption Regarding Complex and Simple Grammar Underlying
    Hypothesis.

One assumption underlying our hypothesis is that we may formally distinguish between complex and simple grammar, and beyond this that we may distinguish between various degrees of grammatical complexity (and, consequently, between various degrees of grammatical simplicity).

At present, we can only begin to support this assumption. We have an example of simple grammar in the first paragraph of our sample text:

(A) 1. One day Mankhu's mother and father had a fight. 2. His father said,. . . . 3. His mother said, . . . , etc.

In this sentence—sequence the logical transition between Sentence 1 and what follows is carried by simple juxtaposition, which is to say that the transition need not be marked by means of overt grammatical particles. But when we reverse sentence 1 with what follows the grammar is less simple:

(B) 2. One day Mankhu's father said, ... 3. His mother said, . . . ,etc. 1. In just that manner, back and forth, they quarreled between themselves.

The logical transition between sentence—sequence 2—3, etc. and Sentence 1 can no longer be carried by simple juxtaposition; it must be carried by overt grammatical markers 'In just that manner' and 'back and forth.' Hence, sentence reversal gives us a device for distinguishing various degrees of grammatical simplicity and complexity. We shall say, then, that the greater the need for grammatically marked transition between parts of texts, the greater the grammatical complexity of the text as a whole.

3. Semantic Upsets and Consequent Grammatical Adjustments. Our hypothesis regarding semantic upset was that the greater the upset the greater will be the complexity of the grammar which seeks to remedy that upset. (Perhaps we should speak of 'would-be' semantic upset instead of 'actual' upset since the narrator usually does not allow the upset to actually or finally occur. Hence, we are interested in the grammar which he uses in order to block such upsets.) And this we wish to discuss briefly with illustrations from our sample text.

Minimal Semantic Upset. On the lower extreme of the scale of upset no grammatical adjustments will be required in order to compensate for semantic skewing. It may even be difficult to say in such instances that one form of the text is more upset than another. For example, Sentence 4 and Sentence 5 of the original

(A) 4. Who will do the work around here? 5. Who will do the farming and gardening?.

are simply juxtaposed with no overt grammatical particle marking the

transition between them. When we reverse these sentences, we get

(B) 5. Who will do the farming and gardening? 4. Who will do the
work around here?

again with simple juxtaposition, i. e., no overt marking of the transi-
tion. As far as the English translation is concerned we may feel that the
reversed version (B) is not semantically as acceptable as version (A).
At any rate, no grammatical adjustment is required by our main language
assistant for the Dhangar reversal. We may judge, however, that he would
normally say (A) in preference to (B), and from this consideration con-
clude that (A) is less semantically upset than (B). In so judging we
would then need to search for contexts in which sentences like 4 do not
reverse with sentences like 5 apart from some grammatical adjustment.

Maximum Semantic Upset. On the upper extreme of the scale certain
kinds of semantic upset may be judged to have taken place which no amount
of grammatical adjustment can remedy—short of recasting the whole nar-
ration, or that part of it affected by the upset. In such instances, the
requisite grammatical adjustment amounts to making such amended narra-
tions. We illustrate from our text:

(A) 2. One day Mankhu's father said, "Hey, Mankhu, go to school
and study." 3. His mother said, "No, he will not go. . .4-5-6."
1. In just that manner, back and forth, they quarreled between them-
selves. 7. (optionally occurring) In that manner they quarreled.
8. At any rate, Mankhu disregarded his mother's word and went off to
school to study.

*(B) 8. One day, Mankhu disregarded his mother's word and went
off to school to study. 2. His father said, on that particular day,
"Hey, Mankhu, go to school and study." 3. His mother said, "No, he will
not go. . .4-5-6." 1. In just that manner, back and forth, they quar-
reled between themselves. 7. (optionally occurring) In that manner
they quarreled. 8. And Mankhu, having disregarded his mother's word,
went off to school to study.

Version (A) is a result of what we call primary reversal, that is re-
versal between intra-paragraph constituents. We have discussed this
particular reversal above. Version (B) is a result of secondary rever-
sal, that is reversal between inter-paragraph constituents.[13] We have
marked (B) with an asterisk to indicate that the Dhangar equivalent of
(B) is not acceptable to our language helper. He tells us that the
secondary reversal in (B) is all right, but that the previously accept-
able primary reversal between 1 and 2...-6 is not acceptable in (B).
Version (C), in which the secondary reversal of (B) is retained, but the
primary reversal rejected, is the acceptable alternative to (A):

(C) 8. One day, Mankhu disregarded his mother's word and went off
to school to study. 1. It happened in this way: That day Mankhu's

mother and father had an argument. 2. His father said, "Hey, Mankhu, go to school and study." 3. His mother siad, "No, he will not go. . . 4-5-6." 7. In just that manner, back and forth, they quarreled between themselves. 8. And, having disregarded his mother's word, he went off to school to study.

Version (B), then, is an instance of maximum or near-maximum semantic upset. If (B) was ever actually to occur, then presumably much of its content would be recast in a form similar to (C), or to (A). This as- sumes that our language assistant's reluctance to accept version (B) was due to the fact that he could think of no grammatical adjustment which would remedy the semantic upset short of such recasting. Of course, it may turn out that he will eventually find a way to keep (B) by making some less costly grammatical adjustments; in that case we would have to revise our evaluation of this particular instance of se- mantic upset.

Intermediate Semantic Upset. In between these two extremes on the scale of semantic upset we get some upsets that are on the lower half which are remedied by means of relatively economical or simple adjust- ments—such as the upset caused by reversing 1 with 2...-6 (which we have discussed above); and we get some upsets that are on the upper half of the scale that are remedied by means of relatively uneconomical or com- plex adjustments. We illustrate these upper-half upsets via the major chronological reversals, viz., 8-1-2-3-4-5-6-7-8, 1-2-3-4-5-6-7-8-15-16- 9-10-11-12-13-14-15-16 and 16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14- 15-16. The upset caused by reversing the original 'this-happened,-then- that-happened' chronology is so great that the addition of special tran- sition grammatical markers between reversed constituents is not suffi- cient to remedy the upset or preserve the original intended meaning; the reversed constituents such as 8, 15-16 and 16 must be repeated in their original chronology-preserving positions—relatively uneconomical as grammatical adjustments go. Moreover, of these three chronological re- versals, the one involving the placing of 16 at the beginning of the text is relatively more costly than the other two, since it seems to require the repetition of 16 twice, whereas 8 and 15-16 are each re- peated only once.

    4. Preliminary Assessment of the Hypothesis.

    In this discussion we have attempted to test our hypothesis in a preliminary way. We feel that the hypothesis works well so far as our sample text is concerned. It may need refinement as we attempt to apply it to other Dhangar texts. We have made no attempt to assign specific measurements to various types of semantic upset or to various types of accompanying adjusted grammar along the scale of upset which we posited. Hence, we do not wish to be taken too literally when we discussed the 'lower half' versus the 'upper half' of the scale. Nevertheless, we feel confident that our assignments of the various types along the scale relative to each other will be upheld by further investigation.

II. Summary.

        The observation that not all paired sentences or sentence-sequences
of a narrative text are equally reversible taken in conjunction with the
observation that not all paired sentences or sentence-sequences of a nar-
rative text sustain semantic relations among themselves that are equally
specifiable leads us to say that making systematic tabulations of accept-
able versus unacceptable reversals and of semantically specifiable versus
semantically non-specifiable relations is very useful for the purpose of
describing the structure of one Dhangar narrative discourse. Further,
sentence reversal, by virtue of the semantic constraint we put upon it—
requiring that the logical and chronological relations of the original
narration be preserved throughout—has the added usefulness that it helps
us distinguish formally between various degrees of semantic upset or skew-
ing. This it does by forcing compensating grammatical adjustments which
vary in complexity according to the degree of upset which occurred as a
result of the reversal.

        This latter usefulness, if found to be language-universal, may
eventually be exploited to the extent that, for any given language, we
will be able to generate acceptable narrative paragraphs and discourses
which reflect minimal semantic skewing and minimal grammatical complex-
ity so far as the paragraph and discourse structures are concerned. Al-
ternatively, we will be able to generate acceptable paragraphs and dis-
courses which reflect maximum semantic upset and grammatical complexity.

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Footnotes.

[1]Dhangar is a Dravidian language and a dialect of Kudux (India).
It is spoken by about 10,000 persons in the Terai districts of Nepal.
See National Census: Results (part-2), Table-8, p. 20 (1961).

This work on Dhangar—and that in the earlier article in the series,
"Preliminary Technology to Show Emic Relations between Certain Non-
Transitivity Clause Structures in Dhangar (Kudux, Nepal)," Vol. I.1.56-79,

Footnotes.   (cont'd)

1972—was done pursuant to an agreement of cooperation between the Summer Institute of Linguistics and Tribhuvan University, and has been carried out under the auspices of the Institute of Nepal Studies of the University.   The authors wish to express their gratitude to the Institute of Nepal Studies for their part in making this research possible.

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In general, Gordon has contributed the language data, the specific analysis and conclusions.   Pike has provided the theoretical stimulus and working assumptions.

[2]We numbered the sentences on the basis of our first preceptions of phonological and semantic divisions.   Other investigators might have chosen to number the sentences somewhat differently.

[3]Saukhi Lal Prasad Uraon (author of the text), Banthu Uraon, Ram Prasad Uraon, and Shib Kumar Das Uraon assisted us at various stages of the research in the ways we have indicated.   We are grateful for the part they had in making this research in Dhangar-Kudux possible.

[4]Bellert, p. 361.

[5]It may be equally true to say that the further removed we are from the author in time, culture, and world-view, the less likely it is that we will be able to specify, unambiguously, all semantic relations which the author intended.

[6]Many of the spelling conventions adopted for the text are convertible to the underlying phonemic equivalents without special comment. Others are as follows:

ee, etc.   = long vowels
nG   = velar nasal
'   = glottal catch
R, D   = retroflex consonants
:   = consonant gemination
N   = nasalization of preceding vowel

[7]For a more comprehensive discussion of semantic linkage in relation to paragraph structure in Philippine languages see Longacre (1968).

[8]Longacre (1968).

[9]In the development of this matrix diagram we profited from discussions with Dr. Francis Ekka, of the Central Institute of Indian

Languages, Mysore, India.

[10]Our translation of this passage (10...-13) given above under Section C reflects the ambiguity that in all probability is present also in the original Dhangar text. The translation might lead one to believe that 11-12 recount the reason for Mankhu's leaving school in 9. The author of the text insists, however, that first of all Mankhu left school with the intention of returning (9), then his father, taking advantage of the opportunity, told him to leave school for good (11-12). It was at the father's request, then, that Mankhu finally left school (13).

[11]The latter half of Sentence 14 appears to do more than recapitulate 9...-13 since it contains information that is not explicitly mentioned in 9...-13. That information is, however, implicit in 9...-13 in that his leaving school was for the very purpose of doing the farm work mentioned explicitly in 14.

[12]For a brief discussion of the relation of grammatical structure to the form in which sentences are understood see Bever and Langendoen (1971). They hold that there is experimental evidence to show that "perceptual strategies are sensitive to the external patterning of major syntactic categories" (p.436) and that "listeners make primary use of an ordered set of perceptual strategies which directly map external strings onto their internal structures" (p. 435). The discussion is restricted to intra-clausal and inter-clausal grammatical relations. It would be interesting and worthwhile to see this discussion extended to include the grammar of narrative discourse.

[13]See Pike and Schoettelndreyer (1972) for a discussion of primary versus secondary reversal in relation to the analysis of a Sherpa text.