THE SEMANTICS OF CLASSIFICATORY VERBS IN ENGA
(AND OTHER PAPUA NEW GUINEA LANGUAGES)

by

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The research reported on in this monograph was sponsored by The Australian National University, and I owe this institution a considerable debt of gratitude for their generous financial support and facilities made available to me.

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Ranier Lang, who originally suggested that I attempt to compile a monolingual dictionary, has provided unlimited comments, criticism and time throughout.
This book is based on fieldwork carried out among the Enga from August 1967 to August 1968, and from May 1969 to September 1969, a total of seventeen months, as a Research Scholar of The Australian National University. The first few months of this period were spent at or near Wabag, the remainder at Kopetesa, a small hamlet approximately thirty miles west of Wabag in the western dialect area of Enga. The final work for this book was carried out from December 1973 to February 1974 in the Enga District. A trip to the Summer Institute of Linguistics base at Ukarumpa in September 1973 yielded material incorporated in Chapter Five (Comparative Perspective) and in Appendix E.

The decision to undertake a study of Enga was based on two considerations: firstly, that in connection with my husband's fieldwork I was already living among the Enga and had attained a fair degree of speaking proficiency in the language, and secondly, that a considerable amount of linguistic and ethnographic work had already been done on the Enga.

This is a semantic study. It arose out of my previous interest in ethnoscience and because of this began with the determination of the features of the animate sub-set of Enga nouns. Since studies "of any sort in ethnozoology are rare" (Sturtevant 1964:120), I felt that this would provide a contribution to a neglected domain. The elicitation of semantic features of the animate nouns provided the first evidence of the Enga existential verbs: any noun elicited would be followed by a verb which indicated its habitual state of existence. Interest in the existential verbs and the elicitation of their features led to the discovery that they were classificatory verbs and that they co-occurred only with [+concrete] nouns. This led to further work on the verbal system with the result that [-concrete] nouns were found to co-occur with another set of classificatory verbs.
Thus, the topic became focused as a semantic study of a portion of Enga, the animate nouns and the classificatory verbs. One of the main features is that the book attempts not only to explain the usual occurrences by means of semantic redundancy rules, but also to account for the exceptions to these, i.e., the assumption that rules are broken in accordance with (culturally determined) rules for breaking rules (cf. Landar 1965 and Dixon 1968:120). The associated problems were: Can semantic features be given? Can semantic redundancy rules be formulated? What are the exceptions to these rules, and can they also be accounted for? Are the rules part of a semantic hierarchy or does cross-classification of the items exist? Can comparative data be given for other Papua New Guinea languages with similar phenomena?

The introductory chapter states the problem and gives a description of the data base; Chapter One gives a sketch of the Enga and their culture and of previous linguistic work on Enga. Chapter Two describes the existential verbs, their syntax and semantics. Chapter Three is a brief excursion into the animate nouns, one sub-set of the [+concrete] nouns which co-occur with the existential verbs. Chapter Four describes the classificatory verbs which co-occur with the [-concrete] nouns, some problems connected with them, and their semantics. Chapter Five deals with comparative materials from other New Guinea languages on the two kinds of classificatory verbs. The monograph concludes with a brief discussion of the results of the study in Chapter Six.

The appendices contain supplementary materials on the semantic classes of Enga verbs (A), methods of data compilation (B), data on the Enga existential verbs (C), data on the classificatory verbs for the [-concrete] nouns of Enga (D), and some comparative data from possibly related languages (E).
PRESENTATION AND ABBREVIATIONS

All examples are given in the usual Enga orthography; the tonal structure of items without tone marks is, at present, not known. In the interlinear translation, morpheme boundaries are indicated by a hyphen; the period (.) indicates a unitary lexical item in Enga; square brackets enclose features.

Enga examples in running text are printed bold, their English glosses appear in italics. Text within double quotation marks is quoted from the literature.

The examples are numbered within each chapter, and the notes may be found at the end of each chapter.

AG     Agentive
AS     Associative
BEN    Benefactive
CAUS   Causative
COMP   Completive
CONF   Conformative
CONJ   Conjunctive
DEC    Declarative
DET    Determiner
DU     Dual
EXCL   Exclusive
FP     Far Past
FUT    Future
GEN    Genitive
HAB    Habitual
HIST   Historical events
IMM    Immediate
IMP    Imperative

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INTRODUCTION

0.1 INTRODUCTION

Much is now known about the general structural character of Papua New Guinea languages, although relatively few of these have been studied and described in any detail. Whatever studies have been made have focused on the phonology, morphology/syntax of particular languages. And of these, the bulk has concentrated on the morphological structure and/or syntactic function of verbs alone, since these are usually very complex linguistic entities which may be said to 'dominate' the languages in which they occur (Capell 1969). This work is a further contribution to verb studies in Papua New Guinea languages. It builds on previous linguistic work and knowledge and attempts to extend this to a new level by taking a detailed look at the semantics of a set of verbs in Enga, a non-Austronesian language of the central highlands of Papua New Guinea.

In particular, this is a descriptive and exploratory semantic study of a group of verbs in Enga which co-occur only with certain classes of nouns, and so are described as 'classificatory verbs'. Hitherto these verbs have not been discussed as such in the literature on the structure of Papua New Guinea verbs, and no semantic analysis or description of them has been attempted. They have, however, been mentioned in connection with syntactic descriptions of Papua New Guinea languages in a more general way, so that this provides some base for discussing the extent and distribution of this phenomenon throughout Papua New Guinea.

The term 'classificatory verb' is not new. It has been used for some time in studies of American Indian languages where phenomena similar to those of Enga have been described in these terms. That the phenomena are important and worthy of detailed investigation has been pointed out by Haas, Berlin, and others. Thus, Haas has...
said that
classificatory verbs clearly deserve far more attention than they
have received in the past as indicators of covert taxonomic systems

Brent Berlin has stated that classificatory verbs, noun class markers
(as in the Bantu languages), and numeral classifiers (as in Chinese,
Mayan and Tarascan) are "three syntactic devices utilized by many
languages of the world linguistically marking highly salient features
of the physical world...ultimately it will be necessary to consider
each of these three syntactic devices as focusing on similar semantic
features..." (Friedrich 1970:380).

Classificatory verbs may be either overt, as in the Athapaskan
or covert, as in Tarascan (Friedrich 1970) and Enga. As a point of
departure for this description, we will take Hoijer's classic article
on the verb stems of Apache, which outlines three kinds of verbs:

i non-classificatory verbs,
ii classificatory verbs, and
iii 'pseudo' classificatory verbs.5

Hoijer (1945) has defined these as follows:

i Non-classificatory verbs:
...verb stems denoting a specific type of action or behavior.
Forms like...'he speaks so',...'he is walking, moving',...
'y you buy it' employ verb stems...of this kind (22).

ii Classificatory verbs:
...verb stems which refer to a class of objects participating
in an event, either as actor or goal...(22). ...there is no
simple verb 'to give' but a number of parallel verb themes
consisting of a certain sequence of prefixes plus a classifi-
catory verb stem. The sequence of prefixes is the same for
each theme but the stem varies with the class of object
referred to (13).

Some examples of these include:
'she gave [a twenty-five cent piece] to him', 'he gave [a
bundle of arrows] to him', 'you take a round object out of
(an enclosed space)', 'you take a fabric-like object out of
(an enclosed space)' (14).

These verb stems have a
...neuter intransitive denoting an object of a particular
type in position or at rest,...'a mountain lies [over
yonder]'...(22).

iii 'Pseudo' classificatory verbs:
...stems which stand between the two categories just outlined.
Some of these are to be distinguished from the classificatory
stems only in their neuter forms; active verbs denoting the
movement or handling of their object class are the same as
those of some other classificatory type. An example of this
phenomenon is found in Navaho...'it is bent bow-like', for
when we speak of handling a 'bow-like object' we must use
active verbs of the 'long object' class (22f.).
Note especially that the form that distinguishes the classificatory from the 'pseudo' classificatory verbs is the 'neuter' form of the type 'a mountain lies'. Enga does not have 'pseudo' classificatory verbs, but the Enga form corresponding to the 'neuter' Navaho form, the existential verb, also comprises a special sub-set of the classificatory verbs in Enga. Of the three types given by Hoijer (non-classificatory, classificatory, and 'pseudo' classificatory verbs), Enga has the first two, but not the last.

Both the Athapaskan languages and Enga have non-classificatory verbs; in Enga these are exemplified here by yawa- steam (in an earth oven) in:

1. Akáli dúpa-me mená dúpa yawe-ly-amí-no.6
   man the-AG pig the steam-PRES-3PL-DEC
   The men are steaming the pigs (in an earth oven).

These are briefly presented in 1.2.1 (following) and appear grouped into semantic classes in Appendix A; they are hereafter ignored, since the study deals only with the classificatory verbs of Enga.

The classificatory verbs in Enga are of two types, and are distinguished by the type of noun which co-occurs with them. The first type co-occurs with concrete nouns in Enga, and corresponds to Hoijer's 'neuter' stem which denotes "...an object of a particular type in a position or at rest" (1945:22). In Enga these verbs classify the concrete nouns into seven sub-classes, of which three are exemplified in (2-4):

2. Énda dúpa pete-ngé.
   woman the BE-HAB
   Women exist.

3. Àndá dúpa kate-ngé.
   house the BE-HAB
   Houses exist.

   jeep the BE-HAB
   Jeeps/cars exist.

In these sentences, the verbs pita-, kate-, and sa- indicate that objects of a particular type (e.g., woman, house and jeep) are in a position at rest. These verbs (and the others which constitute the set) will be referred to as existential verbs (hereafter EV) and will form one of the main topics of description and analysis in Chapter 2.0.
The second type of classificatory verbs in Enga co-occur with the non-concrete nouns; they are in complementary distribution with the first type, the EV. This second type of classificatory verb occurs in what will be referred to as a 'predication'. Two typical Enga predications, téé pi- pay restitution (for a homicide), and itákí pya- count are exemplified in (5) and (6):

5. Akáli dúpa-me téé pi-ly-ami-nó.
   man the-AG restitution do-PRES-3PL-DEC
   The men are paying restitution (for a homicide).

6. Akáli dokó-mé mená dúpa itákí pi-ly-á-mo.
   man the-AG pig the count hit-PRES-3SG-DEC
   The man is counting the pigs.

These predications will be described and analyzed in Chapter 4.

In discussing the semantic structure of the EV and predications, lexical stems will be considered to consist of bundles of semantic features, mainly for practical reasons, since the problems noted in the section to follow have not yet been solved.

0.2 THEORETICAL ORIENTATION AND PROBLEMS

After years of being discredited and ignored, the study of semantics was revitalized in 1963 with the pioneering effort of Katz and Fodor which attempted not "...to present a semantic theory of a natural language, but rather to characterize the abstract form of such a theory" (1964:479). The importance of this work is emphasized by its being immediately incorporated into an integrated theory of linguistic description (Katz and Postal 1964) and its incorporation into generative transformational theory (Chomsky 1965).

The semantic theory presented by Katz and Fodor was heavily criticised on several points, of which we will deal only with those of interest in the present semantic study of Enga, e.g., the idea of semantic markers (features or components). In the following sections we will briefly sketch some of the more salient points to be accounted for in a semantic study and which we intend to concentrate most heavily upon in the chapters to follow. The points include:

0.2.1 The semantic features
0.2.2 Redundancy rules in semantics
0.2.3 Various exceptions to the redundancy rules
0.2.4 Dominance relations between nouns and verbs
0.2.5 The priority of syntax or semantics.
0.2.1 The Semantic Features

Weinreich states that the idea of using features was first proposed by G. H. Matthews about 1957 and was independently worked out to some extent by Robert P. Stockwell and his students (1966:401). Lyons says that the componential approach to semantics "...has a long history in linguistics, logic and philosophy. It is inherent in the traditional method of definition by dividing a genus into species and species into subspecies; and this method of definition is reflected in most of the dictionaries that have ever been compiled for particular languages, and in the organization of such works as Roget's Thesaurus" (1968:472). In the componential (or feature) method, words are described semantically by factoring out the most 'basic' components. Ethnoscience has successfully applied this technique mostly within the domain of various closed contrast sets, such as kinship terms.

One claim advanced for semantic components is their potential universality, i.e., that all human languages may be either partially or completely analyzed in terms of a finite set of semantic features in much the same way as can be done for phonology with distinctive features. Chomsky cites several examples which contain (formal) universals:

Consider, for example, the assumption that proper names in any language, must designate objects meeting a condition of spatiotemporal contiguity, and that the same is true of other terms designating objects; or the condition that the color words of any language must subdivide the color spectrum into continuous segments; or the condition that artifacts are defined in terms of certain human goals, needs, and functions instead of solely in terms of physical qualities (1965:29, notes omitted).

Of course the value of a componental analysis in the semantic description of a particular language (in this case, Enga) remains unaffected by the existence (or non-existence) of possible universal components, yet such a description may be evidence to eventually confirm (or refute) the hypothesis of the universality of features.

One of the advantages of semantic features is that these allow words which have one or more features in common to be related via these features, i.e., words may be considered to be synonymous if they contain identical semantic components and descriptions. This same relation may hold between sentences, such that

...relations like paraphrase, entailment, etc. are suitable generalizations of lexical relations like synonymy, hyponymy, etc. This is a natural consequence of the fact that the semantic representations of sentences are in principle of the same character as lexical meanings (Bierwisch 1970:180).
Thus the semantic components may demonstrate the occurrences and show the relationships between synonyms, antonyms, and other related words. As well, the overlapping of semantic components or descriptions provides for that sub-set of items which will be discussed below and throughout this monograph as 'intersection' (cf. 0.2.3.2).

Several of the problems most frequently mentioned in connection with semantic components are

1. that there is no discovery procedure to determine which are the 'correct' markers;
2. how exactly are the semantic components related to the syntactic features;
3. is the number of components needed so large as to be unfeasable;
4. are latent markers present;
5. do the features have 'cognitive reality'?

The discovery of semantic markers is usually demonstrated via a factoring process on such closed contrast sets as "man, woman, boy, girl, child" or "stallion, mare, gelding, filly, colt, foal" (cf. Bierwisch 1970:168 and Lyons 1968:470). This is incidentally the same method adopted in ethnoscientific, which has elaborated upon the discovery techniques and methods to be used in the determination of the closed set, the features, etc. For an excellent example of this, see Berlin 1968 and references therein. Bolinger uses the same technique in demonstrating that the dualism of semantic markers and 'distinguishers' in the semantic theory of Katz and Fodor is an artificiality (1965:558ff). It is Bolinger who points out that semantic components must reflect our knowledge of the world; if not, then "Where do markers like (Animal), (Physical Object),...come from if not from our knowledge of the world?" (1965:568).

Katz and Fodor claimed that semantic and syntactic markers were distinct, an assumption that has been attacked by Weinreich, who states that

The presence of syntactic and semantic markers with identical names (Male, Female, Abstract, etc.) offers strong prima facie ground for the suspicion that the distinction between semantic and syntactic markers--a distinction theoretically crucial for KF...--is ill-founded (1966:402).9

The large number of semantic components needed to define even just one word is one of the main problems to be faced. This is mentioned by Dixon 1971:440, Weinreich 1966:473, and Bolinger 1965:560. Briefly, the assumption is that the large (but presumably finite number) of even minimal markers needed would be but little better than a list of n words assumed to be primitives (since it is entirely possible
that the number of markers needed would be only $n - 1$). Practically, the idea of semantic redundancy rules (similar to those of phonology and syntax\textsuperscript{10}), while still fraught with difficulties (cf. 0.2.2), does offer at least some hope in the semantic description of any hierarchic class of items (i.e. folk taxonomy), and semantic components have as Weinreich states "...proved their usefulness long ago" (1966:473).

Another related problem is that of latent markers, as discussed by Bolinger 1965:562ff. This is that to account for the speaker's ability to recognize an anomaly (as well as ambiguity) would require making explicit a very large number of markers or as Weinreich states it "...the need to mark each morpheme with a zero for an extremely large number of semantic features looms as a most unattractive necessity" (1966:473). Bolinger's proposed solution would be a dictionary (with one or two dozen markers per entry) for the ambiguities, and a thesaurus (with each marker appearing only once, and lexical items being linked by paths between markers) for the anomalies (1965:564). (Compare this idea of semantic networks with those to be discussed in 0.2.2).

One problem of semantic components, discussed mainly by anthropologists interested in ethnoscience, is that of the 'cognitive reality' or 'validity' of the semantic components themselves. The problem is that to differentiate any items in terms of only one feature, as animates in terms of their sex (i.e., as man-woman, bull-cow, etc.), is to emphasize only one of the many relevant features which may distinguish the items:

If one asks a young child (most of whose utterances are perfectly acceptable and manifest the same semantic relationships, as far as one can judge, as the utterances of his elders) what is the difference between men and women, he might answer by listing a whole set of typical characteristics—the kind of clothes they wear, how their hair is cut,... Why should one suppose that sex is the sole criterion even in adult speech? (Lyons 1968:478). \textsuperscript{11}

This question of the 'cognitive reality' of semantic components is unsolvable (at present, at least), and anthropologists are divided, with some claiming that the question is irrelevant, others that the systems postulated are cognitively real, and yet others that such a cognitive reality may exist but that it must be demonstrated by operations external to the methods of analysis. \textsuperscript{12}

0.2.2 Semantic Redundancy Rules

The possibility of semantic redundancy rules is not mentioned by Katz and Fodor in their semantic theory. Chomsky applied the notion
of redundancy rules as used in phonology by Halle (1959a and b) to syntax to form syntactic redundancy rules. He states that these rules "are designed to deal with the fact that certain phonological feature specifications are predictable, given others" (1965:168). A distinction is made between conventions (these are "...universal, and therefore need no specific statement in the grammar" (1965:168)) and redundancy rules, which are "...particular to a given language, and therefore must be given in the grammar" (1965:168). The redundancy rules will make a distinction between "possible, but nonoccurring lexical entry" and "impossible lexical entry", precisely as the phonological redundancy rules do... But in general not all of the possibilities will be actually realized in the lexicon...the possible but nonoccurring lexical entries have the status of "accidental semantic gaps" in the sense that they correspond to lexical items that the language does not provide for specifically but could in principle incorporate with no alteration of the general semantic system within which it functions (1965:170).

Gething (1968) presents an application of redundancy rules to semantics (i.e., to a closed set of terms for Buddhist religious functionaries), which presents one solution to the facts presented above of the potentially large number of semantic components necessary for an analysis. He does this by first assuming that only pertinent features of a word are listed, with a general rule for the entire lexicon which states that features not listed for an item are non-applicable to it. Furthermore, predictable (and thus redundant) features are isolated and reduced by a set of rules, so that the lexicon contains only the 'emic' (non-predictable) lexical entries. This quite considerably reduces the semantic markers needed--in Gething's example of religious terms, only one feature, relative status, is actually needed in the entry. That this is possible (i.e., to reduce the features to only one, plus a set of redundancy rules) is largely the result of the hierarchic nature of the data chosen by Gething.

In the case of non-hierarchic items semantic redundancy rules face a very real challenge. A discussion of this is presented in Weinreich (1966:408f) and briefly here. Weinreich argues that Katz and Fodor give an over-simplified view of the problem by exemplifying trees as pure taxonomies, such that (7a) can be represented by (7b):13

7a. \[ \begin{array}{c}
\text{H} \\
\text{B} \\
\text{R} \\
\text{Q} \\
\hline
\text{T} \\
\text{A} \\
\text{C} \\
\end{array} \]

7b. \[ \begin{array}{c}
\text{B} \\
\text{R} \\
\text{Q} \\
\text{T} \\
\hline
\text{A} \\
\text{C} \\
\end{array} \]

And, as Weinreich points out, many dictionary entries tend to form matrices of features, as in (8a), and "there is no motivated reason
to rewrite them as...[8b]; the only economy would be achieved by representations such as...[8c,d,e]" (1966:409):

8a.

8b.

8c.

8d.

8e.

This problem (cross-classification) is also discussed by Chomsky (1965:79-86), who credits G. H. Matthews with first discovering it and with one solution via indexing category symbols. Chomsky mentions some other solutions by Stockwell and Schachter, and Bach; and states that the "problem is very much open, and deserves much further study" (1965:213). Thus cross-classification would clearly present a major difficulty in the formulation of semantic redundancy rules for any non-hierarchic items.

Weinreich also deals with the problem of reconvergence of markers, which he states is such that "...the criteria of a fixed order of markers and a fixed form of branching may be mutually irreconcilable" (1966:408). The problem is exemplified by the entry for 'fox':

9. fox + (Object) + (Animate) + (Human) + (Animal) + (Cunning) +...

The entry for (9) with a fixed order of markers would be represented as (10), and with a fixed form of branching (i.e. the non-reconvergence of branches) as (11):

10.

11.

Weinreich criticizes Katz and Fodor for their belief that Boolean operations are "...an adequate model for combinatorial semantics" (1966:411), and that one "would have thought that with the development of the calculus of many-place predicates, the logic of Boolean
(one-place) predicates would be permanently dropped as a model for natural language" (1966:411).

As Weinreich also states, one of the major motivations of semantic research has been a "desire to analyze a global meaning into components, and to establish a hierarchy among the components..." (1966:405). Yet as we have seen above, semantic redundancy rules can account only for hierarchically-ordered systems (or sub-systems) of semantics, and cannot account for instances of cross-classification and re-convergence of features. One possible solution to the latter problem has been offered in the idea of semantic 'networks', but the idea remains to be developed and tested. 14

0.2.3 Exceptions

Chomsky has said that exceptions "...are rarely lacking, in a system of the complexity of a natural language" (1965:218). A complete description of any language, and a theory of competence for that language, must include an account of exceptions, in particular, those exceptions which occur systemically in relation to the main system.15 The exceptions are that very small number (five percent or less) of cases in a natural language which contradict the main system of rules used to account for the majority of items in that particular system. This topic of exceptions is of importance to theoretical linguistics, since they are present in natural languages (in contrast to artificial languages whose rules allow for no exceptions) and since they must therefore be accounted for by a theory of competence. The attempt to account for exceptions is obviously to try to formulate rules to account for the regularities of the exceptions in terms of the main system: i.e., to formulate a sub-system of rules for 'breaking' the main system of rules.16

Throughout the chapters to follow we will be dealing with three kinds of exceptions present in the semantic system of Enga nouns and verbs.

1. the assignment of loan items
2. semantic intersection of features
3. change of classes or states

For all three of these kinds of exceptions (and possibly for all exceptions in any language), the major point to be noted is that the exceptions do not occur in free or random distribution, but are always contained within certain limits. This will be discussed in more detail in the following sections dealing with the specific kinds of exceptions we will encounter and discuss for Enga.
0.2.3.1 Loan Items

Although the number of loan items in any language is a small proportion of the total vocabulary, these form a subset of interest in semantic study since they may be used to test the main set of rules as to degree of predictability. The features whereby loan items are assigned to classes thus provide a mechanism for testing the validity of the semantic features postulated for non-loan items. The assignment of loan items may depend on such features as the prestige of the source language (English or Tok Pisin into Enga); the group associated with the introduced item (missionaries, government, business, etc.) and other socio-linguistic factors. Generally we would postulate the assignment of loan items by the culturally-determined relevant features as being assimilated into Enga classes of the greatest similarity (i.e., having the same features).

The features which determine the assignment may also vary, i.e. phonetically, morphologically, or semantically. In cases where gender, for example, is marked phonetically, the loan item may be quite arbitrarily assigned to a class based upon its phonology: as in Spanish, the -a ending influencing the assignment of the Inca loan word llama into the feminine class. When the system is based on morphology, this also takes precedence: as in German, the -lein and -chen demanding neuter classification, and over-riding the semantic feature of [+Female] in the cases of das Mädchen and das Fräulein. When the system is based on morphology, this also takes precedence: as in German, the -lein and -chen demanding neuter classification, and over-riding the semantic feature of [+Female] in the cases of das Mädchen and das Fräulein. In semantically based systems, the criteria are semantic: in Tarascan, with emphasis on features of shape, cars are usually classed as one-dimensional, but the Volkswagen is classed as three-dimensional "because of its roundish, bug-like quality" (Friedrich 1970:386).

The failure of a system of rules to account for the appropriate assignment of loan items would indicate a basic fault within the system's features or rules, and conversely, the correctly predicted assignment (i.e. if this agrees with the classification as made by native speakers) would allow us to assume at least some degree of validity for the postulated system of features and rules. Thus, loan items are, strictly speaking, not exceptions to the main body of rules, but instead allow the testing of this system. Loan items are included in this section since, in their small percentage of occurrence in the total vocabulary, they have one of the main characteristics of exceptions, i.e., they constitute a small but regular portion of the main system.
0.2.3.2 Intersection

As mentioned above, one of the advantages of semantic components is that these allow words which have one (or more) features in common to be related via these common features.\textsuperscript{19} Definition by synonyms is often used in lexicography, where, as Bolinger states:

\begin{quote}
the sense is characterized by an overlap of the semantic ranges of two other terms presumed to be already known, and two are the minimum necessary to have an overlap. Of course it can be argued that this is just a shorthand way of saying 'X has those markers of Y and Z that are not mutually exclusive'... (1965:565).
\end{quote}

Synonyms and near-synonyms present a case of interest for semantic analysis. In fact, Weinreich has suggested that the most important problem in semantic description (and lexicography) is to delimit the signification of near-synonyms: "On the whole, a semantic description should not aim at 'absolute' definitions, but at definitions which delimit the meaning of a term from that of terms with similar meanings (synonyms)" (1962:30).\textsuperscript{20} Intersection thus involves non-mutually exclusive semantic markers, or as Friedrich states "...an identity or close similarity of meaning with respect to one or more semantic features in two or more discrete, semantically or distributionally defined sets" (1970:396).

In any noun class or gender system, this intersection (or sharing) of one or more semantic markers might well result in conflict in the class assignment. Thus, as cited above, in Tarascan cars are generally assigned into the one dimensional class, but the Volkswagen's 'bug-like' features intersect with the three dimensional class and it may also be classified within the three dimensional class. Dixon cites a joking reference to a hermaphrodite, "the use of the non-normal class II marker pointing out the female characteristics of this 'man'" (1968:111). The item itself may be ambiguous, as ribbons, with features of both length and flatness, which in Tarascan may be assigned to either (or both) shape classes (Friedrich 1970:385). Friedrich also cites the humorous 'How many women does Pancho have' with the reply 'three \textit{ira-hku}', "thereby implicitly classing his plump mistresses with pots because of their three-dimensional bottoms" (1970:385). Sapir has observed Navaho gender rule breaking during punning (1932). Thus, a few of the possibilities that offer themselves in explanation are that the referent itself may be ambiguous; the context or linguistic situation may be ambiguous; cases of humour and punning; cases of teasing or naughtiness; individual idiosyncracies; and errors of performance.
The cases of intersection thus present data on the semantic features of the system which may be either the same or very similar, and also provide information on the linguistic context, and the ways in which the features may be manipulated by the native speaker. In most class systems it is also such that a most neutral or residue class is present. This class is likely to be illuminated by the analysis of the intersecting items, since it may well be the most frequently occurring in these cases.21

0.2.3.3 Change of Class

In any system of semantics, it is also possible for a small number of items to change their semantic class, depending upon the semantic features of the system. In Tarascan, where the classification "...often depends on the shape as perceived in the context of a particular speech situation" (Friedrich 1970:385), the change of class of a long, deflated (and thus one dimensional) balloon into a round (thus three dimensional) inflated balloon is reflected in the numeral classifiers used for the two different states. Also, human infants may be classed as shaped objects (class I), but when capable of speech (and thus rational) are classed as class II (Friedrich 1970: 385).22

In the case of the English 'natural' gender system, the pronominal reference to a particular referent may change if the referent noun undergoes a change of state: the most usual one in English probably being that of a male being altered to a gelding (i.e., a castrated male). For English we could postulate a 'gelding' rule, whereby the referential change from colt to gelding or bull to steer could be predicted:

If X is a male animate (pronominal reference 'he') and is gelded, future reference to X should be as 'it'; (but also, possibly still as 'he').23

The items which may experience change of state (though usually few in number) are of interest in a semantic description, since they highlight the features involved in the change, as above, when the features are [+Sex] for geldings, in Tarascan [+Speech, Rational] for human infants, and [+Long, One Dimensional] to [+Round, Three Dimensional] for balloons.

0.2.4 Dominance Relations between Nouns and Verbs

One of the basic assumptions made in generative grammar is that the nouns and verbs are of equal status, i.e., that neither `governs'
the other. Chomsky 1965 discusses whether selectional rules should be incorporated into the grammar either in terms of the nouns' dominance (i.e. nouns are assigned features, and the verbs are selected with reference to nouns) or in terms of the verbs' dominance (the verbs are assigned features and the nouns selected in terms of the verbs). Within the framework then presented, Chomsky demonstrates that the selection of nouns in terms of the verbs (i.e., verb dominance) introduces "considerable complication of the grammar" (1965: 115), and that the best solution (in terms of formal simplicity) is to assign features to nouns (i.e., noun dominance).

This solution was attacked in Matthews' review as 'rather trivial'. Matthews continues:

Although we may have fallen into the habit, as linguists, of using 'inherent'-type terms for Nouns and 'contextual'-type terms for Verbs (e.g. 'Animate' Nouns but Verbs 'which can take an Animate Subject'), there is no certainty that this reflects a valuable intuition about language. It may simply reflect the fact that it is easier to find notional labels for Noun-classes than it is for Verb-classes (1967:131).

Chomsky had hoped that "...a similar argument could be given for any language" (1965:115), yet more recent investigations in this area would seem to indicate that, even if noun dominance is of greater simplicity in English, this is by no means necessarily so in other languages. For example, Miller (1970) has presented evidence for the choice of verb dominance in Russian (rather than the Chomskian-noun dominance)

If the choice of verbs were made conditional on the choice of noun features, two dependency systems would operate in the grammar: adverbs would be dependent on verbs and verbs would be dependent on nouns. However, if the choice of noun were made conditional on the choice of verb features, the grammar would contain one single dependency system with both nouns and adverbs dependent on verbs (1970:501).

Note also that verbs in the Aspect model may in fact assign features to co-occurring nouns: in the example of 'gored by a kudu', the verb 'gore', which implies 'pierce with a horn or sharp object' assigns the feature of [+horn or sharp object] to the noun 'kudu'. This problem will merit additional discussion in the conclusion to Chapter Two, when we will attempt to determine the dominance relations which hold for Enga classificatory verbs.
0.2.5 The Priority of Syntax or Semantics

On this topic Chomsky originally states

...one should not expect to be able to delimit a large and complex domain before it has been thoroughly explored. A decision as to the boundary separating syntax and semantics (if there is one) is not a prerequisite for theoretical and descriptive study of syntactic and semantic rules. On the contrary, the problem of delimitation will clearly remain open until these fields are much better understood than they are today (1965:159).

and further

...it should not be taken for granted, necessarily, that syntactic and semantic considerations can be sharply distinguished (1965:77).

One of the major controversies today is between the Interpretive and Generative Semanticists, one assuming priority of syntax, the other of semantics.26 One area where these two schools differ is that of selectional restrictions. Chomsky (1965) treats these as a matter for syntax (not semantics), yet as Lyons states, the more traditional view is often that selectional restrictions are semantic, since such deviant sentences as "Colorless green ideas sleep furiously" can be described as "'grammatical, but meaningless'" (1970:136) as compared to 'Brainless little things type furiously'.27 And, as Lyons concludes,

...concentration upon the complex interrelations that exist between syntax and semantics, and the attempts that are being made to formalize these by the 'generative semanticists', cannot but contribute to our understanding of the structure of language (1970:138).

This topic is of interest here, since one of the major problems to be confronted is how to account for the features of the classificatory verbs, i.e., via segments (and thus as part of syntax) or via features (and thus as part of semantics). In either case, we will be able to take recourse to essentially the same solution, which has varying names, i.e., segment shifting (for the segments) following Jacobs and Rosenbaum (1968:66f), or feature spreading (for the features) following Givon 1969, 1970, Mould 1971 and Voeltz 1971. This problem will also merit additional discussion in the conclusion to Chapter Four, where we will discuss in detail the state of Enga classificatory verbs.

0.3 DATA COMPILATION

This study is based on data compiled in the form of a monolingual Enga dictionary, which resembles an Enga version of Webster's Third, plus (to some extent) encyclopedia.28 The dictionary contains 5,445
entries, each of which may contain up to thirty-three different kinds of (mostly) linguistic information: syntactic categories, semantic domain, semantic features, an English gloss, whether the entry is a loan item or not, a thesaurus, cross-referencing to synonyms and near-synonyms, illustrative sentences from texts, citations and references to the entry in the published literature on Enga, various sources of all information (i.e., references to informants, notebooks, tapes, texts, and transcribed materials), and the folk definitions used to define the entry. The sorting and arranging of this information was carried out using the Australian National University IBM 360 computer, using data processing techniques described in Lang, Mather and Rose (1973).

The monolingual folk definitions comprise the core of the dictionary, and details of the elicitation techniques used to obtain these are presented in Appendix B, where the techniques are compared and contrasted to a similar study of Papago folk definitions by Casagrande and Hale (1967). A portion of the material contained in the dictionary (basically an Enga word list with English index) has been published separately (Lang 1973).29

Details on informants are presented in Appendix B.
NOTES


3. Cf. Section 1.1 following for more details on Enga.

4. The comparative chapter (5.0) shows that these verb forms have been noted in Papua New Guinea languages, but have not before been analyzed as classificatory verbs. Pawley (1966:196) states that Karam noun bases co-occur in verb phrases as either subjects or objects. Rule (nd) notes that Hull existential verbs form noun classes (cf. Chapter Five); Pawley (1966:196) states that Karam noun bases co-occur in verb phrases as either subjects or objects, and he writes that Karam is a "verb classifying language" (1969:30).

5. The term 'pseudo' classificatory verb is from Landar (1964).

6. The following list of phonemes is for the reader's convenience:

   /p, t, k, b, d, g, s, j, m, n, ny, l, ly, w, y;
i, e, a, o, u; ', '/

/t/ quite often has a voiced alveolar trill allophone intervocally;
/k/ as a rule is fricativized between low and back vowels; /b, d, g/ are all prenasalized; /s/ word-initially is [ts], intervocally it fluctuates between [dz] and [z]; /j/ is phonetically [ndz] or [ndʃ];
/l/ is a voiced retroflexed flap; all syllables are open and final vowels are devoiced.

   Tone is contrastive

   /pɪˈlɪyo/ [ˈpɪlyʊ] I strike
   /pɪˈlɪnɔ/ [ˈpɪlyʊ] I do (work)


11. Lyons' point is well taken, but discussion with Ranier Lang and Lyle Steadman on ethnoscientific clearly implies that the difference is sex, i.e., in experiments showing a man dressed in women's clothes, a man with long hair, etc. Similarly, in questioning a child as to the difference between men and women, my subject replied "Men have a penis" (Craig Steadman, personal communication), which would seem to indicate that sex is the prime marker, with hair length, clothing, etc. as secondary considerations. Also, the Enga patriline consists of men who are 'of one penis' (pongó mendái).


13. Weinreich's examples have been re-numbered for this presentation.


15. We do not presuppose that features of performance, such as feeble-mindedness, aphasia, intoxication, insanity, etc. would need to be dealt with in such an account.

16. This problem could be regarded as an infinite regression (i.e., exceptions to the exceptions to the exceptions), until some (arbitrary) cut-off point is reached.
17. John and Irma Harris have provided the Spanish example. They point out, though, that this is true only for Mexican and Castilian Spanish, while in Peru llama is referred to as el (i.e., is regarded as masculine).

18. Professor George Grace noted that the switch in pronominal reference (from es to sie) during conversation would be a topic for additional study.

19. Dixon 1971 states "Words of similar meaning are now directly related through their semantic descriptions having one or more features in common" (p.440).

20. Weinreich also gives the account of an experiment in which graduate students attempted (with very poor results) to distinguish between a set of eight synonyms (1962:27).

21. The comparison between intersection and cross-classification (0.2.2 above) is worthy of additional attention.

22. Human infants present an interesting case for cross-cultural study. Culturally, what marks the change of state that results in the different references? In English, the possibility might be 'capable of speech'. In Enga, infants are marked 'incapable of rational thought'.

23. Even in the case of pets, which generally retain the original pronominal reference after 'alteration', 'she' is not acceptable for a male neutered pet. Note that modern sex change operations (resulting in what would be a male-female change) are not recognized by the Kammergericht Berlin (Dahl and Heidemann 1973), i.e., legally a man cannot ever become a woman.

24. Prior to Chomsky 1965, Hays had presented his notion of dependency theory (1964), in which the verb dominated everything else.

25. Mathias 1968:13f. discusses various possibilities in which the verb may assign features to co-occurring nouns.


27. This example is from Ranier Lang.
28. The monolingual dictionary was intended to be encyclopedic.

29. Lang (1973) also contains a complete listing of the sources for all the main items of the monolingual dictionary. The original Enga word list incorporated about 2,000 items from word lists and vocabularies made available to the author by courtesy of various missionaries working in the Enga area. One of these, that of Rev. O. Hintze, included the Enga item, the English gloss, and the word class of the Enga item, for approximately one thousand items. This Enga word list (of 2,000 items) formed the base for the elicitation of the monolingual folk definitions and all the other material contained in the present monolingual dictionary.
MAP 1: THE ENGA AREA
1.1 THE ENGA

The Enga, who number more than 150,000, live in mountainous country in the Enga District of Papua New Guinea. They occupy an area which stretches from the western slopes of Mt. Hagen westwards to Porgera (see Map 1). This area is drained by the Minyamp, Ambum, Lai, Sau, and Upper Maramuni Rivers, which flow into the Sepik; the Lagaip River (to beyond the junction of the Porgera River), which flows into the Strickland, and the Tari River. The Kyaka Enga, who live to the north of Mt. Hagen township, occupy the area drained by the Baiyer River.

The Enga are primarily sedentary gardeners but also keep pigs and fowls. The staple crop is sweet potatoes grown in the efficient system of long fallowing (see Waddell 1972); these are augmented by other root and leaf vegetables. A limited amount of coffee (among the Central Enga) and pyrethrum (among the Laiagam Enga) are grown as cash crops; cattle have also been introduced by the Australian Administration.

Pigs, pearl shells, axes and plumes are the conventionally accepted items of wealth which circulate freely, and exchanges of these valuables mark all significant social occasions. Pigs form the major item in the tēe exchange.1 Until the coming of the Pax Australiana, Enga clans constantly fought each other over land, and women and to avenge previous killings.

The people belong to named localized exogamous patriclans; they live in homesteads scattered throughout the clan territory, which has a sharply defined boundary. Traditionally men and women occupied separate houses, since women were thought to be unclean and dangerous to men, who had to use magic to protect themselves from female pollution. There are no hereditary chiefs or headmen: instead wealthy men of
influence and power, (who have some of the characteristics of the self-made Big Men commonly found in Melanesia) control the initiation and direction of the political and administrative activities of each clan. The Enga are notable among the Highlanders for their pragmatic concern with the manipulation of wealth in various forms (the traditional death payments, tēe exchange, modern trade stores, cattle raising, and coffee and cash crops) and the extension of a wealthy man's influence through the social system.²

1.2 GRAMMATICAL SKETCH

Publications on the Enga language in professional journals are a short dictionary (Crotty 1951), and an account of some syntactical features of Enga as contrasted to the Greek syntax of the Gospel of Mark (Burce 1965). The most detailed study of any one aspect of Enga, however, has been made by Lang (1970), an account of Enga questions and answers; he has also produced a brief grammatical sketch which is available in the Enga Dictionary (Lang 1973). The present study will not attempt to duplicate the description of Enga syntax, but attempts to elucidate other aspects not previously described, i.e., the semantics of the classificatory verbs. This would be difficult to do without some general account of the structure of Enga, and so this is provided in the following section.

Most of the work on the language has been done by the missions in the Enga area: the New Guinea Lutheran Mission-Missouri Synod and the Catholic missions working mainly on the Mae dialect, and the Australian Baptist Missionary Society working on the Kyaka dialect. The missions have produced a sizable body of material on the language, which is available to anyone interested in research.³

1.2.1 The Noun

Since the focus of this monograph is on the Enga verbs, this section will deal only briefly with the Enga nouns.

Enga nouns co-occur with the determiners dóko the and méndé a, some, else

1. Akáli dóko epe-ly-á-mo.

   man the come-PRES-3SG-DEC

   The man is coming.


   man a come-PRES-3SG-DEC

   A man is coming.
Nouns may be inflected for cases, such as agentive (3), instrumental (3), possessive (3), locative (4, 5, 6), and temporal (7):

3. Akáli dóko-mé émba-nya mená dóko uaa-mé pe-fá-
   man the-AG you-POSS pig the axe-INST hit-PP-3SG
   The man killed your pig with an axe.

   man the over.there-LOC go-PRES-3SG-DEC
   The man is going over there (on the same level).

5. Akáli dóko ee-sá ténge-sa pe-ly-á-mo.
   man the garden-LOC near-LOC go-PRES-3SG-DEC
   The man is going near the garden.

   man the house-LOC go-PRES-3SG-DEC
   The man is going home.

7. Akáli dóko kotaka-sa pe-ly-á-mo.
   man the noon-TEMP go-PRES-3SG-DEC
   The man is going at noon.

Noun classes have not been studied in detail in Enga and will be only briefly discussed in the following section. The classes have been based primarily on syntactic features of the Enga cases as listed above (1-7). In addition, other features are given for the classes of most interest for this work, i.e. those which co-occur with the classificatory verbs. The classes to be discussed are: N\textsubscript{1} Animates, N\textsubscript{2} Pronouns, N\textsubscript{3} Body Parts, N\textsubscript{4} Inanimates, N\textsubscript{5} Locationals, N\textsubscript{6} Events, N\textsubscript{7} Colours, N\textsubscript{8} Inner States, and N\textsubscript{9} Minor Classes. Of these classes, only certain nouns of class N\textsubscript{9} may occur with the temporal suffix, therefore this suffix will be ignored for the other classes. The classes and their case distribution are presented in Chart 1.1; occurrence with the classificatory verbs is marked in the last two columns.
### Chart 1.1: Noun Classes

<table>
<thead>
<tr>
<th>Noun Class</th>
<th>DET</th>
<th>AG</th>
<th>POSS</th>
<th>INST</th>
<th>LOC</th>
<th>EV</th>
<th>Predications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dóko</td>
<td>méndé</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_1$ +animate</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_2$ +animate</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Pronouns)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_3$ -animate</td>
<td>X</td>
<td>X</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>(Body Parts)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_4$ -animate</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>+artifacts (?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_5$ +location</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_6$ (events)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_7$ (colour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N_8$ (inner state)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**$N_1$ Animates**

Nouns of this class are marked [+animate], also implying [+concrete]. The subclass of kinship terms which occurs in this class is marked [+inalienable], and a second subclass, proper names, is marked [-common]. Some members of the kinship subclass are: takáŋe *father*, and endángi *mother*. Some members of the proper names subclass are: Aluá (man's name), Pasóne (woman's name), and Pépe (boy's name). Other members of this class are: mená *pig*, and néné *Arthropoda*. All members of this class may occur with the determiner in a demonstrative sense (8) and the indefinite determiner in an emphatic sense (9), and with the agentive (10), and possessive (11) cases; they are not used instrumentally (12) or locatively (13).

8. **Aluá dóko epe-ly-á-mo.**  
   *Aluá the come-PRES-3SG-DEC*  
   *That Aluá is coming.*

9. **Aluá méndé epe-ly-á-mo.**  
   *Aluá a come-PRES-3SG-DEC*  
   *One of the Aluas is coming.*
10. Alua-ème mená dóko p-f-á.
   Alua-AG pig the hit-FP-3SG
   Alua killed the pig.

    he-AG Alua-POSS pig the hit-FP-3SG
    He killed Alua's pig.

12. *Baa me mena doko Alua-me p-i-a.
    he-AG pig the Alua-INST hit-FP-3SG
    He killed the pig with Alua.

    he Alua-LOC go-PRES-3SG-DEC
    He is going to Alua.

\[N_{2} \text{ PrOnouns}\]

This group is a small closed set:

<table>
<thead>
<tr>
<th>nga</th>
<th>nga</th>
<th>nga</th>
<th>nga</th>
</tr>
</thead>
<tbody>
<tr>
<td>nambá I</td>
<td>nálmba (we) two</td>
<td>náima (we) (pl)</td>
<td></td>
</tr>
<tr>
<td>émba you</td>
<td>nyálámbo (you) two</td>
<td>nyakáma (you) (pl)</td>
<td></td>
</tr>
<tr>
<td>baá he, she, (it)</td>
<td>dolápo (they) two</td>
<td>dúpa (they) (pl)</td>
<td></td>
</tr>
</tbody>
</table>

plus the dialectal variants of these. Nouns of this class are, like \(N_{1}\), marked [+animate] and, like the subclass of kinship terms, [+inalienable]. However, members of this class differ from \(N_{1}\), since they may not occur with determiners (14, 15). They are similar to \(N_{1}\) in that they may occur in the agentive (16) and possessive (17) cases, but not in the instrumental (18) or locative (19).

    he the go-PRES-3SG-DEC
    The he is going.

15. *Baa mende pe-ly-a-mo.
    he a go-PRES-3SG-DEC
    Some he is going.

    he-AG pig the hit-FP-3SG
    He killed the pig.

    he-AG I-POSS pig the hit-FP-3SG
    He killed my pig.

18. *Baa-me mena doko namba-me p-i-a.
    he-AG pig the I-INST hit-FP-3SG
    He killed the pig with me.
    he  I-LOC go-PRES-3SG-DEC
    He is going to me.

N₃ Body Parts

Nouns of this class are [+inalienable] like the subclass of kinship terms in N₁; they are, however, also [-animate]. Some nouns of this class are: k'ngi arm, pung' liver, and yan'ngi skin, body. This class is similar to N₁ in that they may occur with determiners (20, 21); they differ in that they may be inflected for the instrumental (22) and locative (23), and that they may not be used with the agentive (24) or possessive (25) cases.

20. Mókó dóko tándá py-ú-mu.
    leg  the  pain  do-PRES.3SG-SENSE
    (My) leg is paining.

    leg  a  pain  do-PRES.3SG-SENSE
    One of my legs is paining.

22. Baa-mé mená dóko mokó-me p-í-á.
    he-AG pig  the  leg-INST hit-PP-3SG
    He hit the pig with (a) leg.

23. Mokó-nya tándá py-ú-mu.
    leg-LOC pain  do-PRES.3SG-SENSE
    It is paining in the leg.

    leg-AG pig  the  hit-PP-3SG
    *The leg killed the pig.

    he-AG pig-POSS skin  the  hit-PP-3SG
    He hit the leg's skin.

N₄ Inanimates

This class is marked [+concrete] and [-animate]. Some nouns of this class are: uá axe, ándá house, and ítá tree. Nouns of this class can occur with the determiners (26, 27) and instrumental (28); they contrast with the previously discussed classes, since they cannot occur with the agentive (29), possessive (30) or locative (31) cases.
26. Émba-me (nambá) uáá dóko d-í-í.
    you-me axe the give.INCL-IMM.IMP-2SG
    Give me that axe!

27. Émba-me (nambá) uáá méndé d-í-í.
    you-AG me axe a give.INCL-IMM.IMP-2SG
    Give me an axe!

    he-AG pig the axe-INST hit-PP-3SG
    He killed the pig with (an) axe.

    axe-AG pig the hit-PP-3SG
    (The/an) axe killed the pig.

30. *Émba-me (namba) uáa-nya ende doko d-i-i.
    you-AG me axe-POSS end the give.INCL-IMM.IMP-2SG
    Give me the axe's end!

31. *Baa uaa-sa pe-ly-a-mo.
    he axe-LOC go-PRES-3SG-DEC
    He is going to (where) the axe (is).

W₅ Places

Nouns of this class are in one of two subclasses, either [+common],
or [-common]; all are [+location]. Some nouns in this class are: éé
garden, kákasa bush, Wápaka Wabag (a place), and Lakáipa Lagaipa (a
river). This class contrasts with all previous classes in that it can
occur only unmarked for the [-common] subclass (32a) or in the loca-
tive case (32b) for the [+common] subclass; it cannot occur with the
determiners (33, 34), the agentive (35), the possessive (36) nor the
instrumental (37) cases.

    he Wabag go-PRES-3SG-DEC
    He is going to Wabag.

32b. Baa éé-sá pe-ly-á-mo.
    he garden-LOC go-PRES-3SG-DEC
    He is going to (the) garden.

33. *Wapaka doko pe-ly-a-mo.
    Wabag the go-PRES-3SG-DEC
    The Wabag is going.
34. *Wapaka mende pe-ly-a-mo.
   *Wapaka is going.

   *Garden killed the pig.

36. *Baa-me ee-nya mena doko p-i-a.
   *He killed the garden's pig.

37. *Baa-me mena doko ee-me p-i-a.
   *He killed the pig with (a) garden.

Nouns of this and the following classes differ from all the preceding classes in that they co-occur with particular verbs in the second type of classificatory verbs, the predications discussed in Chapter 4. Marked [+occurrence], these are nouns and not verbs or verb parts, since they cannot be inflected for person number or tense (38), but instead must be expressed with a co-occurring verb (39).

   *He is magiciong.

   *He is magiciong.

Some typical nouns of this class are: betá compensation payment, téé pig exchange/death payment, pípuli work magic, and mána instruction.

Nouns of this class can occur with the determiners, (40, 41) and in the agentive (42); they do not occur in the possessive (43), instrumental (44) or locative (45) cases.

40. Baa-mé pípuli dóko le-ly-a-mo.
   *He is working the magic.

41. Baa-mé pípuli méndé le-ly-a-mo.
   *He is working some magic.
42. Pipuli-me kuma-s-f-á.
   magic-AG kill-CAUS-PP-3SG
   Magic killed him.

43. *Baa-me pipuli-nya yangi le-ly-a-mo.
   he-AG magic-POSS some utter-PRES-3SG-DEC
   He is working some of (the) magic.

44. *Baa-me mena doko pipuli-mi p-i-a.
   he-AG pig the magic-INST hit-PP-3SG
   He killed the pig with magic.

45. *Baa pipuli-sa pe-ly-a-mo.
   he magic-LOC go-PRES-3SG-DEC
   He is going to magic.

7 Colour

Nouns of this class are [-concrete] and co-occur with the predications, usually in the stative form. These are more fully discussed in Section 4.1.3. Some nouns of this class are wené pyápae blue, purple, kyóó lápae white, and tayóko pípae red. They occur with the determiners (46, 47), but do not occur in the other cases (48, 49, 50, 51).

46. Sakápae dokó d-f-í.
   green the give.INCL-IMM-IMP-2SG
   Give me the green (one).

47. Sakápae méndé d-f-í.
   green a give.INCL-IMM-IMP-2SG
   Give me a green (one).

   green-AG pig the hit-PP-3SG
   Green killed the pig.

49. *Baa-me sakapae-nya mena doko p-i-a.
   he-AG green-POSS pig the hit-PP-3SG
   He killed green's pig.

50. *Baa-me mena doko sakapae-me p-i-a.
    he-AG pig the green-INST hit-PP-3SG
    *He killed the pig with green.

51. *Baa sakapae-sa p-i-a.
    he green-LOC hit-PP-3SG
    He's going to green.
N₈ Inner State

Nouns of this group are [+inner state] and, unlike N₆ (Events), may be inflected for person-number and tense in at least one dialect of Enga (52); see also Section 4.1.6. In the other dialects of Enga these occur in the predications (53).

52. Pake-ly-á-mo. (Kyaka Enga)
   *fear-PRES-3SG-DEC
   *He is afraid.

53. Baá páká kae-ly-a-mó. (other Enga dialects)
   he *fear feel-PRES-3SG-DEC
   He is afraid.

Some nouns of this class are: ìmbu anger, nánú thirst, tándá pain, and auú like, love. Nouns of this group may occur with the instrumental case (54); they are not used with the determiners (55, 56) or with the other cases (57, 58, 59).

54. Baá paká-me kumi-ly-á-mo.
   he fear-INST die-PRES-3SG-DEC
   He is dying of fear.

55. *Baa paka doko kumi-ly-a-mo.
   he fear the die-PRES-3SG-DEC
   He is dying of the fear.

56. *Baa paka mende kumi-ly-a-mo.
   he fear a die-PRES-3SG-DEC
   He is dying of a fear.

   fear-AG pig the hit-FP-3SG
   *Fear killed the pig.

58. *Baa-me paka-nya mena doko p-i-a.
   he-AG fear-POSS pig the hit-FP-3SG
   *He killed fear's pig.

59. *Baa paka-sa pe-ly-a-mo.
   he fear-LOC go-PRES-3SG-DEC
   He's going to fear.

N₉ Minor Classes

Other classes, which will not be discussed further, include the following:
1.2.2 The Verb

Enga is a verb dominated language and belongs to what Capell (1969) calls the Bií languages, viz., those that are event-dominated. These languages are "...probably the most widespread typologically homogeneous group in New Guinea" (Capell 1969:81). Event-dominated languages of the Bií type are specifically marked by the features

1. complication of the verbal system in terms of tenses and moods,
2. possession of sentence-medial and sentence-final forms,
3. absence of incorporated pronoun objects.

We will deal with these in reverse order.

1.2.2.1 Incorporated Pronoun Objects

Enga does not have incorporated pronoun objects (except for one instance):
1.2.2.2 Sentence-medial and Sentence-final Forms

For each sentence there is one main verb and it always occurs in final position in the surface structure of that sentence. In a normal declarative sentence, the order is subject-object-verb:

61. Ênêa dokó-mé baa-nyá mená dôko p-f-á.
    woman the-AG she-POSS pig the hit-PP-3SG
    The woman hit her pig.

There are no conjunctions in Enga to express sentences like (62) and (63)

62. He went and worked (at the same time).
63. I went and he worked.

Instead, Enga uses a special set of verbal suffixes, which are attached to all but the final verb in the sentence. These suffixes vary, depending on whether the subjects of the two sentences are co-referential or not. Co-ordinate and subordinate sentences with co-referential subjects are called "same actor" sentences in Enga grammatical studies, and those with non-co-referential subjects are called "different actor" sentences. The two constituent sentences of (62) above, if used separately would be (64) and (65):

64. Baa p-é-á.
    he go-PP-3SG
    He went.

65. Baa-mé kalái p-i-á.
    he-AG work do-PP-3SG
    He worked.
Conjoined they are not


but instead

67. Baa-mé pá-o kalái p-i-á.
   he-AG go-0 work do-FP-3SG
   He went and worked (at the same time).

The tense and person-number suffixes are carried only by the sentence final verb, (67a) and (67b) are ungrammatical

67a.*Baa-me p-e-a kalai pyo-o.
   he-AG go-FP-3SG work do-0

67b.*Baa-me p-e-a-o kalai p-i-a.
   he-AG go-FP-3SG-0 work do-FP-3SG

The two constituent sentences in (63) above would be (65) and (68):

68. Nambá p-é-ó.
   I go-FP-1SG
   I went.

However, since the subjects of (65) and (68) are not co-referential, they cannot be conjoined, for example, by the -0 marker as in (67); (69) is ungrammatical

69. *Namba pa-o baa-me kalai p-i-a.
   I go-0 he-AG work do-FP-3SG

(65) and (68) can only be conjoined by preserving both the tense and person-number suffixes of both verbs. This is achieved by adding a sentence medial marker -pa to the main verb of the first of the two sentences to be conjoined:

70. Nambá p-e-ó-pa baa-mé kalái p-i-á.
    I go-FP-1SG-CONJ he-AG work do-FP-3SG
    I went and he worked.

-pa in sentence final position as in (71) would be ungrammatical:

71. *Namba p-e-o baa-me kalai p-i-a-pa.
    I go-FP-0 he-AG work do-FP-3SG-CONJ

There are a number of suffixes (some of which will be illustrated below) which can mark sentence-medial verbs, depending on the various kinds of co- and sub-ordination. These will be discussed in more detail in the next section.
1.2.2.3 Tenses and Moods

In the preceding section we have briefly shown the general characteristics of the so-called sentence-medial and sentence-final verb forms. Thus, all instances of co- and sub-ordination are expressed by sentence-medial forms. There are, furthermore, no modal auxiliaries, such as English can, must, ought, etc. All of these are expressed in Enga by sentence-medial forms.

Compleitive (72), benefactive (73), desiderative (74 and 75), purposive (76 and 77) and interrogative (78) are some of the modalities of Enga:

   I-AG work do-0 finish-COMP-PRES-1SG
   I am completely finished with the work.

   I-AG he-POSS work do-BEN-EXCL-PRES-1SG
   I am doing his work for him.

74. Baa-mé neé ná-p-u láká lá-o mási-ly-á-m-o.
   he-AG food eat-NP-1SG LAKA utter-0 think-PRES-3SG-DEC
   He wants to eat very badly.

75. Baa-mé náima pú-m-í láká lá-o mási-ly-á-m-o.
   he-AG us go-NP-2PL LAKA la-0 think-PRES-3SG-DEC
   He wants us to go.

76. Baa málái pi-n-á lá-o namba-mé yáti méné sambé-ly-o.
   he-AG work do-IMP-3SG utter-0 I-AG shovel a buy-PRES-1SG
   I am buying a shovel so that he will work.

77. Baa-mé kalái méné pyá-a-nya yáti sambe-ly-á-m-o.
   he-AG work a do-INF-GEN shovel buy-PRES-3SG-DEC
   He is buying a shovel in order to work.

78. Láimá káka-sa yuú dokó-nyá kate-ngé-pé13
    cassowary bush-LOC land the-LOC BE-HAB-QU
    Are there cassowaries in the rain forest?

Enga also has various modalities dealing with events which have not been observed by the speaker: sensed (79), deductive (80) and historical (81).

79. Káití toká lá-1-u-mu.
    sky shot utter-PRES-3SG-SENSE
    (I sense) it is thundering.
80. Dóko mená lámo.

that pig DEDUC
(I deduce) that is a pig.


he-AG bush-LOC land the-LOC go-PP-3SG-HIST
He went into the rain forest.

Enga is an exclusively suffixing language.¹⁴

82. Ênda dokó-mé baá kandá-lya-sa-ta-kamai-y-á-pé?

woman the-AG he see-UP-CAUS-COMP-BEN-PAST-3SG-QU
Did the woman cause him to look up already for his benefit?

except for the negative prefix.¹⁵


man the NEG-go-PP-3SG
The man didn't go.

There are five tenses in Enga; they are illustrated (with the person-number categories) in Table 1.1, using the verb la- utter, say as a root.

<table>
<thead>
<tr>
<th></th>
<th>Far Past</th>
<th>Near Past</th>
<th>Past</th>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>1-é-ó</td>
<td>lá-p-ú</td>
<td>lá-1-o</td>
<td>lé-ly-o</td>
<td>lá-t-ó</td>
</tr>
<tr>
<td>2sg</td>
<td>1-é-é</td>
<td>lá-p-i</td>
<td>la-1-é-no</td>
<td>le-1-é-no</td>
<td>lá-t-é</td>
</tr>
<tr>
<td>3sg</td>
<td>1-é-á</td>
<td>lá-py-á</td>
<td>la-1-á-mo</td>
<td>le-ly-á-mo</td>
<td>lá-t-á</td>
</tr>
<tr>
<td>1du</td>
<td>1-e-ámbá</td>
<td>la-p-ámbá</td>
<td>la-1-ámbá-no</td>
<td>le-ly-ámbá-no</td>
<td>l-a-t-ámbá</td>
</tr>
<tr>
<td>2du</td>
<td>1-e-ámbí</td>
<td>la-p-úmbí</td>
<td>la-1-ámbí-no</td>
<td>le-ly-ámbí-no</td>
<td>l-a-t-ámbí</td>
</tr>
<tr>
<td>3du</td>
<td>1-e-ámbí</td>
<td>la-p-úmbí</td>
<td>la-1-ámbí-no</td>
<td>le-ly-ámbí-no</td>
<td>l-a-t-ámbí</td>
</tr>
<tr>
<td>1pl</td>
<td>1-e-ámá</td>
<td>la-p-úmá</td>
<td>la-1-ámá-no</td>
<td>le-ly-ámá-no</td>
<td>l-a-t-ámá</td>
</tr>
<tr>
<td>2pl</td>
<td>1-e-ámí</td>
<td>la-p-úmí</td>
<td>la-1-ámí-no</td>
<td>le-ly-ámí-no</td>
<td>l-a-t-ámí</td>
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<tr>
<td>3pl</td>
<td>1-e-ámí</td>
<td>la-p-úmí</td>
<td>la-1-ámí-no</td>
<td>le-ly-ámí-no</td>
<td>l-a-t-ámí</td>
</tr>
</tbody>
</table>

The basic form is verb stem + tense + person-number (+ mood marker, in this instance DEC)
NOTES

1. Tée pingi refers to the pig exchange among the Central Enga (i.e. east of Sirunki, and refers to a death payment among the Western (Laiagam and further west) Enga.

2. Section 1.1 is a paraphrase from Meggitt (1971).

3. The materials include: language learning aids Larson (1967), Hintze (1963a and b), Kelly (n.d.) and Cupit (1970 and 1971); phonological statements Bus (n.d. a and b), Burce (1963) and Hintze (1963a and n.d. b); word lists and dictionaries Budke (1964), Bus (n.d. b), Finney et al. (1964), Draper (1954 and n.d. a), Foote (n.d.), and Mechan (1967); and grammatical studies Draper (1954 and n.d. a), Hintze (1962), Smythe (n.d.), Burce (1963), and Bus (n.d. a). One continuing problem has been that of the tonal system: Laycock (n.d.), Hintze (1960 and n.d. b), and Nida (1968) have all worked on the problem which is further complicated by dialectal variation.

4. The features given ([+animate], [+concrete], [+inalienable], etc.) are deliberately not specified as syntactic or semantic features; the problem is not solvable at the present stage.

5. Franklin (1971) has suggested that Proto-Engan used a -K/-NG + vowel suffix to denote inalienable parts (i.e. kinship terms and body parts). This appears in the examples listed for the kinship terms and body parts.

6. The correct form of (44) would use the 0-complementizer (cf. 4.1.4)
   he-AG pig the magic utter-0 hit-PP-3SG

He killed the pig with magic.

The correct form of (45) likewise would use the purposive form:

b. Baá pípuli lá-ta-la pe-ly-á-mo.
   he magic utter-COMP-INF go-PRES-3SG-DEC

He is going to work magic.

See also (76 and 77) in the text.

7. This is not strictly true because in (46 and 47) the determiner most likely refers to the object of the colour, rather than to the colour itself. Enga here differs from English in that in English one can have examples like The blue excited her imagination or The red killed him (because it caused the bull to attack).

8. Capell also classifies Enga as B1 (b) on page 155, but this is obviously a typographical mistake, as on Map 16, Enga is classified as Biii (with the languages of the Western Highlands). Capell's Nera dialect of Enga (1969:142) is not a dialect but a closely related (but mutually unintelligible) language, Nete, on the northern fringes of the Enga-speaking area.

9. For some of the wider genetic connections, see McElhannon and Voorhoeve 1971.

10. Incorporated pronoun objects appear in one Enga verb, give:

c. Namba-mé émba mená méndé df-ly-o.
   I-AG you pig a give-PRES-1SG

I am giving you a pig.

d. Émba-me nambá mená méndé df-l-f-no.
   you-AG me pig a give-PRES-2SG-DEC

You are giving me a pig.

e. Baa-mé nambá/émba mená méndé df-l-ly-á-mo.
   he-AG me /you pig a give-PRES-3SG-DEC

He is giving me /you a pig.

f. Namba-mé baá mená méndé maf-ly-o.
   I-AG he pig a give-PRES-1SG

I am giving him a pig.
g. **Émba-me baá mená méndé mai-1-f-no.**
   
   you-AG he pig a give-PRES-2SG-DEC
   
   You are giving him a pig.

h. **Baa₃mé baá₄ mená méndé mai-1y-á-mo.**
   
   he₃-AG he₄ pig a give-PRES-3SG-DEC
   
   He₃ is giving him₄ a pig.

1. *Baa-me namba/emba mena mende mai-1y-a-mo.
   
   he-AG me /you pig a give-PRES-3SG-DEC

2. *Namba-me emba mena mende mai-ly-o.
   
   I-AG emba mena mende mai-ly-o.

3. *Emba-me namba mena mende mai-1-i-no.
   
   you-AG me pig a give-PRES-2SG-DEC

   
   I-AG he pig a give-PRES-1SG

5. *Emba-me baa mena mende di-l-i-no.
   
   you-AG he pig a give-PRES-2SG-DEC

11. -pi conjoins noun phrases.

12. -pa can be used in a number of senses, such as consecutive action, contemporaneous action, and consequential action.

13. -pe is the question marker.

14. For a list of Enga suffixes see Lang (1973).

15. The negative may also be formed via a full verb base:

   n. **Namba-mé mása-la náe-ngé.**
      
      I-AG know-INF NEG-HAB
      
      I don't know (it).

   In equational clauses, the negative adverb **dáa** is used:

   o. **Baá akáli méndé dáa.**
      
      he man a not
      
      He is not a man.
CHAPTER TWO

2.0 THE EXISTENTIAL VERBS

This chapter will deal with the first of the two types of Enga classificatory verbs which will be presented. The EV occurs with nouns and has a meaning which corresponds to that of the English copula, be. As noted above (0.1), the EV of Enga corresponds to the Navaho 'neuter' form which denotes "...an object of a particular type in position or at rest...'a mountain lies'" (Hoijer 1945:22); Landar notes that informants often translate these verbs as 'it's lying there' or 'it's setting [sic] there'. Hence one might translate tse si? as 'a rock (as a round object) has taken a position', or 'a rock is sitting there', or simply 'there's a rock' (Landar 1965:328).

The chapter will deal firstly with the form of the EV (its syntactic properties), and secondly with the semantics of the EV. We will conclude with a brief discussion of a few theoretical problems arising from attempts to account for the EV in a generative transformational framework.

2.1 SYNTACTIC PROPERTIES

The EV (with a few exceptions) occurs with a noun in a one-one relation; that is, every noun co-occurs with a specific EV, and each of the EVs co-occurs only with a certain set of nouns. There are seven EV: kata-, pita-, sa-, pala-, ipa-, lya- and manda-. They are exemplified with typical referents in (1-7). Thus the noun pig may occur existentially¹ only with the EV kata--; this co-occurrence marks the noun class (or gender²) membership of the noun:

1. Mena dúpa kate-ngé.
   pig the BE-HAB
   Pigs exist; there are pigs.
2. Énda dúpa pete-ngé.  
   woman the BE-HAB  
   Women exist.

   reptile the BE-HAB  
   Reptiles exist.

4. Mapú dúpa pale-ngé.  
   sweet potato the BE-HAB  
   Sweet potatoes exist.

5. Endáki dúpa epe-ngé.  
   river the BE-HAB  
   Rivers exist.

6. Ambúlyá dúpa lyi-ngí.  
   bee the BE-HAB  
   Bees exist.

7. Pongó dúpa mande-ngé.  
   penis the BE-HAB  
   Penises exist.

To combine any of the EVs with a noun different from the one it co-occurs with would make the utterance ungrammatical, as

1a. \( \begin{array}{c}
   \text{Mena dúpa} \\
   \text{pig the}
\end{array} \begin{array}{l}
   \text{*pete-ngé} \\
   \text{*si-ngí} \\
   \text{*pale-ngé} \\
   \text{*epe-ngé} \\
   \text{*lyi-ngí} \\
   \text{*mande-ngé}
\end{array} \)

The EV for a noun class is not usually used in the stative form with nouns of that class, since it (i.e., the EV) is the habitual existential mode of the noun: 3

8. "Saa piti-pae doko...  
   possum BE-STA the

9. *Laima kata-pae doko...  
   cassowary BE-STA the

The inflected EV is, however, obligatory when the referent is located at some place but out-of-sight of the speaker:

10. Koné akáli dóko andá-ka ká-ly-a-pe?  
    red man the house-LOC be-PRES-3SG-QU  
    Is the European man at home? or Is the European man standing in the house?
(10) is ambiguous but the first meaning of it is not expressed by (11), only a meaning analogous to the second meaning of (10):

11. Koné akáli dóko andá-ka pí-ly-a-pe?
   red man the house-LOC sit-PRES-3SG-QU
   Is the European man sitting in the house? (but not: Is the European man at home?)

(12) exhibits the same kind of ambiguity as (10):

12. Koné énda dóko andá-ka pí-ly-a-pe?
   red woman the house-LOC BE-PRES-3SG-QU
   Is the European woman at home? or Is the European woman sitting in the house?

And similarly (13) is unambiguous in the same sense that (11) is:

13. Koné énda dóko andá-ka ká-ly-a-pe?
   red woman the house-LOC stand-PRES-3SG-QU
   Is the European woman standing in the house? (but not: Is the European woman at home?)

In (11) the speaker has strong reasons for presupposing that the man is in fact sitting (not standing, sleeping, or laying, etc.); however in (10) the speaker does not want to know whether the man is sitting, sleeping, etc.—and so he must use the EV which normally co-occurs with akáli man.

The EV must appear in the surface forms of modalities such as desiderative (14), and purposive (15).

   boy the man BE-INF-GEN think-FP-3SG
   The boy wanted to be a man.

Note that this would be ungrammatical if used with the wrong EV as in

14a. Wáné dóko akáli
     \*pí-lya-nya
     \*má-nja-nya
     \*sá-la-nya
     \*lyá-la-nya
     \*fp-a-nya
     \*pá-lya-nya
     más-f-á.

   she-AG woman BE-INF-GEN utter-O think-O baby bear-PRES-3SG-DEC
   In order to be a woman, she is having a baby.

15a.*Baa-me enda ka-lya-nya la-o maso-o ñâna mande-ly-a-mo.
2.2 SEMANTICS

In this section we will discuss

2.2.1 the meaning of the EV
2.2.2 the features of the EV
2.2.3 the semantic redundancy rules
2.2.4 loan items
2.2.5 intersection
2.2.6 change of class

The general relevance of the problems has been discussed above in 0.2.1-0.2.3. Here we will address ourselves to the specific problems that Enga poses in relation to these topics.

2.2.1 Meaning of the EV

The EV has the meaning of the English be and have; it is used for constructions of existence (16 and 17), for location (18 and 19), for possession (20 and 21) and in constructions such as relative clauses (22) and in modalities (cf. 14 and 15 above).

16. Lítu dúpa lyi-ngí.
   mushrooms the BE-HAB
   Mushrooms exist; there are mushrooms.
16a. *Liti dupa kate-nge.
17. Endákí dúpa epe-ngé.
   rivers the BE-HAB
   Rivers exist; there are rivers.
17a. Endaki kate-nge.
   possum the bush-LOC BE-HAB
   Possums are in the bush.
18a. *Saa dupa kaka-sa kate-nge.
18b. *Saa dupa kaka-sa.
19. Ítí ayómba kísa kate-ngé.
   hair head top BE-HAB
   Hair is on heads.
19a. *Iti ayomba kísa pete-ngé.
19b. *Iti ayomba kísa.
In all of the above examples (16-22) the EV is obligatory in the surface structure; this is in direct contrast to other constructions (of similar meaning) in which the EV must not appear in the surface (or is very awkward if it does appear). These constructions are those involving a particular item (i.e., as opposed to a generic noun as in (18) above), and the identity (23), class membership (24) or class inclusion of the item (25); and also those constructions which attribute qualities (26).
   she woman clumsy do-STA a
   She is a clumsy woman.
26a. Baa énda nongo pi-pae mende pete-nge.5

   Thus, we must note that in cases involving the predicative use of be, the EV is not obligatory in the surface structure. This will be discussed in relation to the positions for the presence or absence of the EV as BE in the deep structure (2.3). And, it should also be noted that those cases in which the EV is obligatory in the surface structure correspond to the existential, locative and possessive constructions as described by Lyons (1967, 1968). Lyons's hypothesis is that both the existential and possessive derive from locatives ("...in many, and perhaps in all, languages existential and possessive constructions derive (both synchronically and diachronically) from locatives" (1968:390)). Lyons notes two additional points, firstly that

   existential sentences typically have an indefinite, rather than a definite, subject: this fact raises the possibility that they should be treated, in a syntactic analysis of their deep structure, as indefinite locatives (with 'locative', in this context, being understood to include 'temporal'...(1968:390).

   Lyons secondly points out that this connection is supported by the employment of what was originally a locative...adverb in the existential sentences of a number of European languages: cf. English 'there (in 'there is/are...),...German 'da' (in 'ist da', 'is there' or 'exists': cf. 'das Dasein', 'existence', i.e. 'the being-there') (1968:390).

   Additional support for Lyons' first point has recently been presented by Hetzron with evidence for Hungarian that the copula is generated for all definite nouns (and not generated for indefinite nouns and noun phrases).6

   Regarding Lyons' second point (the locative7 adverb 'there'), Laiapo Enga offers two verbs of interest: ae- and dae-. The formation of ae- is most likely from the locative adverb aé here used as the verb base plus the tense, and person-number suffixes:

27. Méndé  ae-ly-á-mo.
   a  here-PRES-3SG-DEC
   There is some (here).

   and

   a  not-here-PRES-3SG-DEC
   There is not any (here).
The dae- is most likely from the negative adverb daá not plus the locative adverb aé here, plus the verbal suffix(es). It must be noted that these two verbs, aénge and daénge are not EV, since they do not indicate existence:

The philosophical importance of this distinction lies in the fact that most modern philosophers would say that existence cannot be predicated of objects in the same sense as their various attributes, or properties, but is presupposed in the identification of objects or in any reference to them (Lyons 1968:388).

2.2.2 Features

The EV chosen depends on the habitual (i.e. existential) posture or shape of the referent as perceived by the Enga. Informants never hesitate in assigning a noun to a particular EV class, and native speakers do not seem to have to learn the class of each noun individually; instead, they seem to operate with a certain set of principles. This ability indicates that the assignment of the EV to nouns is non-arbitrary and made in accordance with some set of rules which each speaker of the language has acquired. Moreover, loan items are readily assigned to the same EV classes (i.e., +pushi cat is assigned to the class of nouns which co-occur with petengé) by different speakers with consistency. If questioned, unsophisticated informants will give the following criteria by which they assign EVs to noun classes:

1. Katengé will be elicited for referents judged to be tall, large, strong, powerful (potentially harmful), standing or supporting; some typical referents are: akáli men, ándá house, íta tree, níki sun, mokó leg.

2. Petengé will be elicited for referents judged to be small, squat, horizontal, weak; some typical referents are: énda woman, saá possum, game mammal, néne Arthropoda, insects, peté pond.

3. Lyingí will be elicited for referents which are hanging, or expressing outside another object; some typical referents are: ambúliyá wasp, bee, kamalúmbi moss, ítí mushroom, dif fruit, seeds, flower.

4. Palengé will be elicited for referents which are internal or subterranean; some typical referents are: ímú worm, móna heart, puní liver, mágí sweet potato.

5. Epengé will be elicited for referents which are intermittent, capable of growth, or liquid/gas; some typical referents are: endáki river, aiyúu rain, ítí hair, fur, feathers, tayáko blood, kende vine used for rope.
6. Síngi will be used for referents which are orifices, locations, or motionless, crawling or aquatic; some typical referents are: wapáka eels, káita door, path, yú ground, lánd, yáti shovel, spade, néngekaita mouth.

7. Mandengé will be used for referents that are reproductive, such as: pongó penis, kambáke vagina, ípi testicles.

Thus it seems that native speakers assign EVs to nouns according to certain distinguishing features of the noun. Rules for the assignment of the EVs can be represented by plus and minus features in the tree diagram (2.1) and these are represented more formally in 2.2.3. Informally, the features of the EV assignment are listed below:

1. Katengé [+heavenly, +construction, parts, +large/powerful, +harmful...]
2. Petengé [+still water, +sores...]
3. Lyingé [+seed, fruit, +excrecent, +swarm...]
4. Palengé [+subterranean, +internal...]
5. Epengé [+intermittent, +liquid/gas, +growing, +vine...]
6. Síngi [+orifice, +location, +aquatic, +crawling...]
7. Mandengé [+reproductive...]

The most frequently used feature is that of place of existence (or habitat): [+subterranean] will elicit only palengé, [+heavenly] will elicit only katengé, and [+aquatic] will elicit only síngi. Thus, we do find at least one general feature which is realized by mutually exclusive EV.

2.2.3 Redundancy Rules

The rules presented in Diagram 2.1 are here presented as an ordered set. The ordering is such that between two rules the one with broader scope is to have prior application (in order to prevent individual enumeration of features if it were instead applied later).

1. [+concrete] → [+natural phenomena]
2. [+natural phenomena] → [+still water]
3. [+still water] → petengé.
4. [-still water] → [+intermittent/liquid/gas]
6. [-intermittent/liquid/gas] → [+heavenly]
DIAGRAM 2.1: THE EXISTENTIAL VERBS

1 concrete

2

natural phenomena

3 still water

4 intermittent liquid, gas

5 heavenly sīngi (stones)

6 + petengē (lakea)

7 growing, liquid

8 + epengē (rain)

9 + katengē (sun)

10 parts of a whole

11 + petengē

12 + epengē (saliva)

13 palengē (heart)

14 + palengē (sweet potatoes)

15 + mandengē (reproductive)

16 artifacts

17 orifice, location

18 construction, parts

19 sīngi (axe)

20 + sīngi (mouth)

21 + katengē (leg)

22 + katengē (house)

23 + katengē (bees)

24 + sīngi (sels)

25 + katengē (men)

26 + sīngi (penis)

27 + mandengē (seed)

28 + mandengē (saliva)

29 + mandengē (heart)

30 + mandengē (penis)

31 + mandengē (women)

32 + mandengē (men)

33 + mandengē (stones)

34 + mandengē (suns)

35 + mandengē (rains)

36 + mandengē (doors)

37 + mandengē (houses)

38 + mandengē (bees)

39 + mandengē (sels)

40 + mandengē (women)

41 + mandengē (men)
7. [+heavenly] \rightarrow \text{katengé}.
8. [-heavenly] \rightarrow \text{sfngi}.
9. [-natural phenomena] \rightarrow [+parts of a whole]
10. [+parts of a whole] \rightarrow [+sores]
11. [+sores] \rightarrow \text{petengé}.
12. [-sores] \rightarrow [+liquid/growing]
13. [+liquid/growing] \rightarrow \text{epengé}.
14. [-liquid/growing] \rightarrow [+internal]
15. [+internal] \rightarrow \text{palengé}.
16. [-internal] \rightarrow [+seeds/fruit]
17. [+seeds/fruit] \rightarrow \text{lyingí}.
18. [-seeds/fruit] \rightarrow [+reproductive]
19. [+reproductive] \rightarrow \text{mandengé}.
20. [-reproductive] \rightarrow [+torifice]
21. [+torifice] \rightarrow \text{sfngi}.
22. [-torifice] \rightarrow \text{katengé}.
23. [-parts of a whole] \rightarrow [+artifact]
24. [+artifact] \rightarrow [+torifice/location]
25. [+torifice/location] \rightarrow \text{sfngi}.
26. [-torifice/location] \rightarrow [+construction and parts]
27. [+construction and parts] \rightarrow \text{katengé}.
28. [-construction and parts] \rightarrow \text{sfngi}.
29. [-artifacts] \rightarrow [+plant]
30. [+plant] \rightarrow [+pod/excrecence]
31. [+pod/excrecence] \rightarrow \text{lyingí}.
32. [-pod/excrecence] \rightarrow [+vine]
33. [+vine] \rightarrow \text{epengé}.
34. [-vine] \rightarrow [+subterranean]
35. [+subterranean] \rightarrow \text{palengé}.
36. [-subterranean] \rightarrow [+spherical]
37. [+spherical] \rightarrow \text{sfngi}.
38. [-spherical] + katengé.
39. [-plant] + [+animate]
40. [+animate] + [±subterranean]
41. [+subterranean] + palengé.
42. [-subterranean] + [±excrescence/swarm]
43. [+excrescence/swarm] + lyingf.
44. [-excrescence/swarm] + [±aquatic/crawling]
45. [+aquatic/crawling] + sīngi.
46. [-aquatic/crawling] + [±large/harmful]
47. [+large/harmful] + katengé.
48. [-large/harmful] + petenge.

In the ordering of the EV rules (Diagram 2.1), following general usage, more specific items were ordered first, with more general items following. This accounts for the ordering of the nodes 3,7, 22, and 17 (most others too), and the ordering of the most frequently used EV to the far branches of the diagram: nodes 5,12,15,20, and 25. Some specific explanations for the ordering follow.

In the domain of artifacts (node 13 and ff.), sīngi appears twice. The first node, 14, must apply before 15, or otherwise the various house and construction parts would be given incorrectly. Likewise, the constructions of 15 must be applied before we can terminate with the 'everything else' taking sīngi.

In the domain of parts, node 11 must be applied before 12, or the kambáke vagina, which is in fact considered to be [+orifice] and said by informants to be the wánekaïta child's doorway, would be incorrectly assigned sīngi. Informants were definite in the rejection of the assignment of kambáke to the sīngi class: it must have mandengé. Also in the domain of parts, node 10 must precede node 11, or dif fruit, seeds would be assigned mandengé. This is a particularly interesting case, since dif, although usually assigned lyingf, can also be used with mandengé. This particular case, dif, is further discussed in 2.2.5.

In the domain of animates, node 25 makes an arbitrary decision between katengé and petengé: both are equally frequent, and a reversal of the features (i.e. to change the node to [-large, -powerful, -harmful] or to [+small...]) could be made.
2.2.4 Loan Items

The correct assignment of loan items to particular classes in any class system can be accounted for such that the assignment is based on the similarity of the loan item to other (already classed) items of the system. The features focused upon in the assignment are clearly those chosen by the culture, i.e., those regarded by the culture as traditionally important. Wild raspberries grow throughout Enga-land and are regarded as children's food; the introduction of blackberry bushes and their equation with wild raspberries results in the classification of the blackberries as children's food.

Table 2.2 presents some of the loan items.

<table>
<thead>
<tr>
<th>TABLE 2.2: LOAN ITEMS$^{13}$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animates:</strong></td>
</tr>
<tr>
<td>bulumakáo</td>
</tr>
<tr>
<td>pusí</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Plants:</strong></th>
<th><strong>Gloss</strong></th>
<th><strong>EV</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>samúu</td>
<td>potato</td>
<td>palengé</td>
</tr>
<tr>
<td>katósa</td>
<td>carrots</td>
<td>palengé</td>
</tr>
<tr>
<td>kapúsá</td>
<td>cabbage</td>
<td>sfngi/petengé</td>
</tr>
<tr>
<td>letésa</td>
<td>lettuce</td>
<td>sfngi/petengé</td>
</tr>
<tr>
<td>painapóló</td>
<td>pineapple</td>
<td>sfngi/katengé</td>
</tr>
<tr>
<td>kalípu</td>
<td>peanuts</td>
<td>katengé</td>
</tr>
<tr>
<td>kanápu</td>
<td>corn</td>
<td>katengé</td>
</tr>
<tr>
<td>bíni</td>
<td>bean</td>
<td>lyingí</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Artifacts:</strong></th>
<th><strong>Gloss</strong></th>
<th><strong>EV</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>fnja</td>
<td>hinge</td>
<td>katengé</td>
</tr>
<tr>
<td>lóko</td>
<td>lock</td>
<td>katengé</td>
</tr>
<tr>
<td>dóa</td>
<td>door</td>
<td>sfngi</td>
</tr>
<tr>
<td>kolósá</td>
<td>clothes</td>
<td>sfngi</td>
</tr>
<tr>
<td>bakésa</td>
<td>bucket</td>
<td>sfngi</td>
</tr>
<tr>
<td>gumí</td>
<td>rubber</td>
<td>sfngi</td>
</tr>
<tr>
<td>lésa</td>
<td>razor</td>
<td>sfngi</td>
</tr>
</tbody>
</table>

(all other introduced artifacts also take sfngi)

Referring to Diagram 2.1, most of the loan items' assignment is determined correctly by the rules given there. The cow, [+large...] is assigned katengé, the cat [+small...] is assigned petengé. The
plants also, with the subterranean ones being assigned palengé, the
tall upright ones being assigned katengé, and the round/spherical
ones assigned sfngi. In the case of the bean, the focus is on the
dif (i.e., pod, the edible portion) and lyngi is assigned. The cases
of lettuce and pineapple are discussed in 2.2.5 as intersecting items.
Except for the hinge and lock, all the artifacts are assigned sfngi.
It seems likely that the hinge and lock are regarded as parts of the
house, and this feature causes them to be assigned katengé (rather
than sfngi). Most of the introduced loan items occur in the semantic
domain of artifacts.

Thus, as we postulated above, the assignment of loan items to the
correct EV classes is based upon Enga-adjudged similarity of features
of the loan item in relation to items already present in the Enga EV
class system.

2.2.5 Intersection

Intersection is a feature of classification systems in general
(cf. 0.2.3.2); in the entire corpus of approximately 3,000 Enga nouns,
fewer than one per cent are involved in cases of EV intersection. Two
points must be noted:

1. The options involved in intersection are not in free
   variation: in German, Butter may use die in north
   Germany, and der in the south, but das is excluded.

2. As Landar says about Navaho gender, "rules are broken
   according to rules for breaking rules" (1965:329).

In the cases presented here involving EV intersection, we will see
that the apparent intersection of EVs is usually explained in terms
of focus on different EV features of items which are in some way
ambiguous. Table 2.3 presents the possibility of twenty-six inter-
sections in the EV (since there are seven EV); of these possibilities,
only seven (the capitalized and underlined ones) actually occur.
TABLE 2.3: INTERSECTION IN THE EV

<table>
<thead>
<tr>
<th></th>
<th>katengé</th>
<th>petengé</th>
<th>síngi</th>
<th>palengé</th>
<th>lyingí</th>
<th>mandengé</th>
<th>epengé</th>
</tr>
</thead>
<tbody>
<tr>
<td>katengé</td>
<td>k</td>
<td>k/pt</td>
<td>S/K</td>
<td>k/pl</td>
<td>k/ly</td>
<td>K/MD</td>
<td>k/e</td>
</tr>
<tr>
<td>petengé</td>
<td>pt</td>
<td>PT/S</td>
<td>pt/pt</td>
<td>pt/ly</td>
<td>pt/md</td>
<td>pt/e</td>
<td></td>
</tr>
<tr>
<td>síngi</td>
<td>s</td>
<td>S/PL</td>
<td>s/ly</td>
<td>s/md</td>
<td>S/E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>palengé</td>
<td></td>
<td></td>
<td>pl</td>
<td>pl/ly</td>
<td>pl/md</td>
<td>pl/e</td>
<td></td>
</tr>
<tr>
<td>lyingí</td>
<td></td>
<td></td>
<td>ly</td>
<td>LY/MD</td>
<td>LY/E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mandengé</td>
<td></td>
<td></td>
<td>md</td>
<td>md/e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>epengé</td>
<td></td>
<td></td>
<td></td>
<td>e</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The actual data which occur in EV intersections are presented in Table 2.4 below.

TABLE 2.4: INTERSECTION - DATA

- k/s  alyónogo bean, painapóló pineapple
- k/md pongó penis, kambáke vagina
- pt/s  kapúsa cabbage, nómbe snail, yáka bana water birds, letésa lettuce
- s/pl  imú worm, amé fat
- s/e  endákí river
- ly/md  dif seed, fruit, flower
- ly/e  kamalúmbi moss

Of the seven occurring two-way intersections (with thus a possible fourteen occurrences for any one EV), the most frequently used EV in the intersection is síngi, indicating that síngi is most likely the most neutral or semantically unmarked of the seven EV. The other occurrences are with two each, katengé, mandengé, lyingí and epengé; with only one occurrence, palengé and petengé. Also notable is that those with only one intersection (palengé and petengé) intersect with the semantically most neutral, síngi. Thus it would also be expected that palengé and petengé would be the most marked (i.e., in comparison with síngi).

Following is a brief discussion of the actual data items involved in the intersections of EV, with some thoughts as to what features permit the intersections. Kamalúmbi moss would be a difficult item.
in any case, since it is also the only example of a three-way intersection: a few informants stated that kamalúmbi could also be used with katengé (i.e., as well as epengé and liyongí). Comparing the features of Diagram 2.1, it is possible that this intersection can be explained in terms of focus on different features of the moss: in the sense that it is an excrescence on the trees, it is assigned liyongí; in the sense that it has tendrils and is entwined (like a vine), it is assigned epengé.

The intersection of liyongí and mandengé with respect to difí allows the assignment of an additional feature to these two EV. In the case of all parts of a whole, mandengé can be used for animates and plants (as in this case, difí), but liyongí cannot be used for animates. Thus giving to liyongí the feature of [-animate].

In the case of ēndákí river, a clue to the intersection of the two EV (sfíngi and epengé) occurs at nodes 3 and 4 of 2.1. There it is evident that flowing water, liquids, etc. are assigned to epengé, with still water (lakes, ponds, puddles, etc.) assigned to sfíngi. In the case of this intersection, it would therefore be postulated that different states of the water are referred to by the two different EV.

Ímú worm, and amé fat as intersecting with the EV sfíngi and palengé were explained by an informant: when the referent is internal (and not visible), the EV assigned is palengé; when the referent is external (as the worm uncovered in composting, or the exposed fat at a pig feast), the EV assigned is sfíngi. Sfíngi is of course also the EV for crawling animates, which the externally exposed worm would be.

The intersection of petengé and sfíngi is of special interest, since it is the only case of petengé as the EV for a plant: kapúsa cabbage and letésa lettuce. The other two cases are quickly explained: the water fowls are [+aquatic] and thus sfíngi, but when seen flying, roosting, etc., may possibly be judged with all other birds, as petengé. The snail is a border-line animate, in that perceived as crawling it would be assigned sfíngi, but perceived as a small insect, etc., would give the assignment petengé. The cabbage is of interest, since a conflict must be perceived by the Enga: if the cabbage is low, round, mainly squat, it should be assigned (as generally it is) to the petengé class--yet petengé is not used for any other plants. The conflict is resolved instead by assigning it to the sfíngi class (i.e. the semantically most neuter of the classes) which is also the class of native green leafy cultigens.
The reason for the intersection of mandengé and katengé, which occurs with two items, pongó penis and kambáke vagina, is difficult to determine. Mandengé occurs only as an EV with reproductive parts (seeds, sprouts, fruit stems, etc.), while katengé is used for most external body and plant parts (appendages, leaves, etc.). The intersection might possibly be explained if we consider that the items are viewed first reproductively, and then as ordinary external body parts (i.e., and thus assigned katengé).

The final case of intersection between katengé and síngi is for pineapple. For this we can see that the initial assignment is with leafy cultigens as síngi, and the intersection later with the grown plant (if viewed as tall, upright, etc.) assigned katengé.

Thus it may be seen that in all cases, intersection of EV is attributable to focus on different EV features, especially when these reflect a different existential state (as still versus flowing water, subterranean and terranean worms, etc.). However, this focusing on a variety of different features takes place in only one per cent of all nouns, underlining the overwhelming regularity of the remaining 99 per cent.

2.2.6 Change of Classes

Any system of noun classification must be prepared to delimit the conditions under which the nouns may change classes (cf. 0.2.3.3). In Enga, where the basic features are posture and over-all shape, it would be expected that a referent which changes posture or shape would therefore change its class and require a different (surface) EV. Furthermore, since the (surface) EV marks the habitual state of existence for the referent, a different EV could be expected to signal a basic change of existence, or possibly an altered state of existence for that referent. This can be seen from the following example:

The EV assigned to ítá tree is katengé, based on the trees' features of being tall, upright, large, etc. (29). When the tree is felled, the referent ítá is realized with the EV síngi (30), and when the felled tree is further chopped into logs and piled in a wood pile, the referent is realized with the EV palengé (31).

29. ítá dúpa kate-ngé.  
   tree the BE-HAB  
   Trees exist.

30. ítá (poká-pae) sí-ngé.  
   tree cut-STA BE-HAB  
   Felled wood/trees exist.
31. Ítá (tamó-pae) pale-ngé.
   tree rotten-STA BE-HAB
   Rotten wood exists.
   In each case the stative form (in parentheses) signals that a different referent Ítá is involved, and thus that a different EV is required. Following are non-permitted examples:

30a. *Íta poká-pae kate-ngé.
   tree cut-STA BE-HAB
   Felled wood/trees exist.

31a. *Íta toka-pae kate-ngé.
   tree chop-STA BE-HAB
   Chopped wood exists.

If the stative form is optionally deleted, it is recoverable from the EV present in the surface structure:

32. Ítá pale-ngé.18
   tree BE-HAB
   Felled wood/trees exist.

In (30) the referent can only be felled trees or wood (Ítá poká-pae), not chopped wood or a living tree:

32a. *Íta poká-pae kate-ngé/si-ngi/etc.
   tree cut-STA BE-HAB /BE-HAB

However, if the EV is deleted, and no stative form is present, the EV which would be recoverable would only be that for the generic Ítá

33. Ítá kate-ngé.
   tree BE-HAB
   Trees exist.

and not that for a felled tree or chopped wood. (34) is a further example for humans and change of existential state, with a male referent

34. Baá ánjá kate-ngé-pé?
    he where BE-HAB-QU
    Where is he?

In the sequence (35–36), (36) must show the change of state announced in (35)

35. Mulitáka yuú dokó-nyá akáli méndé kum-é-á.
    Mulitaka land the-LOC man a die-PP-3SG
    A man has died at Mulitaka.
36. Baa ánjá sî-ngi-pí?
   he where BE-HAB-QU
   Where is he? (i.e., the body)

   The change of existential state (from living to dead) is clearly
   reflected in the EV assignment and the change of class of the noun's
   referent. That it is the existential state (and not a matter of size,
   etc.) is exemplified by (37) and (38)

37. Ítá muú dúpa kate-ngé.
   tree short the BE-HAB
   Short trees exist.

38. Sáá andáke dúpa pete-ngé.
   possum large the BE-HAB
   Large possums exist.

Thus individual variabilities, such as tallness, largeness, stupidity,
etc., do not affect the EV assignment of these individuals, who are
assigned to the generic EV (as culturally regarded by the Enga: i.e.,
śaá game mammals are basically small, but large individual śaá may
exist still using the EV of the generic (small) śaá). On the other
hand, change of existential states, such as living, dying, being
felled, rotting, etc., do affect the EV assignment of individuals,
causing the referent affected or experiencing the change to change
its EV class.

   In a system like Enga, where the features are based on existence,
   it would, of course, be expected that a change of existence would be
   signalled by a change of class; in much the same way as English pro­
   nominal reference, based on a natural gender system, can use a
   'gelding' rule to predict the assignment of it rather than he to a
   steer.

2.3 CONCLUSION

   The Enga EV has been described above (2.0 to 2.2); we will now at­
   tempt to account for it within the generative transformational frame­
   work. Firstly, we will briefly discuss the transformational
   introduction of BE (the EV). The fact that the EV is uniquely re­
   coverable from its co-occurring noun (cf. 2.1, 2.2, and examples 29
to 33), and is often omitted in the surface structure (2.2.1 above)
   leads us to assume that the EV is determined by the features of the
   noun. The features (2.2.2) and the rules assigning the EV to nouns
   (2.2.3) have been discussed above. Following Bach (1967) we have as­
   sumed that the EV is introduced transformationally, since this
accounts with more elegant simplicity for the facts (than postulating
the existence of BE in the deep structure, and its subsequent deletion
as necessary). 19

A non-native speaker who does not know the features which assign EV
to the noun classes cannot successfully recover the deleted EV from
the surface structure. A fairly common mistake among Enga learners is
the incorrect assignment of a deleted EV in a sentence (which of
course results in an ungrammatical sentence, and a correction by the
Enga speakers). 20 Assuming (as we have), that the features of the
noun determine which particular one of the seven EV is to co-occur
with a given noun allows us to account for cases of intersection
(i.e., overlapping of features), change of class (i.e., by substitution
of features), and assignment of loan items to the appropriate EV
class. The question then remains, by what mechanism(s) do the noun
features allow for the introduction of the EV?

We propose that the EV is optionally introduced by the noun's fea-
tures, using a convention of 'feature spreading'. Feature spreading
has been proposed by Givón (1969, 1970), Mould (1971) and Voeltz (1971
(1971) to account for gender conflict resolution in Bantu, Luganda,
and Xhosa. Feature spreading in Enga would operate as follows.
When the EV is necessary in the surface structure, it would be trans-
formationally introduced at a dummy V node. 21 The features of the
noun determine which of the seven EV will appear in the surface (in
diagrams to follow, these features will be abbreviated to the first
letter of the co-occurring EV), and the feature spreading rule dupli-
cates the features on the dominating NP node. A rule of grammatical
agreement then copies the features of the dominating NP node onto the
predicate node. Thus we would have

39. saá dúpa pete-ngé.
   possum the BE-HAB
   Possums exist.

The feature spreading surface realization of pete-ngé is accomplished
in (39a and b): 22

39a.

39b.

```plaintext
39a.  S
     /\  
    NP VP
   / \  
  N DET V
 /   \\
\   saá düpa
  \[+PT\] possum the

39b.  S
     /\  
    NP VP
   / \  
  N [+PT] DET V
 /   \\
\   saá düpa
  \[+PT\] possum the
```
In (39a) we have a convention 'feature spreading' which copies the EV features to the dominating NP (39b). In (39c) an agreement rule copies the EV feature of the dominating NP into the predication, where the lexicon permits insertion of the appropriate EV, in the case of (39), petengé.

39c.

In Enga, as in English, we may have sentences like (40-42)

40. Mená dúpa kate-ngé.
   pig the BE-HAB
   Pigs exist.

41. Saá dúpa pete-ngé.
   possum the BE-HAB
   Possums exist.

42. Kanopato dúpa si-ngi.
   snakes the BE-HAB
   Snakes exist.

In English such sentences may be conjoined to yield (43):

43. Pigs, possums and snakes exist.

However, since in Enga the EV would be manifested in the three different surface forms of (40-42), no surface equivalent to English (43) exists. (44a-c) would be ungrammatical.

44. Mena-pi saa-pi kanopato-pi dúpa pig-CONJ possum-CONJ snake-CONJ the (a) *kate-ngé.
   (b) *pete-ngé.
   (c) *si-ngi.
   BE-HAB

Nor is a sentence like (45) possible.

   BE-HAB-CONJ
Instead Enga attaches the conjunctive suffix -pi to the verb of each of (40-42), thus producing (46).

46. Mená dúpa kate-nge-pí saá dúpa pete-nge-pí kanopáto dúpa pig the BE-HAB-CONJ possum the BE-HAB-CONJ snake the si-ngi-pí.24

BE-HAB-CONJ

Pigs, possums and snakes exist.

In conclusion, we have accounted for the assignment of the correct co-occurring EV to its nouns, based on the introduction of a dummy V node, to which the noun spreads the feature bundle, and a rule which transfers the noun's feature complex into the surface EV position, where it would be realized phonologically as the appropriate EV. In the EV this process is optional; as we will see later (4.3), feature spreading is obligatory in the predications.25
NOTES

1. The phrase 'occur existentially' is illustrated syntactically in the following examples (10-15), and semantically in (16-26).

2. The terms 'gender' and 'noun class' both refer to the same phenomena, i.e. "classes of nouns which are reflected in the behaviour of associated words" (Hockett 1958:231). Since in Indo-European the 'natural' connotation of 'sex' is the only criterion determining a gender system, some have preferred to use 'noun classes' (Dixon 1968:105), (Capell 1969), et al. The Americans have taken the other view, and include any and all relevant features in their 'gender' systems: "sex, animateness, size, shape, degree of abstraction, and the like..." (Hockett 1958:231).

3. The stative form is composed of the verb base plus the comple­
tive suffix, plus the stative marker; thus the 'full' form for (8) would be pitf-pae-e. The stative form is of interest mainly because certain noun classes occur only with a co-occurring stative form of a predication: cf. 1.2.1, the colour words. There are two exceptions, i.e., nouns which may co-occur with their EV in the stative form:

a. Akáli katá-pae...
   man    be-STA
b. Ênda pitf-pae...
   woman BE-STA

Both of these have the meaning of a person who remains in the clan
territory: a man who does not live with his mother's or wife's re­
tatives, and a woman who does not marry. I have only these two from my
data and am not entirely sure if

c. ?Saá pitf-pae...
   possum BE-STA
would be acceptable. In the case of a tree kangaroo kept as a pet (i.e. and confined to a particular tree), it might well be possible.

4. (11 and 13) are, of course, non-classificatory verbs. See 0.1. Occurring parallel to the EV in Enga are corresponding non-classificatory verbs:

d. Baá kate-ly-á-mo.
   he/she/it stand-PRES-3SG-DEC
   He/she/it is standing.

e. Baá pi-ly-á-mo.
   he/she/it sit-PRES-3SG-DEC
   He/she/it is sitting.

f. Baá si-ly-á-mo.
   he/she/it lay-PRES-3SG-DEC
   He/she/it is laying.

g. Baá pale-ly-á-mo.
   he/she/it lay.inside
   He/she/it is laying inside.

h. Baá lye-ly-á-mo.
   he/she/it hang-PRES-3SG-DEC
   He/she/it is hanging.

i. Baá mande-ly-á-mo.
   he/she/it carry-PRES-3SG-DEC
   He/she/it is carrying (it).

j. Baá epe-ly-á-mo.
   he/she/it come-PRES-3SG-DEC
   He/she/it is coming.

However, it must be stressed that the EV have only the single meaning be, with seven different surface manifestations; the deep structure is the same. This corresponds to the pro-verbs of the predications, see Notes 13 and 14 of that chapter.

5. "Karam seems to be the same in that the existence of a thing is indicated by use of the verb md- to exist, while equations or assertions of identity (is a) are made without a verb, e.g.

k. kaj ok
   pig that
   That is a pig.
64

vs.

1. kaj mdp
   pig it.exists
   Pigs exist; there are pigs; pigs are there.

(A. Pawley, personal communication.)


7. Also in connection with Lyons' idea that existentials and posses­sives may derive from indefinite locatives, consider the EV of loca­tion, sa-, from which derives most likely the locative case of Enga: ee-sá garden-LOC, téngæ-sa near-LOC, etc. Note also the possible formation of the possessive (-nya) from the non-classificatory verb nýa-get, take.

8. Since these two (aénæ and daénæ) occur in the Laiapo dialect of Enga, it was not possible to do substantial work on them while living among the Kopetes Enga. Nonetheless, it seems that these are used only with inanimate subjects; additional work is needed.

9. See Appendix C for additional data on the Enga EV. The entire corpus (approximately 3,000 nouns) is not presented, but instead only the generic items.

10. Men are assigned katengé because they are "active, usually stand­ing, fighting or chopping trees" (informant Frank Iki's statement).

11. Women are assigned petengé because they "like to sit, and are usually sitting minding the children and infants, cooking, or planting in the garden" (informant Frank Iki).

12. The means whereby similarity and difference between loan items and native items are adjudged constitutes the major problem here; i.e., which of all possible features are chosen? Cf. Lyons' state­ment on semantic features, 0.2.1 above.

13. Since all of the data presented are loan items, the "+" markers are omitted in the Table.

14. I am doubtful of informants' statements that katengé can be used with moss; I suspect that the informants who so assigned it were
referring not to the existential state of moss, but its function as a wig adornment.

15. A. Pawley mentions (personal communication) that the EV are "sometimes semantically contrastive, contributing information about the form or appearance of the subject noun". It must be pointed out that this is only true of the surface, as in the deep structure two different concepts/states exist.

16. Posture and shape are the most general features filtered from the informal informants' statements, but do not appear overtly in Chart 2.1.

17. One problem which might be involved here for the lexicographer is that of homonymy versus polysemy. I have opted for homonymy. Dr. C. L. Voorhoeve comments that all the ítá in examples (30-31) are, in some sense, wood in a particular state of existence, which is uniquely determinable from the EV in the surface structure, and that there is thus no need to posit homonymy.

18. R. Lang has pointed out that the crucial case is
m. *ítá toká-pae dúpa ísa pale-ngé.
   tree chop-STA the down BE-HAB
   Chopped wood exists.

19. Since the EV is not present in the surface structure in the majority of cases, the transformational introduction is more economical; the other possibility would be to postulate the presence of BE in the deep structure for every [+concrete] noun with obligatory deletion in most environments.

20. Luzbetak, for Middle Wahgi, has stated:
    A non-native speaker often finds it difficult to decide whether he should in a given case say mem, lem or pam. All three verbs mean more or less the same, e.g., he, she, it is. However, the three words may not be used indiscriminately (Luzbetak 1954:159).

21. We will not go into the conditions under which the transformational introduction of the copula would occur here.

22. In the examples to follow, the root is introduced with the habitual in order to simplify the diagrams, so that the rules to be
illustrated will not be obscured by complications unnecessary to their illustration.

23. In Lang (1971), sentences like (44a-c) were believed to be grammatical. Additional informant work has shown this to be an erroneous belief. From work with informants, it seems that Enga is similar in this respect to German and those languages in which gender conflict is not resolved by shortcuts as in the African languages (see Givon and Voeltz), but where instead each gender has to appear in the surface structure, i.e. in German we must say

(g) Liebe Frau Jochims, lieber Herr Jochims

marking the different genders; (f) and (g) are both ungrammatical

(h) *Liebe Frau und Herr Jochims

I. *Lieber Frau und Herr Jochims.

24. Sentences like (46) are, however, more like possible rather than actually occurring sentences, unless the Enga find themselves in conversation with an ethnographer-linguist specifically interested in existence.

25. I very much appreciated the comments and discussion from Professor George Grace's reading of a much earlier draft of this chapter; they have substantially contributed to the present version.
CHAPTER THREE

3.0 THE ANIMATE NOUNS

The major focus of the present study is upon the Enga classificatory verbs and the features of the co-occurring nouns which determine the surface representation of the verbs. In the preceding chapter on the EV we have described some of the features of the referents which determine the EV assignment. Since the EV co-occur with concrete nouns, the present chapter will describe the semantic features of one sub-set of Enga nouns, the animates. The description of the semantic features of the animate nouns also allows us to compare and contrast the features of this sub-set of concrete nouns and those given for the EV in 2.2.2).

In this chapter we will discuss

3.1 Semantic Features
3.2 Semantic Redundancy Rules
3.3 Loan Items
3.4 Change of Class
3.5 Comparison of the Semantic Features of EngaAnimate
Nouns with those of the EV

The nouns chosen are not a complete listing of the Enga animate nouns, but are certainly representative of the primary taxa of this semantic domain. Especial note should be made that all of the items listed (both in Table 2.1 and Diagram 2.2) are considered by the Enga to be animate, i.e., ghosts, demons, fire and water, the sun, moon, stars, and the sky people are all [+animate] to the Enga. The items to be investigated are presented in Table 3.1 below.
3.1 SEMANTIC FEATURES

Semantic features of the animals are of two types, overt and covert. The overt features are presented in Diagram 3.2 and form the basis of the semantic redundancy rules to be discussed in 3.2 following. The overt features will be briefly discussed in 3.1.1 and the covert features will be discussed in 3.1.2.

3.1.1 Overt Features

In Enga we find two major kinds of overt features:

(1) morphological features, and
(11) habitat features.

The morphological features are leafy, eyed, bony, winged and eared. Features of habitat are heavenly, stone dwelling, subterranean, forest dwelling, aquatic and pond dwelling. There are also various other features which include capable of dying, volition, intelligence, human-like, domesticated, carnivore, and originating people.
1 animate → artifacts
2 heavenly → leafy → 5 volition → fire, water
3 originating plants
people → sun, moon
4 sky people
5 bones → Arthropoda
6 eyes → worms
7
8 hair → aquatic → 10 tail → frog
9
11 intelligence → wings → 13 forest dwelling → 14 domesticated → rats
12
13
14
15 carnivore → pig
16 human → ears → cassowary
17
18 stone-dwelling → pond-dwelling → subterranean → humans
19
20

<table>
<thead>
<tr>
<th>Item (English gloss)</th>
<th>'Brothers'</th>
<th>'Parents'</th>
</tr>
</thead>
<tbody>
<tr>
<td>yúi (domestic rodents)</td>
<td>póko (non-domestic rodents), saá (game mammals)</td>
<td>tekéa (echidna), komáipu (tree kangaroo)</td>
</tr>
<tr>
<td>saá (game mammals)</td>
<td>yúi (rodents), tindfo (bats)</td>
<td>déké (very large bat)</td>
</tr>
<tr>
<td>tindfo (bats)</td>
<td>saá (game mammals)</td>
<td>bulumakáo (cow)</td>
</tr>
<tr>
<td>yána (dog)</td>
<td>pendé (wild dog)</td>
<td>níkfí (sun), kaná (moon)</td>
</tr>
<tr>
<td>mená (pig)</td>
<td>kápuá (wild pigs)</td>
<td>níkfí (sun), kaná (moon)</td>
</tr>
<tr>
<td>endakáli (humans)</td>
<td>kéwá (wild cannibals)</td>
<td>endakáli (humans)</td>
</tr>
<tr>
<td>ýalyakali (sky people)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>timángo (ghosts)</td>
<td>putútuli (demons)</td>
<td>koli, ilioli (large worms)</td>
</tr>
<tr>
<td>yúú endángi (pond woman)</td>
<td>énda kinfíngi (REAL women)</td>
<td>amané (large fish)</td>
</tr>
<tr>
<td>ímú (worm, maggot)</td>
<td></td>
<td>akiwane (large frog)</td>
</tr>
<tr>
<td>wapáká (eels)</td>
<td></td>
<td>motopoi (tree python)</td>
</tr>
<tr>
<td>mónge (frogs)</td>
<td></td>
<td>láima (cassowary)</td>
</tr>
<tr>
<td>kanopáto (reptiles)</td>
<td></td>
<td>kámbi (hawk)</td>
</tr>
<tr>
<td>ýáka (birds)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.1.2 Covert Features

The discovery of the covert features, parenthood and brotherhood, occurred spontaneously when informants would volunteer that some particular terminal taxa item was considered to be the father of the entire group, or that two primary taxa were brothers. The items with covert features are presented in Chart 3.3.

The covert feature of fatherhood is based upon qualities of size (and possibly also power and authority), but habitat also affects the choice of the father of the taxon. In each case, the father named is the largest of all members of the set. In two cases, two fathers are given, each of which occupies a particular habitat: the fathers of the saá game mammals are the terrestrial tekée echidna and the ar-boreal komápú tree kangaroo; for the yáka birds we have the terrestrial láíma cassowary and the k ámbi hawk, e a gle.

Of all the primary taxa only endákáli humans and yál yak ali sky people share parents: the niki sun as father and the kaná moon as mother. A further fact worth noting is that the sky people are also the only human-like animates that are not cannibals (endákáli nánenge); timángo ghosts, yú endángi pond woman and the putútuli demons, all kill and eat humans when possible.

The second covert category, brotherhood, is defined on the basis of at least two criteria, (1) domesticity, and (ii) morphological similarity. Domestic animates are given the wild counterpart as brothers, as wild dogs and bush pigs are given for tame/domesticated dogs and pigs. The yú endángi pond woman is a sister of énda kingingi real (i.e. human) women. Humans' brothers are the kéká foreigners who live at the fringes of the Enga area and are thought to be cannibals (dúpame náíma nengé they eat us). Morphologically similar items are also considered to be brothers: yúí rats, tindío bats, and saá game mammals are all brothers and share the features of similar fur, legs and ears. Bats differ from the game mammals in having intelligence, having wings, and a small tail (or no tail), while both the saá game mammals and yúí rodents are tailed. Rodents are a restricted food item, eaten only by women and possibly young boys, but never by men; game mammals are unrestricted. Rodents are described as being saá yángó of the same patriline as game mammals and awápá petengé living together (i.e. as friends). The ámía native marsupial cat is exceptional among the game mammals, since it is carnivorous and for this reason is said to be yána-injépae dog-like or even a brother of the dog.
3.2 REDUNDANCY RULES

The rules presented in Diagram 3.2 are here presented as an ordered set. The ordering is such that, between two rules, the one with broader scope is to have prior application (i.e., in order to prevent individual enumeration of features if it were instead applied later). The rules and items will be presented with English glosses only.

1. [+capable of dying] → [+heavenly]
2. [+heavenly] → [+originating people]
3. [+originating people] → sky people
4. [-originating people] → sun, moon, stars
5. [-heavenly] → [+leafy]
6. [+leafy] → plants
7. [-leafy] → [-volition]
8. [-volition] → fire, water
9. [+volition] → [+eyed]
10. [-eyed] → worms
11. [+eyed] → [+bony]
12. [-bony] → insects
13. [+bony] → [+hair/fur]
14. [-hair/fur] → [+aquatic]
15. [+aquatic] → eels
16. [-aquatic] → [-tail]
17. [-tail] → frogs
18. [+tail] → reptiles
19. [+hair/fur] → [+intelligence]
20. [-intelligence] → [-wings]
21. [+wings] → birds
22. [-wings] → [+forest dwelling]
23. [+forest dwelling] → game mammals
24. [-forest dwelling] → [+domesticated]
25. [-domesticated] → rodents
It should be noted that the basic assumption here is that we are dealing with a closed set (the animates), and both the features and rules are determined in terms of contrast within that (closed) set. Furthermore it is assumed that any terminal item includes all directly preceding nodes, so that birds include the nodes (and features):

\[ [+\text{wings}, -\text{intelligence}, +\text{hair/fur}, +\text{bones}, +\text{eyed}, +\text{volition}, -\text{feafy}, -\text{heavenly}, +\text{capable of dying}, +\text{concrete}, \ldots] \]

However, the inclusion of preceding nodes does not exclude the application of other features as well to birds, i.e., it makes no comment as to habitat, so that at a lower level (not discussed here), various birds may be [+arboreal], or [+terrestrial], or [+aquatic], or [+cave dwelling], or whatever.

The main advantage of the redundancy rules is that they filter out predictable semantic features: the lexical entry for bird need include only the semantic features [+capable of dying] (or [+volition]) and [+wings]. The redundancy rules allow for the insertion of the predictable features whenever these are desired. Furthermore, additional simplification is possible when it is considered that the term bird is the generic term for approximately 200 bird types, so that entries for these can refer directly to the generic term.

Several points of interest in the redundancy rules remain to be discussed. One of these is that the items following node 16...
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([+human-like]) form the unordered portion of the rules: the four items may be randomly ordered (demon, pond woman, ghosts, and humans); with the exclusion of the rule for any of the first three, endakáli would be marked [+yuú sé katengé terrestrial]. The reason that the random ordering is possible is that these four items are at the same level of the taxonomy and the distinguishing feature, habitat, can be applied randomly.

3.3 LOAN ITEMS

The loan items presented below are from Tok Pisin or English and denote phenomena of Western European origin with which the Enga were not familiar in the pre-contact period. The items and their main feature(s) are given below, followed by the Enga assignment to classes.

1. *satáne  Satan  [+subterranean...]  +ghosts
2. *pusfi  cat  [+forest dwelling...]  +game mammal
3. *bulumakáo cow  [-carnivore...]  +pig
4. *paúli  chicken  [+winged...]  +bird
5. *pisa  fish  [+aquatic...]  +eels

In all cases the reason for assignment is, on comparison with the semantic rules, apparent. *Satáne is an interesting case, since here the Enga assign Satan to the same class as ghosts (rather than demons). Enga demons are in-human/un-human, while ghosts are merely dead humans; thus, the many human-like features attributed to Satan, plus the subterranean habitat, would cause the Enga to establish an equivalence between Satan and Enga ghosts.

Enga normally do not keep cats as pets, instead cats roam freely in the bush and forests, which accounts for the assignment of *pusfi to the game mammal class. Notable is the fact that all game mammals are edible and are non-restricted for consumption by men; cats also are both edible and non-restricted, just like saá.

The chicken would be assigned by the rules to the birds class, and this is also how it is classified by the Enga. The introduced carp are assigned to the eels class by the rules, and also by the Enga. Cattle are not only assigned to the pigs class, they are also considered to be the father of this class (cf. Chart 3.3 above). Pigs have long been a staple item in exchanges, marriage payments, and death and homicide restitutions (cf. 1.1 above). In 1969 it was reported that cattle were soon likely to be similarly exchanged in
the tée ceremonies featured by the Mae and Laiapo Enga. An additional test was provided when we presented Enga informants with photographs of some more exotic animals. Bears were immediately identified (on the basis of morphological features only, i.e., the Enga did not question as to habitat, etc.) as saá game mammals. We could predict that Enga would soon classify these as the father of the game mammals on the basis of size. Photographs of other quadrupeds (giraffe, antelope, etc.) brought forth queries to us as to 'what kind of things are those?', with more sophisticated Enga who might have seen the Mt. Hagen Show asking if they were *ósa horses.

The final example in the case of loan items is that of the *mangíi monkey: the Enga had always exhibited a strong interest in what kind of animal this might be. We obtained a coloured photograph of a chimpanzee dressed in a vest, tie, straw hat, and smoking a cigar; the immediate response was terrific: "what kind of a human is that?" (endakáli aipálepe?) In the discussion that followed among the Enga, the following features were noted: that this 'human' was wearing clothes, that it was wearing a hat (which led to the assumption that it was a man, akáli, rather than a woman), and that it was smoking. These are all clearly human activities, and as final proof, the Enga questioned us on other relevant points: was he married and what did his wife look like? Did he build houses, and what kind? Did he plant gardens and eat cooked food/sweet potato? Thus, it would seem that humans are actually contrasted to all other animates on the basis of social and cultural activities, rather than gross morphological features. 17

3.4 CHANGE OF CLASS

This phenomenon has been discussed in 0.2.3.3 above; presented here are some cases from informants in which animate nouns change class. The interesting point is that the animates which do change class generally change into 'brothers' or the most closely related animate; large jumps from one level of the taxonomy to another, i.e., from insect to birds say, are not made. For example, the game mammals which were always climbing up and down trees to reach their tree nests got tired of this activity, so they grew wings and became bats. (The game mammals and the bats are brothers, cf. Chart 3.3). Smaller rats may grow up into the larger game mammals (and these two are also brothers).

Another case is that of a particular kind of green lizard who was drinking water near a stream and the stones cut off its tail, causing it to become a particular kind of green frog (cf. node 10 of Diagram
3.2). One belief is that water 'makes things grow', and may cause metamorphosis: worms living in very wet soil or water are likely to become snakes. Children are warned that they shouldn't leave their feet in water too long, as they may become frogs.

The few examples suggest that certain items are related to one another by 'change of class' rules which change segments of features or add new features, e.g., we can propose the following to occur:

6. lizard [-tail] \(\Rightarrow\) frog
7. worms [+wet, +larger] \(\Rightarrow\) snakes
8. rat [+larger] \(\Rightarrow\) game mammal
9. game mammal [+wings] \(\Rightarrow\) bat

These (6-9) confirm the validity of some of the features and rules postulated above.

3.5 COMPARISON OF FEATURES

The features of the animate nouns (3.1) contain two kinds of features comparable to those given (2.2.2) for the EV; these two kinds of features are habitat and size. The occurrence of cross-classification (0.2.2) among the items (i.e. animate nouns and EV features) is also briefly discussed.

Habitats (among the animate nouns) are also mutually exclusive among the EV, since palengé (subterranean), katengé (heavenly), and sîngi (aquatic) denote mutually exclusive places of existence. An example of this is presented in the case of the birds, which show a tri-partite division based on place of existence (or habitat): flighted birds (arboreal) use the EV petengé, aquatic birds use the EV sîngi, and terrestrial cassowaries use the EV katengé.

The second feature, size (or potential harmfulness) is exemplified among the animates by the covert feature of 'parenthood': the largest animate of the group is designated the 'father', e.g., the tree python being considered the 'father' of all the reptiles. Groups of animates which have two or more 'fathers' differentiate these on the basis of habitat, again emphasizing the importance of habitat: birds have the eagle or hawk as the arboreal 'father', and the cassowary as the terrestrial 'father'; the spiny anteater (terrestrial) shares the 'fatherhood' of the game mammals with the tree kangaroo, the largest of the arboreal game mammals (cf. Chart 3.3 for additional examples).
One major point about size is that this is obviously relative, and the next question to be considered would be, "to the Enga, what size is large, potentially harmful, etc.?" From the observation that the pig, dog, and cassowary are the animates sharing the EV class katengé (i.e., large) with men, it would seem that animals of dog-size or larger are potentially harmful and regarded by the Enga as such. When called upon to classify various exotic (i.e., Taronga Park Zoo) animals, one informant flatly stated: 'Large animals will take katengé, small animals will take petengé.'

Of the two features (size or habitat) used in both animate and EV classes, it is extremely difficult to determine which is higher ranking. Firstly, all potentially harmful animates among the Enga are both terrestrial and large (in Enga terms). The only conclusion for determining the importance of some particular semantic feature is that those items most important in the culture may be arbitrarily classed into what might be regarded (by an outsider) as an 'inappropriate' class. Dixon makes a similar statement when formulating rules for noun class membership in Dyirbal:

(1) If some noun has characteristic X (on the basis of which its class membership would be expected to be decided) but is, through belief or myth, connected with characteristic Y, then generally it will belong to the class corresponding to Y and not that corresponding to X.

(2) If a subset of nouns has some particular important property that the rest of the set do not have, then the members of the subset may be assigned to a different class from the rest of the set, to 'mark' this property; the important property is most often 'harmfulness' (1968:20).

Dixon applied these two rules in the explanation of the noun classes in Dyirbal, and notes additionally

...that the semantic basis of class membership in Dyirbal can only be explained in terms of an intimate knowledge of the beliefs, myths and habits of the people, knowledge that is presumably not normally available concerning the ancestor language (1968:123)

and further that

it seems likely that some [class memberships] are WITHOUT EXPLANATION (as would be the case in any natural language): some may have had an explanation in terms of an earlier stage of the language, but the class assignment has been retained and the explanation lost as the language has altered (1968:122).

Another point of interest in the comparison of features of EV and animates, is the occurrence of cross-classification among the items. Among the animate nouns (Diagram 3.2), the quadrupeds form a subgroup [-winged], yet the EV usage divided this group in two, with the
yúi rodents, and saá game mammals using petengé, and the mená pig and yána dog using katengé. This also occurs among the plants, which are divided in the taxonomy into two main groups, hollow and solid-stemmed [+káita síngi]. The tânu grasses and sambáí canes are in contrast to the itá trees, akaípu Cordyline, and ânga pandanus: yet all of these are classed by EV usage as tall, upright--katengé. This is also true among the cultivated plants, which form a group in the taxonomy as 'gardened' plants, yet use different EV: mapú sweet potato uses palengé, lyaá sugar cane uses katengé, and áwa leafy green cultigen uses síngi. In the taxonomy the focus is on the function, or morphology of the plants, and in the EV usage the focus is on the shape/posture of the plant. Thus, the conclusion is that clearly in differing situations (i.e. taxonomy versus noun classes), the Enga focus on different features, which results in the cross-classifications mentioned above.¹⁹
NOTES

1. It is also true that [+concrete] nouns are more readily researchable than, for example [+inner state] or abstract nouns.

2. On return to Canberra, identification of all the primary taxa (and many of the terminal taxa) was made with the assistance of Dr. J. Hope, Department of Prehistory, the ANU, using only the folk definitions. Future work would include additional research in this area, and complete identification (preferably in the field) by a zoologist.

3. The contrast here is between the primary taxa or generic terms, such as dog (Canus sp.) and terminal taxa, such as Labrador, Doberman, poodle, etc. Intermediate taxa are such as terriers, hounds, retrievers, etc.

4. See Appendix B for Questions Used, especially Section 2, example 7.

5. Saá game mammals includes tree rats (which may be eaten); yúi rodents are the domestic rats (which are eaten only by women).

6. Láima cassowary is a member (the takáne father) of the birds, (cf. Capell 1948:368 yáka láima), but also holds a very special place in the Enga culture (along with bats), since these two are the only animates considered to have intelligence. Cf. Bulmer 1967 on the Karam beliefs regarding the cassowary. Other Highlanders also have such beliefs: Lyle Steadman reports (personal communication) that the Hewa believe male cassowaries to be female (since the males sit on the eggs), and the female cassowaries to be male. Cf. also note 11.
7. [+Aquatic] and [+pond dwelling] are in fact two different features, since aquatic in this case [+endákonya síngi] is wholly water dwelling (i.e., not at all capable of terrestrial life), while pond dwelling [+endákí peté petengé] in this case implies that the animate is capable of terrestrial life, but lives near water and perhaps returns there periodically; thus the contrast is between an amphibian-type existence and a wholly-aquatic one.

8. The semantic 'gaps' on Chart 3.3 (items which lack a 'brother' or a 'father') would most likely be filled by additional elicitation. These may be either 'occurring' or 'possible but non-occurring' items (as contrasted to 'impossible' items). Cf. 0.2.2, and Chomsky 1965:170 on 'accidental semantic gaps'.

9. Humans' parents are the sky people (directly) and the sun and moon (indirectly).

10. The only example given of 'motherhood' is ípa/endákí which is given for the wapáká eels. The explanation given was that since wapáká are completely aquatic and their only food is water, that water was their mother.

11. Meggitt (1965) relates one version of the Enga origin myth:

   The Mae believe that long ago the land was uninhabited. The only quasi-human beings then living were the sun and moon, 'the father and mother of us all'. Eventually they had many children, 'the causal or originating people', who reside in the sky in conditions similar to those on earth. These sky dwellers...in turn have had many descendants, who, although pale-skinned, resemble Enga; they are organized into patrilineal descent groups and they marry, feud, grow crops, raise pigs, pay death compensations and so on. After a time the sky beings colonized the earth.... The terrestrial society is thought to be isomorphic with the celestial society of the causal people (107f.).

12. While the sky people are considered by the Enga to be either disinterested or possibly benevolent, the ghosts, demons, and pond woman are all actively malevolent.

13. These kówá are the Hewa, not the language group known as the Kewa.

14. Both bats and cassowaries occupy a special place in the taxonomy; bats are believed to be harbingers of death, and bring the omens of
impending disaster (earthquake or landslide) sent by the timango ghosts. Since the bats hear and understand the ghosts' language/omen and bring this to the Enga, they are considered to be intelligent. Cf. also note 6.

15. Would this awápá petengé living together in fact imply also that neither eats the other, since to do so would constitute game mammal cannibalism? Cf. that the native cat is considered to be a brother of the dog, since it is carnivorous.

16. When ordering the rules (based mainly upon criteria of formal simplicity), one other major possibility of an ordering form does present itself. In Enga folk classification the feature [tailed] appears frequently as a distinguishing marker: the presence or absence of a tail, the kind of tail, whether it is all skin, furry, tufted, etc., all are relevant. Cf. 3.4, in which lizards lose their tails and become frogs; i.e., node 10 of Diagram 3.2). (This is in contrast to the nonchalance with which reproductive methods of various animates are regarded: they are not used for classification similar to our egg-laying, amphibian, marsupial and placental mammals). One of the questions asked of the chimpanzee was 'does he have a tail?' Tails appear in the rules once (node 10: lizards and frogs). This could lead to some speculation as to the possibility of ordering the feature [tailed] into a higher node of the tree.

Embarking briefly on this train of thought, we could postulate introducing the feature [tailed] at node 8. Under these conditions, the following revised tree would result:

```
  8  tailed  +  9  hairy  -  10  aquatic  +  eels
          +                    -
               11  intelligent  -  (same as old note 13f.)
                        +
               bat
  12  hairy  -  reptiles
         +
  13  winged  +  birds
         -
  14  human-like  -  cassowary
         +
         (same as old node 18f.)
```
There are at least three difficulties in this ordering. The first is that [± hairy] clearly is applied twice giving more than a suspicion of cross-classification (cf. 0.2.2) or incorrect ordering of the features/rules; this is contrasted to the prior ordering, in which the 'tailed' features differed in [± hairy] (cf. Diagram 2.2, nodes 10 and 15). The second difficulty is that not only is [± hairy] applied twice, the distinction which the previous ordering of that rule made, (i.e., that of the skinned or non-hairy animates as a sub-set of the animate group), has been completely obliterated. The final difficulty is that the new ordering has also lost the distinction made by the Enga in regard to the cassowaries and bats, i.e., that these animates are considered to be [+intelligent] while all other animates are not so considered. In view of these difficulties, the previous ordering was preferred (i.e., that of Diagram 3.2).

This problem is that of the selection of features from the possible universe of features. One of the major assumptions in ethnoscience is that of the contrast set: "a class of mutually exclusive segregates which occur in the same culturally relevant environment...these segregates 'share at least one defining feature'...i.e., that which characterizes the environment in which they occur.... The domain of the set is the total range of meanings of its segregates" (Sturtevant 1964:107). This leads once again to the problem of discovery, as to how one determines the culturally significant sets and their included units. In the Enga comparison of two terminal items, the feature noted should be the highest mutual node: i.e., in the contrast between birds and eels, the noted feature should be that eels are hairless; as far as I can determine, it is just as likely to be that the informant reports that birds have wings, that eels are aquatic, etc.

17. Prof. Andrew Strathern (personal communication) reports that the Melpa of Mt. Hagen classify monkeys as game mammals; it is probable that Enga, on seeing small arboreal monkeys in a zoo, might well, too.

18. Change of class and 'transformations' as detailed in this section (3.4) are based upon traditional Enga beliefs—the tailless green lizard which became a particular green frog is from one of the Enga fables (i.e. and thus not regarded as a fact); however, the game mammals which were always climbing trees, and so grew wings and became bats are regarded as fact.

19. A point of interest is the comparison of the animate nouns' features with those of another language. Mathiot (1962) divided Papago
folk taxonomy into plants and living things, with a further subdivision of living things into people, birds and animals. Pilcher (1967) also worked with Papago and his work is comparable to the one presented here for Enga on yet another point, since it was based on the folk definition technique first used by Casagrande and Hale (1967) in Papago. "My own research was oriented toward the examination of the folk taxonomy of the Papago by means of semantic components derived from 'folk definitions'.... This approach was much influenced by Conklin's call for lexicographical treatments of folk taxonomies (1962), and by the work of Casagrande and Hale (1967)" (Pilcher 1967:204). Pilcher extracted the features from the definitions that had been obtained for the named taxa, and these are:

1. ...(which think)
2. ...(which are afraid of people, fearful things)
3. ...(which are domestic animals)
4. ...(which fly)
5. ...(which are thorny)

These features (or semantic components) also occur in Enga, where we have such features as [±intelligent], [+winged], the covert feature of brotherhood, based on the distinction between wild and domestic animals, and the feature [+thorny] (which applies in both Enga and Papago to plants, although the spiny anteater is said to have thorny fur (f'l néngenénengkatápaespínes). Thus, of the five features Pilcher uses in Papago, all five are found in Enga.
4.0 PREDICATIONS

We have now discussed one type of classificatory verb in Enga, the EV (2.0) which co-occurs with the [+concrete] nouns, and a sub-set of nouns (the animates) which co-occur with them (3.0). This chapter will deal with the second type of Enga classificatory verb, the pro-verb of predications.

The form of the predications is an adjunct which co-occurs with a pro-verb. With very few exceptions, the pro-verbs of the predications are in complementary distribution with the EV in relation to the types of co-occurring nouns, viz., the pro-verbs of the predications co-occur only with [-concrete] nouns. This chapter will deal firstly with the form and syntactic properties of predications, and secondly with their semantics. A brief discussion of the problems arising from attempts to account for the predications in a generative transformational framework will conclude the chapter.

4.1 FORM AND SYNTACTIC PROPERTIES

In this section we will discuss the form of the predications, why they cannot be regarded as objects, two sub-sets of the predications which normally occur in specific grammatical forms, and another sub-set which may be verbalized in the eastern dialects of Enga.

4.1.1 Form

The form of the predications is an adjunct (normally a noun), which co-occurs with a pro-verb which has a general meaning. The adjunct functions to modify the general meaning of the pro-verb into a specific action. Some examples of predications are:
1. Yokó dúpa ápu le-ly-ámí-no.
   The leaves are drying.

2. Náima kúmanda pi-ngí.
   We always make death payments.

   He is sharpening an axe.

4. Baan-yá mókó dóko pakélyó si-ly-á-mo.²
   His leg is scarred.

   He is stealing the axe.

While normally any noun may occur with many different verbs, e.g.

   He is hitting a man/house/jeep.

this is not the case with the predication, in which the adjunct can normally co-occur with only one specific pro-verb. (Adjuncts with more than one pro-verb are discussed in detail in 4.2.3 following.)

   He is covering (it).

The general meaning of the predication is carried by the main verb, here pyá- hit; the adjunct yámé must logically produce the modification of this general meaning to cover, yet yámé does not occur elsewhere, independently as in the sentence (8) or (9).
8. *Ongo yame penge mende.
    that cover jar a
That's a covered jar.

8a. Ongo yame mende.
    that cover a
That's a cover.

The correct form of (8) would be (8a):

8b. Ongo pengé yamé pyá-pae ménédé.
    that jar cover hit-STA a
That's a covered jar.

This particular form of the predications, the stative, will be discussed in more detail in 4.1.3. Examples (7, 7a, 8, 8b) and (9) exemplify that the adjunct must co-occur with its appropriate verb.

Furthermore, it is not normally possible to verbalize the adjunct:

    he-AG jar the cover-PRES-3SG-DEC
He is covering the jar.

The correct form of (9) is (9a) with the predication:

9a. Baa-mé pengé dóko yamé pi-ly-á-mo.
    he-AG jar the cover hit-PRES-3SG-DEC
He is covering the jar.

When predications are used in modalities, the appropriate co-occurring verb (and no other) must also appear; in the case of tfsa pingf cut, break, we cannot have tfsa *lengé (or any other verb).

    he-AG wood cut do-INF go-PRES-3SG-DEC
He is going to cut the wood.

10a.*Baa-me ita tisa pya-la pe-ly-a-mo.
    cut hit-INF

10b.*Baa-me ita tisa pe-ly-a-mo.
    cut go-PRES-3SG-DEC

    he-AG wood cut do-INF-GEN think-PRES-3SG-DEC
He wants to cut the wood.

11a.*Baa-me ita tisa pya-la-nya masl-ly-a-mo.
    cut hit-INFINF-GEN
The same holds true for other cases of complementation:

12. **Baa-mé ítá tísa pyó-o etá-pa-la ipá-t-á.**
    *he-AG wood cut do-O finish-COMP-INF come-PUT-3SG*
    *When he's finished cutting the wood, he will return.*

12a. **Baa-me ita tisa pya-o eta-pa-la ipa-t-a.**
       *hit-O*

12b. **Baa-me ita tisa eta-pa-la ipa-t-a.**

13. **Baa-mé ítá tísa pyó-o anda-ka ka-ly-á-mo.**
    *he-AG wood cut do-O house-LOC BE-PRES-3SG-DEC*
    *He's at home cutting the wood.*

13a. **Baa-me ita tisa pya-o anda-ka ka-ly-a-mo.**
       *hit-O*

13b. **Baa-me ita tisa anda-ka ka-ly-a-mo.**

### 4.1.2 Objects

In any consideration of the possible relationships between a noun and co-occurring verb, the question immediately arises, regarding such a combination as we find in the predications, if the adjuncts are actually objects. In this section I will discuss the normal objects of Enga and conclude with the examples of the strict syntactic restrictions applying to the predications which preclude our considering them as objects.

As presented above in (6), in Enga normally any noun may occur as object with a number of different verbs; in these cases, the subject is marked with the agentive, and the object is unmarked; there may also be a number of modifications to the object, such as determiners, adverbs, adjectives, and locatives. Some examples of these types of modification are presented below:

<table>
<thead>
<tr>
<th><strong>Baa-mé nuú</strong></th>
<th><strong>pi-lý-a-mó.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>she-AG netbag</td>
<td>do-PRES-3SG-DEC</td>
</tr>
</tbody>
</table>

She is making a/all netbag/s well/sneakily.
15. Baa-mé nuú (eteté) (épé) méné
she-AG netbag very good a

\[
\begin{align*}
\text{andá-ka} & \quad \text{pitú-u} \\
\text{house-LOC} & \quad \text{BE-O} \\
\text{elyakáo} & \quad \text{sneakily} \\
\text{auú pyó-o} & \quad \text{do-PRES-3SG-DEC} \\
\text{well} & \quad \text{do-O}
\end{align*}
\]

She is making a (very) (good) netbag at home/well/sneakily.

The predications differ in this in that they do not normally permit modification\(^3\) between the adjunct and the pro-verb:

16. Baa-me penge yame
he-AG jar cover

\[
\begin{align*}
*\text{elyakao} & \quad \text{sneakily} \\
*\text{auu pyo-o} & \quad \text{hit-PRES-3SG-DEC} \\
\text{well} & \quad \text{do-O}
\end{align*}
\]

He's covering the jar sneakily/well.

Instead, modification precedes the predication:\(^4\)

17. Baa-mé pengé
he-AG jar

\[
\begin{align*}
\text{elyakáo} & \quad \text{sneakily} \\
\text{auú pyó-o} & \quad \text{cover hit-PRES-3SG-DEC} \\
\text{well} & \quad \text{do-O}
\end{align*}
\]

He's covering the jar sneakily/well.

As nouns are modified postnominally in Enga and verbs preverbally, this is further evidence that it is the predication that is modified as a verbal unit, rather than the noun in a verb phrase.

There is a small set of adjuncts which appear in the predications which are exceptions to the above. These are five [+concrete] adjuncts: two body parts (yanú skin and langálú forehead), two plants (yokó leaf and tánú grass), and one artifact (yandá spear). Aside from being marked [+concrete] (and, by the way, these items also occur with the EV appropriate to their features), these are the only adjuncts which may occur independently elsewhere in the sentence. Thus, we may have examples such as

18. Óngo tánú méné.
that grass a
That's a (kind of) grass.

19. Óngo namba-nyá yandá.
that I-POSS spear
That's my spear.

20. Naima-me yoko dake nenge-me.
we-AG leaf this eat-ASSOC
We eat this leaf; this leaf is edible.
sick take-COMP-INF he-POSS skin fire do-PRES-3SG-DEC
Being sick, he has fever.

When occurring in the predications, each adjunct co-occurs with only one pro-verb and has one specific meaning:

22. Namami-me dupa yanda pi-ly-ami-nó.
we-AG them spear do-PRES-3SG-DEC
We’re fighting them with weapons/spears; we’re waging war with them.

he-AG grass hit-PRES-3SG-DEC
He’s cutting grass.

24. Maá doko yokó pi-ly-a-mó.
taro the leaf do-PRES-3SG-DEC
The taro is growing leaves.

he-AG sweet.potato skin hit-PRES-3SG-DEC
He’s peeling the sweet potato.

he-AG forehead hold-PRES-3SG-DEC
He’s swearing (an oath).

Thus, this set is anomalous in two ways and completely different from all other adjuncts: firstly the adjuncts have an independent meaning, which is that of a [+concrete] noun, and secondly, these adjuncts may occur elsewhere independently in the sentence; they are not restricted to co-occurrence only with the predications. However, when these adjuncts occur in their normal form in the predications, it is only with the appropriate pro-verb: (22a-26a), are all ungrammatical.

22a.*Namami-me dupa yanda pi-ly-ámi-no.
we-AG them spear hit-PRES-3SG-DEC
We are fighting them.

23a.*Baa-me tanu pi-ly-a-mó.
he-AG grass do-PRES-3SG-DEC
He’s cutting the grass.

24a.*Maá doko yokó pi-ly-a-mó.
taro the leaf hit-PRES-3SG-DEC
Further evidence of the predications' special differences from ordinary verb phrases will be highlighted by a brief consideration of several 'compound' verbs in Enga. These verbs seem to be cases in which the adjunct has become very closely linked with the co-occurring pro-verb, so far that they have in fact become one word. A few examples of predications with the compound verbs appearing side by side are presented in the table below.

<table>
<thead>
<tr>
<th>Predication</th>
<th>Meaning</th>
<th>Compound Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>wáí lýfngi</td>
<td>create</td>
<td>wasingf5</td>
</tr>
<tr>
<td>sáká tengé</td>
<td>arise, get up</td>
<td>sakaténge</td>
</tr>
<tr>
<td>auú singí</td>
<td>carry on shoulders</td>
<td>aúsingí</td>
</tr>
</tbody>
</table>

As well as these cases of both the predication and the compound verb occurring, Enga also contains a number of verbs, possibly derived from earlier predications (adjunct plus pro-verb), in which today only the multi-syllable verb survives:

27a. **sandásíngi** climb from one tree to the next
27b. **yapengé** elect
27c. **mandenyfngi** shiver
27d. **yambipénge** bend in an arc
27e. **kalumbénge** release water through a dam (\(\text{mb}\) alternate in certain environments in Enga as in pumbútí and pupútí black).

4.1.3 Predications in the Stative Form

The stative form in Enga functions as an adjectival suffix, which enables verb forms to modify nouns. Thus, from the verb **kumá- die**, the stative form is used to produce the modification to be dead:

Akáí kumá-pae dóko.

The dead man.
Predications may also be used in this form, and in fact a particular sub-set, those denoting colour (28, 29, 30) most frequently appear in this form:

28. Akaipu taiyoko pi-pae méndé.
   cordyline red do-STA a
   A red cordyline.

29. Óngo kyóo lá-pae.
   that white utter-STA
   That's white.

30. Óngo wené pyá-pae.
   that blue hit-STA
   That's blue.

This particular sub-set does not appear in the usual conjugation as normal predications with person-number and tense markers:

31. *Akaipu taiyoko pi-lly-a-mo.
   cordyline red do-PRES-3SG-DEC

32. *Yuu kyoo le-lly-a-mo.
   earth white utter-PRES-3SG-DEC

4.1.4 The O-Complementizer

The O-complementizer functions as a temporal suffix which denotes simultaneous action. The following examples illustrate this:

   he-AG work do-O BE-PRES-3SG-DEC
   He is working (Literally: He is existing working).

The predications may also be used in this form

34. Baa-mé éé lá-o pi-ly-á-mo.
   he-AG cry utter-O sit-PRES-3SG-DEC
   He is crying sitting.

These predications are also used with person-number and tense markers:

35. Baa-mé éé le-ly-á-mo.
   he-AG cry utter-PRES-3SG-DEC
   He is crying.

However, a particular small sub-set of the predications seem to occur only in the O-complementized form, rather like the preceding sub-set which occur only in the stative form. Thus, we have (36) but not (36a):
36. Baa álo pyá-o pe-ly-á-mo.
   he run hit-O go-PRES-3SG-DEC
   He is running (Literally: He is running going).

36a. *Baa alo pi-ly-á-mo.
   he run hit-PRES-3SG-DEC

Another example in this sub-set seems to have an adverbial function:

37. Baa moó lá-o pe-ly-á-mo.
   he slow utter-O go-PRES-3SG-DEC
   He is going slowly.

37a. *Baa moo le-ly-a-mo.
   he slow utter-PRES-3SG-DEC

We have so far isolated two sub-sets of adjuncts in the predications, those which use only the stative form (kyóó lâpae white, wené pyápae blue) and those using only the O-complementized form (álo pyáo run, móó lâo slowly); in addition, we have a further sub-set of adjuncts which may occur in both of these forms. A series of examples are presented below to illustrate this phenomenon.

38. Baa akâli auú pf-pae méndé.
   he man good do-STA a
   He's a good man.

   he man good a

40. Baa-mé kalâi auú pyó-o pi-ly-a-mó.
   he-AG work good do-O do-PRES-3SG-DEC
   He is working well.

41. *Baa-mé kalâi auú pi-ly-a-mó.
   he-AG work good do-PRES-3SG-DEC
   He is working well.

42. Baa-mé kalâi auú pf-pae méndé pi-ly-a-mó.
   he-AG work good do-STA a do-PRES-3SG-DEC
   He is doing a good job.

43. *Baa-mé auu pi-ly-a-mo.
   he-AG good do-PRES-3SG-DEC
   He is doing good.

44. Baa-mé auú pyó-o pi-ly-a-mó.
   he-AG good do-O do-PRES-3SG-DEC
   He is doing well-good.
4.1.5 Verbs

Table 4.2 presents a list of the major verbs which co-occur in the predications with adjuncts. As mentioned above (4.0) only a limited number of verbs co-occur in the predications, and three of these (lengé utter, pingí do, and pfngi hit, strike) account for 63 per cent of all verbs recorded in the predications. The predications themselves account for 66 per cent of all Enga verb forms, while the remaining verb forms cover 34 per cent. Thus, we have twice as many predications as other verb forms in the corpus, and of these (i.e. the predications), roughly two-thirds are limited to co-occurrence with one of the three pro-verbs listed above.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Gloss</th>
<th>No.</th>
<th>per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>lengé</td>
<td>utter</td>
<td>334</td>
<td>32</td>
</tr>
<tr>
<td>pingí</td>
<td>do, make</td>
<td>247</td>
<td>23</td>
</tr>
<tr>
<td>pfngi</td>
<td>hit, strike</td>
<td>80</td>
<td>8</td>
</tr>
<tr>
<td>sfngi</td>
<td>hear</td>
<td>45</td>
<td>4</td>
</tr>
<tr>
<td>nyfngi</td>
<td>get, take</td>
<td>40</td>
<td>4</td>
</tr>
<tr>
<td>minfngi</td>
<td>hold</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>kaengé</td>
<td>be</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>palengé</td>
<td>lie (inside)</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>katengé</td>
<td>stand</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>pengé</td>
<td>go</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>nengé</td>
<td>eat, consume</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>tengé</td>
<td>burn</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>miscellaneous</td>
<td></td>
<td>172</td>
<td>16</td>
</tr>
</tbody>
</table>

The total corpus was 5,545 items; of these, the verbal forms totalled 1,607:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1,068</td>
<td>Predications</td>
</tr>
<tr>
<td>539</td>
<td>Other Verbs</td>
</tr>
<tr>
<td>1,607</td>
<td></td>
</tr>
</tbody>
</table>

4.1.6 A Problem

Kyaka, the easternmost Enga dialect (and the areas bordering it) permits verbalization (i.e., inflection for person, number and tense) of certain types of adjuncts ([+inner state], [+colour] and [+quality]), which in all other Enga dialects occur only as adjuncts in the predications (i.e., cannot be inflected for person, number and
tense).  Following are some examples to illustrate this phenomenon and a brief discussion of it.

1. [+inner state] In the eastern dialects the following are permissible:

45. Baá tandá-1-u-mu.
   _he pain-PRES-3SG-SENSE_  
   _He is pains (i.e., he is in pain)._  

46. Baá maká-1-u-mu.
   _he fed.up-PRES-3SG-SENSE_  
   _He is fed up (with someone or something)._  

47. Baá kondá-1-u-mu.
   _he pity-PRES-3SG-SENSE_  
   _He is pitying (someone)._  

In other dialects the same examples would be expressed via predications using the verb kaengé.

45a. Baá tándá kayá-1-u-mu.
   _he pain feel-PRES-3SG-SENSE_  
   _He is feeling pain._  

46a. Baá máká kayá-1-u-mu.
   _he fed.up feel-PRES-3SG-SENSE_  
   _He is fed up._  

47a. Baá kóndó kayá-1-u-mu.
   _he pity feel-PRES-3SG-SENSE_  
   _He is feeling pity, he has pity._  

2. [+colour] In the east we have

48. Ítá dóko saká-1-u-mu.
   _tree the green-PRES-3SG-SENSE_  
   _The tree is green (i.e., healthy, living)._  

In other dialects, (48) would be expressed by

48a. Ítá dóko sáká py-ú-mu.
   _tree the green do-PRES.3SG-SENSE_  
   _The tree is green (i.e., healthy, living)._  

3. [+quality] In the east we have

49. Akáli dóko kendá-1-u-mu.
   _man the heavy-PRES-3SG-SENSE_  
   _The man is heavy._
50. Akáli dóko muiyá-1-u-mu.
   man the short-PRES-3SG-SENSE
   The man is short.

In the other Enga dialects, these would be

49a. Akáli dóko kéndá pí-pae.
   man the heavy do-STA
   The man is heavy.

50a. Akáli dóko múú pí-pae.
   man the short do-STA
   The man is short.

The presence of the verbalized adjunct (with no co-occurring
'cognate object' adjunct) in the eastern dialects of Enga leads us to
ask what exactly is present in the deep structure of the predications
(in the western dialects) and what is present in the deep structure
of the verbalized adjuncts? This question will be discussed in
Section 4.3.

We will conclude this section by drawing special attention to some
negative examples which illustrate several points:

1. that the verbalized adjuncts must occur only in the
   predications (45a, 46a, 47a);
2. that some of these may occur only in a specific form
   of predications (i.e. the stative form) (examples 49a,
   50a); and
3. that the verbalized adjuncts are a set which is mutually
   exclusive with those [+concrete] nouns which co-
   occur with EV (2.0); examples (51-53) will illustrate
   this:

51. *Akali dupa akali-ly-ami-no.
   man the man-PRES-3PL-DEC
   *The men man.

52. *Dii dupa dii-lya-ami-no.
   fruit the fruit-PRES-3PL-DEC
   *The fruits fruit.

   blood blood-PRES-3SG-DEC
   *Blood bloods.

These [+concrete] nouns cannot occur as inflected verbals, but instead
coccur with the existential verbs:
51a. Akáli dúpa kate-ngé.
   man the BE-HAB
   Men exist.

52a. Dií dúpa lyí-ngi.
   fruit the BE-HAB
   Fruits exist.

53a. Taiyóko dóko pale-ngé.
   blood the BE-HAB
   Blood exists.

This is, of course, still further evidence for classificatory verbs in Enga: both the existential classificatory verbs and the pro-verbs as classificatory verbs (or verbals), since they occur in complementary distribution in relation to the [+concrete] nouns.

4.2 SEMANTICS

4.2.1 Rules

In the preceding section we have discussed the predication, its form, and one particular problem (4.1.6). We will now turn to the major question, i.e., to what extent is it possible to formulate a set of rules which will operate on the semantic features of the adjuncts used in the predications and which will thus enable us to determine the correct assignment of the adjuncts to their co-occurring verb in the predication?

In attempting to formulate these rules, we will limit ourselves to the first three of the co-occurring verbs (i.e., lengé, pingí, and píngi) for two reasons, firstly, these three verbs account for 65 percent of all the co-occurring verbs, and secondly, since a limited number will avoid unnecessary complication of the rules.

A tree diagram is presented in Diagram 4.3 and will be discussed in the following section.

The rules presented in Diagram 4.3 are ordered through only the first seven nodes. The first node presents the choice of loan word or not, since (as we will discuss in 4.2.2 below) the assignment of loan words is highly predictable. The second node is tentative, but it seems very predictable that [+concrete] loan items are assigned píngi hit, with all others taking lengé utter. Two examples for this node would be:

54. +Ifi le-ngé
   read utter-HAB
   to read
The rules would not permit:

54a. *litī pi-ngī
   read do-HAB

or

55. *pēpa pi-ngī
   paper hit-HAB
   to write
55a.*pepa le-ngé  
paper utter-HAB

The third node would remove all other [+concrete] nouns and send them to the EV semantic redundancy rules (cf. Diagram 2.1). Of necessity, this node must follow the loan words (i.e. to allow the [+concrete] loan words to be correctly assigned to pro-verbs), yet we want it as near the top of the tree as possible (in order to remove the [+concrete] nouns which co-occur with EV as soon as possible). An example for node three would be (56), with (56a-b) showing ungrammaticalities arising from incorrect application of the rules:

56. akáli kate-ngé
    man BE-HAB
    men exist

56a.*akali pi-ngi
    man do-HAB

56b.*imbu kate-ngé
    anger BE-HAB

Nodes (5-7) in Diagram 4.3 remove adjuncts which fall into the 'main' semantic domain/features of the three most frequently used pro-verbs: le-ngé utter, pingí do, and pfíngí hit. These are ordered by frequency of the pro-verb in the predications, based upon the data presented in Table 4.2. Examples for each of these nodes would be

57. Weé le-ngé
    song utter-HAB
    to sing (a song)

57a.*kalai le-ngé
    work utter-HAB

57b.*weé pi-ngi
    song do-HAB

58. kalá pi-ngí
    work do-HAB
    to work

58a.*kalai pi-ngí
    work hit-HAB

59. tánú pf-ngí
    grass hit-HAB
    to mow (grass)
Node seven is the last of the ordered nodes; it is ordered after the 'main' domain of the main pro-verbs, and is the first node which allows intersection (cf. 4.2.3) for the [+inner state] adjuncts. This group of adjuncts has been discussed in 4.1.6, and will be further discussed in 4.2.3 (on the intersection of kængé and pingi and their assignment to inner state adjuncts). Some examples for this node would be

60. ímbu kæ-ñgé
anger be-HAB
to be angry
60a.*ímbu pi-ngi
anger hit-HAB
60b.*te e kæ-ñge
restitution be-HAB

The remaining nodes are ordered by frequency, and, like the inner state (node seven) also allow the intersection of pro-verbs. The point to be noted is that the assignment of pro-verbs over nodes eight through eleven, even though allowing intersection, does not allow the pro-verbs to be assigned in random order; the pro-verbs are not in free variation: even though two pro-verbs may be permitted, the others are excluded. Some examples to illustrate this point are:

61. watapa e pi-ngi or pf-ngi
marriage do-HAB or hit-HAB
to make marriage payment
61a.*watapae le-ngé
61b.*watapae kæ-ngé
62. nanga pf-ngi or le-ngé
sharp hit-HAB or utter-HAB
to sharpen
62a.*nanga pi-ngi
sharp do-HAB

Node eight (payments) is puzzling, since some payments may occur only with pingi do, while others occur only with pf-ngi hit (and yet
others, as in (8) may occur with both pingi and pýngi). It would seem just as likely that payments should co-occur with lengé utter. Three alternatives offer themselves to account for these problem cases; it is either such that

(i) Assignment of verbs to predications is in fact completely arbitrary, therefore a multiple-choice node forces an arbitrary choice; or

(ii) Additional very specific semantic investigation on only the multiple choice nodes, in a variety of contexts and with a large group of informants, might provide additional data which would enable additional semantic features to be postulated, providing additional branches and unique assignment of verbs in predications; or

(iii) Assignment of verbs to predications (or the adjunct-verb co-occurrence) is governed by semantic features, but there is a sizeable residue of cases where the co-occurrence restriction is semantically arbitrary.

(i) presents the possibility that the problem is essentially unsolvable at the present stage of semantic development (or perhaps unsolvable at any time); (ii) and (iii) present the possibility that the problem is in fact solvable, but not with the present data; additional data and work would be necessary.

4.2.2 Loan Items

The assignment of loan items often provides additional evidence for semantic features. Adjuncts which are loan items from Tok Pisin are presented in Table 4.4. Of the twenty-eight cases, only four involve a verb other than lengé utter; these are six cases using the verb pingi hit. It is interesting to note that several of the adjuncts seem, to the native speaker of English, to be [+concrete] (lock, paper, ball, tax, cards, change). However, it appears that these items, when used in Enga are viewed as [-concrete]. The contrast here is between vote (noun) and to vote (verb), likewise, lock and to lock, paper and to paper, ball and play ball, tax and pay taxes, cards and play cards, and change and to change.

Most of the loan adjuncts which take lengé are [+event/activity]. In this context it is notable that even when loan items borrowed are verbs in Tok Pisin (and some are borrowed with the Tok Pisin verb marker -im), the items are not borrowed as verbs, but used as adjuncts in predications. This would seem to indicate that, while Enga may borrow nouns from Tok Pisin (cf. Section 3.3), Enga does not borrow
Some of the Tok Pisin verbs assigned to predications in Enga include: *daunimi* overcome, *makimi* mark, *posimi* boss, and *sakimi* sack/jostle.

**TABLE 4.4: LOAN ITEMS IN THE PREDICATIONS**

<table>
<thead>
<tr>
<th>Adjuncts assigned to pfingi hit:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>to lock</em></td>
<td>lóko pfingi</td>
<td>lóko lock</td>
</tr>
<tr>
<td><em>to write</em></td>
<td>pépa</td>
<td>pépa paper</td>
</tr>
<tr>
<td><em>to play ball</em></td>
<td>kosá</td>
<td>kosá ball</td>
</tr>
<tr>
<td><em>to pay taxes</em></td>
<td>takísa</td>
<td>takísa tax</td>
</tr>
<tr>
<td><em>to play ball</em></td>
<td>púsá</td>
<td>púsá ball ?</td>
</tr>
<tr>
<td><em>to have an injection</em></td>
<td>níli</td>
<td>níli nail, injection</td>
</tr>
<tr>
<td><em>to wash</em></td>
<td>wasawásá</td>
<td>wásá wash ?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adjuncts assigned to lengé utter:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>to ruin, destroy</em></td>
<td>bakatápulengé</td>
<td>bakatápú ruin</td>
</tr>
<tr>
<td><em>to vote</em></td>
<td>bóta/bósa</td>
<td>vote</td>
</tr>
<tr>
<td><em>to boil</em></td>
<td>boló</td>
<td>boil</td>
</tr>
<tr>
<td><em>to assemble</em></td>
<td>būna</td>
<td>assembly</td>
</tr>
<tr>
<td><em>to overcome</em></td>
<td>daunimí</td>
<td>down</td>
</tr>
<tr>
<td><em>to arrive</em></td>
<td>kámapu</td>
<td>come up</td>
</tr>
<tr>
<td><em>to gamble, play cards</em></td>
<td>kása</td>
<td>cards</td>
</tr>
<tr>
<td><em>to gamble, play Lucky</em></td>
<td>lakí</td>
<td>lucky</td>
</tr>
<tr>
<td><em>to be crooked</em></td>
<td>kutungúsa</td>
<td>crooked</td>
</tr>
<tr>
<td><em>to read</em></td>
<td>líti</td>
<td>read</td>
</tr>
<tr>
<td><em>to have election</em></td>
<td>lesísa/létesa</td>
<td>race</td>
</tr>
<tr>
<td><em>to lose</em></td>
<td>lúsa</td>
<td>lose</td>
</tr>
<tr>
<td><em>to mark</em></td>
<td>makimí</td>
<td>mark</td>
</tr>
<tr>
<td><em>to patrol</em></td>
<td>pasatóle</td>
<td>patrol</td>
</tr>
<tr>
<td><em>to supervise</em></td>
<td>pósími/púsá</td>
<td>boss</td>
</tr>
<tr>
<td><em>to be full</em></td>
<td>pulapú</td>
<td>full up</td>
</tr>
<tr>
<td><em>to jump/hop</em></td>
<td>sakimí</td>
<td>sack, jostle</td>
</tr>
<tr>
<td><em>to change money</em></td>
<td>sanísa</td>
<td>change</td>
</tr>
<tr>
<td><em>to dislike</em></td>
<td>súkú</td>
<td></td>
</tr>
<tr>
<td><em>to attend school</em></td>
<td>sukúlu</td>
<td>school</td>
</tr>
<tr>
<td><em>to swim</em></td>
<td>supímí</td>
<td>swim</td>
</tr>
<tr>
<td><em>to win, triumph</em></td>
<td>win/winími</td>
<td>win</td>
</tr>
<tr>
<td><em>to litigate, to have a court</em></td>
<td>kósa</td>
<td>court</td>
</tr>
</tbody>
</table>
103

4.2.3 Intersection

The total number of predications (cf. Table 4.2, Section 4.1.5) is 1182; of this total we have nineteen cases (1.7%) in which more than one verb can appear in the verb slot of the predication. We will discuss these nineteen cases in this section, since all the others are uninteresting by virtue of their very regularity. However, it must be stressed that the alternate verbs are not in free variation; the only two pro-verbs to intersect with respect to páke steal are nyíngi take and nengé eat, as in (63) and (64); any other pro-verbs in co-occurrence with páke would make the utterance ungrammatical as in (65)

63. páke nyí-ngi
   steal take-HAB
   to steal

64. páke ne-ngé
   steal eat-HAB
   to steal

65. páke
   steal
   \[
   \begin{cases}
   \text{*pi-ngi} \\
   \text{do-HAB}
   \end{cases}
   \begin{cases}
   \text{*le-ngé} \\
   \text{utter-HAB}
   \end{cases}
   \begin{cases}
   \text{*te-ngé} \\
   \text{burn-HAB}
   \end{cases}
   \text{etc.}
   \]

Again, we must look at both parts of the predication:

(1) the adjunct: what kinds of adjuncts occur in the cases of intersection?

(11) the verb: what verbs occur in these cases; and are these the most frequent of the verbs occurring in the predications, or instead some entirely different group of verbs?

Table 4.5 presents a matrix of the 19 cases of intersection in the predications.

4.2.3.1 The Adjuncts in Intersection

The adjuncts presented in Table 4.5 are grouped by semantic features into roughly four groups, [+inner state] with twelve of the twenty-one cases; [+quality] with five cases; [-concrete] with three cases; and one miscellaneous item, poó wind, which may well be a member of [-concrete], too.
### Table 4.4: Intersection in the Predications

<table>
<thead>
<tr>
<th>Adjunct Type:</th>
<th>ping do</th>
<th>pleng _ get</th>
<th>ping _ hit</th>
<th>nying _ get</th>
<th>ning _ eat</th>
<th>paleng _ get</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. [+inner state]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>auú like, love</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>élya/yála shame</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ímbu anger</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>enapóti hot</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kéndá heavy</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kóndo pity</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kekéná fed up</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kípa like</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lemongoti sleepy</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>myúku nausea</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>páka fear</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tandá pain</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. [-concrete]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yaíná ill, sick</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mána manner, way</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tombó/'máki boundary</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. [+event] (?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nánga sharp</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>waš/páke steal</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>angamáe yawm</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>topó buy/sell</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>wáipa add on</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pyángatu nángatu hicough</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. [-concrete] (?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>poó wind</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The most important point to note from the adjuncts appearing in Table 4.5 is the high frequency of [+inner state] adjuncts (i.e. more than 50% of all the cases). This would indicate that a suitable problem for further investigation would be the possible intersections of all other [+inner state] adjuncts.

4.2.3.2 The Verbs in Intersection

The verbs presented in Table 4.4 are grouped in order of frequency. The readily observable major point among the verbs is the extremely high degree of intersection between two of the verbs, pingo do and kaengé be (of emotion). Kaengé occurs eleven times, and in all of these it intersects with pingo do; furthermore, the striking fact is that these occurrences are all within the [+inner state] group of adjuncts. We will regard kaengé as an essentially meaningless verb, which functions only as the carrier of person-number and tense with [+inner state] adjuncts in those Enga dialects which do not verbalize these. Additional evidence in favour of this view is presented by Draper (n.d. a:44):

    I fed.up do-PRES-3SG-DEC
    I am fed up (lit: weariness is happening in me).

66a. Nambah maká-ly-o.
    I fed.up-PRES-1SG
    I am fed up/weary.

67. Nambah páka pi-lya-mó.
    I fear do-PRES-3SG-DEC
    I am afraid (lit.: fear is happening in me).

    I fear-PRES-1SG
    I am afraid.

Draper calls all of our [+inner state] predications 'Compound Impersonal Verbs' (n.d. a:44), Impersonal Verbs being those in which something happens to a person voluntarily. The Kyaka Impersonal Verbs are often expressed by pingo do (although as in Enga proper, other verbs are also used, i.e., lengé, píngi hit, etc.). Since we are not able to investigate Kyaka, we will in fact regard kaengé as a virtually meaningless verb used in predications with [+inner state] adjuncts (and no others).
4.3 CONCLUSION

In the preceding sections we have described the predications of Enga. The question now arises, how can these be accounted for within a generative transformational framework. We have pointed out above (4.0) that the EV classify [+concrete] nouns and the pro-verbs of the predications [-concrete] nouns, and that they are in complementary distribution in this respect. This suggests that we might be able to use the same mechanism to account for both kinds of classificatory verbs in Enga. The only formal difference between the two kinds of verb would then be that the EV is introduced only in certain environments, while the pro-verb of the predication is obligatory in all environments.

In Section 2.3 we have accounted for the insertion of the EV by means of a convention of feature spreading and an agreement rule which transferred the features of the noun onto the predicate node. A reverse feature spreading convention moved these features down to the dummy node where they would be realized phonologically as the correct surface form of the co-occurring EV. We will here posit the same mechanism for the predications, except that in the case of the predications, feature spreading and the insertion of the appropriate pro-verb is obligatory. We can also use feature spreading to account for the small sub-sets of adjuncts which occur only in special grammatical forms (e.g. stative and o-complementizer). This can be accomplished simply by specially marking the adjuncts of these sets\(^\text{15}\) with the appropriate grammatical form:

\begin{align*}
68a. \text{wené} & \quad \begin{array}{c}
\text{+pya} \\
\text{+STA} \\
\text{-O-COMP}
\end{array} \\
68b. \text{moó} & \quad \begin{array}{c}
\text{+la} \\
\text{+O-COMP} \\
\text{-STA}
\end{array} \\
68c. \text{auú} & \quad \begin{array}{c}
\text{+pi} \\
\text{+STA/+O-COMP}
\end{array}
\end{align*}

Examples are presented in (69 and 70):

\begin{align*}
69. \quad \text{Tée} & \quad \text{pi-ngf} \\
& \quad \text{restitution do-HAB} \\
& \quad \text{To pay restitution}
\end{align*}
70. wee le-ngé
song utter-HAB
to sing (a song)

For the Enga predications, the following steps are necessary:

(i) Obligatory insertion of a dummy V node for the predication's pro-verb at the VP node.

(ii) The convention of feature spreading, which duplicates the noun's features onto the dominating NP node.

(iii) A rule of agreement, which copies the features of the dominating NP node onto the dominating VP node.

(iv) The convention of reverse feature spreading, which duplicates the noun's feature from the dominating VP node onto the dummy V node.

(v) The phonological realization of the features at the dummy V node as the appropriate pro-verb.
NOTES

1. The problems of giving a truly adequate definition of predica-
tions is formidable: what features are necessary to distinguish
predications from other occurrences of noun (phrase) plus verb, in
such relations as object, instrumental, adverbial and so forth. The
question is why do the majority of linguists seem to feel that these
N + V sequences in NAN languages are somehow special (see 5.2.2.1,
Chart 5.2, and the comparative data in Appendix E)? Pawley has
stated "in Karam my reasons are (1) that certain nouns always occur
accompanied by a verb, and by one and only one verb (in some cases
with a very few verbs); (2) that the expressions translate into a
single English verb" (personal communication).

2. Although items like scar, sled, cards, school and change are
[+concrete] in English, they are [-concrete] in Enga: e.g. one cannot
say see a school, hit a school or chop down a school using sukulu; it
must be modified and made [+concrete] by the addition of ándá to occur
in such sentences; see also 4.2.2.

3. The modifications to follow have also been performed on a number
of predications involving different pro-verbs. However, these modi-
fications differed only trivially from the ones given here and they
have, therefore, been omitted.

4. Complex lexical entries (idioms) have not been discussed, however
there is a superficial surface structure resemblance between some Enga
idioms and the predications. After additional work, this will be
presented in a forthcoming article dealing with several of the unre-
solved problems of the predications.

5. Note that -ly- to -s- is a regular change in the far western Enga
dialects.
6. \( \{P_{mb}\} \) alternate in certain environments in Enga, as in *pumbuťi* and *pupuťi* black.

7. It is striking that these adjuncts verbalized in the eastern Enga dialects appear exclusively in the examples (45-50) in the sensed form, implying in (45) e.g. *I sense he is in pain* or *I sense he is paining*. This problem needs further investigation, as the form with person number and tense seems, at best, questionable:

   a. \(?Namba\ tande-ly-o.\)
      
      *I pain-PRES-1SG*
      
      *I am in pain, I am paining.*

   b. \(?Namba\ kende-ly-o.\)
      
      *I heavy-PRES-1SG*
      
      *I am heavy.*

8. Sâkâ has a wide range of meaning, including green, healthy, living, mature and (of humans) middle-aged. Sâkâ may be unique, since we have

      
      *yellow-PRES-3SG-AUG*
      
      *It is yellow.*

   but not *talya* plus a pro-verb, i.e., *yellow + pro-verb.*

9. It will be recalled that + marks loan items and * ungrammatical items. Thus, (59a) and (60a) are grammatical utterances containing loan items, while (54a) and (55a) are ungrammatical.

10. When one considers the amount of verbal negotiation and elaborate speech-making (often in highly metaphoric language) which accompanies almost all of the various payments made by one group of Enga to another, it seems all the more likely that lengé utter should, rationally, be a pro-verb for the payment adjuncts.

11. Pawley (personal communication) has noted: "Karam has never borrowed a verb".

12. Pawley has noted a similar phenomenon in Karam:

   It should be noted even though it is the adjunct which carries the more specific meaning, the verb stem is not empty of meaning. There are many adjuncts which can occur with several different verbs, and
the verb stem is what distinguishes them. For example the adjunct sy, which means *illegally*, occurs with several verb stems:

<table>
<thead>
<tr>
<th>Verb Stem</th>
<th>Sy</th>
<th>Adjunct</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>to steal</td>
<td>sy</td>
<td>d-illegally</td>
<td>obtain</td>
</tr>
<tr>
<td>to trespass</td>
<td>sy</td>
<td>(by remaining) illegally</td>
<td>md-remain</td>
</tr>
<tr>
<td>to steal food</td>
<td>sy</td>
<td>illegally</td>
<td>consume</td>
</tr>
<tr>
<td>to eat food</td>
<td>illegally</td>
<td>consume</td>
<td></td>
</tr>
<tr>
<td>to commit fornication</td>
<td>wan sy d an</td>
<td>penis obtain copulate</td>
<td></td>
</tr>
<tr>
<td>(of woman)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(of a man)</td>
<td>mgn sy d an</td>
<td>vagina obtain copulate</td>
<td></td>
</tr>
</tbody>
</table>

13. Note that (63 and 64) have the same meaning, to *steal*, and that it is the adjunct pâke which carries the meaning of the predication; we could perhaps postulate that the pro-verbs occurring in the predications are essentially meaningless carriers of the person number and tense (or other) markers. See also note 14 following.

Note also the parallelism between the pro-verbs of the predications (i.e. virtually meaningless when occurring in the predications, yet occurring independently as meaningful verbs) and the EV (which are only shape/posture markers as EV, yet also occur independently as meaningful verbs).

14. We are here regarding kaengé as *meaningless*, since it does not occur independently (d) as do all other pro-verbs of the predications to (g).

d. *Baa-me kae-ly-a-mo.*
   *he-AG feel-PRES-3SG-DEC*
   *He's feeling.*

e. *Baa-mé le-ly-á-mo.*
   *he-AG utter-PRES-3SG-DEC*
   *He's uttering.*

f. *Baa-mé pf-ly-a-mo.*
   *he-AG hit-PRES-3SG-DEC*
   *He's hitting.*

g. *Baa-mé pi-ly-a-mó.*
   *he-AG do-PRES-3SG-DEC*
   *He's doing.*

Another solution (i.e., rather than regarding kaengé as 'meaningless') would be to postulate that kaengé is the EV for all [+inner state]
nouns. This has serious consequences, and does not correspond to the data, since the EV classify all the [+concrete] nouns, (and the [+inner state] are assumed to be [-concrete]). Also, since the inner state adjuncts may be verbalized in the eastern Enga dialects (cf. 4.1.6), we would have to postulate that the [+inner state] adjuncts were verbs in two of the Enga dialects, and nouns using the EV in the other dialects.

15. Further work on the sub-sets of adjuncts which appear in the two forms (stative and o-complementizer) will appear in a planned article on these and the compound verbs in contrast to the predications of Enga.

16. As an alternative to the solution proposed in the conclusion, we could assume that both the N and V are present in the deep structure; the following (simplified) tree would result:

\[
\begin{array}{c}
\text{NP} \\
\text{[...]} & \text{[...]} \\
\text{restituted} & \text{restitute}
\end{array}
\]

(We will assume here and following that the features of the lexical item are contained in the brackets beneath both the N and the V).

The presentation of (g) is typical of cognate object verbs, those in which there is a "high selectivity between a specific V and an 'object' N, and in which the V + N combination in one language might well be matched by a V alone in another" (Fillmore 1968:85). Probably the best known English cognate object verb is *dream a dream*. Fillmore has analysed this such that *dream* may appear as a V alone in its own right (*I dream of Jenny with the light brown hair*), as a cognate object verb (1) (*John dreamed a dream about Mary*), or (2) with *dream* as its representative object and *have* as a pro-verb (*I had a dream*). It is the latter case which most closely corresponds to the Enga predications (since there are no actual occurrences of cognate object verbs as predications in Enga, although these do occur in Asmat and Kamoro, cf. 5.2). In this last case (with the associated pro-verb), the associated N is copied into a dummy P ("factive", Fillmore 1968: 85), and the associated pro-verb replaces the V. This series of steps is outlined here for the Enga predications, *tē pingi pay restitution for homicide*:
The case that both the N and V are present in the deep structure, seems highly unlikely in Enga, since there are no cognate object verbs or predications, i.e., in none of the data do both the N and the same V appear in the surface structure together. We do not have

1. *tee *tee-ngé
   
   
   restitution restore-HAB

Supplementary evidence for this statement can be adduced from the [+inner state] group of adjuncts, which as stated above may be verbalized in two of the Enga dialects. In the Kyaka and Laiapo dialects (1) is permissible, but must be expressed with the co-occurring pro-verb in the other dialects as (n) (i.e., not with a cognate object verb)

m. Tande-ly-á-mo.
   pain-PRES-3SG-AUG
   It is paining (me) or I am in pain.

n. Tándá kae-ly-a-mó.
   pain be-PRES-3SG-AUG
   It is paining (me) or I am in pain.

It is not permissible in Enga to have sentences such as (o)

o. *tanda tande-ly-a-mo.
   pain pain-PRES-3SG-AUG

This fact, together with the complete lack of any cognate object verbs in the predications, indicates that the chances are remote that the deep structure of Enga contains both the N and the V in the predications.

Instead, as we have seen above (j), the verbs of the predications correspond closely to pro-verbs.
Assumption of the verb only in the deep structure introduces unnecessary complexity into the formation of predications. The steps necessary to derive the complete (surface) predication from a V-only deep structure would parallel the substitution for the pro-verb *have* in *have a dream*, i.e., examples (h) through (j). Indeed, the simplest and most elegant solution is the one suggested in the conclusion above.

17. I would like to thank Dr. John Lynch and Dr. C. L. Voorhoeve for their comments on this chapter.
CHAPTER FIVE

5.0 COMPARATIVE PERSPECTIVE

Enga is a non-Austronesian (or NAN) language of New Guinea. Of this group, Capell has said

To class two languages as 'Papuan' (to use the older terminology, or as NAN to use the present nomenclature) does not imply that the two are in any way related to each other...there is no NAN family and there was no one NAN mother tongue. So far no genetic classification of NAN languages is possible... (1969:65).

The work of McElhanon and Voorhoeve (1970) presents evidence for possible genetic relationships between the widely-separated Central and South New Guinea Phylum (which would be represented on Map 2 by Kamoro, Asmat, Awju and Marind) and the Finisterre-Huon Phylum (which would be represented on Map 2 by Kâte). The East New Guinea Highlands Phylum (of which Enga is a member) will be seen to lie directly between these two areas.

Having examined the evidence presented above (2.0 and 4.0) for classificatory verbs in Enga, the next step is clearly to determine if these are present in other New Guinea languages. All of the available source materials (mentioned in 0.0) deal with other topics of the New Guinea languages (i.e., such as presenting a descriptive grammar), with the topics we are interested in being mentioned only in passing. The languages used in this chapter were selected on the basis of the availability of materials, so that additional languages as well as additional materials from most of the languages treated here could be added, as available.

The proposed comparative perspective suffers from the lack of in-depth work or analysis on the topic of the verbs by the authors cited below, although some descriptive syntactic work has been done. In regards to both the EV and the Predications, these suffer from the
lack of semantic description or abstraction in the descriptions. In some cases (and especially with the EV), the paucity of the data, the lack of referents and examples all combine to make only the most elementary statements possible (i.e., such that 'There are EV present in language X, but that is all that is known'). The chapter is divided into two sections, presenting the comparative materials on the EV in (4.1), then those for the Predications in (4.2).

5.1 THE EV

As described in detail above (2.0), the EV in Enga classify the [+concrete] nouns into classes, usually based upon features of size, shape and posture. In describing the comparative materials, two points should be kept in mind,

(1) What are the typical referents of the EV in these languages, are they also the [+concrete] nouns? and

(2) Upon what kinds of features are the nouns divided into classes?

In the majority of cases, the EV are given only a passing mention in the literature, usually by missionary-linguists concerned with the translation of the English copula; otherwise the EV are mentioned as 'verbs of state' or 'positional verbs'. The languages presented here are arranged in a west to east order, beginning in the western half of West-Irian and proceeding to the Huon Peninsula in Papua New Guinea. For each (as available), we will give a brief verbal description of the EV, the EVs for that language, some typical referents of the EV, and, when possible, the cognate Enga EV.

For Kamoro, Drabbe reports in his description of the language that in the case of 'positional' verbs,¹

The problem...is which one to choose in any given case. The choice can depend on the [temporary] position of the verbal subject at the time the action takes place, or it can depend on the [positional] properties ascribed to the verbal subject. In most cases the choice depends on what, in the opinion of the Kamoro people, is the habitual position of the verbal subject. For the Kamoro, all beings fall into [positional] classes, so to say: the sitting, the standing, the floating class, etc. (1953:39).

The EV of Kamoro and some typical referents are:

<table>
<thead>
<tr>
<th>Kamoro</th>
<th>Enga</th>
</tr>
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<tbody>
<tr>
<td>stand</td>
<td>kata-</td>
</tr>
</tbody>
</table>

people, houses, trees (alone, singular), vertical, high and tall or slender things.
ep e sit (cf. Enga pita-)
pots, dishes, pans, boats on land, plants, mountains, clouds and celestial bodies.

kai lie (cf. Enga sa-)
land, rivers, lakes, fallen trees or wood.

mariki float
fish, people in canoes, anything floating on water.

nāa be there, be above
hanging objects, small things, big masses such as a heap of rice or a pile of sago, things lying on top of something else.

To the east of the Kamoro people live the Asmat. C. L. Voorhoeve reports that they "divide all existing things into...five 'position' classes" (1965:48). The EV of Asmat and some typical referents are:

em stand (cf. Kamoro ame above)
men, trees, upright poles, anything that is tall and slender.

ap sit (cf. Kamoro epe above)
women, houses, carrying bags, anything that is about as high as it is broad.

amis lie
small animals, reptiles, fallen trees, the just-risen sun or moon, anything that is much broader than it is high, or is low to the ground.

se be in the water
fishes, canoes, rivers, anything in or on the water.

tep be above
flying animals, hanging objects, objects stored away on the rafters of the house, anything that is above eye-level.

Still further to the east are the Kiwai. In his Kiwai grammar, S. H. Ray presents the following EV with typical referents:

otoi stand
trees, mountains, food plants

erēa remain, lie
objects in fixed positions which do not move, "It carries the idea of permanence..." (Ray 1938:60).
orou lie persons or things lying down

omi stay

orowomi "to be in a place, of persons" (Ray 1938:61).

Kamoro, Asmat, and Kiwai are all along the South Coast of Papua New Guinea. As one moves north from the Kiwai into the Southern Highlands, one encounters the Huli (Slightly to the west of Mendi on Map 2). The Huli EV have been described by Rule who gives, firstly, more data on the EV than one usually encounters, and, secondly, a preliminary analysis of the EV as class markers. Rule points out that

...the three verbs ka, bira and ngela constitute the nearest equivalent of the verb "to be" in English. All nouns take one of these three verbs, and it is therefore necessary to divide all nouns into three classes according to which particular verb they take... (1954:32).

The three EV and typical referents are:

ka stand (cognate to Enga kata-)
men, boys, male relatives, pigs, dogs, and other large animals, trees and all kinds of plants, houses and all things which have their roots in the ground, parts of the body.

beda sit (cognate to Enga pita-)
women, girls, female relatives, birds, still water, squirrels, insects.

nga put (cognate to Enga sa-)
all inanimate objects which have simply been placed on the ground, snakes, reptiles and all creeping things which crawl along the ground.

These referents which Rule presents for Huli are strikingly similar to those presented for Enga in (2.0). A further correspondence is mentioned by Rule:

It should be noted that if a man is known to be seated, then beda is used, and similarly, if a woman is known to be actually standing, then ka is used. It is only when they are not known to be either standing or sitting, that the above distinctions are made (1954:33).

(Cf. this statement with (2.1), examples (10) through (13).

To the east of the Enga but still in the Western Highlands are the Melpa. Strauss reports that there is no equivalent to the European 'be' verbs in Melpa. Instead, Melpa uses "constructions with verbs that take the place of European be verbs" (1955:9). The EV used are:
There are two examples of change-of-state (cf. 2.2.6 above) involving water and sweet potatoes. The Hagens regard water as animate (cf. 3.0 above), so that the statement There is a water pail there may be expressed by example (1) or (2):

1. No pake ti teetem. (uses tea lie (of inanimates))
2. No pake ti morom. (uses mogla be there (of animates))

In the case of (1), the implication is that the water pail is empty, and in (2), it is full (i.e. with the animate water). The examples for sweet potatoes are similar:

3. Oka teetem (uses tea lie (of inanimates))
4. Oka peetem (uses pea lie (of animates))

The meaning of both (3) and (4) is There are sweet potatoes there, but (3) implies that the sweet potatoes have been taken from the ground and are lying ready to be cooked and eaten, while (4) implies that the sweet potatoes are still 'animate', i.e., alive in the garden.

The Banz and Sinasina languages to the east of Melpa also have EV. L. J. Luzbetak notes that in the Banz language a non-native speaker often finds it difficult to decide whether he should in a given case say mem, tem or pam. All three verbs mean more or less the same, so, he, she, it is. However, the three words may not be used indiscriminately (1954:159).

The EV of Banz with Luzbetak's definitions are:

mem is (in the sense of apposition or identity, and in the sense of is present).

tem put (Connotes possession, and refers to a temporary presence of impersonal objects).

pam exists, rests (Connotes a permanent state of being).

Some of the typical referents (as extracted from Luzbetak's text) are:

mem (bird, stomach, bottle, cassowary, tree, dog, pig fence, lizard, cockatoo, patrol officer)

tem (book, river, axe, rat hole, eggs, places, road)
The EV of Sina sina are presented in a similar manner by McVinney and Luzbetak, with the same introductory statement that the EV may not be used "indiscriminately" (1954:153). The four EV of Sina sina are

moŋwa  
is  
(cf. Melpa mogla live)  
(used with animate beings and the word for water; in the sense of apposition or identity, and in the sense of is present).

yɔŋwa  
put  
(Connotes possession and refers to a temporary presence of inanimate objects).

paŋwa  
extists, rests  
(Connotes a permanent state of being).

duŋwa  
says  
(inanimate objects and used to state a fact).

As one moves from the Eastern Highlands to the North Coast of New Guinea, one encounters the Kâte. Schneuker, in his short handbook of Kâte, makes the statement which we have come to expect for the EV:

...there are constructions with verbs that take the place of the European be verbs... The verbs used are ju, fo, e and doma. The native concept of whether the person or article under consideration is living, lying, sitting, or standing determines which of the four verbs is to be used in a given situation (1962: 10).

The Kâte EV and some of their referents (drawn both from Schneuker (1962) and Pilhofer (1953)) are:

ju  
living  
(man, boy)

fo  
lying, sleeping  
(river, coconuts, wine, pen, bananas, sweet potato, knife, wire, boards)

e  
sitting  
(village, places, bird, car, bottle, house, woman, mountain; said of short, wide objects)

doma  
stand  
(coconut palm, lamp; said of long objects)
Thus, it can be shown that EV can be found in NAN languages from all parts of the mainland of New Guinea.

5.1.2 Discussion of the Comparative EV

The data presented in 5.1.1 are summarized and presented in Chart 5.1. The languages are again listed from west to east, including Enga. At the onset of the comparative description, two main questions were listed for note, and the results are presented here. Firstly, that, in all cases in which referents were available for the EV given, none of these were [-concrete] nouns. Since we have shown that in Enga the EV co-occur only with [+concrete] nouns, the possibility strongly suggests itself that the EV of these languages may also act as classificatory verbs, in terms of the [+concrete] nouns, at least. Needed to make this a tenable hypothesis is much additional data on the EV of other NAN languages, as the present paucity of data is the major limiting factor of such a study.

Secondly, we were interested in the types of features which would be used to divide the noun classes. In the EV data as presented above, features of shape ('long objects', 'short, broad objects') and posture ('standing', 'lying') are recurrent, just as these are the main features of the Enga EV. Kamoro and Asmat also correspond with Enga in two of the EV, each having an EV for 'aquatic, floating', and an EV for 'hanging, lying above'. The one spot of Chart 5.1 which is most notably different is that for the EV of the Melpa-Banz-Sinasina group of languages: this group of languages all share EV which are different from the other languages in the respect that, while the EV of other languages are based on features of shape and posture, these seem instead to be based upon features of animate versus inanimate and permanent versus impermanent. The materials available clearly indicate that these are EV; the possible historical causes for this difference in type of features of the EV would be an interesting conjecture, but the present lack of data and analysis prevent us from exploring this as a problem.

In conclusion, we have determined that EV do exist in other NAN languages, and that the EV features most frequently are based (as in Enga) on shape and posture. Furthermore, the likelihood seems good that the EV found in other languages co-occur with [+concrete] nouns, possibly as classificatory verbs like the Enga EV.
<table>
<thead>
<tr>
<th>Kamoro</th>
<th>Asmat</th>
<th>Kiwai</th>
<th>Huli</th>
<th>Enga</th>
<th>Melpa</th>
<th>Banz</th>
<th>Sinasina</th>
<th>Kâte</th>
<th>Gloss</th>
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<td>mariki</td>
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<td>erea, omi</td>
<td>nga</td>
<td>sa-</td>
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<td>ame</td>
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<td>live</td>
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</table>

mogla mem monwa ju duñwa

state a fact
5.2 THE PREDICATIONS

As described above (4.0) in detail, the Enga predications are formed of an adjunct co-occurring with a pro-verb. In contrast to the comparative materials on the EV, the predications have been mentioned in more detail in the literature (Bee 1973, P. Healey 1965 and Pawley 1969); they are given a variety of names: primary verbs, periphrastic verbs, auxiliary verbs, complex verbs, verb phrases, verb compact, and nuclear verbs, to mention a few.

In the following sections we will firstly give a brief verbal description of the phenomena, then a comparison of the verbs used in the predications, and finally, some specific examples of types of predications. The body of data used in this section on the comparative predications was too large for inclusion in the main text as it was felt to be of minor interest to many readers, and so it is presented in full in Appendix E.

5.2.1 The Phenomenon

The following material will be presented in roughly the order of nearness of relationship to Enga. To the south of Enga, Franklin has stated that Kewa has at least two types of verb phrase which might be termed periphrastic verbs, and he also notes "none of the verb phrases are exactly paralleled (except in the semantic or total meaning sense) with those of either Young or Healey" (1969:167 emphasis mine). East of Enga, in the Melpa language near Mt. Hagen Ross has noted that one verb, hit, strike, affect, when used in combination with nouns, adjectives, and verbs, has over a hundred different meanings; he also presents six other verbs which are used in Enga-type predications (Ross 1946:41f.). In the Banz language of the Wahgi Valley, Luzbetak mentions the paucity of independent verbs and the "great abundance of idiomatic verbal expressions composed of a frequently occurring verb joined to another verb, a noun, adjective, or another part of speech ... We find a small number of verbs...which occur again and again, each time with a different meaning, depending on the combination we find them in" (1954:136). Nilles (1969) for Kuman, and McVinney and Luzbetak (1954) for Sinasina make similar statements for their respective languages. For Benabena, Young (1964) states that the periphrastic verb complex accounts for more than 50 per cent of all verb constructions in text; this is defined as a "verb complex consisting of a free-form word of specific verbal implication in close knit sequence with a fully inflected nuclear verb, which together have a unique semantic content" (1964:78).
Bee (1973) discusses idiom-type verb phrases for Usarufa, which have "restricted co-occurrence potential of constituent words and a limited degree of productivity." (287) "...only a few verbs are potential fillers of the verb slot... The more common ones...account for about two-thirds of the verbal idioms" (1973:291). Pawley states that "Karam has only a small number of verb stems (about 100 in all) ... In spite of this very restricted range of verbs, with very general meanings, the Karam manage to talk about much the same range of quite specific events as English speakers. They do this by attaching to each verb an adjunct or adjuncts which contain specific information not in the verb stem" (1969:28).

In the Binandere languages, Wilson states that Binandere itself forms 'compound verbs' with the auxiliary verb ari to do; he adds that Mailander set up five verb classes in Zia, four of them based on the fact that they took different auxiliary verbs, and that this could also be done for Suena (Wilson 1969:104). For Kapau, Oates and Oates describe the noun-verb verb phrase as a very common one which is not close-knit structurally since the noun may be separated from the verb by object, adverb and other things, but as one which is close-knit semantically (1968:36f.).

Pilhofer (1933) describes the 'primary verbs' of Kâte, of which ke do is again the most frequent. P. Healey in her article on Telefol Verb Phrases (1965) describes the auxiliary verbs, a small group which commonly occur with verbal adjuncts. Most of the adjuncts occur with only one of these auxiliary verbs; although the verbs normally have distinctive meanings when they occur alone, when used in these complex verbs they may have "virtually no semantic significance when they occur with an Adjunct... Their function is as carrier of aspect, tense, subject person-number, and other suffixes" (1965:30).

In both the Flamingo Bay (Voorhoeve 1965) and Ajam (Drabbe 1959) dialects of Asmat, "verbal expressions of which the first part is nominal and the second verbal" (Drabbe 1959:25) express many actions and situations not expressed by a verb; in "some cases both parts are entirely alike or similar to each other..." (Drabbe 1959:25). It is Asmat which has 'cognate-object' constructions which must express certain predications with a specific V and specific 'object':

5. mbetsj mbetsj-
    weep weep
    to cry (lit. to weep a weep)
6. **mbui mbui-**  
   bath bath  
   *to bath* (lit. *to bathe a bath*)

Finally, in Kapauku (Ekagi) we find auxiliary verbs, of which Drabbe gives as the main one *tai do* (1952:43). The following section presents an overview of both the languages and the major verbs used in these phenomena.

### 5.2.2 Comparison

Chart 5.2 presents a matrix diagram. Languages used are given in the columns and grouped geographically from west to east. The rows present the verbs used in the predications in the various languages. In all cases this information (i.e., as to which verbs are used) is based upon the original sources for that language; the subsequent ordering of the most frequently occurring row/verb to the top is based on this information. While in most cases the authors give the most frequently occurring verb as *do*, which compares favourably with the matrix of Chart 5.2, the one exception is Ross for Melpa, who gives *hit* as the most frequent (in both text and examples). The point is that Chart 5.2 presents the order of frequency based upon the occurrence of that verb (*do*) in all the languages, not the frequency of occurrences of that verb, which in some cases is different. (Cf. Table 4.1.3, on the frequency of the verbs in predications, in which *utter* is most frequent).

The Chart speaks for itself, but a few points will be noted. The first is simply the occurrences of the two most used of the verbs, *do* and *utter*, which are present in all but two (*do*) and all but four (*utter*) of the languages. Also, the high frequency of *hit* will merit later consideration in comparison to English. The second point of interest is the occurrence in Enga of *kaengé be* (of inner states) which has been discussed above in various sections (4.1.4 and 4.2.3) as a problem case; in all the other languages examined, no similar verb (either as *be* or as *be of inner state*) was discovered.

### 5.2.3 Examples

In the following section we will present some examples drawn from the comparative materials on predications. Three topics will be discussed:

(1) bodily processes, chosen since they would occur in most of the data, and thus, as a typical semantic domain of the predications;
## CHART 5.2 (Part I)

<table>
<thead>
<tr>
<th>Gloss</th>
<th>Assam</th>
<th>Mi'amin</th>
<th>Teleföl</th>
<th>Gsarpin</th>
<th>Kewa</th>
<th>Enga</th>
<th>Kangel</th>
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<th>Kuman</th>
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<tbody>
<tr>
<td>1. do, make</td>
<td>e- kemin keemin hapaat pa- pi- te e- ere g- ele el</td>
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<td>2. utter</td>
<td>ji- galin akan'-kalin aripaat, porpaat la- la- ne- Ṇe ag- di di</td>
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<td>3. hit</td>
<td>af- ta- pya- to ro- ro/to pk- si si</td>
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<td>4. get, take</td>
<td>mea- (?) nya- tse/kelle d- i/yο i</td>
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<td>5. eat</td>
<td>an- unang'-kalin na- na- no- no ņŋ- ne ne</td>
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<td>7. go</td>
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<td>8. know</td>
<td>masa- pile ņŋ- pri pil</td>
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<td>9. come</td>
<td>ipa- o- ap- u</td>
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<td>10. put</td>
<td>seta- teye yo ye</td>
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<td>11. die</td>
<td>kuma- kolo goollo gogl gol</td>
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<td>12. give</td>
<td>mai- /di- nj- ti/to te</td>
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<td>13. others</td>
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### CHART 5.2 (Part II)

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<tr>
<th>Gloss</th>
<th>Gáhkú</th>
<th>Beninhara</th>
<th>Usarufa</th>
<th>Tatotoma</th>
<th>Maffa</th>
<th>Káte</th>
<th>Selepet</th>
<th>Nábik</th>
<th>Kapau</th>
<th>Werí</th>
<th>Kuniímpá</th>
<th>Suena</th>
<th>Korafé</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. do, make</td>
<td>velekáva (?)</td>
<td>i o-</td>
<td>kiaa/iikia</td>
<td>ke</td>
<td>oap, tuhhap</td>
<td>mi</td>
<td>yai</td>
<td>ta, vata</td>
<td>wai</td>
<td>ari</td>
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<td>2. utter</td>
<td></td>
<td>te-</td>
<td>ti kia</td>
<td>mu</td>
<td>yap</td>
<td>ku i-</td>
<td>ya</td>
<td>sai</td>
<td>sari</td>
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<td>3. hit</td>
<td>nepelekáva (?)</td>
<td>ho</td>
<td>ari</td>
<td>t-/ti-</td>
<td>yamiŋk</td>
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<td>4. get, take</td>
<td></td>
<td>li</td>
<td>maya-</td>
<td>lo</td>
<td></td>
<td>gi-</td>
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<td>5. eat</td>
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<td>ek</td>
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<td>yén</td>
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<td>6. see</td>
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<td>gai</td>
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<td>7. go</td>
<td>zekáva (?)</td>
<td>wo-</td>
<td>kua/pikiaa</td>
<td>ga</td>
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<td></td>
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<td>yes</td>
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<td>9. oome</td>
<td>hizekáva (?)</td>
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<td>ngia</td>
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<td>mti-</td>
<td>ema</td>
<td>mai</td>
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<td>10. put</td>
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<td>13. others</td>
<td>vizekáva is (?)</td>
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<td>mana</td>
<td>hear</td>
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(ii) the domain of inner state, since we found no occurrence of a verb similar to the Enga *kaengé* in any of the other data on predications, and this domain has been mentioned above in connection with various problems (4.1.4 and 4.2.3);

(iii) anomalies, which we would expect to find in any semantic description, and which are of interest here in connection with the general topic of exceptions.

(i) Bodily Process

This domain was selected as one likely to be present in all languages. Examples of one process are presented below; the English gloss for all would be *to urinate*.

7. puú te-ngé. (Enga)  
   *urine burn-HAB*

8. pu ro-num. (Melpa)  
   *urine hit*

9. poll to-  
   *urine hit*  
   (Banz)

10. awima te-  
    *urine say*  
    (Usarufa)

11. ss ky-  
    *urine excrete*  
    (Karam)

12. i api-  
    *urine urinate*  
    (Asmat)

13. jiti ti-  
    *urine urinate*  
    (Awju)

The variation in verbs used in the predication is notable: *burn, hit, say, fall, and urinate*.

(ii) Inner State

This area was chosen for comparison because of Enga *kaengé be of inner states*, which we did not find present in any of the other languages. Instead, many of the [+inner state] items/adjuncts are expressed via the verb *do*. This would correspond well to the fact noted in 4.2.3 that *kaengé* intersects most frequently with *pingf do* in the Enga [+inner state] adjuncts. Other verbs also used with such adjuncts include *hit* and *say*, recalling 4.2.1 and the discussion of the different verbs permitted by the semantic rules to co-occur with
[+inner state] in Enga, i.e., kaengé, pingi, pingi hit, lenge utter, and singi hear. Clearly, the [+inner state] adjuncts are a problem case and need further investigation. Some examples from this domain are:

14. **kae enem** (Melpa)
   \[
   \begin{align*}
   & \text{good do} \\
   & \text{it is good}
   \end{align*}
   \]

15. **pipi1 enem** (Melpa)
   \[
   \begin{align*}
   & \text{shame do} \\
   & \text{be/feel ashamed}
   \end{align*}
   \]

16. **imbi1 ere** (Banz)
   \[
   \begin{align*}
   & \text{pain do} \\
   & \text{have pain}
   \end{align*}
   \]

17. **gi ul si** (Sinasinia)
   \[
   \begin{align*}
   & \text{pain hit} \\
   & \text{have pain}
   \end{align*}
   \]

18. **nabŋ g-** (Karam)
   \[
   \begin{align*}
   & \text{shame do} \\
   & \text{be ashamed/shy}
   \end{align*}
   \]

19. **omar e-** (Asmat--Ajam dialect)
   \[
   \begin{align*}
   & \text{do} \\
   & \text{be afraid}
   \end{align*}
   \]

20. **manam af-** (Asmat--Flamingo Bay dialect)
   \[
   \begin{align*}
   & \text{hit} \\
   & \text{like/love}
   \end{align*}
   \]

21. **ura di** (Sinasinia)
   \[
   \begin{align*}
   & \text{soft say} \\
   & \text{be soft}
   \end{align*}
   \]

(iii) Anomalies

The anomalies are of interest as exceptions to the postulated semantic redundancy rules. The case is such that if Enga has a predication of the form 'adjunct X plus co-occurring verb utter' and we assume that utter has a similar semantic content in the other NAN languages discussed above, then we would assume that adjunct X of that language would also co-occur in the predication with utter. If it instead co-occurs with do (i.e., is anomalous), then it is of interest to us for its content, the semantic features of the adjunct X, and the two verbs utter and the anomalous verb.
A few examples of anomalies in the predications in regard to *utter* are presented from the source data. In Usarufa we have:

22. *ibiga yara-*
    - a cry to weep
    - to cry

23. *akuga ita-*
    - odour to hear
    - to smell

(22) contrasts with Banz's

24. *tow'll ere*
    - laugh do
    - to laugh

which contrasts with Enga's

25. *gii le-ngé*
    - laugh utter-HAB

It would seem that (22) and (23) would use *utter* (as Enga does); (but Enga also has

25a. *gii kaengé*
    - laugh feel-HAB
    - to laugh).

In Banz we also find

26. *wii ro*
    - call hit
    - to call

when we would also expect *utter*. Another anomaly from Enga is

27. *yandá pi-ngí*
    - bow do-HAB
    - to fight

This was expected to be

28. *yandá pf-ngi*
    - bow hit-HAB

5.3 CONCLUSION

We have noted that the comparative perspective for other NAN languages indicates the presence of both EV and predications. The EV (from the referents given) co-occur with [+concrete] nouns, and the
majority have the same type of features, shape and posture, with the Melpa-Banz-Sinasina group differing in feature types in the EV. The predications have received more attention in the literature and much more data are available on them (cf. Appendix E); again, the languages investigated show striking similarities. It would thus seem that covert classificatory verbs are present in many of the NAN languages. Of the total nine languages with EV, seven of these also have predications (Enga, Asmat, Kamoro, Melpa, Banz, Sinasina, and Kâte). Of the twenty-five languages with predications (seven with EV), we know that only one (Karam) does not have EV. Clearly the next step is to more thoroughly investigate these languages for EV.9
NOTES

1. With thanks to Dr. C. L. Voorhoeve for the English translation; the actual Dutch text is:

Bij het gebruiken van deze hulpwerkwoorden komt de kwestie, welk werkwoord uit de reeks men in een gegeven geval moet nemen. De keuze kan afhangen van de houding waarin het onderwerp zich op het ogenblik der handeling bevindt of van de toegeschreven toestand, eigenschap enz. van het onderwerp. Veelal hangt ze af van de houding waarin het onderwerp zich gewoonlijk, volgens de Kamorose opvatting, bevindt. De Kamorose verbeelding verdeelt a.h.w. alle wezens in klassen: de zittende, de staande, de drijvende, enz., zie de volgende nummers (Drabbe 1953:39).

2. I am indebted to Professor S. A. Wurm for making available the unpublished materials of M. Rule on Huli.

3. It seems likely that the class referred to here is actually something like the Enga game mammals.

4. Some additional referents for Melpa EV have been provided by Professor A. J. Strathern, who gives the following:

mo- cassowary, birds, penis, testicles, vagina, breasts, skin, arms, fire, water, lake, stream, sun, frogs, beard, hair, wasp, bee, house, tree, fence, fish (?), furniture (?).

an- mountains (?), houses (?).

pe- fruit, seeds, plants, mushrooms, heart, any animate that is in a place, habitat, liver (?), nails (?).

te- lizards, snakes, cars, cut wood, books, bucket, centipedes, crawling animates, dead animates, harvested sweet potatoes.

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5. Some additional referents for Banz EV have been provided by Dr. Marie Reay, who gives the following:

- **mem** men, women, pigs, water, fire, lake, stream, nuts, fruits, flowers, dead people (?)
- **pam** used for duration of being.
- **tim** buckets, cars, frogs, house, mountains, trees (?), snakes, centipedes.
- **baim** (be there/present); house, fence, firewood, any improvements made by human effort.

6. Some other languages in which EV have been noted include:

- **Dani**, which has "a number of verbs, all of them denoting some kind of being..." (Van der Stap 1966:126f.). These include menas in to stand, welas in to lie, belas in to fall, akas in to be, and welakas in to stay, to exist.

- **Kaugel**, a language located to the west of Mt. Hagen township (i.e., between Enga and Melpa): mo-lo be, agili stand, pe-lay, and le-place (Blowers 1970:39).

- **Koiai**, which does not have EV, has a system of specifiers (cf. Dutton 1969:223-241), which might well be remnants of EV. These specifiers group the nouns into classes and it is possible that they derive historically from EV. They must be inserted transformationally and under conditions similar to those where the EV in Enga is introduced.

Franklin (1971) also states:

The verb expounding the Predicate tagmeme in complementive clauses can often be recognised as a form of the verb to be which is based, e.g. upon such verbs as: pfra to sit, sa to put, aa to stand ya to affirm.

Irwin, in his discussion of to be in Salt-Yui, notes that all animate and inanimate nouns take the single form mol (1971:69). Vincent gives examples of Taicora vata put, have, which seems to act as an EV of inalienable possession, in examples such as:

- **a. taaka vukai mari vata-a-ra.**
  
  **casuarina long leaves has-a-relator**
  
  A casuarina has long leaves.

- **b. te tave vata-#-uka.**

  I hat have-a-relator

  I am a chief.
and compare (b) with (c)

c. te tave vata-ura-uka.
   I hat have-I-past-focus/relator
   I had a hat. (Vincent 1973).

7. A. Pawley (personal communication) has pointed out that both Ross and Luzbetak "fall into the linguocentric error of ascribing different meanings to a verb when it occurs in different predications, when in fact the verb is constant in meaning and it is the adjuncts which are the variables."

8. This particular example was selected since it was actually present in the source data; cf. Appendix E.

9. It would seem very likely (considering the nearness of relationship with Enga) that Huli has both EV and predications.
   Some additional languages with predications are: Awju and Marind from brief examples given in Boelaars (1950:15f. and 75f.).
6.0 CONCLUSION

In this monograph the semantics of a portion of the verb system of a New Guinean language has been described and explored. Focus was upon two kinds of classificatory verbs, the existential verbs and the pro-verbs of the predications, which were shown to be mutually exclusive in regards to co-occurring nouns. A sub-set of nouns which co-occur with the EV, the animates, was also analyzed. The semantic features and semantic redundancy rules for the EV, the animate nouns, and the predications were described. Considerable emphasis has been given to the analysis of exceptions and semantic irregularities to determine whether there were systematic regularities and where possible, to formulate rules to account for these.

Several points of general interest were discussed: possible support for Lyons' hypothesis of the derivation of all existential and possessive sentences (in Enga, sentences with the EV) from indefinite locatives was presented in 2.2.1. Covert features as semantic markers were presented in 3.1.2 for the animates. 'Feature spreading' was presented as a solution to the problem of predicate nouns and EV conflict resolution in 2.3. Possible support for the priority of semantics over syntax was briefly presented in 3.4, in the discussion of the nature of the deep structure of Enga predications. The verbs of the Enga predications were discussed as cognate object verbs, and as pro-verbs, similar to various English 'auxiliary' verbs, such as have, do, get, etc. Wider implications here are that the EV are based upon features of shape and posture, such as those mentioned by Friedrich (1970) and Berlin (1968) as having world-wide significance in terms of semantic universals.

In relation to Papua New Guinea linguistics, chapter five presented the comparative materials from other languages for the EV and the
predications. It was shown that both the EV and the predications could be used as a diagnostic criterion for a large number of NAN languages and the importance for questions of common origin and subgrouping.

Thus, although a preliminary semantic investigation, this study has provided some materials of interest to not only Papua New Guinea linguistics, but also of general interest as well.
APPENDIX A: SEMANTIC CLASSES OF VERBS

The semantic classification presented below is based upon informants' statements of similarity (primarily via synonym-type definitions), which provided one means of determining semantic classes. Further support for the classification derives from the matched co-occurrences of nouns and verbs produced and displayed in matrix form by the computer discussed in A-8. The semantic classes of verbs are

A-1 Verbs of Effect
   (a) Activity
   (b) Cutting/Breaking
   (c) Holding
A-2 Verbs of Motion
A-3 Verbs of Position
A-4 Verbs denoting Inner States
A-5 Verbs of Bodily Activities/Processes
A-6 Verbs of Payments
A-7 Verbs of Existence

A-1 VERBS OF EFFECT

(a) Activity

Verbs of effect are those which denote activity, especially activity which results in a change of state. These verbs are [+activity], and the class is composed almost entirely of 'ordinary' verbs. Some members of this class are yangengé cook in ashes/on stove; yawengé steam in earth oven; pokengé plant a garden; wasingé make, create, fix, repair; eténgé complete, finish; lumbingé open; tambenge shell (nuts, coffee, etc.); and tamungé rot. All members of this class, whose activity results in a change of state, may be expressed via the Enga stative form:
1. Mapú yang-ly-á-mo.
\textit{sweet.potato cook-PRES-3SG-AUG}
He is cooking sweet potato.

1a. Mapú yangá-pae dóko
\textit{sweet.potato cook-STA the}
The cooked sweet potato

2. Éé doko poke-ly-á-mo.
\textit{garden the plant-PRES-3SG-AUG}
He is planting the garden.

2a. Éé poká-pae dóko
\textit{garden plant-STA the}
The planted garden

(b) Cutting and Breaking

Verbs of cutting and breaking have the characteristics of verbs of effect (i.e., denote activity which results in a change of state and may be expressed via the stative form); the reason they are presented here as a sub-class is because of the Enga specification of cutting (i.e., as to the direction of the cutting in relation to the grain, (lengthwise and crosswise) and to the instrument used for the cutting (axe, knife, etc.)) and breaking (i.e., as to the original size of the object broken (large, small, etc.) and the amount broken in relation to this). Some members of this class are: konjíngi to cut across the grain, esp. with a knife; tokengé to cut to a point, sharpen; waíngi to cut lengthwise, usually with an axe; képengé to cut against the grain, esp. with a knife; tukíngi to break off (a medium sized object); loléngé to break in two; pongengé to break off a part (of a larger whole). Examples of this sub-class are:

3. Mapú konjá-pae dóko
\textit{sweet.potato cut-STA the}
The cut sweet potato

4. Waíngi pongá-pae dóko
\textit{branch break-STA the}
The broken branch

(c) Holding

Verbs of holding also have the characteristics of verbs of effect in denoting an activity which results in a change of state and may be expressed via the stative form; they also are presented here because of the Enga specifications regarding the various ways of holding (in
the hand, in the arms, on the shoulders, over the shoulder, in a net-bag, etc.). Some members of this sub-class are: 

- *miningi* to hold in the hands; 
- *kupinyíngi* to hold in the arms; 
- *kapusingi* to hold between the teeth; 
- *ausíngi* to carry on the shoulders (of a child); 
- *mandengé* to carry in a net-bag; 
- *síngí* to carry on shoulders.

Examples of these are:

5. Mapú *mandí-pae dóko*
   sweet.potato carry-STA the
   The carried sweet potato

6. Mapú *miná-pae dóko*
   sweet.potato hold-STA the
   The held sweet potato

A-2 VERBS OF MOTION

This class contains members marked [+motion]; the members of this class may be used in the stative form, but this very rarely occurs.

7. ?Akáli *pú-pae dóko*
   man go-sta the
   ?The gone man

Some items are: *pengé* go; *epengé* come; *watengé* to follow, chase; *kisingí* to climb. Various direction suffixes may be added to bases of this group to indicate the direction of the motion: 

- *-a*- nearby; 
- *-o*- further away; 
- *-n*- down; 
- *-m*- level; 
- *-ly*- up etc. A base such as *kolondéngé* to enter may thus be modified to *kolandéngé to enter nearby.*

A-3 VERBS OF POSITION

Members of this class are [-motion]. Members of this class, in contrast to those marked [+motion], may often occur in the stative form. Some members of this class are *katengé* stand; *petengé* sit; *palengé* lie (inside).

8. Mapú *pall-pae dóko*
   sweet.potato lie-STA the
   The lying sweet potato (or The sweet potato inside)

9. Akáli *pití-pae dóko*
   man sit-sta the
   The sitting man
A-4 VERBS OF INNER STATES

The major characteristic of verbs of this class is the feature [+internal]. [+internal] implies to the Enga that members of this set are not available for verification visually/externally.

   he anger be-PRES-3SG-SENSE
   He is angry.

This statement could be made only after the subject had perhaps beaten his wife (which thus showed his anger externally). Verbs of this set often appear in the sensed and deduced forms.

11. Ímbù py-u-mu.
   anger do-PRES-3SG-SENSE
   He seems to be angry.

12. Ímbù kae-ly-a-mé lámo.
   anger be-PRES-3SG-AUG DEDUC
   He is evidently angry.

but may appear in the non-sensed form only in the first persons, a further indication that the speaker must be reporting on his internal state.

Members of this set almost always appear in the form of a predication (cf. Chapter Four in the main body of the monograph); the predicate is frequently kaengé be (of inner states). (The Kyaka and Laiapo dialects verbalize the adjunct directly and do not use kaengé.)

Some members of this set are ímbù kaengé be angry; máká kaengé be tired of someone/something; pấka kaengé be afraid; kóndó kaengé have pity (on someone); auú kaengé like/love tálo kaengé be hungry nánu kaengé be thirsty kéndá kaengé be sad and gif kaengé laugh.

   I fear be-PRES-1SG
   I am afraid.

   I fear-PRES-1SG
   I am afraid. (Laiapo dialect)

A-5 VERBS OF BODILY ACTIVITIES/PROCESSES

Verbs of this class are [+external], and typical members are éë lengé cry; sambó lengé lie/tell falsehood; puú tengé urinate; tókó lengé explode/thunder.
15. Namba- (mé) éé lé-ly-o.
   I-(AG) cry utter-PRES-1SG
   I am crying.

   I-AG child a bear-PRES-1SG
   I am giving birth to a child.

A-6 VERBS OF PAYMENTS

Birth, death and marriage payments play a large part in Enga culture, as do gifts of various kinds. The verb *give* is marked for pronominal reference.

17. Namba-mé émba mená méndé di-ly-o.
   I-AG you pig a give-PRES-1SG
   I am giving you a pig.

   I-AG him pig a give-PRES-1SG
   I am giving him a pig.

Some typical members of this class are tée píngí death payment (among western Enga), pig exchange (among eastern Enga); laitá píngí payment for injury; keé lengé bride payment betá píngí pay restitution/compensation; kepá síngí restitution paid for killing (made in pig quarters); pandétá píngí payment at death of child made to wife's patriline by father's; taá díngi/mángi payment made as restitution for theft; wáta píngí marriage payment of bride's family to groom's; saándí píngí to give with expectation of return with interest.

19. Ípane dúpa-me béta pi-ly-amí-no.
   Ípane the-AG restitution hit-PRES-3PL-AUG
   The Ipanes are paying restitution.

A-7 VERBS OF EXISTENCE

These have been discussed in detail in Chapter Two.

A-8 THE MATRIX

Co-occurrence relations between approximately 250 (generic) nouns of all classes and 40 verbs (excluding predications) were elicited during the second field trip. These were coded directly onto data processing forms for the computer, which then produced and displayed in a matrix form the relations between (1) the nouns and verbs, (2) the 250 nouns against each other (i.e., a matrix 250 by 250 items),
and (3) the 40 verbs against each other (i.e., a matrix 40 by 40).

The information obtained from this study, as well as the original materials of elicitation, have not been fully analyzed at present because of time limitations, but promise further verification of the work on classificatory verbs and noun classes, with present evidence that the concrete nouns of the matrices group themselves together (in co-occurrence relations with the verbs) and even, possibly, sub-grouping themselves into the semantic domains (i.e., artifacts tend to co-occur with certain verbs, while animates co-occur with others, etc.).

The ideal for this study would be to compose a matrix of all nouns (3,000) crossed with all verbs (1,721), but the matrix resulting would be so formidable (as well as having such low correlations in many parts), that the above smaller study was undertaken instead to discover if such a larger matrix would be worthwhile (also, if possible to process by computer, as 3,000 items crossed would require a large amount of computer storage space).
APPENDIX B: DATA COMPILATION

B-1 INFORMANTS

All informants used in the study were native speakers of the Kopetesra (Torename) dialect of Enga, a western Enga dialect spoken about twenty miles from Laiagam (see Map, page 21). All were monolingual in Enga (except as noted below), and all elicititation was conducted in Enga.

My first principal informant, Councillor Alua Walyisa was an illiterate man of about twenty-five years, and was bilingual in (Neo-Melanesian) Pidgin. My second principal informant was Pesatusa Waelisa, an illiterate man of about twenty-three years. Other informants included Pasone, a young (illiterate) woman of about sixteen years; Pisini, a semi-literate woman of about twenty years (and one of Alua's wives); Yoane, a semi-literate man of about twenty-five years; Jone, a semi-literate and bilingual (in Pidgin) twenty-two year old man; and Kane, a literate and bilingual (in Pidgin) twenty year old man. Older informants, informally consulted, included Lesepina (Alua's mother), an illiterate woman of about forty years; and Lapale, an illiterate man of about forty-five years. Non-systematic informant work and checking was done with whomever happened to be sitting around the fire in our house when a problem arose. Tumu Popeoko and Ngangane Yaetusa of Alpusa (near Wabag), while not employed as my informants but as my husband's, often helped in my early work and during language learning.

B-2 QUESTIONS USED IN ELICITATION

"One might assume...that the speakers of any language would quite naturally and spontaneously themselves frame questions to elicit... semantic information" (Weinreich 1962:190). I attempted to elicit such questions via the original question
1. Ėmba-me pií medé-nyá tengé dóko mása-la náya-t-e-no
   you-AG word a-POSS root the know-INF NEG-FUT-2SG-AUG
   kanda-ódó ēmba-me afpá lá-o tipá pi-pei-ngé-pé?
   see-O the you-AG how utter-O ask do-COMP-HAB-QU
   If you didn't know the meaning of a word, how would you ask it?

Other introductory questions which I used were

2. Āki tengé pale-ngé-pé?
   what root BE-HAB-QU
   What is the meaning?

3. Kengé/pií waká méndé le-ngé-pé?
   name/word other a utter-HAB-QU
   Is there another name/word?

   At the time I used the questions below, Casagrande and Hale (1967)
   was not available in the field, and upon my return to Canberra, I
   noticed a close correspondence between the questions which I had used
   and those used by Casagrande and Hale in their work on Papago semantic
   relationships and folk definitions. For comparison with their work, I
   include their thirteen types of semantic relationships identified in
   Papago in brackets [ ]. The questions are listed in the order in which
   I elicited with them; I attempted to apply them systematically to
   every lexical entry.

[Synonymy]

4. Kengé/pií lápó le-ngé-pé?
   name/word second utter-HAB-QU
   Is there a second name?

5. Kengé/pií waká méndé le-ngé-pé?
   name/word other a utter-HAB-QU
   Is there another name/word?

6. Tenge wáká méndé palé-ly-a-pe?
   root other a BE-3SG-PRES-QU
   Is there another meaning?

[Class Inclusion]

7. Baá tátá api-ní-pí?
   he/it line who-POSS-QU
   What is his clan?
[Attributive]

8. Baa aipá-le-pe?
   it what-CONF-QU
   What is it like?

9. Baa aípá pi-pae-pe?
   it how do-STA-QU
   What is it like?

10. Baa émba-nya akí-.ngi.pi?
    he/she you-POSS what-NGV-QU
    What relation is he/she to you?

[Operational]

11. Endakáli dúpame X-mé áki kalái pi-ngi- má-pé?
    people the-AG X-INSTR what work do-HAB-PL-QU
    What do people do with X?

12. X-mé aípá pi-nga- ngé-pé?
    X-AG what do-COMP-HAB-QU
    What should one do with X?

13. Endakáli dúpa-me X-mé aípá pi-ngi-má-pé?
    people the-AG X-INSTR what do-HAB-PL-QU
    What do people do with X?

[Functional]

14. Baamé áki kalái pi-ngí-pí?
    it-AG what work do-HAB-QU
    What work does it do?

[Spatial]

15. Baa ánja sí-ngi-pí/kate-ngé-pé/pete-ngé-pé/pale-ngé-pé?
    it where BE-HAB-QU
    Where is it located?

[Contingency]

16. Aípá lá-o más-o endakáli méndé asemánga pya- pe-ngé-pé?
    what utter-O think-O people a sneeze hit-COMP-HAB-QU
    How do people sneeze?
[Comparison]

17. Baá Y-yalé mendé-pé?
   it Y-like a-QU
   Is it like Y?

[Provenience]

18. X-dóko ajeté epe-ngé-pé?
   X-the whence come-HAB-QU
   From whence does X come/originate?

(Time)

19. Andukú-pá endakáli dúpa-me X pi-ngi-má-pé?
   which-TEMP people the-AG X do-HAB-PL-QU
   When do people do X?

(Explicative)

20. Ai-pá lá-o más-o-o endakáli dúpa-me X pi-ngi-má-pé?
   how utter-O think-O people the-AG X do-HAB-PL-QU
   Why do people do X?

(Ostensive)

The last three of the definition types (Time, Explicative, Ostensive) are not mentioned by Casagrande and Hale, but were used in work with Enga. Casagrande and Hale have postulated several other types which I did not use in Enga.

[Exemplification]

"X is defined by citing an appropriate co-occurrent, Y" (Casagrande and Hale 1967:168). I was unable to find a suitable question-answer sequence for this definition type in Enga.

[Grading]

"X is defined with respect to its placement in a series or spectrum that also includes Y" (Casagrande and Hale 1967:168).

21. Áki köte satandíi ongó-nyá wambaó epe-ngé-pé?
   what day Sunday the-POSS before come-HAB-QU
   What day comes before Sunday?

This definition type exists in Enga as a possible question but as one that is relevant in only some cases, i.e., months, days of the week, etc. I did not use it much.
"X is defined as the negation of Y, its opposite" (Casagrande and Hale 1967:168).

"X is defined as Y" (Casagrande and Hale 1967:168). In both of these definition types, Enga answers exist

22. Énda dúpa akáli daá.
   woman the man not
   Women are not men.

23. Yána dóko, baá yána méné.
   dog the he/it dog
   The dog is a dog.

but I myself was unable to formulate a reasonable question (cf. comments below on comparison with R. Lang's question sequences).

"X is defined as being a constituent or part of Y" (Casagrande and Hale 1967:191). This semantic relationship and folk definition type was not used by Casagrande and Hale in their Papago data and I did not use it in Enga either. Provenience is a reasonable question in Enga only in relation to certain classes of nouns, such as rivers, rain, hail, streams, etc. (any noun that is of the gender class of epengé?) and of humans in the sense of where does some person come from, i.e., his home village or 'place' (cf. in English: He's a New Yorker, He's a Queenslander).

It is also interesting to note that in Enga one can use the same kinds of questions for different relationships (compare Contingency and Explicative, Function and Operational, Attributive and Class Inclusion). In these cases, even though the questions are essentially of the same kind, the responses/answers allow us to classify the relationships involved. Casagrande and Hale note the same in Papago. In Exemplification, the attribute itself is being defined rather than the possessor of the attribute; while in the attributive, the possessor of the attribute is being defined by the attribute. Exemplification is the inverse of the relationship used in the Attributive. Furthermore, Casagrande and Hale note that class inclusion is often implied in attributive definitions, since certain characteristics of behaviour and appearance are shared by all members of a large class (Casagrande and Hale 1967:18). This difficulty (i.e., non-mutually exclusive
questions) is only problematic in those cases in which the answer does not indicate the focus of the definition (as it in fact does indicate in exemplification and attributive).

The questions used in my data elicitation were verified when further checked via the patterned frame for questions used by R. Lang (1970:6); using R. Lang's trained informant, I presented him with selected items/entries (mainly concrete, animate nouns) and elicited from him the questions he would use in questioning about that item. The results were extremely encouraging in verifying the accuracy of the questions used.

In their conclusions Casagrande and Hale mention topics for additional work on semantic relationships; these include

1) What additional types of semantic relationships are employed in folk-definitions made by speakers of other languages? (1967:192).

As we have seen above, Enga does provide some additional types for comparison with their work on Papago.

2) To what extent are various types of semantic relationships employed by speakers of all languages; are these universals of language behavior? (192).

Again, the comparison with Enga is of interest.

3) Are particular types of semantic relationships consistently associated, across languages and across cultures, with definitions of words falling into various form classes (e.g., antonymy with adjectives; contingency with verbs) or belonging to different lexical domains (e.g., attributive and class inclusion with plant and animal terms; function with instruments and body parts)? (192).

It was with this topic in mind that various statistical programs were run on the dictionary file to determine what percentage of each form class was defined by what particular type of folk definition (or semantic relationship). These results were most encouraging, and would allow additional (statistical) evidence to be presented. At present the results are primitive (i.e., allowing only such statements as "Of 3,000 nouns, 85% used class inclusive folk definitions"). The next stage is to produce more sophisticated results which are linked: "Of the 500 animate nouns, 95% are defined first by a class inclusive definition, then 90% of those are further defined by an attributive definition, 80% of those still further defined by a functional definition, etc."
APPENDIX C: THE EXISTENTIAL VERBS

The following data are primarily the primary taxa extracted from the total corpus of approximately 3,000 nouns and noun phrases. The data are presented by the existential verb used, then sub-grouped by semantic domain. Items which permit intersection (cf. 2.2.5) are indicated with the second existential verb following. The least frequent existential verbs are presented first.

1. Mandengé

Parts of a Whole:
  alif, telé            olitoris
  kambáke              vagina
  pongó                 penis
  diíf, dingí     fruit, seed, nut
  dungí, lúngí       fruit stem
  wáingi                sprout
  pupúkú              dry leaves

2. Lyingī

Parts of a Whole:
  diíf, dingí     fruit

Plants:
  lítta                  mushrooms
  kenapíti, kamalúmbi moss
  +bíni                   bean

Animates:
  ambúlya              wasp, bee
3. Palengé

Parts of a Whole:

- píngi: roots
- amé, amengé: fat
- makonámbí: gourds, inside
- kúlí, kólí: bones
- móna, kípi: heart
- ingí, litísá: intestines
- lénge: joints
- mamándá: kidney
- pólyá, pályá: bladder
- pungí: liver
- kondengé, kutapápú: womb
- itá kálanga: small intestine
- móna yokó: lungs
- andatómba: stomach, womb
- kongápú: vein, tendon
- lákapo: testicles
+ mísá, mínju: muscle, meat
+ tünduingí: spinal cord, marrow

Plants:

- mapú, áina
- konjá
+ samúu
+ katósa

Animates:

- ímú, mánga: worm, grub
- pombáta: termite (?)
- néné ándá: maggot

4. Petengé

Natural Phenomena:

- endákí peté: lake, pond

Plants:

+ letésa: lettuce

Animates:

- énda, wanáku: women, girls
- yáka: fowls, birds
- saá: game animals
- mónge: frogs
5. Epengé

Natural Phenomena:
- aiyúu: rain
- endáki, fpa: water, river
- kindúta: hail, frost
- tandáke: hail
- poó: wind
- popó: vapour
- İńji, İñdi: clay
- nongeane: clay
- wakáí: tree oil, resin

Parts of a Whole:
- mambá: tree oil
- aposótó, apúpú: saliva
- liní, maú: pus, plasma
- mánjo: mucus
- tayóko: blood
- łpange: fluid
- tțf: hair
- ându: milk
- angaëti: beard
- kindúpa: nails

Plants:
- kútá: reed
- kámbe: fern
- kénde: vine, rope

6. Katengé

Natural Phenomena:
- nikf: sun
- kaná: moon
- büi: stars
Parts of a Whole:

lyáa
maštá
páenge
pinyéte
kíngi
mókó
yokó
paká
angapú
alyóko káita
yanú
kondé
ayómba
ayokondé
enómbá
kámbú
kalé
katáí
pápá
keké
kengé
lénge
lúma
múmbi
múmbitenge

nose
back
thigh
temple of head
arm, hand
leg, foot
leaves
tree fork
jaw
armpit
skin
nut
head
shoulder
forehead
lips
ears
fat
fin, wing
tongue
buttocks
eyes
knee
scab
umbilical cord

Artifacts:

ándá
kamé
tóko
ándá íki
ándá máu
+ fńja
+ lóko
kalúmbá
kílyá
kembó
kópa, konámbe
malúsa
kanángé
yokó

house
fence
table
sparkshield
wall studs
hinge
lock
gate
purlins
stile
wall
porch
ladder, rungs
page, leaf, money
Plants:
- Itá (trees)
- alámó, Itá máí (ginger)
- tupáita (bean)
- máa (taro)
- mapú ángf (sweet potato plant)
- tánú (grasses, weeds)
- ełyóko (string - shrub)
- kinapítí (moss)
- akalípu (Cordyline)
- sambál (pitpit cane)
- + kalípu (peanuts)
- + kanápá (corn, maize)
- lyaá (sugar cane)
- amú (yam)
- saé (banana)
- kufma (bamboo)
- ánga (pandanus)
- lépa (century/kenaf plant)
- lépé, sangái (sweet flat)

Animates:
- akálí, wâné (men, boys)
- yályakali, táakali (skypeople)
- mená (pigs)
- yána (dogs)
- láima (cassowary)
- tindfo (bat)
- putútuli (forest demon)
- timángo, talépo (ghost)
- imámbu (spirit)
- ípí, malpa (non-human males)
- + yáka paúli (chicken)
- + bulumakáo (cow)

7. Sínghi

Natural Phenomena:
- molé (clouds, fog)
- kafí (sky, heaven)
- kaná (stones)
- yuú, yanái (earth, place, ground)
- endákí kéa (gravel)
peté  pond, depression
endákí peté  pond
ée  garden
lánga  coals
kákasa  bush, rainforest
kamánda  outside
lémba  edge
kungúma  trash
mandáu  marsh
yúlf  hole
itáté  fire
mándá  mountains

Parts of a Whole:
pánga  marsupial pouch
íf  faeces
múmbi  navel
ingyándá  womb
kalé káita  earhole
lénge kápá  eyeball
néné káita  mouth
íf káita  anus
lyákaita  nostril
ánga túu  single pandanus nut
síta  hole in tree
mambá  tree oil

Plants:
alyóngó  bean
painapóló  pineapple
kapúsá  cabbage

Artifacts:
dengé  corner
+dóá  door
káita, káitní  door, path, road
fíma  ridgepole
kainámbu  area inside door
lukúná  inner room
pálo  room, pig stall
pánda  space, place
pepélyó  fireplace
tfpí  back of house
<table>
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<th>Word</th>
<th>Translation</th>
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APPENDIX D: THE PREDICATIONS OF ENGA

The data presented here on Enga predications is grouped by the co-occurring verb, in order of frequency. Within the verb groups, the adjuncts have been sub-grouped as to semantic domains. Upon revision of this work, some items thought to be predications in Lang (1971) have been found to be idioms and have thus been deleted.

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<thead>
<tr>
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</table>

D-1 lengé utter

I Basic Meaning:
- áa: say 'ah' in surprise
- aé: squeal, scream/cry
- angá: open mouth wide (as in yawn)
- aiyá: call out name to come and get something
- aíf: exclaim
- ál: express comfort
- álówaki: express happiness
ápa  express oneself  
ápú  say ápú to child  
áso  call dog to come  
bífsá  express dislike by saying tsk  
bótó  flatulate  
bulú  sound of hum/roar  
dilindaó  noise of bell  
dúlú/duú  splash into water  
éé  cry  
gáá  grunt  
gátó  knock, sound of something striking (wood/iron)  
geé  call pig or dog  
gfíl  show teeth in pleasure  
ggée  swallow  
goó gáá  pant  
gulangalú  stomach growls  
fsu  exclaim ish  
jáá  sound of crack/creak  
jálo jálo  knock  
kaá  sound of pigs/squeal  
kaakaá  women/girls laugh together  
kaé  pigs squeal  
káipyá/káíftf  thunders  
tóka  
kákate  whisper  
kauú  dogs bark  
kaé  pigs squeal  
keáu  sound of tapping/knocking  
keé  call out  
kéké  sound of dry rustling  
kiiyá kauú  stomach rumbles  
kíilitólo  grind/click teeth together  
kípú  thunder  
keé kaá  pant  
kíftá kátó  grind teeth  
kóe/koláa  whistle through teeth  
kopetá  speak badly  
kosée  cough  
kóto  cough  
kufí  gulp noisily  
kúlu  sound of fire/water/river  
kúlu múndu  snore
kuú lão  snort, snuff
kuú    snore
kyáá    pigs scream
kyúkú/kyúú sound of crash/thud
lambá    argue/quarrel
laifá    argue/quarrel
létó    speak clearly
léké    tell a lie
lif    suck back saliva
lipá    wail/mourn
lyif    mouth waters
lúmbu lúmbu talk together at same time
makú    boast
máma    exclaim in amazement
mána    teach
+ misfi    preach gospel
mokalípi curse
moló    sound of buzz/roar
mulí mauwá swear for truth of it
mulú    hum/roar
mulú málú stomach growls
muú    sound of hum
náká    foul talk
nalú    talk of other line withholding pigs
náá    cry - infants
náí    blow nose
nááá    moan
nááú    sound of engine/hum
néé    groan
néé náa pant
nil    engine whines
nilí nálí stomach growls; quarrel
nóó    infant cries
nólá nólú express displeasure
núú    grunt
néé    agree
néé náa pant
nýíí náá rave, cry out
nýííl nálíl rave, cry out
nýúu    pigs roar/grunt
nongó    speak poorly
núnú    kiss
óo      sound of wind/water/tree falling
pále    wave arm to go away
pée     laugh and play loudly
pił     speak
poó      blow
pulupolé play bamboo flute
pútaí    speak/yell loudly
sambó    lie/tell falsehood
sondó    clam up - not talk from anger
súkú     dislike
súlu     whistle
súu      say psst to get someone's attention
támbo    chew/swallow
táe      birds chirp
tamé tamé stutter
tée/tipá ask for
tíí         squeak/make shrill sound
tííío     whistle through teeth
tondó    be unco-operative
toká     sound of cracking - rifle, wood, stones
tokó      explode, blister, expel gas
tombá     noise of stomach
tumbípf gossip
túmbú     speak sarcastically
úaa      dogs bark
usí      sound made when dancing
úsú       exclaim to child to make it sleep
úu      wind/fire sounds of uu
wáí      send message
wáuna    whisper
weé       sing a song
wíí      call out
woó      reply with woo
yaá      talk loudly
yandaítá  boast
yáe      answer with yae
yáká pilínó give thanks
yakó      cry/shout out
yáó      answer with yao
yasú      call for dog
yópe  whistle with lips
yúá  shout in unison when happy
yuó  lament

II Inner State:
ápu  be dry
auú  like, love
bísa  dislike
dúli  make strong
koó láme  despise/treat with contempt
kotopálú  wrinkle (of inanimates)
kufi  be humble
kyóo  be white
lámbo  be weak
lembé  die
lemongotí  be tired/sleepy
leóámbe  be dizzy/faint
likí malikí  be decided
lumbá  be shady
lyáa  make/be ready
lyáa pyákuá/pyatoé  turn up nose at
lyuú  show whites of eyes (in displeasure)
lyúu  have peace
lyáka  be dry
née  sigh
nenaá  remember
nyéne  sigh deeply
náwe/naweé  be stingy/selfish
nulajálú  express displeasure
pápá  be clumsy
papáyá/kóndó  have pity/mercy
púpú  be strong
saá/taá  be empty/finished
síí  be disgusted
súkú  dislike
támbó  be tame/weak/placid
táe/táí  be wild/strong/crazy
taiyú  be humble/weak
talapú  be strong/well-made (?)
támbo  be weak
tánnda  disapprove
tangá  be stubborn/hard/strong
mangá mangá  be proud
taipú  do well
talá  awaken
ti  pain searingly
tiokó  be straight
tómbé  be wet
tondó  be unco-operative, show disapproval
tuři  be tense/firm
uú  be shady
wéé  shame by showing backside
yáka  wake up
yátu  finish (of pain, sickness, sound)

III Motion:
aemé  hide
akémá  council
alemále  twitch, jerk
amí  cover (up)
auma  mark with eye, select
awáľf  encircle/circle
daló  injure
depá  to prepare, make ready (arm oneself)
dif  distribute - inclusively (?)
doó doó  hold and shake (spear) ready to throw
dopá  drip
dóli  drive stakes in solidly, make strong
goló  to boil (of water)
kandayokó  ignore purposely by looking around elsewhere
kaf  pour out, spill
kápya  make way, give room
káiyu  rub
kápya  make way, give room
keké káki  swing legs
kilí  carry away (of birds)
kópo  fall down, descend
kúndi  sacrifice, offer
kuři  bend sideways
lánga  sprout
láono  circumscribe
lyáá/lyóó  swing arms - as with axe to hit someone
pull
<table>
<thead>
<tr>
<th>Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>lyándá</td>
<td>shake (off)</td>
</tr>
<tr>
<td>lyakalyáká</td>
<td>wiggle, shake</td>
</tr>
<tr>
<td>lyôô</td>
<td>scrape sweet potato cooked in coals</td>
</tr>
<tr>
<td>lyûû</td>
<td>to skin off bark</td>
</tr>
<tr>
<td>málo</td>
<td>appear</td>
</tr>
<tr>
<td>oîli</td>
<td>crumble dirt, roll grass</td>
</tr>
<tr>
<td>paf/pîf</td>
<td>close - gate, door</td>
</tr>
<tr>
<td>pále</td>
<td>wave arm to go</td>
</tr>
<tr>
<td>pápá</td>
<td>shake, shiver</td>
</tr>
<tr>
<td>péé</td>
<td>fly</td>
</tr>
<tr>
<td>péle</td>
<td>shuttle string for net bag</td>
</tr>
<tr>
<td>pîlî pyalé</td>
<td>throw out</td>
</tr>
<tr>
<td>pokó</td>
<td>grow (of plants)</td>
</tr>
<tr>
<td>pungumangâ</td>
<td>cracks open (of earth)</td>
</tr>
<tr>
<td>pyâkuá</td>
<td>turn aside, miss</td>
</tr>
<tr>
<td>pyalé</td>
<td>throw (away)</td>
</tr>
<tr>
<td>pyatoî</td>
<td>catch, throw</td>
</tr>
<tr>
<td>pyukû</td>
<td>shake, stir, move</td>
</tr>
<tr>
<td>sáwande</td>
<td>succeed, triumph</td>
</tr>
<tr>
<td>taká</td>
<td>bend (of knee, elbow)</td>
</tr>
<tr>
<td>talé</td>
<td>free, untie</td>
</tr>
<tr>
<td>támbo</td>
<td>chew, swallow</td>
</tr>
<tr>
<td>támbú</td>
<td>stick fast, adhere</td>
</tr>
<tr>
<td>tâo</td>
<td>release water from dam</td>
</tr>
<tr>
<td>tâtá</td>
<td>untie</td>
</tr>
<tr>
<td>teâlé</td>
<td>scatter</td>
</tr>
<tr>
<td>tindíkf</td>
<td>stretch</td>
</tr>
<tr>
<td>tîtí</td>
<td>stretch</td>
</tr>
<tr>
<td>titiapú</td>
<td>swing back and forth from a fixed point</td>
</tr>
<tr>
<td>tumbitúmbí</td>
<td>grow, increase</td>
</tr>
<tr>
<td>tuú</td>
<td>push, press, shove</td>
</tr>
<tr>
<td>uuú</td>
<td>grow in groups/profusion</td>
</tr>
<tr>
<td>wangáyô</td>
<td>look over</td>
</tr>
<tr>
<td>walû</td>
<td>shake, be amazed; have malaria</td>
</tr>
<tr>
<td>yandá</td>
<td>sink, drive into</td>
</tr>
<tr>
<td>yandé</td>
<td>shake head up and down</td>
</tr>
<tr>
<td>yamé</td>
<td>grow large (of foliage)</td>
</tr>
<tr>
<td>yoô</td>
<td>pull, stretch</td>
</tr>
<tr>
<td>yandá</td>
<td>stretch</td>
</tr>
</tbody>
</table>
IV Cut/Break:

káku
kolé
lépo
léto
loó
málo
piil pyalé
popo

V Pidgin Loans:

+bakatapú
+boló
+bósa/bóta
+búna
+daunimí
+kámapu
+kása
+kósa/kósimi
+kutúngusa
+lákí
+lesísa/letésa
+letésa
+líti
+lúsa
+makimí
+misí
+pasatóle
+pósími
+pulapú
+púsa
+pusíí
+sakimí
+sanísa
+sisotóno
+sukúlu
+supímí
+winí
+wása

VI Play:

kaná sìli
+kása

play jacks
play cards
kupí dií play with a top
+lakfi gamble, play cards
mále play
súu play - sledding
tombaépí play

VII Miscellaneous:
bipembapa flap (of wings)
búu fly
dókó fly
kákí group of people
kámu raw food (?)
káyo show buttocks to shame
keé pay brideprice
kolapánali shrink from drying
kópo fall down, descend
lembé die
liná catch
lomá/lumá be shady
palándi watch closely (?)
páta páta hold carefully
páte ring tree to kill it
pée fly
pipuli make magic
telé hold firmly
tepé select
yuú lyándá shake/knock dirt from roots

D-2 pingí do, make

I Basic Meaning:
kaláí do work
kíf mend
koyá finish
taputi protect, defend, assist
tóko make/build a platform
walé roll string on thigh
yandá fight with weapons
yatí decorate
yokó make/produce leaves (of plants)

II Inner State:
ámboi be in estrus
auú do well
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ayéne</td>
<td>be hot, sweaty</td>
</tr>
<tr>
<td>bóko</td>
<td>be weak/loose</td>
</tr>
<tr>
<td>élya</td>
<td>be ashamed</td>
</tr>
<tr>
<td>enapóti</td>
<td>be hot, sweat</td>
</tr>
<tr>
<td>éndo</td>
<td>dry</td>
</tr>
<tr>
<td>kaá/kaú</td>
<td>taste bitter/bad/hot</td>
</tr>
<tr>
<td>kaimála</td>
<td>be dirty</td>
</tr>
<tr>
<td>kálya</td>
<td>handsome (of men)</td>
</tr>
<tr>
<td>kaméá</td>
<td>do well</td>
</tr>
<tr>
<td>kápa</td>
<td>be able</td>
</tr>
<tr>
<td>káto</td>
<td>be bitter/sting</td>
</tr>
<tr>
<td>kéndá</td>
<td>be heavy</td>
</tr>
<tr>
<td>kípa</td>
<td>like (of inanimates/food)</td>
</tr>
<tr>
<td>kombéa</td>
<td>dream</td>
</tr>
<tr>
<td>kondo</td>
<td>be heavy/difficult</td>
</tr>
<tr>
<td>koó</td>
<td>sin, do wrong</td>
</tr>
<tr>
<td>kupá</td>
<td>be cold</td>
</tr>
<tr>
<td>loó</td>
<td>be barren (of plants)</td>
</tr>
<tr>
<td>máká</td>
<td>be tired of someone or something</td>
</tr>
<tr>
<td>málya</td>
<td>attractive (of women)</td>
</tr>
<tr>
<td>mindimandí</td>
<td>be naughtly</td>
</tr>
<tr>
<td>mindinane</td>
<td>get angry for nothing</td>
</tr>
<tr>
<td>mokotíti</td>
<td>be asleep/numb (of a limb)</td>
</tr>
<tr>
<td>myúku</td>
<td>stink, nauseate</td>
</tr>
<tr>
<td>nangá</td>
<td>give up and die</td>
</tr>
<tr>
<td>nené</td>
<td>make a face in disgust</td>
</tr>
<tr>
<td>níní̥kí</td>
<td>be angry/irritated</td>
</tr>
<tr>
<td>nuú</td>
<td>swell</td>
</tr>
<tr>
<td>páka</td>
<td>scare</td>
</tr>
<tr>
<td>papató</td>
<td>be cold</td>
</tr>
<tr>
<td>popó/tándá</td>
<td>be in pain</td>
</tr>
<tr>
<td>púngú</td>
<td>stink</td>
</tr>
<tr>
<td>saá</td>
<td>smell</td>
</tr>
<tr>
<td>sókó</td>
<td>be tired</td>
</tr>
<tr>
<td>tatáke</td>
<td>forget, not know</td>
</tr>
<tr>
<td>tendé</td>
<td>tastes good/sweet</td>
</tr>
<tr>
<td>tiáka</td>
<td>be satisfied after eating</td>
</tr>
<tr>
<td>tfí</td>
<td>be light, shine</td>
</tr>
<tr>
<td>tómba</td>
<td>be dull</td>
</tr>
<tr>
<td>tûmbi tûmbi</td>
<td>be stubborn</td>
</tr>
<tr>
<td>tundí̥ma</td>
<td>smell good/pleasant</td>
</tr>
</tbody>
</table>
tuú       be dry inside
tuú       be stubborn/obstinate
umbi      be bald
wámbu     be filled out (?)
wámbu     be skillful
wáingi    good
wámu      useless
wáti wáti lose appetite
yála      be shamed
yamá kákó be stingy; curse
yuéi      itch, scratch
yukú yukú tickle

III Payments:
laaltá    pay live pigs at death
kúmanda   return cooked pig at death
pandétá   death payment
tée       death payment - live pigs
pyamoná   exchange cut meat
makú      present pigs at tée; payment to maternal line at child's death
tée káita  payment to kill someone else
yáé       perform pig killing ceremony
luú       pay for magic

IV Play:
kyangauwále play cat's cradle
kaú       fight with mud for fun
mále      play
néne      play

V Tie/Untie:
ápaa      tie/wrap in a sling
langapú   plait a wreath
langó/landf tie/bind
mapó      roll/wind (as string)
monge     unravel (of string/rope)
yakí/yanjí tie/bind
yákú yákú unravel

VI Miscellaneous:
laitáka/lakíta show
látó/látu  show
wámu      hide
yaló  hide
 golé  hide
 éma  have motion
 goya  wiggle
 minákó  turn/stir hand
 talé  disperse/scatter (of people)
 ámbí  scatter/spread
 andúfí/anjúfí  flatter; bribe
 áló  lose
 aló/alóo  exchange; substitute
 ámbé  ramble
 ámbé  peel off, husk/shell
 ándu  cover, put a lid on
 atéte  oppose
 bátá/  flap (of wings)
 bitambatau
elyámbu  gather
gélengele  disease of sweet potato (?)
imbu  sprout (of plants)
imí  mould
 ínu  set on
 kambapúpu  mark arm with spit for counting
 kandó  pile up
 kaé  rub on (as oil)
 kanjongoele  procrastinate at work
 kánju  search for
 kake  shape with hands
 kákí  fold (of rope)
kálo  step across/over
 kapoma  shape with hands
 katekéta  slip
 keáno  fill up from another container
 keé/kíí  break/split with grain with knife
 kéndá  group/gather (of inanimates) (?)
kéló  peel (of vegetable)
kelyakélya  slip
 kétá  cook/steam in ground oven
 kewána  fill up with liquid
 k'ango  beckon to come with hand
 kimbutíti  fall asleep (of a limb)
kindú  scratch to get attention secretly
 kilyombá  gesture of contempt
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>koé</td>
<td>finish</td>
</tr>
<tr>
<td>kokótó</td>
<td>strip leaves off tree</td>
</tr>
<tr>
<td>koyá</td>
<td>finish</td>
</tr>
<tr>
<td>kónda</td>
<td>gather</td>
</tr>
<tr>
<td>kumbu</td>
<td>seal ground oven</td>
</tr>
<tr>
<td>kyoó</td>
<td>trickle (of water)</td>
</tr>
<tr>
<td>laítáka</td>
<td>show</td>
</tr>
<tr>
<td>laiyáka</td>
<td>hold in trust for orphan</td>
</tr>
<tr>
<td>lambú</td>
<td>stomp</td>
</tr>
<tr>
<td>landá</td>
<td>disappear</td>
</tr>
<tr>
<td>langatale</td>
<td>trespass in garden (?)</td>
</tr>
<tr>
<td>laká</td>
<td>scabies of pig</td>
</tr>
<tr>
<td>láma</td>
<td>mature (of pigs)</td>
</tr>
<tr>
<td>láú</td>
<td>open up</td>
</tr>
<tr>
<td>lémubá</td>
<td>sneak away from someone looking for you</td>
</tr>
<tr>
<td>lítá</td>
<td>sweet talk/flatter</td>
</tr>
<tr>
<td>lókó</td>
<td>expose oneself (in anger (?))</td>
</tr>
<tr>
<td>lóngo</td>
<td>shape with hands</td>
</tr>
<tr>
<td>lúku/lúngu</td>
<td>scrape out (inside of gourd to make water container)</td>
</tr>
<tr>
<td>lúngú lúngú</td>
<td>girl's magic</td>
</tr>
<tr>
<td>lúú</td>
<td>finish - talk/singsing</td>
</tr>
<tr>
<td>lyándi</td>
<td>get all wet</td>
</tr>
<tr>
<td>lyéke</td>
<td>become large in size (of pigs)</td>
</tr>
<tr>
<td>lyangóle</td>
<td>give example</td>
</tr>
<tr>
<td>lyuú</td>
<td>layer ground oven for cooking</td>
</tr>
<tr>
<td>lyuú</td>
<td>get fibers for thread making</td>
</tr>
<tr>
<td>makandé</td>
<td>try, tempt</td>
</tr>
<tr>
<td>mákí</td>
<td>stand side by side</td>
</tr>
<tr>
<td>makóle</td>
<td>make one's round</td>
</tr>
<tr>
<td>málu/yúlf</td>
<td>bury</td>
</tr>
<tr>
<td>máu</td>
<td>gather, pile up</td>
</tr>
<tr>
<td>minákó</td>
<td>turn/stir hand</td>
</tr>
<tr>
<td>mondó</td>
<td>adopt/care for (humans/dogs/pigs)</td>
</tr>
<tr>
<td>mulóó</td>
<td>eats spots into pod vegetables</td>
</tr>
<tr>
<td>mútí</td>
<td>cook on top of fire</td>
</tr>
<tr>
<td>nambo nambo</td>
<td>slander</td>
</tr>
<tr>
<td>n aloó</td>
<td>speak vulgarly</td>
</tr>
<tr>
<td>namú náe</td>
<td>speak angrily</td>
</tr>
<tr>
<td>née</td>
<td>do magic; sacrifice to ghosts</td>
</tr>
<tr>
<td>nelenelé</td>
<td>disease of sweet potato</td>
</tr>
<tr>
<td>némá</td>
<td>bird feeds baby bird</td>
</tr>
<tr>
<td>Word</td>
<td>Meaning</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>nepo</td>
<td>play at fighting</td>
</tr>
<tr>
<td>nenáta</td>
<td>test to see if eel is in trap/hook</td>
</tr>
<tr>
<td>néné</td>
<td>hum, buzz</td>
</tr>
<tr>
<td>niki niki</td>
<td>bite on hard object</td>
</tr>
<tr>
<td>núnú</td>
<td>kiss</td>
</tr>
<tr>
<td>pambá</td>
<td>reheat food</td>
</tr>
<tr>
<td>pákó</td>
<td>peel off husk/shell (not skin)</td>
</tr>
<tr>
<td>pálo</td>
<td>dam up (of water)</td>
</tr>
<tr>
<td>páina</td>
<td>dry season, fair weather</td>
</tr>
<tr>
<td>pánda</td>
<td>set leaf on head as a base for feather decoration</td>
</tr>
<tr>
<td>pánjú</td>
<td>scar</td>
</tr>
<tr>
<td>pápu</td>
<td>miss, dodge</td>
</tr>
<tr>
<td>patóko</td>
<td>peel/skin</td>
</tr>
<tr>
<td>pau</td>
<td>scrape ashes off cooked sweet potato</td>
</tr>
<tr>
<td>peé</td>
<td>stuff intestine to make sausage</td>
</tr>
<tr>
<td>pendu</td>
<td>lick</td>
</tr>
<tr>
<td>pimapíma</td>
<td>work black magic</td>
</tr>
<tr>
<td>pfpu</td>
<td>work magic</td>
</tr>
<tr>
<td>poó</td>
<td>blow fire</td>
</tr>
<tr>
<td>puttíti</td>
<td>shake in anticipation; cramp</td>
</tr>
<tr>
<td>puú</td>
<td>fill up</td>
</tr>
<tr>
<td>salé/talé</td>
<td>divorce; scatter/disperse</td>
</tr>
<tr>
<td>siki</td>
<td>rise to height (of smoke)</td>
</tr>
<tr>
<td>tallpi</td>
<td>distribute</td>
</tr>
<tr>
<td>táma</td>
<td>praise/honour, thank</td>
</tr>
<tr>
<td>tandi</td>
<td>lick</td>
</tr>
<tr>
<td>tangaí</td>
<td>split bark</td>
</tr>
<tr>
<td>tápá</td>
<td>prepare</td>
</tr>
<tr>
<td>tembá/tembó</td>
<td>heat up food</td>
</tr>
<tr>
<td>tífi</td>
<td>change into a ghost</td>
</tr>
<tr>
<td>tikilyá</td>
<td>cut lengthwise</td>
</tr>
<tr>
<td>tipá</td>
<td>ask</td>
</tr>
<tr>
<td>tipatapú</td>
<td>cut/break lengthwise</td>
</tr>
<tr>
<td>típú típú</td>
<td>gossip</td>
</tr>
<tr>
<td>tísa</td>
<td>cut/break</td>
</tr>
<tr>
<td>tôma</td>
<td>fasten with lid</td>
</tr>
<tr>
<td>tômó</td>
<td>shake/vibrate</td>
</tr>
<tr>
<td>toné</td>
<td>fill up netbag</td>
</tr>
<tr>
<td>tóngó</td>
<td>double up fists</td>
</tr>
<tr>
<td>tôní toní</td>
<td>throw/hit straight</td>
</tr>
<tr>
<td>totóma</td>
<td>make forked for house building</td>
</tr>
</tbody>
</table>
I Basic Meaning:

- **angf**: have a landslide
- **átí**: after-effects of lightning strike
- **aló**: make fire by friction with bamboo
- **kánda**: beat with a bamboo pole
- **kaú**: fight with mud
- **kimbutia**: kick
- **kindúta**: hail
- **konjame**: whip
- **lánga**: make fire glow
- **laté**: cut/Slash (of weeds/grass)
- **minjfit**: have a landslide
- **múmbá**: scar
- **nángà**: sharpen
- **nénge**: sharpen (nénge = tooth, horn, tusk)
- **patá**: split pandanus nut
- **pepó**: to slash down vegetation
- **tánu**: mow grass
- **yaé**: kill pigs - sequel to tée
- **yuú wápáka**: lightning strikes

II Peel:

- **káká**: skin peels off
- **kéló**: peel (of vegetables)
- **kombá**: shed skin
- **lómba**: shed skin
- **pakóna**: peel off husk/shell
- **táka**: peel
- **yanú**: peel/strip (of bark/skin)

III Cut:

- **lámbá**: cut/break with grain
- **lánga**: cut/break with grain
leé  shorten by breaking
lyoó  out in pieces
múndu  slice, cut up
túu  split (as pitpit)
páté/pátá  split wood, nut

IV Payments:
bétá  pay restitution
kímbu  pay back, revenge
nyokó  to repay
saándi  give loan with expectation of return with interest
watápaε  pay marriage payment
yánο/yánů  repay

V Loan Items:
+kosá  play ball
+lóko  lock
+nli  inject; nail
+pépa  write
+pusá  play soccer
+takísá  pay taxes
+wasawásá  wash

VI Miscellaneous:
sángá/sánga  cover up
yámbe/yambì  cover up
yámé/yamí  cover up
yánů/yáno  answer
ftingí  answer
wangatató  wriggle
wángó wángó  turn around
malá  play guess which hand
af  stink
álo  run
ábé  do by accident/unknowingly
angáfná  have a cold
asemáŋa/  sneeze
asimáŋa
atómé  recount news
aútí  open, remove contents
beé  have sore matted eyes
eleyámbo  gather
éngeme  bribe to kill/injure
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>etéké</td>
<td>like/love</td>
</tr>
<tr>
<td>itákí</td>
<td>read/count</td>
</tr>
<tr>
<td>kái</td>
<td>rub on (of paint/oil)</td>
</tr>
<tr>
<td>kolo/koto</td>
<td>magic</td>
</tr>
<tr>
<td>komé</td>
<td>sprout</td>
</tr>
<tr>
<td>kumbu</td>
<td>start a singsing</td>
</tr>
<tr>
<td>kundí</td>
<td>miss</td>
</tr>
<tr>
<td>lama</td>
<td>tame (of pigs)</td>
</tr>
<tr>
<td>leé</td>
<td>naughty child</td>
</tr>
<tr>
<td>lifié</td>
<td>fall down</td>
</tr>
<tr>
<td>lítá</td>
<td>mark off (boundary)</td>
</tr>
<tr>
<td>lombelómbe</td>
<td>be incapable</td>
</tr>
<tr>
<td>lúngu</td>
<td>be angry within</td>
</tr>
<tr>
<td>maá</td>
<td>appear</td>
</tr>
<tr>
<td>mambó</td>
<td>praise/worship</td>
</tr>
<tr>
<td>nangátu</td>
<td>hiccough</td>
</tr>
<tr>
<td>némá</td>
<td>black magic with corpse</td>
</tr>
<tr>
<td>nongó</td>
<td>be clumsy/incapable</td>
</tr>
<tr>
<td>paa</td>
<td>cross arms on chest</td>
</tr>
<tr>
<td>paká</td>
<td>brace (of banana trees)</td>
</tr>
<tr>
<td>pití</td>
<td>close</td>
</tr>
<tr>
<td>pongéma</td>
<td>blacken with soot/charcoal</td>
</tr>
<tr>
<td>pongo</td>
<td>tie knot</td>
</tr>
<tr>
<td>poko</td>
<td>cross</td>
</tr>
<tr>
<td>póo</td>
<td>work black magic</td>
</tr>
<tr>
<td>póo</td>
<td>miss</td>
</tr>
<tr>
<td>púmbu</td>
<td>be muscular/filled out</td>
</tr>
<tr>
<td>pupú</td>
<td>pierce</td>
</tr>
<tr>
<td>pyóngó</td>
<td>soothsay; fortune-tell</td>
</tr>
<tr>
<td>pyángá</td>
<td>belch</td>
</tr>
<tr>
<td>tángó</td>
<td>be strong/hard</td>
</tr>
<tr>
<td>teé</td>
<td>begin</td>
</tr>
<tr>
<td>tépé</td>
<td>put a barrier so something won't fall down</td>
</tr>
<tr>
<td>taú</td>
<td>shape/press with hands</td>
</tr>
<tr>
<td>tóle</td>
<td>be with</td>
</tr>
<tr>
<td>tombó</td>
<td>mark off (boundary)</td>
</tr>
<tr>
<td>tómoka</td>
<td>bribe to injure/kill</td>
</tr>
<tr>
<td>topó</td>
<td>buy (also topó nyíngi sell)</td>
</tr>
<tr>
<td>túngi</td>
<td>fire; be in authority</td>
</tr>
<tr>
<td>tůmbi</td>
<td>be stubborn/obstinate</td>
</tr>
<tr>
<td>tůmbu</td>
<td>be stunted</td>
</tr>
</tbody>
</table>
tu mu
yáe
yaíñá
yaú

D-4 síngi hear
af
baná kapá
élya
ende (M)/
endó (T)
káka (T)/
káká (L)
kakáná
káme
kepá
kil
kíl
kimbú
kisá
lamángá
langálú
latítatlí
lóma
lópo
iyakí
lay fallow (short time with only grasses growing)
máki
mapú
mapú
mondó
múku
nánga
pakélyó
palé palé
pándu
pató
píf
píyalf
sanda
títfki

wrap/bind
mourn, weep
be sick
shout out

af
smell, sniff
be bald
be ashamed
warm oneself
loosen, untie
be left over/undone
forget
restitution for a killing (paid in pig quarters)
avoid territory of slain enemy
be abandoned (of house)
sing at courting party
accuse
together with (?)
show anger/disappointment
speculate
pray; dedicate/sacrifice to the spirits
famine
lay fallow (short time with only grasses growing)
mark
plague comes and many die
lay fallow (short time)
mound up
fertile (of land)
sharpen (with file or stone)
scar
be overgrown/fallow
trap
wash out (bridge)
obey, listen/hear
summon/beg
break off
stretch
tombá  be bounded, be fenced
tombáuli  fall down on face, cover face with hands
tombó  mark
tukúme  rub noses
tundumá  smell good
túpf  be stiff/unconscious, faint
yámbo yámbo  be light (not heavy)
yanái apáka/  strike (of lightning)
yanái tamangall
yapf  give to give to someone else
yuú apáka  strike (of lightning)

D-5 nyíngi get, take
angí  break down (mountains)
até  tatoo
dengé  repay, pay back
dénda  copulate
dénote  shave sideburns
imámbú  take a holiday, rest
ípa  stroke pig before killing (women only)
ípa  be baptized
kaé láo  magic-rub pigs before killing
kaímbu  receive baptism
kakó  remove skin from drum
kayá  compost mounds in garden
kií  take and lead by hand
kipu  misbehave
kitútu  wrap around
kumbú  shade
lieé  be stunted
luú  pay (especially for sorcerer)
mána  learn, catechumen
mangá  jump down
móka  loose/free
mómo  rip/tear (paper)
móya  inherit
nángala  dig a ditch
nyokó  take/pull back
páke  steal
pindf  cut/split across grain
putútutu  get string used on wigs
<table>
<thead>
<tr>
<th>MININGI; NYNGI 175</th>
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</thead>
<tbody>
<tr>
<td>sána/syána</td>
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<tr>
<td>táma</td>
</tr>
<tr>
<td>tánda</td>
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<tr>
<td>tif</td>
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<tr>
<td>tilya tilya</td>
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<td>topó</td>
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<td>túu</td>
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<tr>
<td>waá</td>
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<td>yainá</td>
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<tr>
<td>yapáó</td>
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<tr>
<td>yólé</td>
</tr>
</tbody>
</table>

**D-6miningi hold in hands; control**

| MININGI | NYNGI |
|---------------------------------|
| angamáe | yawn |
| buú | fall down and break, be drunk |
| fa | copulate |
| káita | befriend |
| kénáinge | crochet (intestines for cooking) |
| képó | build a fire by friction |
| kitikfti | close door with a barrier of wood and rope to lock it |
| kunf | level mound for planting |
| langálú | swear (oath/vow) |
| lédyo | be incompetent |
| maa | stand guard/watchman |
| maaá | hold every one |
| makédá | make fire by friction |
| makimí | mark (boundary) |
| masi | guard |
| matípu | question in court |
| míníí | do correctly |
| minjukú | crumble with fingers |
| opóñé | show hospitality |
| pánga pánga | have skin disease - scabies (?) |
| pépé | do magic with arrow |
| timina | flood |
| timína | braid (of men) |
| títowali | quake (of earth) |
| tumú | hold and elevate, categorize |
| waímá | apportion/divide |
D-7 kaengé be (of inner states)

ayéne be hot, heated; to sweat
auú like, love
déya be ashamed, shame
enapóti sweat
eteké like, love
gi laugh
ímbu be angry
káiyo expose buttocks to someone
kekéná be fed up; tired of someone/something
kéndá be heavy
kipa like/love (of inanimates ?)
kóndó have mercy/pity
kuí be stubborn
lemongotí be tired/sleepy
lóko be tired of someone/something
lópo be hungry
maítále be tired of someone/something
máká be tired of someone/something
myúku be sick of someone; nauseated
nánú be thirsty
neya think (?)
nikiníki be angry at someone
paá/páka be afraid/fear
pombáta be bored/angry
pópó be hot and dry
putíti shake in anticipation, be greedy
tálo be hungry
tiáka be satisfied (from food)
yála be ashamed

D-8 palengé lie (inside)

I Basic Meaning:

angó fall down (when hit by arrow)
bálo lay fallow
ingí have food in stomach, be full
luú sleep
lyíta swell (up)
maá eavesdrop, appear secretly
+máki mark
máú cover/seal (of earth oven)
II Disease:
- genâinge: have diarrhoea
- fmú: have a parasite (of sweet potato)
- inginyá: have diarrhoea
- kitú: scabies (of pigs)
- kulíngi: have dysentery
- mángá: have a fungus (of sweet potato)
- meké: scabies (of pigs)
- mónda: die at roots (of trees)
- mulú: disease of sweet potato/beans

III Menstruate
- andâka náó: menstruate
- ikí náó
- yangúpae
- kamáka náó
- yoó náó

D-9 katengé stand
- akáli: be married (of women)
- ámbé: doesn't think; doesn't want to do something
- ángó: be appointed by Government Officer; forbidding fighting during settlement
- kâltò: thunder (sky)
- kâmbú: be furtive/stealthy
- kápu: stab, poke
- kâltì: thunder
- kotó: take a break
- kuaá/kueta: be abandoned (of house)
- léta: be alive
- máki: be a boundary sign; mark a boundary
- pâma: take a break
- pupú: impale/pierce (onto)
- sáká: be alive
- titì: line (in rows)
- tóle: live together
- tóo/toyá: stand upright
- tuná: rise to height (smoke)
- wáa: be skilful, avoid deception
D-10  pengé go

ámbé  ramble
angú  step across
anjú  go slowly
baf baf  roll
kóko  be deep, go inside
léte  become well
makóle  make a round trip
mángá mángá  hop/skip/jump; boil/bounce (water)
pimbipápu  flap (wings), fly
pitimá pitimá  crawl
pongó  go stealthily; be sneaky
pukimíná  snatch and go
sáká  become well
wakf wakf  limp (?)
yokópí  hide

D-11  nengé eat

ingí  growl (stomach), cramp (?)
kámbú tango  bite lips; seem to do something wrong together
kií  be cold
kípunge/kipongoi  swallow, gulp
mómo  rot
mútí  smoke tobacco/cigarette
páke  steal
popo  be difficult
táa ikí  be stingy
tándá  afflict
táu  cross/for river
tómbá  be disagreeable, be angry
tómbó  be belligerent
yáfína  be sick
yuufí  consume (of ground)

D-12  tengé burn

íí (kúí)  be constipated
ímbokoi  flatulate
kokó  swell up (from allergy/bump)
lekeléke  suffer (from affliction/difficulty)
lénge  be animate/alive; be a wit (figuratively)
<table>
<thead>
<tr>
<th>Word</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>liń́</td>
<td>fester</td>
</tr>
<tr>
<td>lúngú</td>
<td>flame</td>
</tr>
<tr>
<td>mandá</td>
<td>be cold (objects), be dead</td>
</tr>
<tr>
<td>maú</td>
<td>fester</td>
</tr>
<tr>
<td>némbe</td>
<td>think, hesitate</td>
</tr>
<tr>
<td>poó</td>
<td>dry up, shrivel up (of leaves)</td>
</tr>
<tr>
<td>pundí</td>
<td>be underdeveloped/stunted</td>
</tr>
<tr>
<td>puú</td>
<td>urinate</td>
</tr>
<tr>
<td>sokosóko</td>
<td>be stunted</td>
</tr>
<tr>
<td>yúli</td>
<td>blaze (of fire)</td>
</tr>
</tbody>
</table>
**APPENDIX E: PREDICATIONS FOR COMPARISON**

This appendix contains the raw data used for Chapter Five. The languages and page numbers are presented below. Where possible, adjuncts in the predications are given with English glosses.

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<td>Gahuku</td>
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<td>Tairora</td>
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<td>Waffa</td>
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<td>Kâte</td>
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<td>Selepet</td>
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<td>Nabak</td>
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<td>Kapau</td>
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<td>215</td>
<td>Weri</td>
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<td>217</td>
<td>Kunimaipa</td>
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<tr>
<td>217</td>
<td>Suena</td>
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<tr>
<td>218</td>
<td>Korafe</td>
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</table>
A Asmat - Ajam dialect

As in most Papuan languages, many actions and situations are expressed not by a verb, but by a verbal expression of which the first part is nominal and the second verbal. In some cases both parts are entirely alike or similar to each other (Drabbe 1959:25).

The cognate object verbs are:

1. invite
2. weep
3. bathe
4. dance
5. wrap in a palm leaf
6. violate
7. adorn oneself
8. laugh
do e- (also means say)
9. work black magic
10. step
11. play
12. rot
13. distribute
14. be afraid
15. steal
16. deny falsely
17. be in need of
18. undulate
19. make figures
say ji (also means do)
20. hear
21. cry and whine
22. leave behind
23. spit
24. be fond of
25. paddle
26. rot
hit af
27. sneeze jaki af
28. die ndamir af-
29. beat omop af-
30. be in love (said of a woman) mbanam af-

B Asmat - Flamingo Bay dialect
do e (also means say)
1. work up the inner part of the anam
   the pith of the sago palm inner part of sago
2. be known ajpama
   known
3. play atow
   play
4. intend, think of caj
   plan
5. have sexual intercourse caj
   sexual intercourse
6. hear jan
   sound/ear
7. carry a heavy load jec
8. be very busy with jimamuc
   engrossed
9. dart to and fro (of fish) jipis
   darting to and fro
10. surround jiwa
11. shout, yell yu
    yell, raise a war cry
12. cause someone to be quiet karem
13. leave behind makan
14. screech (of ghosts) njonjonjo
15. devour (of maggots) njernjer
16. make a gift in return toso w
    give made in return
17. rustle (of leaves) wu
    rustle

say ji (also means do)
18. squeeze out sago pulp apim
19. hear, listen jen
20. leave behind makan
21. row po
    rowing
22. sing dirges purumuc
    dirge, lament
hit, strike af
23. like, love manam
24. throw lime mi lime
25. die namir dead
26. beat omop a blow
27. abuse cemew
28. move on (of walking, rowing) ja
29. watch carefully masin
30. have as a wife per
31. work up with a chopping knife sejpa

do, work em
32. play football mar atow
33. catch crabs mer
34. fish with a net jim
chop, scoop up, strip off along a curved surface ak
35. chop growth off a tree anuk
36. make a canoe ci
37. shave okon fin
38. catch crabs pe
chop am
39. fasten the headband to a carrying bag com
40. waste nani in
41. cover (a house) with thatch onow
eat an
42. have sexual intercourse (of a woman) cemen ([of a man] = cen)
43. drink mu
44. take a rest sis
see, look at, hear, smell, know (perceive) por
45. plan a murder, massacre so porjit
46. plan to kill, bring disaster upon porjursum
47. practise magic against aruw porom

The cognate object verbs are:
48. sleep is es-
sleep sleep
49. weep moc moc- (cf. A-2)
weep weep
C Mianmin

Mianmin has a small class of verbs which occur in what we have discussed as predications; these are galin say, unemin go, kemin do, and labonin (has no meaning alone, and is used with emotion words). Some examples of these from Smith and Weston 1971 are:

do kemin
1. mikik kemin prepare
2. long kemin sit quietly
3. yang kemin answer

go unemin
4. flou flou unemin fly
5. tekein unemin understand
6. skila unemin run away
7. lolu unemin jump (with fright)
say galin
8. bing galin tighten
9. fu galin breath
10. meng galin stiffen
11. getang galin clear (of weather)
12. metek galin smack lips

*labonin
13. gal labonin be tired
14. gil labonin be cold (1971:48f.)

*If labonin is the equivalent of Enga kaengé, then Enga would not be unique in this respect, also Mianmin might well have other EV. Additional data is needed on this question.
D Telefol

P. Healey's article on Telefol Verb Phrases (1965) contains much material on what she terms auxiliary verbs (used with an adjunct) (pp.30-42) and verb periphrases (pp.42-7). This being the case, we will deal here only with a portion of the Telefol data and refer the reader to her article for the complete description. Healey originally states:

There is a small group of Verbs which commonly occur with verbal Adjuncts. These Verbs may have virtually no semantic significance when they occur with an Adjunct, though they normally have distinctive meanings when they occur alone in a Verb Phrase. Their function is as carrier of aspect, tense, subject person-number, and other suffixes. Most Adjuncts occur with only one of these Auxiliary Verbs. When these Verbs occur along as Simple Verbs, they belong to various syntactic classes (Transitive, Intransitive, Motion, Complementary, Quotative). The Complex Verbs in which they occur as Auxiliary may be Transitive, Intransitive, or Motion, depending on the Adjunct, not on the syntactic class of the Auxiliary. A Complex Verb involving an inseparable Adjunct is made benefactive by modification of the Auxiliary Verb (1965:30).

A wide variety of different forms occur as Adjunct before the Verb keemin do, be to form Complex Verbs (34). In Telefol keemin do can be used to form Complex Verbs in various ways:

The Verb keemin provides a mechanism whereby a Complex Verb may be formed from a Noun Phrase Nucleus, from the classes manifesting such Noun Phrase Laterals as Pre-Direction (D₁), Post-Direction (D₂), and Person (Pr), from an Adverb, from an Adjunct, from a loan word, and from a Verb (35).

In the case of Loan Words, the "forms borrowed, usually from Neo-Melanesian or English, may be either Nouns or Verbs in the source language."

Loan Words:

1. settle a debt  
2. (water) boils  
3. not let him go  
4. weigh, measure  
5. be sick  
6. attend school  
7. be disappointed  
8. be unattended, abandoned  
9. be lost

do keemin

I Basic Meaning:

1. settled a debt  
2. (water) boils  
3. not let him go  
4. weigh, measure  
5. be sick  
6. attend school  
7. be disappointed  
8. be unattended, abandoned  
9. be lost
10. be thankful

11. be kind, friendly

II Motion/Activity:

12. part (grass to look or go through)  
13. kick around (of legs of dying pig)  
14. mix, stir it  
15. stagger, walk erratically  
16. flap wings, flutter, hover  
17. tickle, sprinkle down  
18. shiver

III Miscellaneous:

19. make booming sound, clatter (of tin)  
20. growl  
21. hiss  
22. ring, clang (e.g. bell)  

say, see that, want to akan'kalin

I Basic Meaning:

23. ring the bell  

II Inner State:

24. be taut, tighten  
25. be self-disciplined  
26. (weather) becomes dark  
27. be stiff  
28. relax, be satisfied

III Miscellaneous:

29. blow away (dust, ashes, insect)  

E Oksapmin

Lawrence (1971) mentions 'verbal adjuncts' in Oksapmin, and gives examples of do and say; he mentions as well loan items and noise types.

do, make hapaat

1. thinks  
2. gets big  

make hapaat

1. thought does  
2. big does
3. is happy
   daa  yah had
   thought good did

4. got a hole in
   tem  ta-hah
   hole intransitive-did

5. writes
   baraak ta-hapaat
   writing intransitive-does

6. understands something
   am  hah
   knowledge did

7. is angry at me
   ator nahapaat
   anger does-to-me

8. looks at it
   waa daipaat
   look puts-in

9. looks around
   waa tahapaat
   look intransitive-does

say aripaat or porpaat

10. arrives
    kong aripaat
    arrive says

11. dies
    hapus aripaat
    die says

12. does
    has porpaat
    do says

13. splits
    kwes porpaat
    split says  (1971:11)

Loan Words:

14. goes to school
    sukul hapaat
    school does

15. teaches me
    sukul nahapaat
    school does-to-me

16. worships
    waratu hapaat
    worship does

17. makes
    wokim daipaat
    make puts-in

Noise Types:

18. makes a rattling sound
    hes hes aripaat
    rattle rattle says

19. makes a tapping sound
    kaang kaang aripaat
    tap tap says

20. makes a stamping sound
    gwi gwi aripaat
    stamp stamp says  (1971:6ff.)

Note in Oksapmin, that the majority of loan items occur with the verb do (cf. Telefol), that the one [+inner state] example given (7) takes the verb do, and that all the noises types take say.
In other cases, the verb expounding the Predicate in a complement clause co-occurs according to the exponent of the Complement tagmeme. The following give an indication of the range of such paired exponents:

<table>
<thead>
<tr>
<th>English</th>
<th>Kewa</th>
</tr>
</thead>
<tbody>
<tr>
<td>speak la</td>
<td>kunaná la</td>
</tr>
<tr>
<td>court</td>
<td>ló</td>
</tr>
<tr>
<td>argue</td>
<td>ápe ló</td>
</tr>
<tr>
<td>laugh</td>
<td>kíri ló</td>
</tr>
<tr>
<td>stretch</td>
<td>rídu ló</td>
</tr>
<tr>
<td>bring méá</td>
<td>káá méá</td>
</tr>
<tr>
<td>smell</td>
<td>ágaa méé</td>
</tr>
<tr>
<td>ask</td>
<td>ádu ná</td>
</tr>
<tr>
<td>emit ra</td>
<td>ópé ná</td>
</tr>
<tr>
<td>steal</td>
<td>páge ná</td>
</tr>
<tr>
<td>suckle</td>
<td>i ra</td>
</tr>
<tr>
<td>commit suicide</td>
<td>sópe ra</td>
</tr>
<tr>
<td>wilt</td>
<td>nááre ra</td>
</tr>
<tr>
<td>steal</td>
<td>ípa ra</td>
</tr>
<tr>
<td>defecate</td>
<td>girá tá</td>
</tr>
<tr>
<td>spit</td>
<td>mátaa tá</td>
</tr>
<tr>
<td>flood</td>
<td>áári tá</td>
</tr>
<tr>
<td>sneeze</td>
<td>nága pa</td>
</tr>
<tr>
<td>dance</td>
<td>kiru pa</td>
</tr>
<tr>
<td>thunder</td>
<td>pépéna pa</td>
</tr>
<tr>
<td>make pa</td>
<td>puri pa</td>
</tr>
</tbody>
</table>

"Kaugel has only about one hundred verbs. Most of the verbal concepts are expressed by the use of a word + verb, in which we cannot presume that the verb will maintain its usual meaning." (Head and Head 1972:21). The Heads give four examples:
1. wrap a parcel    kulupi to 
2. do work    kongono te 
3. be suffering from hunger    engele(ne) kolo 
4. be sick of (i.e. colloquial English)    siye kolo 

H Melpa 

hit ronum 

The verb 'RONUM' is perhaps the most used of all the Mogei [Melpa] verb forms. In combination with nouns, adjectives, and verbs, there are over a hundred different meanings (Ross 1946:41).

1. spit    ol ronum 
2. urinate    pu ronum 
3. miss a shot    keda ronum 
4. rotten    kigil ronum 
5. coitus    noimp ronum 
6. string beads    wilya ronum 
7. make friends with a girl    ampoga kwime ronum 
8. bleed    mem ronum 
9. ford a river    nu rump ronum 
10. tired    enimp ronum 
11. wind round    moegup ronum 
12. act as helper    reb ronum 
13. slack or bend something    eg ronum 

Examples are:
15. Why don't you write neatly?    Nim nabaelinga peper rogun kai mondi na mondunt? 
17. Which boy is always breaking wind here?    Kang namda ilye regreg te ronum? (Ross 1946:42) 

Further examples of predications with ronum are given by Strauss (n.d.:82):
18. I am getting sick.    Ten enemp ronum. 
19. We were hungry.    Ten kun ron. 

Kaugel; Melpa 189
190 Melpa

do enem
21. It is short. Punt enem.
22. It is good. Kae enem.
23. It is tasty. Téén enem. (Strauss n.d.:82)
24. He was making a netbag when he struck me. Ul etiba morumkin na rom.
25. As he finished his task the plane came. Kongen etiba kenimkin balus om. (Ross 1946:39)
27. We feel ashamed. Ten pipil enem.
28. I like/love it. Na numan enem. (Strauss n.d.:83)
say nenem (Strauss n.d.:87)
29. The engine is making a noise - is running. Masii i lik nenem. machine ik say
31. I am talking. me forgetful it said
32. It ran over (spilled). Ik nent.
33. It comes to light (i.e., is revealed) (said of stones in river, stars in sky). word I am saying
34. You are poor. OI nem.
35. You are emaciated. Mot nenem.
eat nonom (Strauss n.d.:82)
36. I have a headache Nim koropa nonom. it is eating you poor
37. We have toothache. Nim moka nonom. it is eating you lean
38. The boy has diarrhoea. Na mai nonom. me forehead it is eating
39. We are feeling nauseated. Nen gu nonom.
40. It is hard. us teeth it is eating
come onom
41. It is long. Kaŋ e ogl ompa onom. boy him abdomen coming it goes
42. We are feeling nauseated. Ten mik onom.
go onom
43. It is hard. us vomiting is coming
44. It is long. Rontogl onom. hard it goes
45. It is long. Rogl onom. long it is going
give ngunum (Ross 1946:44)
42. aid, help  etiba ngunum
43. scold, talk angrily  ig moera ngunum
44. advise, admonish  ig kun ngunum
45. set food to catch a pig  kung hub ngunum
46. set a fishtrap  auma paga ngunum
47. be deaf  kum ngunum

I Banz/Wahgi

A very important characteristic of the Banz language (shared, of course, by other non-Melanesian languages of New Guinea) is the relative paucity of independent verbs and the great abundance of idiomatic verbal expressions composed of a frequently occurring verb joined to another verb, a noun, adjective, or another part of speech. ...we find a small number of verbs in the Banz language which occur again and again, each time with a different meaning, depending on the combination we find them in. These verbs are referred to as 'so-called auxiliary verbs.' They are not auxiliary verbs in the true sense of the word because they are not always 'auxiliary' to another verb but often, if not most of the time... they are the main and only verb in the sentence. Moreover, these so-called auxiliary verbs do not occur only with verbs which they help but with nouns, adjectives, adverbs, etc. They are, therefore, only quasi-auxiliary verbs... The most important of them are: to strike, he speak, kellea throw, send, pile hear, tse take, teye put, gollo die, no eat, and, finally, the verb do, which has no English equivalent (Luzbetak 1954:136).

strike to
I Basic Meaning:
1. There are waves on the water. Noll mong tonom. water a-disturbance it-strikes
2. I cut my finger. Na angell mongom dze ront. I arm's appendage knife I-struck
3. Take a bite. Kog'le kal to. biting a-break you-strike
4. The sun isn't shining. Ants na ronom. sun not-it strikes
5. I took a shot. Na masket tont. I gun I-struck
6. I nailed. Nil tont. nail I-struck
7. The axe with which I killed the pig is here. Dze na kong to gont tem e. axe I pig striking I-die it-is this

II Cut/Break:
8. He has only one eye. Dungollyemto kal tom. eye part a-break it-struck
9. The saucepan out of which I was eating is broken. S'spen mog'he nont kal tom. saucepan food I-ate a-break it-struck
III Cover:
10. I fill the rat hole.  
Koi kar pam, usingal tem, na pipil tont.  
rat's hole there-is, a-road there-is, a-covering I-strike
11. I cover the food.  
Na mog'â be boki ront.  
I food a-covering I-strike

IV Bodily Functions:
12. I have a headache.  
Na peng tonom.  
I (my) head it-strikes
13. I am very hungry.  
Na kohe kes tom.  
I hunger badly it-strikes
14. I am hungry  
Na kohe ronom.  
I hunger it-strikes
15. I am angry/sad  
Na ents munt ket rom (kes tom).  
I bowels lungs bad it-strikes
16. Attention!  
Kane boll to.  
looking with strike
17. spit  
ku'adzip to  

18. urinate  
He wants to urinate.  
El poll tonal he pisem.  
he urine I-shall-strike saying he hears

19. be intelligent  
He is really an intelligent and clever person.  
numan ka rom

20. be frightened, excited  
mong to

21. be stubborn  
You are stubborn.  
Nim pile wik ronom.  
you (s.) hearing stubbornness you-strike

22. be breathless  
I am breathless.  
munt to  
Na munt tonom.  
I lung it-strikes

23. I flatulate.  
Ehts ront.  
wind hit

24. be bleeding  
mayam to

V Inner State:
25. be red  
bang to

26. be full  
pik ro

27. have fever  
kur ro

VI Bind/Tie:
28. bind, tie  
kan to
VII Miscellaneous:

29. I warm up (the food).  
    Na mull tont.  
    I a-heating I-strike

30. put into  
    to

31. make black magic  
    kum to

32. chase  
    tsike ro

33. make an alliance  
    tap rol

34. play ball  
    konts ro

35. adorn  
    mon to

36. play Jew's harp  
    komp kum bon tonom

37. be foggy  
    pila poll to

38. hear  
    wi ro (why not speak?)

39. call  
    to (why not eat?)

40. bite  
    do/make/affect ere (pp.141-4)

II Inner State:

41. work  
    kongan ere

42. be thirsty  
    numuŋ kap'1 ere

43. be fit/straight  
    kabile're

44. be happy  
    ents munt kae ere

45. have pain  
    nimbil ere

46. be very good  
    ka kine ere

47. do wrongly, feel bad  
    kes ere

48. be strong/be the winner  
    ombllom ere

49. make bad, ruin  
    ere kes mog'le

50. make trouble  
    punt ere

51. do good to  
    ka ere

52. be soft  
    kosil ere

53. be cold  
    bi ere

54. be beautiful, be nice, good  
    ka ere

55. be dull  

    This axe is dull.  
    Dze rumba'nam.
    axe dull it-makes

56. be shamed  
    E kisal-enem-wall ambell boll erlm.  
    he shame-it-makes-thing girl with 
    he-made

57. ridicule  
    alem ere

58. breathe  
    Is he still breathing?  
    E dosa elngin erlm mo?
    he yet a-breathing-sound he-makes, 
    is-it-so
59. cry

60. snore in sleep

61. excrete

62. be angry

63. be sleepy

III Play:

64. play, joke

65. play cards

IV Miscellaneous:

66. make black magic

67. celebrate a pig festival

68. make noise

69. laugh

70. forbid

71. hide

72. wash

73. buy

74. be dark

speak ñe (pp.147-9)

I Basic Meaning:

75. speak truth

76. speak (word, language)

77. make noise

78. lie, speak lies

79. ask

80. knock

81. joke

II Inner State:

82. be angry

83. be strong

ga ere (Why aren't (58-60) used with speak?)

wur ellâin ero

ênts ere

Na popoll enam.
I am angry.

Na dungol ombuh enam.
my eye heavy it-makes
I am sleepy.

urmal ere

kas urmal ere

kum ere

kong-gol ere

ollup ere

tow'lll ere (Why not speak a laugh?)

ma pil ere

ogul ere

wasim ere (cf. Enga waswâsa pfngi = hit)

top ere (cf. Enga topô nyîngi = take/get)

Dungollemil nemer.

eye darkness it-makes
He has poor eyesight.

kuñ ñe

yu ñe

kilkoî ñe

gent ñe

pile ñe

gewgiw ñe

oku ñe

Elem ênts munt hîng Aim.

he bowels lung hot it-spoke
He was very angry.

gi ñe
III Break:
84. break
85. break
86. break/open

IV Activity/Motion:
87. pull down
88. jump
89. fall down
throw, send kelle (pp.149-50)
90. wash
91. fishing
take tse (pp.153-5)
92. ask
93. dodge
94. be married (of man)
95. be married (of woman)
hear, feel pile (pp.150-1; 197)
96. not aware, don't know
97. be in pain, suffer
98. smell
99. know/understand language
100. believe
101. be thirsty
102. be hungry
show, indicate do (pp.151-3)
103. be burned
104. be heavy
105. be hot
106. be full
107. be dry
108. overflow
**I Basic Meaning:**

1. work, garden  
2. give bridewealth  
3. pay compensation  
4. distribute food or valuables  

**II Inner State:**

5. be horizontal  
6. be strong, tight, firm  
7. be bitter, sour  
8. be diseased, especially of plants  
9. be rotten, stink  
10. be uncontaminated, free  
11. be free from restriction  
12. feel shame, shy  
13. feel upset, sorry, jealous, etc.  
14. feel itchy, bitter, etc.  
15. get sick  
16. be sweating  
17. be sweet  
18. feel warm  
19. feel cold  
20. be straight  
21. feel lethargic, lazy, etc.  
22. be hungry, thirsty  
23. feel pain
III Motion/Activity:
24. feint, sham attacking movement
25. joke, pretend, deceive (by action)
26. pump, push in and out of an opening
27. wince, shudder (on hearing harsh grating noise)
28. smack the lips
29. shoot, of plants appearing above the ground
30. open something hinged, as a book
31. duck, crouch
32. leave footprints
33. cross the legs
34. screw
35. turn around and around by hand
36. open something hinged

IV Miscellaneous:
37. whine, pull a sad face
38. have a head cold
39. spit
40. recline
41. show off, boast
42. stop sulking, abate (of anger)
43. whisper, bribe
44. hiccup
45. comb, make a comb
46. die (ritual language)
47. ease, abate
48. weep (ritual language)
49. lie

I Bodily Process (?):
50. have an infected sore/pimple
51. have a birth-mark
52. have dandruff

(Why not utter?)
(Why not utter?)
53. have a scratch, blood blister
54. have warts
55. have a scar
56. have a scab
57. have tinea
58. have boils
59. have sores
60. have wax in the ears
61. regain good health

II Miscellaneous:
62. draw breath, recover wind
63. swallow
64. avoid by dodging
65. jump onto
66. be/become crazy, deaf
67. to be mute, stupid

perceive °nη-

I Basic Meaning:
68. study, read
69. thing, be tame/civilized
70. smell
71. know a language
72. be learned, educated
73. worry
74. dislike, hate
75. know magic
76. feel sympathy
77. glare at, feel angry
78. listen to a whisper, think over a bribe
79. spy on, watch from hiding
80. feel sorry for

utter °ag-
81. cadge, ask for gifts
82. explode
83. lie, be untruthful
84. knock
85. snore, rumble
86. resound, as bell ringing, plane roaring
87. squeak, as a rat or a bird
88. cough
89. mimic
90. cry out, especially of women calling warning or alarm
91. shout or yodel to someone at a distance
92. sing
93. make a noise which breaks silence
94. speak, talk, make the sound characteristic of animal or thing
95. talk a lot
96. be longwinded, talk a lot
97. talk nonsense, talk freely
98. belch
99. tell the truth
100. glitter
101. chorus
102. sing and dance
103. weep
104. laugh, shout
105. shout or laugh in derision
106. smile, chuckle
107. thunder
The Kuman language does not have an abundance or variety of verbs with different shades of meaning. Instead of this the different shades of meaning are expressed with idiomatic verbal expressions in which verbs, nouns, adverbs or other parts of speech are used with the auxiliary verb. The active verb is as a rule given in the stem or participial form, and the auxiliary verb or adverb is used to bring out the specific shade of meaning (Nilles 1969:264).

The most important of these verbs are given below in the third person singular:

- dongwa: affect, indicate, burn
- dungiwa: state, say
- erukena: make, do, affect
- golkena: die
- iungiwa: take, hold
- nongiwa: eat, take
- prukwa: hear
- sungwa: strike, hit
- tongwa: give
- yongwa: put, lie
- agungiwa: hold, touch
- kanungiwa: see (Nilles 1969:265)

Some examples of Kuman predications gleaned from the Trefrys' (1967) word list are presented below.

**utter di-**

1. repeat
2. feel
3. be broken
4. sweep
5. lose
6. be strong
7. be half full
8. speak a language
9. lie
10. jump
L Sinasina

hit, strike si (McVinney and Luzbetak 1954:144-8)

I Basic Meaning:

1. cut
2. shine (of sun)
3. kill
4. kick
5. punish, beat
6. crucify
7. shoot
8. bite
9. tatoo

II Inner State:

10. think, be intelligent
11. be stubborn
12. be breathless, pant
13. be blind  
14. be careful/soft  
15. be red  
16. pain  
17. be bad

III Tie, Hide:  
18. tie up  
19. cover up  
20. hide/be secret

IV Miscellaneous:  
21. fill up  
22. warm up (of food)  
23. have intercourse (vulgar)  
24. play Jew’s harp  
25. spit  
26. bleed  
27. wash  
28. buy/purchase  
29. flatter  
30. jump  
31. fall  
32. joke  
33. wiggle noose

utter, say di (pp.126-9)  
I Basic Meaning:  
34. speak the truth
35. lie
36. speak through nose
37. refuse, forbid
38. snap, crack, break
39. break
40. snore
41. indicate
42. bark
43. sing, go to parties

II Inner State:
44. be blind
45. be hot, have a fever
46. be straight, fit
47. be soft
48. be angry
49. be beautiful
50. be full
51. be at rest
52. be
53. be careful

III Miscellaneous:
54. break

I Basic Meaning:
55. do correctly, successfully
56. succeed, win
<table>
<thead>
<tr>
<th>No.</th>
<th>English</th>
<th>Sinasina</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.</td>
<td>do incorrectly</td>
<td>ki el bad</td>
</tr>
<tr>
<td>58.</td>
<td>work</td>
<td>kogenan el work</td>
</tr>
<tr>
<td>59.</td>
<td>labour in vain</td>
<td>yumore el in-vain</td>
</tr>
<tr>
<td>60.</td>
<td>work continuously</td>
<td>morone morone el manner.true manner.true</td>
</tr>
<tr>
<td>61.</td>
<td>paint</td>
<td>mine gol el designs red</td>
</tr>
<tr>
<td>62.</td>
<td>do good/honour</td>
<td>akun dal tere el holding-good calling having-given</td>
</tr>
</tbody>
</table>

II Inner State:

<table>
<thead>
<tr>
<th>No.</th>
<th>English</th>
<th>Sinasina</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.</td>
<td>be fit, equal, same</td>
<td>kune el fit</td>
</tr>
<tr>
<td>64.</td>
<td>be happy</td>
<td>argan el happy</td>
</tr>
<tr>
<td>65.</td>
<td>be sick</td>
<td>nibil el sickness</td>
</tr>
<tr>
<td>66.</td>
<td>be industrious</td>
<td>nima pire el straight having-gone</td>
</tr>
<tr>
<td>67.</td>
<td>thank</td>
<td>min el good</td>
</tr>
</tbody>
</table>

III Miscellaneous:

<table>
<thead>
<tr>
<th>No.</th>
<th>English</th>
<th>Sinasina</th>
</tr>
</thead>
<tbody>
<tr>
<td>68.</td>
<td>hold pig festival</td>
<td>bona igin el (cf. Enga pingf do) pig ritual</td>
</tr>
<tr>
<td>69.</td>
<td>stir, mix, churn</td>
<td>auna mauna el push pull</td>
</tr>
<tr>
<td>70.</td>
<td>play (cards)</td>
<td>kat el cards</td>
</tr>
<tr>
<td>71.</td>
<td>have intercourse (sexual)</td>
<td>unan unan el around around</td>
</tr>
<tr>
<td>72.</td>
<td>have intercourse</td>
<td>tal ki el thing bad</td>
</tr>
</tbody>
</table>

effect, consume de (pp.124-5)

I Inner State:

<table>
<thead>
<tr>
<th>No.</th>
<th>English</th>
<th>Sinasina</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.</td>
<td>be heavy</td>
<td>ibin de weight</td>
</tr>
<tr>
<td>74.</td>
<td>be decayed/rotten</td>
<td>dugil de decay</td>
</tr>
</tbody>
</table>

II Motion:

<table>
<thead>
<tr>
<th>No.</th>
<th>English</th>
<th>Sinasina</th>
</tr>
</thead>
<tbody>
<tr>
<td>75.</td>
<td>send a message</td>
<td>ka di deiwa word saying</td>
</tr>
<tr>
<td>76.</td>
<td>spill, empty</td>
<td>tule de empty</td>
</tr>
<tr>
<td>77.</td>
<td>fell, pull down</td>
<td>gure maunil de shaking down</td>
</tr>
</tbody>
</table>
### III Miscellaneous:

<table>
<thead>
<tr>
<th>Number</th>
<th>English</th>
<th>Gahuku</th>
</tr>
</thead>
<tbody>
<tr>
<td>78.</td>
<td>burn</td>
<td>gana de skin-my</td>
</tr>
<tr>
<td>79.</td>
<td>shine (of moon)</td>
<td>ba de moon</td>
</tr>
<tr>
<td>80.</td>
<td>shine (of sun)</td>
<td>are de sun burns</td>
</tr>
<tr>
<td>81.</td>
<td>suffer</td>
<td>gi ul pil bound pain</td>
</tr>
<tr>
<td>82.</td>
<td>smell</td>
<td>kumine pil scent</td>
</tr>
<tr>
<td>83.</td>
<td>understand</td>
<td>ka pil word</td>
</tr>
<tr>
<td>84.</td>
<td>believe</td>
<td>one pil true</td>
</tr>
<tr>
<td>85.</td>
<td>fear</td>
<td>kuril pil fear</td>
</tr>
<tr>
<td>86.</td>
<td>feel bad/sad</td>
<td>pril si pil bad striking</td>
</tr>
<tr>
<td>87.</td>
<td>pity, mercy</td>
<td>mile pil sorrow</td>
</tr>
</tbody>
</table>

### M Gahuku

Deibler does not give an interlinear translation, so the following material is grouped according to the base verb (literal meanings unknown):

**nepele kave**

1. He hit me.  
   Nepele kave.
2. I am tired.  
   Goseleq nepele kave.
3. I have a cold.  
   Avona nepele kave.
4. I am sweating.  
   Govisi nepele kave.
5. He is cross at me.  
   Mukahaq nepele kave.
6. I am injured.  
   Gotaq nepele kave.
7. He is looking at me.  
   Gonaq nepele kave.
8. Bananas have formed.  
   Gizasi apele kave.
9. I am chilly.  
   Hepeq nepele kave.

**vele kava**

10. He made a pot.  
    Somo vele kava.
11. He made a road.  
    Gapo vele kava.
12. She wore a skirt.  
    Gaina vele kava.
13. He vomited.
15. He scraped the kaukau.
16. He went separately.
17. He kicked the ball.
18. It is raining.
19. It is cold.
20. It is dark.
21. It has fruit.
22. He did it once.
23. He buried it.
24. They knelt.
25. He brought.
26. He has measles.
27. He put in posts.
28. He wore it.
29. He made a boundary.
30. He made a fence.
31. He had pity.
32. He bore tales.
33. He is crazy.
34. A chicken pecked it.
35. He juggled.
36. There was a rainbow.
37. He is resting.
38. The kaukau is big.
39. He cursed.
40. It is dried.
41. He fooled me.
42. He urged him.
43. He is happy.
44. He bent over.
45. He reproved.
46. He embraced.
47. He was afraid.
48. He taught them.
49. It is swollen.
50. He filled it.

F BenBen

Young (1964) states that

the periphrastic [verb] complex constitutes more than 50 per cent of all verb constructions in text. It is defined as a verb complex consisting of a free-form word of specific verbal implication in close knit sequence with a fully inflected nuclear verb, which together have a unique semantic content (78).

The form of the periphrastic verb complex consists of the free-form word, which is lateral to the nuclear verbs, is termed the peripheral since it behaves as an auxiliary to the verb within the complex. It is non-inflectional. The nuclear verb, with obligatory affixes of tense, person and number, and mood (as well as optional suffixes), occurs as the nucleus of the complex.

In this complex, the nuclear verb, losing its basic meaning in almost every instance, becomes the nucleus for a great range of peripherals, the peripheral bearing the main semantic load for the complex and the verb a mainly functional one (78f.).

In stating the criteria for identifying the components as two separate words, Young mentions that whereas "prefixal morphemes are not limited to any one verb class, each peripheral is limited to one specific nuclear verb, and therefore class" (79). Restated, what Young is saying is that what he calls the 'nuclear verb' of the periphrastic verb complex acts as a classificatory verb. "A peripheral occurs only with one specific verb,..." (79).

[Note: Young essentially says that he has no intersection of the kind shown above in the Enga data 4.2.3, and demonstrated for Karam by Pawley (p.109 above) when showing that the 'nuclear verb' does in fact carry some semantic load.]

Young presents his predications with typical examples:

attention has been drawn to a specific nuclear verb, with its class, in each set of examples. Each verb selected is a typical example of those nuclear verbs which have high frequency count in periphrastic constructions (80).

hit ho-
Verb phrases of the idiom type have "restricted co-occurrence potential of constituent words and a limited degree of productivity" (Bee 1973:287). "...only a few verbs are potential fillers of the verb slot. The following examples give the more common ones which account for about two-thirds of the verbal idioms" (1973:291).

**O Usarufa**

1. be angry, pout  
   komá  
pout
2. shot, bark, etc.  
wáága  
noise
3. initiate a boy  
maabumá  
young man
4. be bashful  
agayemá  
shame
5. sniff, smell  
ákubitaa  
fragrance
6. laugh, be happy  
wfrsá  
laugh, smile
7. search  
abáá  
lost  
(cf. Enga álo pingí)
8. admire  
aayoq  
gaze
9. shiver
10. wash, scrub, cut wood finely
11. shake something
12. kiss
13. burp
14. be messy
15. be crazy

Of especial interest to our comparison of Enga kaengé be (of inner states), is the data Bee presents for the verb do.

The verb to do, ..., is an auxiliary verb which occurs only in verbal phrases and equational clauses. In many of its functions it is like the English verb to be. As a verbal auxiliary it may be used to form tense, voice or mood contrasts instead of the usual suffixation. In this case the appropriate suffixes occur on the verb to do and the main verb precedes it without suffication. In equational clauses and descriptive or state of being phrases it functions as a copula (1973: 294).

Of the five categories of phrases with this verb, the 'state of being' phrases are of most interest to the previous discussion; some examples of these are

do

16. be emaciated
17. be displeased
18. be obedient
19. be easy, light
20. be warm, dry
21. be bad
22. be big
23. be found

say

24. hiccoughs
25. an itching foot indicating someone is thinking of you

áqteqte
tete
apibi
amóqna moqna
kiss
kamu gamáá
a burp
turi táári
messy
nagí naagl
crazy
pá
skinny
kó
pout
kato
obedient
oyáá
light
kokó
warm
táiq
bad
anó
big
páaq
found
níkiq níkiq
hiccough
ágaa ágaa
gossip
26. hurry someone  waku waku
27. be crackly dry  této  (cf. Enga kéké lengé)
28. be firmly planted  kfkí
29. fit tightly together  títí
30. suck  mfqmíq
31. stutter  abububu
32. mimic  ameme
33. cough  umoimá
cough
34. hum  áúqa
inside
35. urinate  awimá
urine
burn
36. fade  ópo
dullness
37. shine  áwáarara
brilliance
dance
38. play  áábé
play
39. be beside oneself with anger  imaamú
rage
go
40. fly  arabé
flight
move
41. move a stubborn child  anumá
mountain
42. sand  kámanama
a rough leaf
get, take
43. buy  meyámmá
purchase
44. steal  moyámmá
theft
come
45. bemoan  karagíqá
sorrow
46. visit  nammágíqá
visit
pour over
47. bathe nommá
48. paint ayammá

Miscellaneous:
49. attend school naamama
50. cry ibiqá yara
51. smell akuqá ita

P Tairora

"Some nominals occur in other constructions clearly as nouns while other nominals occur only in compound stem constructions. The following verb has generally no meaning in isolation. For example the nominal, iha firewood occurs elsewhere as a noun but the verb, quare occurs only with iha" (Vincent 1973:562).

1. He firewooded the tree branch Katari kaara iha quare-ro. i.e. He burned the tree branch.
2. It hit his hunger place H-antuqa h-ari-ro. = He is hungry. his-hunger.place him-hit.it

This is probably another case (cf. Ross and Luzbetak) in which the verb is constant in meaning (or neutral), and the adjunct is the variable.

3. He said talk, he spoke. Uva ti-ro. talk say-he

Examples (3) and (4) are of a nominalized verb stem plus a second verb stem.

Q Waffa

The "periphrastic verb phrases" are discussed by Stringer and Hotz (1969:29), who give the following as verbs used in the nucleus slot:

kiaa, iikia do kia say
varia, rakia be, sit pikiaa leave
taa, rikiaa see, hear (understand) raa move
 Examples are given for the auxiliary verb phrases using *do* and *say* in Selepet, as well as comments on the assignment of Tok Pisin loan items.

**do oap**

1. *it oosed*  
   *kin kin kân kân oap*
2. *he hicoughed*  
   *nâtâk oap*
3. *he detected sorcery*  
   *hatak oap*
4. *he disappeared*  
   *gulip oap*
...the verb tuhu to do, build, make, frequently occurs as the auxiliary when a Neo-Melanesian transitive verb ending in im occurs as the adjunct. Note that many Selepet homopersonal verbs end in m so that this type of AVP is probably analogous to the Selepet sentence which consists of a dependent homopersonal verb immediately followed by an independent verb (McElhannon 1972:73).

Note examples (7-9), the cognate object verbs. (Fabian and Fabian (1971:80f.))
The Noun-Verb expression

is a very common one in Kapau. It consists of a noun plus a verb centre...[it] is not a close-knit expression structurally as the noun can be separated from the verb by object, adverb and other things... But it is close-knit semantically (Oates and Oates 1968: 38f.).

An example given of this type of Vphrase is

1. I am working.
   Ni wamng a gi ya.
   I garden am-doing-I

In the discussion of the verb stems which occur in such Vphrases, the Oates state that the

do stem is by far the most common... Many of these forms expressed Kapau idiom (and it is wise to learn the phrase as entity) [sic].

For example, many physical needs and attributes and the forces of nature are expressed in a N-i-Vx: hunger, hearing, water in flood, wind all do (39).

do i-

2. be lightning
   inavä
   lightning

3. be windy
   ymnga
   wind

4. ooze pus
   guymnga
   pus

5. be drying
   yea
   dry

6. ripen
   mqa
   ripe

* speak, utter t-, ti-

occurs with nouns which deal with uttering or making a noise and with nouns dealing with natural phenomena, or the emotions (40).

7. speak, talk
   pane'a
   talk

8. whistle
   wipa
   whistle

9. sing
   òpa
   song

10. thunder
    hinko
    thunder

*think or utter from within mt-, mti-

occurs with nouns dealing with that which proceeds from inside a person (40).

11. think
    q uno
    thought
V Weri

Boxwell in his discussion of the Weri verb phrase gives as one type of auxiliary verb phrase type a, composed of two inseparable parts, a noun stem, descriptive or adjunct followed by an auxiliary verb. Some examples of this type of verb phrase are:
1. he speaks
   nyun ya
   word say

2. he speaks profoundly
   nyun kunum ya
   word heavy say

3. he blows
   pūl yamingk
   breath hits

4. he has a cold
   ëng-re ngèsul ya
   cry-and cold does

5. he is in a temper
   ëng-re kulap yai
   cry-and angry does

6. he crawls
   mor yang yes
   hand ground goes

Some examples of the auxiliary verb phrase type b are:

7. he works
   waûr yai
   work does

8. he works very hard
   waûr kisang pan yai
   work big very does

9. he drinks
   ë yen
   water eats

10. it is smoky
    es koûlup yai
    fire smoke does

Some examples of type c are:

11. it is ripe
    kup yamu
    red hits

12. it is bad
    òpet yewas
    bad puts

13. he is itchy (from lumps)
    õlp õlp yai
    lump lump does

14. she is awake
    ët ët wii
    eye eye is

15. it is tight
    tain-tai yewas
    tight-tight does

16. he helps
    kaamuk-muk yai
    help-help does

Sensory verb phrases:

The auxiliary verb used here is either yai do or yes go

17. he is hungry
    kiìn-in yai
    green vegetable-ben does

18. he is tired
    korup-un yai
    skin-ind.obj does

19. he is deaf
    kat-iìp-un yai
    ear-ind.obj does

20. he is thirsty
    ë-ët-en yai
    water-sg-ind.obj does

(Boxwell and Boxwell (1969:6ff.))
"The auxiliary carries most of the meaning of the phrase and the Head carries all the suffixation...the verb which most commonly manifests the Head is ta do" (Geary and Pence 1973:61). The verbs listed as head are ta do, heza be, rava become, vata make, oraeza lies, na eat, mena kill, teza take off, and ema come. Some examples of this construction in Kunimaipa are

1. he shook it
dei dei ta-ha
shake shake do-3s/per

2. it boiled
rokoroko ema-ha
boil come-3s/per

3. it dawned
ale teza-ha
light open-3s/per

4. I will bake it
aro teza-ha
bake do-1s/imp

5. it pained
kakama ta-ha
pain do-3s/per

6. he only danced here
dapa-hara ere mena-ha
dance-just here hit-3s/per

7. it dried
ngai rava-ha
dry become-3s/per

8. it is empty
ngai oraeza
dry lies

9. they dried it
ngai vata-ha
dry make-3pl/per

(Geary and Pence (1973:62f.))

Wilson says

perhaps the contribution which Suena can make to an understanding of all the Binandere languages is in the area of 'Compound Verbs'. In Binandere itself it would appear that all verbs are formed with the Auxiliary verb ari to do. In Zia, Mallander set up five classes of verbs, four of them based on the fact that they took different Auxiliary verbs. This can be done for Suena, too, though this would be establishing the classes on the basis of form rather than function. The Auxiliary verbs, with their primary meaning, are:

SUENA ZIA BINANDERE OROKAIVA ENGLISH
wai yari ari e/ari to do
sai sari
mai mari
gai gari
awai
nai
say
come
see
rest
arrive

Suena compound verbs formed from the Auxiliary verbs listed above
1. sleep  
2. sneeze  
3. help  
4. burp  
5. yell

Y Korafe

Personal discussion with James and Cynthia Farr indicate the presence of predications in Korafe; a few examples from their unpublished word list/notes are given for ari do and sari say.

do ari
1. cry  
2. fear  
3. fight  
4. quarrel like children  
5. hate  
6. play, sing  
7. sell  
8. watch, wait, protect  
9. want, like  
10. work  
11. move  
12. walk with knees flexed/limp  
13. hop  
14. hiccough  
15. search for  
16. learn, know  
17. be open  
18. marry a man  
19. share food  
20. weed  
21. notch  
22. itch (3rd person)  
23. be finished (3rd person)  
24. feel pain, anguish  
25. stink  
26. smell good, kiss  
27. swim  
28. look for, find
<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Binaari</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.</td>
<td>carry piggyback</td>
<td>asa ari</td>
</tr>
<tr>
<td>30.</td>
<td>rip, tear</td>
<td>torere ari</td>
</tr>
<tr>
<td>31.</td>
<td>worry (literally throat pains do)</td>
<td>dubo mema ari</td>
</tr>
<tr>
<td>32.</td>
<td>tickle</td>
<td>kurikuri ari</td>
</tr>
<tr>
<td>33.</td>
<td>err</td>
<td>sembae ari</td>
</tr>
<tr>
<td>34.</td>
<td>turn off lamp, extinguish fire</td>
<td>soana ari</td>
</tr>
<tr>
<td>35.</td>
<td>bandage a sore</td>
<td>figa ari</td>
</tr>
<tr>
<td>36.</td>
<td>pass gas</td>
<td>jegimo ari</td>
</tr>
<tr>
<td>37.</td>
<td>crawl</td>
<td>ukuge jiririri ari</td>
</tr>
<tr>
<td>38.</td>
<td>recline</td>
<td>tuturo ari</td>
</tr>
<tr>
<td>39.</td>
<td>help</td>
<td>sohemb ari</td>
</tr>
<tr>
<td>40.</td>
<td>climb hand over hand</td>
<td>ririk ari</td>
</tr>
<tr>
<td>41.</td>
<td>believe</td>
<td>tumonde ari</td>
</tr>
<tr>
<td>42.</td>
<td>spit</td>
<td>koslu v ari</td>
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<tr>
<td>43.</td>
<td>lasso an animal</td>
<td>ivasa ari</td>
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<tr>
<td>44.</td>
<td>coil (of string)</td>
<td>kefu ari</td>
</tr>
<tr>
<td>45.</td>
<td>peel (of vegetables)</td>
<td>sarura ari</td>
</tr>
<tr>
<td>46.</td>
<td>shiver (3rd person)</td>
<td>(tamo) susumbara ara</td>
</tr>
<tr>
<td>47.</td>
<td>be happy</td>
<td>iwuga ari</td>
</tr>
<tr>
<td>48.</td>
<td>commiserate</td>
<td>gumema ari</td>
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<tr>
<td>49.</td>
<td>snap, break off</td>
<td>degage ari</td>
</tr>
<tr>
<td>50.</td>
<td>stretch (of rope)</td>
<td>kamusa ari</td>
</tr>
<tr>
<td>51.</td>
<td>pinch</td>
<td>gabasa ari</td>
</tr>
<tr>
<td>52.</td>
<td>steer (of a boat)</td>
<td>kuniga ari</td>
</tr>
<tr>
<td>53.</td>
<td>mix up</td>
<td>jinembe ari</td>
</tr>
<tr>
<td>54.</td>
<td>measure</td>
<td>inoro ari</td>
</tr>
<tr>
<td>55.</td>
<td>live, be in health</td>
<td>jebuga ari</td>
</tr>
<tr>
<td>56.</td>
<td>dance</td>
<td>ivisa ari</td>
</tr>
</tbody>
</table>

say sari

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<tr>
<td>57.</td>
<td>cough</td>
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<td>58.</td>
<td>laugh</td>
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<td>59.</td>
<td>sneeze</td>
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<tr>
<td>60.</td>
<td>request</td>
</tr>
<tr>
<td>61.</td>
<td>answer</td>
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<td>62.</td>
<td>shout, yell</td>
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<td>63.</td>
<td>whisper</td>
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<td>64.</td>
<td>lie</td>
</tr>
<tr>
<td>65.</td>
<td>gossip</td>
</tr>
<tr>
<td>66.</td>
<td>gossip</td>
</tr>
</tbody>
</table>

Note that Korafe is a member of the Binandere family: cf. the materials given on Suena.
BIBLIOGRAPHY

Parentheses around a name or title indicate that these are known but not indicated on the item cited.

The following abbreviations are used

AA American Anthropologist
IJAL International Journal of American Linguistics
NGLM-MS New Guinea Lutheran Mission-Missouri Synod
PLA Pacific Linguistics, Series A (Occasional Papers)
PLB Pacific Linguistics, Series B (Monographs)
PLC Pacific Linguistics, Series C (Books)
PLD Pacific Linguistics, Series D (Special Publications)
SIL Summer Institute of Linguistics

BACH, Emmon
1967 "Have and be in English Syntax." Language 43:462-86.

BACH, Emmon and Robert T. Harms (eds.)

BAR-HILLEL, Yehoshua

BEE, Darlene

BERLIN, Brent
BERLIN, Brent, Dennis E. Breedlove, and Peter H. Raven

BIERWISCH, Manfred

BOELAARS, J.
1950 The Linguistic Position of South-Western New Guinea.
Leiden: E. J. Brill.

BOLINGER, Dwight

BOXWELL, Maurice and Helen Boxwell

BULMER, R. N. H.

BUDKE, Mrs. Clarence

BURCE, Willard Lewis
St. Louis: Concordia Seminary.

(BUS, G. A. M.)

CAPELL, A.

CASAGRANDE, Joseph B. and Kenneth L. Hale

CHOMSKY, Noam A.

CHOMSKY, Noam and Morris Halle

CONKLIN, H. C.
CROTTY, John

CUPIT, L. A.

DAHL, Guenter and Gerd Heidemann

DEIBLER, Ellis

DIXON, R. M. W.

DRABBE, P.

DRAPER, Sheila


DUBERT, Marjorie

DUTTON, T. E.

ELLIS, Jeffrey

ELSON, Benjamin F. (ed.)
1964 "Verb Studies in Five New Guinea Languages." Norman: SIL.

FABIAN, Edmund and Grace Fabian

FILLMORE, Charles J.

FINNEY, Mrs. A., Rev. D. Rothenbush, and Rev. O Hintze
1964 "Abridged Enga-English Dictionary for the Enga Conversational Pedagogical Grammar. NGLM-MS.

FODOR, J. A. and J. J. Katz (eds.)

(FOOTE, Esther)

FRAKE, Charles O.
FRANKLIN, Karl J.

FRIEDRICH, Paul

GAEFFKE, Peter

GEARY, Elaine and Alan Pence

GETHING, Thomas W.

GIVON, Talmy

GOODENOUGH, Ward H.

GREENBERG, Joseph H.

HAAS, Mary R.
1948  "Classificatory Verbs in Muskogee." *IJAL* 14:244-6.
HALLE, Morris

HAYS, David G.
1964 "Dependency Theory: A Formalism and Some Observations."
Language 40:511-25.

HEAD, Robert A. and June Head
1972 Kaugel Essentials for Translation: Grammar. SIL MS.
82pp.

HEALEY, Alan
The Australian National University.

HEALEY, Phyllis M.

HETZRON, Robert
1970 "Nonverbal Sentences and Degrees of Definiteness in
Hungarian." Language 46:899-927.

HIATT, L. R. and C. Jayawardena (eds.)

HINTZE, O. C.
1960 2-3-4-5-6-7 Syllable Tone Test List. Resulting from
NGLM-Baptist Language Conference. Mimeo.

1962 "An Introductory Grammar of the Enga Language in the
Mai and Raeapo Dialects." NGLM-MS. Orientation Course
for New Staff.

1963a Learning to Speak the Enga Language in the Mai and
Staff.

1963b "A Conversational Pedagogical Grammar of the Enga
Language." NGLM-MS.
n.d.a The Conjugation of 18 Verbs in Mae Enga with Tone Marks. Mimeo.


HOCKETT, Charles F.

HOIJER, Harry

HOUSEHOLDER, Fred W. and Sol Saporta (eds.)

HYMES, Dell and W. E. Bittle (eds.)

IRWIN, Barry

JACOBS, R. A. and P. S. Rosenbaum

JAMES, Dorothy

KACHRU, Yamuna

KATZ, J. J. and J. A. Fodor

KATZ, J. J. and P. Postal
KAY, Paul

KELLY, E. J.

LAKOFF, George
1966 "Stative Adjectives and Verbs in English." Report NSF 17, Harvard University Computational Laboratory.

LAKOFF, Robin T.

LANDAR, Herbert

LANG, Adrianne

LANG, Adrianne, Katharine E. W. Mather and Mary L. Rose

LANG, Ranier

LARSON, James E.
n.d. Summary of Enga Grammar Divided into Eight Units. NGLM-MS. Mimeo.
LAWRENCE, Marshall

LAWRENCE, P. and M. J. Meggitt (eds.)

LAYCOCK, D. C.

LEHRER, Adrienne

LOUNSBURY, Floyd G.

LUZBETAK, Louis J.

LYONS, John

LYONS, John (ed.)

McCawley, James
McELHANON, K. A.

McELHANON, K. A. and C. L. Voorhoeve

McVINNEY, Paul A. and Louis J. Luzbetak

McKAUGHAN, Howard (ed.)

MATTHEWS, P. H.

MATHIAS, Gerald

MATHIOT, Madeleine

MEEHAN, Dorothy and Philip Meehan

MEGGITT, M. J.
1971 "From Tribesmen to Peasants: The Case of the Mae Enga of New Guinea." In Hiatt and Jayawardena (eds.) 1971: 191-209.
MILLER, J. E.  
1970 "Stative Verbs in Russian." *Foundations of Language*  
6:488-505.

MOULD, Martin  
1971 "The Agreement of Nominal Predicates in Luganda."  

MURDOCK, G. P. (ed.)  

NIDA, Eugene A. in collaboration with Kenneth Osborne  
1968 Tone, Intonation, Stress, and Length in the Kyaka Dialect of Enga. Mimeo.

NILLES, J.  

OATES, W. and L. Oates  

PAWLEY, Andrew  

PILCHER, W. W.  
1967 "Some Comments on the Folk Taxonomy of the Papago."  
*AA* 69:204-8.

PILHOFER, G.  
1933 "Grammatik der Káte-Sprache in Neuguinea."  
*Zeitschrift fuer Eingeborenen-Sprachen, Beiheft* 14.  
1953 *Vocabulary of the Kate Language.* Madang: Lutheran Mission Press.

POSTAL, Paul  
RAY, S. H.

ROMMEY, A. Kimball and Roy Goodwin D'Andrade (eds.)

ROSS, John R.

(ROSS, William A.)

RULE, W. M.

SAPIR, Edward

SCHNEUKER, C. L.

SEBEOK, T. A. (ed.)

SMITH, Jean and Pam Weston

(SMYTHE, William)

STAAL, J. F.
STEINBERG, D. D. and L. A. Jakobovits (eds.)

STRAUSS, Hermann

STRINGER, Mary and Joyce Hotz
1967 (Waffa Verb Phrases.) SIL MS.

STURTEVANT, William C.

TRYON, D. T.

TYLER, Stephen A. (ed.)

VAN DER STAP, P. A. M.

VINCENT, Alex

VOELTZ, Erhard

VOORHOEVE, C. L.
WADDELL, E. W.

WALLACE, A. F. C. and J. Atkins

WEINREICH, Uriel
1962 "Lexicographic Definition in Descriptive Semantics." In Householder and Saporta (eds.) 1962:25-44.

WILSON, Darryl

WURM, S. A.

YOUNG, Robert A.