

PACIFIC LINGUISTICS

C – 63

**A GRAMMAR OF
LOWER GRAND VALLEY DANI**

H. Myron Bromley



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PREFACE

This study was originally presented to the faculty of the Graduate School of Yale University for acceptance in 1972, and has been available on order from University Microfilms. In 1974 Professor S.A. Wurm of the Australian National University suggested publication in the *Pacific Linguistics* series, but the pressure of other tasks has prevented this until now, when in consultation with Professor C.L. Voorhoeve, it appeared possible.

Meanwhile, the field of linguistics has continued to grow and change, but it has not been possible for me to keep fully abreast of these changes in the field situation. Some small additions and revisions interact with recent materials, but there is certainly no overall coverage of the literature since 1970 relevant to the study. However, the major value of this study is descriptive, and that value remains. The data presented in the description have been revised in only some small ways, though some of these are interesting and relevant to the concerns of the study with deictic categories of person reference. Two missionary colleagues, Mrs. Nel Akse, now deceased, and Rev. R.B. Karcesky, drew my attention to the most important new data.

For missionary colleagues and others working in Irian Jaya, it would have been valuable to change the orthography used in the study to conform to the spelling now used for and by speakers of Lower Grand Valley Dani. But the phonemic orthography originally used has advantages in the description of morphemes, and for the use of the linguists who may read this study that orthography has been retained in this edition also.

For their scholarly helpfulness, I continue to be indebted to the linguists and anthropologists at Yale, particularly Professor Floyd Lounsbury, my thesis adviser, who recently retired from his quietly brilliant active teaching career.

As the writing of this study was originally possible because of the helpfulness of my wife, Dr. Marjorie J. Bromley, and our children, Mark, Beth and Lois, time for the preparation of this revision has come during a visit to Australia for family medical reasons. For making that visit possible and for constant support in the programme of study that included research in the field and writing of the study, I am indebted to the Division of Overseas Ministries and the Irian Jaya field of the Christian and Missionary Alliance.

Among the many speakers of Lower Grand Valley Dani to whom I am continually indebted, two are the most important: Apsalek Aso of Hepuba, who first guided me into knowledge of the language, and Sygehnogo Hesezem of Tangma, who has for many years worked with me in the translation of the Christian Scriptures. This study was originally and remains dedicated to Him in whose name it was done, for the better sharing of the Good News of Jesus Christ among the Grand Valley Dani.

SUMMARY

Lower Grand Valley Dani is a non-Austronesian language spoken in the Balim valley in the central mountains of Irian Jaya (formerly West New Guinea), Indonesia. This study is based on monolingual learning and analysis of that language during thirteen years of residence in the area as a missionary, and on analysis of a corpus of recorded texts. Primarily descriptive, the study focuses on the Dani treatment of events, event sequences, and the participants in those events, with particular attention to the speaker and addressee. The approach is eclectic, but a stratificational model is often implicit.

Chapter I relates this study to previous studies of Dani and to current linguistic theory.

Chapters 2, 3 and 4 treat reference to single events. Chapter 2 is a review and re-analysis of the categories of mode, tense, subject, aspect, and syntactic relationships which are marked in verbs. The chapter is organised in terms of 'event modes', which refer to the speaker's appraisal of an event as factual, hypothetical, or potential. Chapter 3 treats the interrelated categories of voice and case or role. Dani exhibits reflexive and non-reflexive voices and five contrastive sets of relationships of verbs to personal objects, four of which are marked by constructions with auxiliary verbs. Chapter 4 treats deictic orientation, person and event mode as categories relating the speaker and addressee to the event. It is argued that the reference of these deictic categories is best described not in terms of performative verbs, substitution and deletion, but in terms of reference to the speaker and addressee as integral elements in semological structures.

Chapter 5 treats reference to multiple events in verb sequences within the sentence, thus focusing on the 'chaining' of sentence-medial dependent verb forms and final superordinate verbs.

Chapter 6 is a programmatic treatment of utterances and their relationship to the speaker and addressee, including description of two sets of modal categories as utterance marginal, and the treatment of sentences and information units within sentences as units in the structure of discourse.

The study describes Dani reference to events and participants primarily in terms of verbs, verb sequences and clauses with nuclear verbs, but views these morphological and syntactic structures as realisations of more fundamental semological structures which include elements of both meaning and reference. Deictic reference to the speaker and addressee is pervasive and requires the description of grammar in discourse perspective.

CHAPTER 1

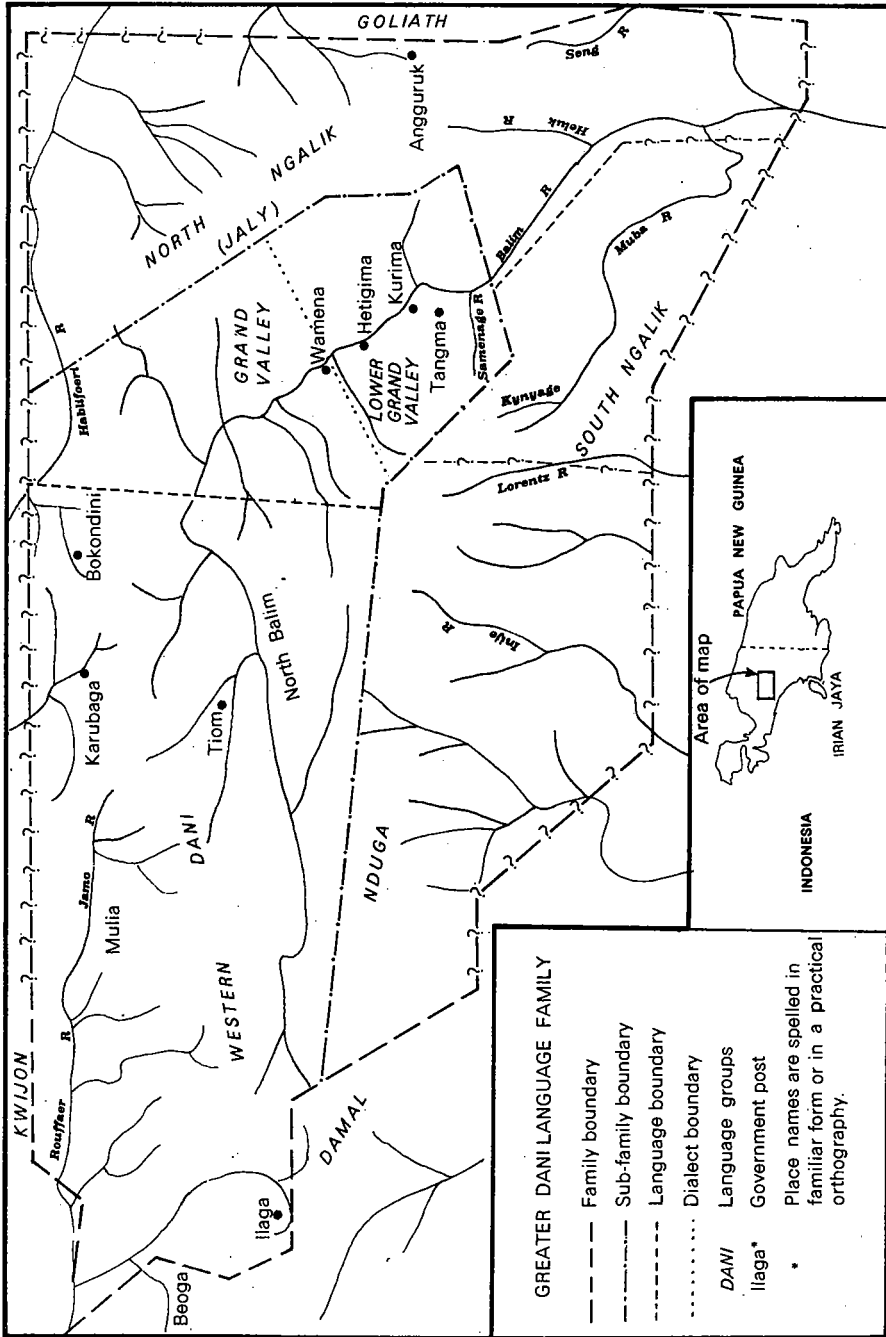
INTRODUCTION

1.1. PREVIOUS DANI STUDIES

In 1945 Margaret Hastings, WAC survivor of an airplane crash near the Grand Valley of the Balim in central Irian Jaya (then Netherlands New Guinea: see Map 1) publicised the one 'word' she and the rescue party learned during their month-long stay in 'Shangri-La': uhn (1945: 6). Considerably fuller and more trustworthy information about related languages had long been available, dating from the first contact by van Nouhuys and the Lorentz expedition with the Pesegem south of Mount Trikora (Wilhelmina) in 1909 (van Nouhuys 1912:266-273). The word lists and observations recorded during those scant four days of contact are remarkably perceptive, even including accurate notation of some stress and juncture phenomena. Twelve years later, in 1921, anthropologist Paul Wirz spent a little more than two months in the Swart Valley as a member of the Kremer expedition, who referred to the local population as Timorini and Oeringoep.¹ His linguistic and ethnographic observations were the first important contribution to our knowledge of any Western Dani population. The name Dani, spelled Ndani, was introduced into the literature by C.C.F.M. Le Roux, geographer-ethnographer of the 1926 Sterling expedition to the upper Rouffaer. He used the term for one of three main ethnic groups contacted there. In his comparative lists Le Roux recognised that the language he called Ndani was related to the languages earlier reported from the Swart Valley and the upper Lorentz Valley (1950:898-913).²

The Grand Valley of the Balim was discovered by the Archbold expedition in 1938, but members of that party published no wordlists from that area. In fact, the only wordlist available from their work is from the quite different, although related, language of the upper

GREATER DANI LANGUAGE FAMILY



Hablifoerie area (in Le Roux 1950:902-913). Nor are any language data available from the first overland exploratory trip to Grand Valley from the Wissel Lakes, in 1952, although the report of that trek documents the use of the spelling Dani as well as NDani and explicitly extends the reference of the term to the upper Ibele population bordering Grand Valley (Meijer-Ranneft 1952:66).³

When in April, 1954, the missionary team of which I was a member became the first permanent European residents in Grand Valley, there were no wordlists or linguistic data available in any language spoken there, and the wordlists from related languages proved unusable at that stage. The local populace tried to make communication easier by greeting the party warmly with cries *nap, nap*; only much later did we realise that this was no local term but was remembered as a greeting used by the Archbold party, who apparently learned it from Nduga speakers passing by Lake Habbema. Save for such unrecognised aids by helpful local friends, the study of the language has been monolingual from the beginning, and has continued during my more than thirteen years of residence in Grand Valley as a missionary of the Christian and Missionary Alliance. Most of this time has been spent in residence in the Lower Grand Valley areas around Hetigima and Tangma, with periods of several months or more of residence also in mid Grand Valley and upper Grand Valley.

The first descriptive fruit of this research was an analysis of Lower Grand Valley Dani phonology, prepared as a master's thesis (Bromley 1961). A full description was promised, before I realised how impossibly vast is the task of a really full description of a language, nor how many other urgent tasks would be at hand. My only other published linguistic report has been a lexico-statistical article outlining the linguistic relationships of Grand Valley Dani (Bromley 1967).

Grand Valley Dani and Western Dani together comprise a central subfamily of the greater Dani language family. Besides Wano, which is probably a separate subfamily, the other large subfamily within that family is the outer group I have called Ngalik-Nduga, which includes North Ngalik, also known as Jaly or Jalé (Jalé in Koch 1967), located across the range north and east of Grand Valley; South Ngalik, including the language of the Pesegem, located south of the range forming the southwest border of Grand Valley; and Nduga, farther west along the south side of this same range, as shown on Map 1. This greater Dani family is related to the Damal family, including languages known as Damal or Uhunduni, and Amung; the Dem family; and the Kapauku-Moni-Woda family, within the Irian Jaya highlands phylum. There are traceable links with other non-Austronesian languages of New Guinea, including languages of the south coast of Irian Jaya, the Goliath mountains and

the Star mountains which are now described as related within a large phylum established by Voorhoeve and most recently labeled the Trans-New Guinea Phylum (Voorhoeve 1968; 1969, personal communication; Voorhoeve and McElhanon 1970). Also within that phylum are many languages of the Nation of Papua New Guinea, including those of the Fly delta on the south coast and the Huon peninsula on the north coast. Perhaps within that phylum and certainly related to it are the languages of the East New Guinea Highlands Phylum, established by Wurm (e.g. 1964). The documentation of linguistic relationships among non-Austronesian languages of New Guinea and the surrounding areas is advancing rapidly, and revisions of presently described phyla to include other languages and to be included within still higher level groups is to be expected (see especially Grace 1968; Greenberg 1960, 1971).

Linguistic analysis, mainly by missionaries, has advanced in a number of languages of the greater Dani language family, but most of this research is still in the form of notes or limited mimeographed editions of language learning materials or is reflected in primers, readers and Scripture translations produced for the rapidly growing churches in much of the area. Thus while the greater Dani area is becoming increasingly well known ethnographically, it is linguistically still poorly represented in the literature.⁴ Gordon Larson's work on Western Dani has included important analysis of dialect relationships and a large but still incomplete Western Dani dictionary. Among many others who are contributing to linguistic research in the area are missionaries Mary Owen, among the Nduga, David Scovill, in the Western Dani area, and Siegfried Zöllner, in North Ngalik or Jaly. A welcome and significant exception to this rule of unpublished work is the monograph by Father P.A.M. van der Stap, O.F.M., on the morphology of the dialect spoken by the Mugogo in the lower part of mid Grand Valley (1966).

1.2. THIS STUDY RELATED TO PREVIOUS STUDIES

Father van der Stap's dissertation, a major contribution to the description of Grand Valley Dani, provides a starting point from which to press further. Attention in that work was focused on and limited to morphology, and since Dani morphology has mainly to do with verbs, that book is largely concerned with verb inflection. Included in that description are more than a hundred different numbered sections variously labeled as aspects, tenses, voices and other kinds of verb categories. The great majority of the more than two thousand inflectional possibilities open to some Dani verbs are treated there; the present study will add but few to the total. So far as verb morphology goes, the contribution to be made here will be limited to re-assessment of some

of the data and re-organisation of the material in terms of the fundamental oppositions of three contrastive 'event modes', referring to the speaker's appraisal of the status of an event as factual, hypothetical or potential, and two major voices, reflexive and non-reflexive, referring to co-referential or non-co-referential subject-object pairs.

Father van der Stap uses the term voice more broadly, and includes under it the relationships between Dani verbs and objects marked in affixes to verbs. These contrastive relationships are indeed inseparably linked to the more narrowly labeled categories of reflexive and non-reflexive voice used here and comprise one of the more interesting features of Dani grammar, whereby relationships between verbs and personal objects, relationships that in many languages are signaled by prepositions or case endings, are marked by the occurrence of auxiliary verbs with object-marking affixes. Father van der Stap identified three of these 'object voices'; the present study recognises one more and re-analyses the form and meaning of these constructions.

As a well-defined study, Father van der Stap's *Outline of Dani Morphology* is just that, although some syntactic information could not be avoided. Indeed it is more difficult in Dani than in some other languages to isolate morphology and syntax, for a single verb form is not infrequently a complete sentence including subject and personal object, and a significant proportion of verb inflection signals relationships among verbs in sequence. Dani exhibits what Wurm has called "one of the most striking characteristics" of highlands New Guinea languages, the occurrence of an independent sentence-final verb preceded by dependent sentence-medial verbs marked to indicate identity or non-identity of grammatical subjects (Wurm 1964:81; see also Capell 1962:115). This phenomenon was labeled "chaining" by Joy McCarthy (1965), and has been reported for an increasing number of languages in the area. The pattern is certainly not without parallel elsewhere in the world. Cromack reports verb suffixes which signal "same subject follows" in Cashinawa of Peru (1968:193), and many years ago Swadesh's sketch of South Greenlandic Eskimo included a category he called "recurrent person" (1946:40). Insofar as markers of 'same' and 'different' subjects serve to keep track of participants, they are also related in function to the better known obviative or fourth person category of Algonquian, which refers to "non-identical animate third persons in a context" (Bloomfield 1933:193; compare Frantz 1966b).

The present study moves beyond the description of single verbs and verb forms to study the chained sequences of verbs that characterise Dani, and to find that the ties that link verbs in sequence reach beyond the sentence, as Phyllis Healey has also found in Telefolmin

(1966). Those ties particularly involve (1) semantic components of verbs as lexical items and (2) reference to participants, including the speaker and addressee.

1.3. THE LINGUISTIC CLIMATE

This study is primarily descriptive, designed to report a variation on a common theme of highlands New Guinea languages. But it touches on problems which are only now becoming widely recognised as within the province of descriptive linguistics. These include particularly problems involving semantics and problems concerning units longer than sentences.

1.3.1. Semantics

At several points in the present description it is suggested that grammatical constructions, both morphological and syntactic, cannot be described apart from the recognition, and at least partial description, of more basic semantic or semological relationships. This view has not been characteristic of American linguistics. Bloomfield in *Language* showed both interest in and insight into many matters of semantic concern, such as the componential relationships in gander : goose :: ram : ewe (1933:146), and the crucial distinction between "distinctive or linguistic meaning (the semantic features)" and "non-distinctive features of the situation" (1933:141, emphasis his). Yet he did not pursue those insights when he concluded that an adequate study of meaning must involve "accurate knowledge of everything in the speakers' world," a hopeless prospect (1933:139). And it was Bloomfield's despair rather than his interest and insight that set the tone for nearly three decades of American linguistics. The concern was with distribution, and deliberate isolation of the phenomena under study from any higher level phenomena, particularly meaning, was the supposedly ideal procedure (e.g. Bloch 1948; Harris 1951: 5,7). Pike's perceptive questioning of these dogmas was considered heresy (Pike 1947; Voegelin 1949:78).

The linguistic revolution that began in 1957 with the publication of *Syntactic Structures* was not revolutionary at this point but rather retained the *status quo* of a negative attitude toward meaning. Phonology and syntax were wedded, but syntax was clearly master of the house, and semantics was expressly illegitimate or at best subsidiary to syntax. Grammar was narrowly defined as a "self-contained study independent of semantics" (Chomsky 1965:106), and in the charter of the revolution meaning was suggested to be no more relevant to this kind of grammar

than the hair colour of the speakers (Chomsky 1957-1965:93). This strongly negative position was modified by Katz and Fodor's proposal to include within grammar, more broadly conceived, a semantic component designed to provide a semantic interpretation for the fundamental syntactic structures (1963). Sometimes Chomsky himself seems more restrained in his approach and more careful to emphasise what is still not known about semantics and the relationships between syntax and semantics (e.g. 1965:163; 1969:1). But in a recent statement the fundamentally negative attitude of 1957 remains:

It does ... seem noteworthy that the extensive studies of meaning and use that have been undertaken in recent years have not -- if the foregoing analysis is correct -- given any serious indication that questions of meaning and use are involved in the functioning or choice of grammars in ways beyond those considered in the earliest speculations about these matters, say in Chomsky (1957). (Chomsky 1970:57)

However, preceding the rise of transformational linguistics and progressing simultaneously with it has come the development of a serious and rigorous approach to semantics by anthropologically oriented linguists working especially in the domain of kinship terminology. In pioneering studies by Lounsbury and Goodenough the concepts of contrast and complementation, which had been the central insights facilitating the progress of descriptive linguistics in phonology and grammar, were seen to be equally applicable in semantics (Lounsbury 1956: 1964a; 1964b; 1965; Scheffler and Lounsbury 1971; Goodenough 1951; 1956; 1967; 1968).

Nor has this been the only approach to semantics. Within the stream of work flowing from transformationalists there has developed a strong current (although not the main current of that stream) of proposals that deep structure, the most salient contribution of transformationalism, is a semantic structure. Elinor Charney's little-known but insightful dissertation (1966) and the much better known work of Fillmore (e.g. 1966b; 1968a; 1968b; 1970a; 1970b; 1971) and McCawley (e.g. 1968) are addressed to this question. Charney proposed to treat many of the syntactic relationships of Chomsky's model in terms of "abstract sentential meaning", thus proposing a fundamental semantic structure not determined by the syntactic structure (1966:61). Fillmore's attention has been focused on the semantic relationships of nouns to verbs in deep structure as exemplifying case relationships labeled with such terms as 'agentive' and 'dative', in contrast with such surface structure relationships as 'subject' or 'indirect object' (1968a:19,21). In his extremely interesting papers it is remarkable that Fillmore retains the surface structure terms 'noun' and 'verb' for the units in semantic deep structure, while clearly pointing out the inappropriateness of surface structure terms for the relationships

between the units.

At this point Eugene Nida has made an important contribution. After working for many years in semantics, even when the domain was officially off-limits according to many linguists, he has in recent years developed a concept of semantic structure consisting of kernel sentences composed of objects, events, abstracts and relations, acknowledging his indebtedness to earlier concepts of Sapir (Nida 1951; 1964:60-62). In his 1964 book he set this suggestion within a transformational framework and even espoused the Katz and Fodor brand of semantic component (Nida 1964:38-40). Despite that professed espousal, his model was and is fundamentally different from the Chomskyan model, for Nida's kernel sentences are semantic structures composed of terms labelled object, event, abstract and relation as "basic semantic categories" (Nida and Taber 1969:37). Recently he has repudiated the Katz and Fodor tree-diagram of semantic relationships (Nida and Taber 1969:76 fn). Nida has also been pointedly interested in connections between kernels and thus in discourse structure (e.g. Nida and Taber 1969:40 fn; 112-113), although to my knowledge he has not suggested a model to incorporate these suggestions.

Kenneth Pike has long insisted on serious attention to meaning, and in his tagmemic model of language as trimodally structured with interlocking phonology, grammar and lexicon, he treats all linguistic units as form-meaning composites (e.g. 1954:74). Pike's lexicon is not, however, to be equated with semantics or semology, for the elements in that mode are also form-meaning composites, and he has explicitly rejected the primacy of semantics over phonology (1967:64). Two recent pieces of work provide a major revision in this tagmemic model, however, by incorporating a kind of 'deep structure' resembling Fillmore's within the 'lexicon' (Pike and Lowe 1969:70, 73; Wise 1968:40). Pike had earlier discussed such case-like roles as 'agent' and 'gaol' as situational roles, contrasted with such grammatical roles as 'subject' and 'object', but the two kinds of roles were treated as two dimensions of the same grammatical matrix (1964:12). Now Wise restructures this very significantly by treating 'subject' and its manifestation as a 'noun phrase' within the grammatical component, and 'agent' with its manifestations as 'single', 'male' and similar elements within the lexicon, re-christened the lexemic component (Wise 1968:40). With this revision, the lexemic component becomes autonomous, with its own units and tactics, and is parallel in many respects to Lamb's sememic stratum.⁵

Another approach to semantics as central in language is beginning to appear in the work of Wallace Chafe (e.g. 1970a,b). In his model, semantics is explicitly the "upstream" component of language, and what semantics generates is converted by a series of ordered rules to a

phonological output (1968b:601). There are no mid-stream 'strata' in this scheme, however, but only units produced by the rules at various points along the way.⁶

The stratificational model of language proposed by Sydney Lamb and adapted by Gleason and his students has provided a framework for a series of highly interesting studies of semantic relationships in discourse in exotic languages (for Lamb's model see Lamb 1966, 1964a,b, 1965, 1971; for Gleason's adaptation see Gleason 1964, 1968; and for studies in this framework see V. Austin 1966; Taber 1966; Cromack 1968; Stennes 1969). In this model Lamb makes the topmost stratum of language semological, overturning the usual spatial metaphor. On the semological stratum, or one of the semological strata in some versions of the model, participants and events, represented as nodes, are inter-related by such semantic valences as case or role relationships in network structures inter-connected through whole discourses. In terms of encoding or speech, these structures are the generative elements of which grammatical or lexemic and morphemic structures and finally phonemic structures are realisations on lower strata. Different kinds of semantic phenomena have been described in terms of the semological network or reticular structures: (1) the elements best known as semantic components, familiar from the literature on componential analysis; (2) nodes, often occupied by a bundle of semantic components, and valences representing the semological relationships between nodes, the nodes and valences comprising networks which represent possible semological structures as determined by the tactics of a given language; and (3) networks representing particular discourses or discourse segments, including referential identification of participants and events. The first two involve the semology of language, of language system; the last is a matter of parole, of particular speech events (cf. also Taber 1966:128,136).

There is still much that is unknown about semological structure, and the work done by stratificational grammarians, like that done by transformationalists, has been in a continuing process of revision (see Lamb 1971). But the combination of phenomena of reference with phenomena of meaning within the proposed semological structures is provocative. Katz and Fodor explicitly excluded the problem of reference from their semantic component (1963:73; Katz 1966), and Chomsky's gingerly approach to the problem in terms of referential indices has been widely criticised (Chomsky 1965:145; Karttunen 1968; Lakoff 1968b). Sampson has penetratingly shown that referential indices cannot be attached to lexical formatives, as Chomsky proposed, but only to referents (1969 and ms), and he has proposed a component of grammar to

handle reference of noun phrases (ms). The combination of features of reference to participants with features of meaning within a single component of language is distinctive of stratificational grammar, and this combination has proved helpful in the current study of Dani syntax, where features of lexical meaning of verbs and features of reference to participants as the same or different are together the primary determinants in the selection of subordinate verb forms. Further, this model is not limited to the semantics of single words or single sentences, but is intrinsically designed to allow for treatment of whole discourses.

1.3.2. Discourse Studies

There is ample evidence that any description of Dani grammar needs to take into account utterances and sequences of utterances in discourse as relevant units, and the identity and location of the speaker and addressee as relevant values. A generation ago Malinowski approached the problem of language from his background as an anthropological field worker and called for analysis of the "full utterance in its context of situation" (1935-1965:11). That view is not in accord, however, with a linguistic tradition dating back at least to Meillet which made the sentence the largest unit of interest to the linguist. Bloomfield reaffirmed this position in his classic *Set of Postulates for the Science of Language*: "A maximum form in any utterance is a sentence.... a sentence is not part of a larger construction" (1926-1957:28). Nor has the tradition died. Chomsky has been an unreformed Bloomfieldian at this point, repeatedly defining a language as a set of sentences (e.g. 1957-1965:13; 1964:9; 1965:4). In a recent and still unpublished paper he discusses and rejects Lakoff's view that a grammar generates pairs consisting of a sentence and the presuppositions relative to which a sentence may be considered grammatical (1970 mimeo:1). While the discussion thus extends to non-verbal data relevant to sentences, nowhere is a unit longer than a sentence treated as relevant. This position of Chomsky's is the more remarkable in that his mentor, Zellig Harris, was a pioneer in one variety of discourse analysis, concerned with the segmentation of texts and the establishment of substitution classes (1946).

There are now significant indications that some younger linguists using the transformational generative model are turning seriously to problems of discourse. Important but seldom referred to by transformationalists is Williams' dissertation treating the relationships of sentences to discourse in continuous expository written English prose (1966). Jorge Hankamer's recent Yale dissertation on deletion enters

much more actively into dialogue with current transformationalist writings and suggests as "a simple extension" to standard transformational theory what appears rather to be a fundamental revision: "... what the base generates is not isolated sentences but texts..." (1971:11, emphasis his).

This resembles the much earlier position of Hjelmslev, who insisted that the primary datum of interest to the linguist is "the unanalysed text in its undivided and absolute integrity" (1943-1953:7, emphasis his). Charles Fries, while avowing that the sentence is the maximum structural unit in language, significantly called attention to formal structural "sequence signals" tying conversations together (1952:240-253). Often a voice in the wilderness, Pike as early as 1945 spoke of units larger than the sentence (1945:38), and he has since then emphasised analysis of the whole discourse including the behavioural context (1954:3; 1964:7). Among Pike's students and colleagues, Waterhouse contributed a seminal paper on dependent sentences (1963), and Longacre, working with other members of the Summer Institute of Linguistics, is producing a stream of studies treating the sentence as a discourse unit in a hierarchy that also includes paragraphs and still larger units (Longacre 1967, 1968, 1970; Reid, Bishop, Button and Longacre 1968; Ballard, Conrad and Longacre 1971). Joseph Grimes, also working in this group, has turned to discourse studies in a recent paper on Saramaccan narrative (1970). Two of the most interesting contributions from tagmemicists are Mary Ruth Wise's dissertation on the identification of participants in Nomatsiguenga (1968), and the collaborated paper by Pike and Ivan Lowe using a mathematical model of group structure to treat person reference in conversation (1969).

In the 1970s, since the original writing of this study, a group of linguists including Perlmutter, Postal, Keenan and Comrie, have rejected the transformational-generative model of grammar and developed an alternative model which emphasises the central importance of such grammatical relations as 'subject of', 'object of' and 'indirect object of' verbs in syntax, and this 'relational grammar' has frequently included attention to discourse (see e.g. Keenan and Schieffelin 1976: 340; Pullum 1977:253 and other articles in Cole and Sadock 1977).

Other parameters of discourse, particularly those connected with utterance or the speech act, have been focused on recently by M.A.K. Halliday of the London school (1967a,b; 1968; 1970). Halliday is working within the Malinowskian tradition as mediated by Firth, but has also been importantly influenced by the Prague school linguists and their rather awkwardly named 'functional sentence perspective', which treats the organisation of utterance as a structure distinct from grammatical

structure and semantic structure (e.g. Daneš 1964; Firbas 1964, 1966).

Some of the most promising and detailed work in discourse analysis has been done by Gleason and his students, working with an adaptation of Lamb's stratificational model of language structure (Lamb 1966; Gleason 1968; Austin 1966; Taber 1966; Cromack 1968; Stennes 1969). The stratificational model seems particularly well adapted to discourse studies, since it postulates semological structures which are realised, typically, in sequences of clauses up to and including whole discourses. The present study, which concludes with a programmatic initial approach to some discourse phenomena, owes most to this model and makes some suggestions for revision in it, particularly with regard to incorporating the speaker and addressee as intrinsic elements and the sentence as a relevant unit in the semological structure.

1.4. THE PRESENT STUDY

1.4.1. Objective

The development of a variety of linguistic models allowing for attention to semantic concerns and discourse phenomena has provided a favourable climate for the present study, and a variety of stratificational model has proven helpful at a number of points in the analysis. This study is not, however, dominated by any single model, or by models as such, nor is its primary aim the defense or exposition of stratificational theory. My own training in linguistics began under Pike and Nida at the Summer Institute of Linguistics in 1949, when post-Bloomfieldian structuralism was in its heyday. What treatment there is of morphology in this study reflects that background more than any current model, although a still older approach (now enjoying renewed favour; see Chomsky 1965:174) is reflected in the inclusion of quantities of paradigms. In recent years my thinking has been stimulated by the stratificational linguists, directly by Lamb and indirectly by Gleason and his students, more than by any other theoreticians. But the reader will not find a stratificational treatment of sememic, lexemic, morphemic and phonemic structures related by realisational rules. I share Gleason's suspicion that a three-stratum system may prove adequate (1968:60), as Taber concluded for Sango (1966:192). But this study does not deal with that problem. Nor will the reader find 'wiring diagrams' of the sort which have come to characterise Lamb's own exposition of the stratificational model (e.g. 1966, 1971). It is my judgment that such diagrams may be useful analytical tools but are cumbersome as descriptive devices.

With the multiplication of models and theoretical approaches, there

is a contribution to be made in the description of a segment of Dani grammar by keeping as closely anchored to the data as possible and commenting on certain current issues where the data appear particularly to illumine those issues. The study is not an exposition of linguistic theory with language data used for illustrative purposes, but rather a description of language data with comments on some theoretical issues. Although a variety of stratificational model is frequently implicit and sometimes explicit, the approach is unapologetically eclectic, and the content is frankly descriptive. There is a twofold justification for such a study. Dani, as a non-Austronesian language of Irian Jaya, represents a family and phylum of languages still little known and less described, so that the study is of interest for purely descriptive and typological purposes. But theoretical advances need to be tested against as wide as possible a variety of languages, and such testing may either proceed by selecting data from a single language or a number of languages to illustrate and test a particular point, or by providing as full data as possible for a selected segment of a particular grammar and speaking to theoretical issues in terms of those data. Much current work, often brilliant, proceeds along the route of selection of data in terms of a particular current issue. Convinced that such an approach makes it easier to sweep problems under the rug and hide data which may become of considerable interest, I have chosen the older approach of description which seeks to elucidate the structure of a language, with the limits and focus of the study suggested by the data of that language.⁷

Originally the focus of this study was to have been on larger discourse units, but the conviction grew as work progressed that the most needed task was the more modest one of moving one step beyond Father van der Stap's foundation work on verb morphology to study the chained sequences of verbs that characterise Dani. However, it proved most useful to define the segment selected to study not in syntactic terms but in semantic terms, since single verb forms in Dani frequently include reference to an event and to participants in that event who function as subject and object of the verb. Noting with Jakobson (1957) that events include both narrated events and the speech event or utterance, the study focuses on relationships between events and personal participants in those events, particularly as they are referred to in verbs and sequences of verbs and verb-nuclear clauses within sentences, but with a programmatic preview of extensions of these relationships to discourse. This is not in any sense a complete description of Dani syntax. So far as the term Dani is concerned, this study is of a single dialect of Lower Grand Valley Dani, that which is spoken in the Aso-Lokobal confederacy area on the southwest side of the Balim river near

the Hetigima mission post (see Map 1). And so far as the term syntax is concerned, this study includes very little about adverbs of time and place and manner and a number of other important clause constituents, and almost nothing about the construction of noun phrases or clauses which do not include verbs. However, the study also extends beyond the traditional bounds of syntax in two directions, by including a review and re-evaluation of verb morphology on the one hand, and a preview and programmatic treatment of utterance-related phenomena on the other. While the original focus of the study on longer discourse structures has shifted, the discourse perspective has been retained in the treatment of verbs, verb sequences and utterances.

1.4.2. Outline

Chapter 2 is a review of verb inflection for mode, subject, aspect and relational categories, excluding detailed consideration of categories of voice and personal object relationships. The chapter is organised according to the three contrastive categories of what is here termed 'event mode', referring to the speaker's evaluation of the status of an event as factual, hypothetical or potential.

Chapter 3 treats the inter-related categories of voice and case or role relevant to personal object relationships, which primarily concern regular or major class verbs, then surveys the irregular or minor class verbs, which are interpreted to be implicitly reflexive, and the secondary verbs, which only occur with inflection-carrying auxiliaries. Chapters 2 and 3 are thus descriptions of single verbs or verbs with auxiliaries, including the subjects and personal objects marked in those forms; these are realisations of single events and the major personal participants in those events.

Chapter 4 is a more detailed look at the categories marked in single verbs which relate them to the speaker and addressee. These include: (1) categories of deictic orientation in space as marked in verbs of directional motion; (2) categories of person; and (3) categories of event mode. These categories relate single events to the participants in the speech event, and the chapter includes a critical evaluation of some models for describing such deictic phenomena.

Chapter 5 describes sequences of verbs and verb-nuclear clauses within the sentence. In the early part of the chapter attention is focused on constructions which include certain non-finite verb forms, where such syntactically relevant categories as sequence and simultaneity are signalled not by word order or overt relational particles or affixes but rather by the relationship of semantic components in the verbs

involved. This chapter thus describes limited sequences of events and their relationship to personal participants, including the speaker and addressee.

Finally, Chapter 6 treats speech events or utterances and their relationship to the utterance participants. As an introductory probe into the structure of utterances and discourse in Dani, the chapter includes a discussion of the work of Halliday and the Prague school linguists on similar phenomena. For Dani, utterance margins are described as including markers of two distinct sets of utterance modes, one of which refers to the speaker's stance toward the addressee, and the other of which distinguishes utterance terminals as interrogative or non-interrogative. The chapter also includes a brief treatment of the segmentation of utterances into units which are often not coterminous with units defined by criteria of grammatical dependency. It is suggested that phonological sentences and units within sentences associated with intonation contours, pause and often an overt clitic, are units of information in the structure of utterances. Further, it is argued that sentences, both the deliberately interrupted kind of phonological sentences used for special effect and the more usual variety of sentence also defined by internal relationships of grammatical dependency are relevant units in the semantic or semological structure. Brief, programmatic and tentative as this approach to utterance and discourse structure is, it is made with the conviction that satisfactory description of any Dani sentence, even of any single verb, must include attention to categories which are fundamentally utterance-relative. All of grammar and any segment of grammar must be viewed in discourse perspective.

1.4.3. Method

This study draws on several different sources of data. Probably the most important source is the familiarity and fluency gained by constant use of one or the other of two closely related Lower Grand Valley Dani dialects during most of my thirteen years of residence in the area. The second is a lexical file in each of these dialects, together with a body of verb paradigms and some language learning materials, all collected or prepared in the course of my linguistic investigations and missionary service. The narrower base for the study is a collection of transcribed recorded texts, including conversations, folk tales, myths, expositions of local cultural activities and narratives of events both recent and long ago. The total collection includes about two hundred fifty pages, of which over one hundred pages are in Lower Grand Valley dialects. Of this collection a few more than fifty pages of

texts in the dialect spoken around Hetigima in the Aso-Lokobal confederacy area have been multilithed on file slips and used in an analytical filing procedure.

All recognisable discourse units were filed in terms of unit margins and links, including all sentence links and then the filing procedure moved to syntactic structures within sentences and to the markers of those structures whether affixes, particles or words of major word classes. There is a large amount of information in the files resulting from these procedures which is not incorporated in this study. In general, every major point in the description rests on data included in the filed corpus, yet the evaluation and interpretation of these data have drawn constantly on my speaking knowledge of the language. During the study I have become increasingly aware of how really limited that knowledge is, of how much more there is to be known and how very much more there is to be described. This study is only one further short step toward the still distant goal of an adequate description of Dani grammar. It is offered with the hope that some light has been shed on certain problems of Dani grammar, many of which are shared with other languages of the area and some of which, particularly those related to the deictic categories of mode and person, appear to be relevant to problems of general grammar.

NOTES

1. The members of the expedition did not agree on the name. Jongejans, ethnographer with the earlier 1920 phase of the expedition called them Oeringoep; Bijlmer, physical anthropologist and health officer, called them Timorini (Le Roux 1948:7). Neither name is now used in such a way by people of that area, a number of whom remember the expedition well (O'Brien 1969a:7). A Konda valley adult whom I once questioned about these names assured me they were names of members of the expedition! The term Pesegem for the population contacted by the Lorentz expedition on the south side of the central range is, in contrast, a well known clan name from that area.

2. It seems probable that the spelling Ndani reflects the pronunciation of the Western Dani term laany by one of the other ethnic groups of the area. This term, used by many Western Dani to identify themselves ethnically, is pronounced with an initial implosive [ɗ] by Damal speakers and at least some Monis (Gordon Larson, personal communication).

3. The names lani in Lower Grand Valley and dani in mid Grand Valley refer to a particular clan living mainly in Welesi and adjacent areas, where a major Western Dani trade route enters the area. Grand Valley people nowhere use this term for their language or to identify themselves or others ethnically in any wider sense than in reference to that clan or a local confederacy including members of that clan. Most commonly Grand Valley people identify themselves by their local political confederacy, named for a clan or two clans, often of opposite moiety, represented in the composition of the unit. This is the origin of the term Willigiman for the group studied by the Harvard expedition as reported by Broekhuysen (1967) and the doubled doublet

name Wilihiman-Walalua reported from the same area by Heider (1970:12). It was observation of cultural and linguistic similarities with Western Dani groups that prompted the first overland explorers to Grand Valley to extend the reference of the term Ndani, already long in use for Western Dani groups in the Ilaga and Beoga valleys, to populations near Grand Valley. This is explicit in the report of that trip:

In the North West Baliem (Melangoeme) we met people who called themselves Moerrips and Taboenis. In the Ibele many Moerrips besides Pesechems. From these lists [of clan names in the Ilaga and Beoga] it appears that the Moerrips and Taboenis can be counted as NDanis and do not comprise separate tribes, even though they do not use this name for themselves. (Meijer-Ranneft 1952:66, my translation).

The spelling Dani also appears in the same report (Meijer-Ranneft 1952: 4, 63). The lack of any local term used throughout the area for the language of the Grand Valley has allowed this usage to continue, so that the name Dani has become well established with reference both to Western Dani and Grand Valley Dani groups (Broekhuysse 1967; Bromley 1960, 1961; Heider 1965, 1970; O'Brien 1969a,b; Peters 1965; Ploeg 1964; van der Stap 1966; Koentjaraningrat 1970; Koentjaraningrat and Bachtiar 1963).

4. The list of published ethnographic dissertations grows continually and now includes Father Peters' perceptive ethnography from lower mid Grand Valley (1965, Dutch; 1975 English translation). Broekhuysse's ethnography of the Wiligiman of mid Grand Valley (1967, Dutch), Ploeg's study of government in the Western Dani area around Bokondini (1969), Karl Heider's extensively revised dissertation on the same group studied by Broekhuysse (1970) and Klaus Koch's study of the Jalé (Yali or North Ngalik) (1974). Still to be published is an excellent ethnography, Denise O'Brien's Yale dissertation on the economics Western Dani marriage, based on fieldwork in the Swart valley area (1969). In Indonesian there is Anwas Iskandar's study of the Mugogo, with a view to their political development (1964?). In preparation are a master's thesis by Herman Lantang of the University of Indonesia, based on fieldwork in the Heage valley, below Grand Valley, and a doctoral dissertation by Gordon Larson at the University of Michigan, based on his work among the Ilaga valley Western Dani since 1956. Shorter articles include Heider (1967; 1969a,b); Koch (1968a,b, 1970a,b,c); O'Brien (1969b); O'Brien and Ploeg (1964); Ploeg (1966); Bromley (1960); and several papers in the mimeographed publication *Working Papers in Dani Ethnology*, No. 1, by the Bureau of Native Affairs (1962).

5. Wise herself takes pains to distinguish her model from Lamb's, particularly noting that each of her components contains units which are form-meaning composites. But what she calls 'meaning' turns out to refer to real-world phenomena "independent of linguistic form" and "non-language specific", including elements like observer viewpoint, plot and social setting. The semantics of most interest are handled largely in terms of 'form' in her lexemic component, including elements like "beneficiary", "naming of participants" and kinship relationships (1968:10). Other members of the Summer Institute of Linguistics have proposed somewhat similar revisions to Pike's model, e.g. Merrifield, who is explicitly indebted to Lamb but also incorporates many features of transformational grammar (1967:50). However, Pike rejects the semantics of Merrifield's model (1967:62). Wise's model is of particular interest since her dissertation was prepared under Pike's supervision and bears his approval (Pike, personal communication). Longacre, however, has rejected Wise's revision of the tagmemic model in favour of keeping both 'surface' and 'deep' structure within the grammar component (Ballard, Conrad and Longacre 1971:74).

6. It is clear that in fact Chafe does not operate with a completely unstratified system. His phonological output is written in segment symbols, not distinctive feature symbols, although he recognises distinctive features as the minimal phonological elements (1968b:598). He also describes, like everyone else, words as composed of roots and affixes (e.g. 1970a:14). His negative judgment of stratificational grammar seems directed against a caricature of strata as "sealed-off levels" (1968b:600). In fact, much of Lamb's recent work has involved the mechanisms for what might be described as interpenetration of strata. One such development is the concept of 'trace formations' by which relational network connections activated in an utterance are frozen by repetition until complex units from a higher stratum are regularly realised by frozen macro-units on a lower stratum. Also Lamb now allows for alternation at more points in a single stratal system than formerly. In effect this amounts to a kind of rule-ordering within the stratal system (see e.g. Lamb 1970, 1971).

7. This comment is not intended to be disparaging toward many recent studies which are excellent examples of the opposite approach (e.g. Hankamer 1971). In some recent work with kinship nomenclature in which I wanted to document certain patterns reported from Australian aboriginal languages, I found the earliest and most general descriptive accounts contained the data I was looking for, while multiplied articles written

in more recent times had been pruned to fit the then-current view of Australian social structure and almost invariably omitted the data I needed. My approach in this study has been to select the segment for description in terms of limits which seem to me to be suggested by the data and to try to give as full data as practicable for that segment. I regret that limitations of time have forced me to curtail radically the number of texts included in the appendix. I can only ask the reader's trust that the data have not been selected to fit a particular model or problem defined apart from the structure of Dani, but rather to reveal something about a portion of that structure as I see it. I believe that such descriptive accounts are in the long run more valuable and more valid for testing theoretical hypotheses than accounts which are dominated by and limited to a particular current model.

CHAPTER 2

SINGLE EVENTS AND EVENT PARTICIPANTS: MODE, SUBJECT, ASPECT AND RELATIONAL CATEGORIES

2.1. INTRODUCTION TO DANI VERB INFLECTION

A considerable amount of the surface complexity of Dani grammar is represented in the verb morphology. It is not the purpose of this study to duplicate the significant work of Father van der Stap. However, for the reader to make sense of examples cited, it is of use to have a guide closer to hand, and one which is based on the independent analysis reflected here. This guide is provided in four parts. The present chapter is a survey of the inflection of verbs for mode, subject, aspect and syntactic relational categories. The following chapter examines the categories of case or role and the categories of voice in all classes of verbs, and Chapter 4 is occupied with a closer and more critical look at categories of mode and person, together with some other deictic categories. Finally, illustrative paradigms are provided in Appendix A. Dani forms are cited in an orthography which is in all essential respects the phonemic notation suggested in my earlier study (Bromley 1961:20-69).¹ Where identification of allomorphs occurring in the examples is pertinent, that information is given in parentheses following the form, with the left-pointing arrow indicating that the item preceding the arrow is an allomorph of the morpheme identified by the form to the right of the arrow or is derived from that form.² The glosses of examples are identifying labels except where the meaning of the form or category is under discussion. As a convention the category 'third person singular' is glossed by 'he', 'him' or 'his', but the category has no gender specification and is to be understood as referring to a person and number category only:

wok-othe. (wok- + wan= 'take'; -ot= P+ -et= dative, 3s object;
 =h= factive; =e 3s subject)
'He gave it to him.'

In this and the following examples in this study, the following symbols are used in the parenthetical identification and glossing of forms:

- + 'is an allomorph of' or 'is derived from';
- P+ 'is an allomorph occurring in a phonologically specified environment' (used only where special attention is called to this fact);
- = indicates a bound morpheme within a phonologically defined word nucleus or within a single clitic (thus not at clitic boundary);³
- indicates a bound morpheme or form with boundary occurring at clitic juncture;
- , separates glosses of distinct categories in portmanteau morphemes;
- ; separates glosses and/or identification of separate morphemes;
- 3s 'third person singular', and similarly 1s, 1p, 2s, 2p, 3p, for person and number categories identified within parentheses.

2.1.1. Some Morphophonemic Rules

Many of the allomorphs occurring in phonologically specified environments may be accounted for by three morphophonemic rules:

(1) When followed by /m/, /n/ or /l/ within the word (thus whether or not a clitic boundary intervenes), /k/ and for most speakers /t/ are realised as glottal stop /ʔ/; for other speakers /t/ in this environment is realised as glottal stop in free variation with /t/:

isa'no (isak=) '*steam-cook it later*';
 isa'-nom '*steam-cook it for me now*';
 haka'no, hakatno (hakat=) '*fix it later*'.

(2) Following any vowel and preceding a high close vowel /i/ or /u/ within the word nucleus, or within a single clitic (thus not at clitic boundary), any morpheme-final /t/ is realised as /s/:⁴

wesikin (wet=) '*singular subject will come*';
 hakasin (hakat=) '*(you sg.) fix it now*';
 hakasukun '*plural subject will fix it*'; compare
 hakatan '*fix it yourself*';
 hakat-inapin '*(you sg.) treat them now*'.

In the last two examples /t/ remains /t/ preceding a vowel that is not a high vowel or preceding a high vowel when a clitic boundary intervenes.

(3) Within the word, any sequence of two identical consonants other than stops is realised as one occurrence of that consonant:

pal-aka (pal= 'cut'; -la= 'incur a process')

'it got cut off';

palho (=h= factive; =ho abnormal continuative)

'the subject is cutting it off all the time'.

There are a number of other general morphophonemic rules specifying limitations on sequences of vowels, particularly high close vowels, diphthongs, and vowels in the environment of /k/, but for the purposes of this survey it is simpler to cite the forms as they occur (compare Bromley 1961:65-6). Where an allomorph is accounted for by one of the three general rules given above, no accounting is made in the parenthesised information with the form.

2.1.2. Verbs, Verb Roots and Verb Classes

Certain roots in Dani may occur with affixes marking such inflectional categories as mode and subject; the resultant units comprise independent words (not clitics) and are here referred to as **primary verbs**. Other roots occur with affixes marking similar inflectional categories, but the affixed unit comprises a post-clitic presupposing and phonologically dependent on a preceding stem, as in the first example at the top of this page; these post-cliticised inflected units are here referred to as **auxiliary verbs**. Some auxiliary verbs also occur as primary verbs; others occur only as auxiliaries. Some of the stems preceding and presupposed by auxiliary verbs are primary verb stems, and the auxiliary verbs serve to mark such inflectional categories as progressive aspect or contrastive relationships to personal objects. Other stems preceding and presupposed by auxiliary verbs also occur as members of other major word classes, and the auxiliary verbs serve as carriers of verb inflection with these **verbalised stems**. Some stems occur primarily preceding and presupposed by auxiliary verbs; these are referred to as **secondary verb stems**, and the resultant constructions with auxiliary verbs are referred to as **secondary verbs**. Primary verbs and the constructions of various stems with auxiliary verbs as described above comprise the class of **verbs**.

Auxiliary verbs are of two basic varieties: (1) an 'outer layer' auxiliary related to the primary verb *wela=*, *loko=* 'continue' and marking the progressive aspect; and (2) a set of 'inner layer' auxiliaries, only one of which may occur in any verb but any of which may occur in the same verb with the 'outer layer' auxiliary. These inner layer auxiliaries include four major ones and one minor one which mark semantic relationships of events to personal objects (van der Stap's "object voices" 1966:87-99).

(a) The auxiliary verb =et- marks dative relationship, where the subject acts and gives the product of his action, material or verbal, to the personal object.

(b) The auxiliary -heɪ=, which is identical with a primary verb meaning 'put', marks depositional relationship, where the subject acts either placing the personal object or performing a process on some other object and placing that object for the benefit of the personal object.

(c) The auxiliary verb -ha=, which is identical with a primary verb meaning 'see', marks locative relationship, where the subject either looks at, or aims a weapon at, or performs an action on the body surface of, the personal object.

(d) The auxiliary verb -ap= marks general personal objective relationship, where the subject either does something to a personal object or does something for a personal object and the relationship is not specifically marked by auxiliary (a), (b) or (c) above.

(e) In some constructions a substitute auxiliary verb -at= occurs to mark general objective relationship with third person singular objects, both personal and non-personal.

palhy-lokokin. (pal= primary verb meaning 'cut off'; =hy- progressive stem ending; -lokokin + wela=, lokoi 'continue', here occurring as an outer layer auxiliary marking progressive aspect) '(singular subject) will keep cutting it off.'

pal-hesikin (h= 2s object; -et= dative, an inner layer auxiliary) '(singular subject) will cut it off and give it to you.'

pal-hethy-lokokin. (h= 2s object; -et= dative inner layer auxiliary; =hy- progressive stem; with outer layer auxiliary) '(singular subject) will keep cutting it and giving it to you.'

pal-hakakin. (-h...a= depositional inner layer auxiliary; =ak= 2s object) '(singular subject) will cut it (e.g. weeds) and leave it for you.'

pal-heekein. (h= 2s object; =e= stem formative with 1s, 2s object; =e+ -ha= locative inner layer auxiliary) '(singular subject) will cut it (e.g. hair) off on you.'

pal-hapikin. (h= 2s object; =ap= general personal objective inner layer auxiliary) '(singular subject) will cut you off (as a woman from your family).'

pal-haphy-lokokin. (as in the last example, plus outer layer auxiliary) '(singular subject) will keep cutting you off (as a woman from your family).'

hokot-asikin. (hokot- secondary verb stem meaning 'praise'; -at= substitute general personal objective inner layer auxiliary) '(singular subject) will praise him (or it).'

There are also three inner layer auxiliaries of incurred process, marking semantic relationships similar to middle voice categories in many languages.

(a) The auxiliary verb *-lat=*, *-la=* 'incur a process and the resultant state' occurs with a large major class of primary verbs.

(b) The auxiliary *-i=* 'incur a process and the resultant state' is homophonous with a primary verb meaning 'say'; this auxiliary occurs with a large class of secondary verb stems.

(c) The auxiliary *-a=*, *-at=* 'become, incur a state' is homophonous with a primary verb meaning 'acquire'; this auxiliary occurs with verbalised stems.

pal-aka. (pal= 'cut off'; *-la=*, *-lat=* inner layer auxiliary 'incur a process and the resultant state') 'It got cut off.'

sup-ikhe. (sup- a secondary verb root meaning 'explode'; *-i=* inner layer auxiliary of incurred process and resultant state) 'It exploded.'

kok-aka. (kok also occurring as an adjective meaning 'big'; *-a=*, *-at=* inner layer auxiliary of incurred state) 'He got big.'

kok-aka-lokokin. (inner layer auxiliary as in the last example; with outer layer auxiliary) '(singular subject) will keep getting big.'

Attention in the remainder of this chapter will be confined to primary verbs and constructions of primary verbs with the outer layer auxiliary verb. The sub-classification of primary verbs will be discussed in the next chapter; it may be noted here, however, that there is considerable congruity between the phonological shape of primary verb roots and their distribution, in that verbs with consonant-final roots in general comprise a large major class of primary verbs, while verbs with vowel-final roots in general comprise several minor classes of primary verbs. Primary verb roots occur ending in p, t, k, m, n, l, i and a; special note needs to be taken (in terms of patterns of inflection) of roots with diphthongs and high open vowels in the final syllable, including roots ending in vp, yt, vt, yk, vk, eil, oil, ai and oi:

japin (jap=) '(you sg.) fight (or engage in other vigorous reciprocal activity)';

wasin (wat=) '(you sg.) hit, kill him';

hakasin (hakat=) '(you sg.) fix it, or treat him';

hisin (hyt=) '(you sg.) swell up';

kusin (kvt=) '(you sg.) cut it up for distribution';

wetasin (wetak=) '(you sg.) roast it';

jasin (jak=) '(you sg.) plant it';

isin (yk=) '(you sg.) make it (of a net)';
 wusin (wvk=) '(you sg.) chop it (firewood)';
 temin (tem=) '(you sg.) support it' (the only observed examples of
 a verb root with final m);
 wanin, wakanin (wan=, wakan=) '(you sg.) take it, lift it';
 palin (pal=) '(you sg.) sever it';
 kelin (keil=) '(you sg.) hang it up';
 holin (hoil=) '(you sg.) sprinkle it (as with salt)';
 in (i=) '(you sg.) say it';
 hein (hei=) '(you sg.) place it';
 han (ha=) '(you sg.) see it';
 lokon (wela=, lokoI=) '(you sg.) remain'.

All the preceding examples are second person singular immediate imperative forms. The parenthesised stems, following the cited inflected forms in these examples, will be used as citation forms in identifying verbs. All verb roots with final k are realised as allomorphs with final t when the root is immediately followed by the factive event mode marker =h= or when, as in non-reflexive voice forms, the root is immediately followed by potential mode desinences. Where the t resulting from these realisations precedes a high close vowel within the same word nucleus or single clitic, that t is then further realised as s according to the second morphophonemic rule cited earlier:⁵

wetathe (wetat= + wetak= 'roast'; =h= factive) 'he roasted it';
 wetasin (wetas= + wetat= + wetak= 'roast'; =in potential, immediate imperative, 2s subject) '(you sg.) roast it';
 wetak-athe (-at= P+ -et= dative, 3s object; =h= factive) 'he roasted it for him (and gave it to him)'.

2.1.3. Major Categories of Verb Inflection

Many Dani verbs occur inflected to contrast marked reflexive voice with unmarked non-reflexive voice. Most, but not all, of these same verbs also occur inflected for personal objects, with marked categories of first and second person and plural number and an unmarked third person singular (or non-first-or-second-person and non-plural) category. In the case of three verbs, these personal object categories are marked in directly attached affixes, while in all other cases they are marked in affixes to auxiliary verbs occurring in periphrastic construction with verb stems. The personal objects are related to the events referred to in the pertinent verbs by contrastive personal object relationships signalled by the verb or auxiliary verb to which the object markers are attached. These categories of personal object, personal object relationship, and voice are inseparably inter-related and constitute an

inner layer of inflection of Dani verbs. Where no auxiliary verb is involved, these categories are marked in prefixes and inner position suffixes to verbs, while all other verbal inflectional categories are marked in various orders of outer position suffixes. The auxiliaries which mark these inner layer categories are inner layer auxiliaries, as earlier listed, which also serve as carriers for the outer position suffixes marking other verbal inflectional categories when no other auxiliaries occur. The description of inner layer categories of voice, personal object and personal object relationship will be deferred until the next chapter.

The present chapter will be concerned with the markers of outer layer inflection of verbs. Verbs are inflected for three contrastive event modes: **factive mode**, referring fundamentally to events regarded as accomplished fact and so usually to past events; **hypothetical mode**, referring to events regarded as hypothetical, whether those events might have happened in the past but did not, or might still happen in the future but are not explicitly predicted or ordered by the speaker; and **potential mode**, referring to events predicted or ordered by the speaker. Factive and hypothetical modes are marked categories, signalled by second-order suffixes to verbs (where the first-order suffix is the reflexive voice marker). The commonest allomorphs of the factive marker are =h=, occurring after consonants, and =k=, occurring after vowels, and the commonest allomorph of the hypothetical mode marker is =l=. Potential mode is not independently marked but is signalled by portmanteau affixes also specifying such modal sub-categories as imperative or future and, in most cases, number and usually person of the subject.⁶

Verbs marked for event mode categories which are interpreted from the standpoint of the utterance situation, as outlined in the previous paragraph, are **finite verbs**. Verbs marked for event mode categories which are interpreted relative to the mode category of a superordinate verb or form are considered to be **non-finite**. Finite verbs may normally occur as the main, final verbs in sentences, or are constructed by the addition of suffixes to forms which may so occur. Non-finite verbs normally occur as subordinate forms, presupposing other verbs or forms.

Finite verb forms are also marked in most cases for **person and number of the subject**, with three persons and singular and plural numbers as contrastive categories. Subject categories are marked in two orders of suffixes to verbs, since some of the markers, particularly second person markers, are segmentable. The subject markers for factive mode are partially identifiable with those for hypothetical mode, but the subject markers for potential mode, as portmanteau suffixes also marking modal categories, are distinctive. The semantics of the categories of event

mode, person and number will be further examined in Chapter 4:

wathi. (wat= 'hit, kill'; =h= factive; =i ls subject) 'I killed him.'

wa'le. (=l= hypothetical; =e ls subject) 'I almost killed him (but didn't)' or 'I'd like to kill him (but don't expect to).'

wasik. (=ik potential, hortative/imperative, ls subject) 'Let me kill him.'

watyky. (=y= reflexive; =k= factive; =y ls subject) 'I hurt myself.'

watele. (=e= reflexive; =l= hypothetical; =e ls subject) 'I almost hurt myself (but didn't)' or 'I may hurt myself (but don't expect to).'

watak. (=a= reflexive; =k potential, hortative/imperative, ls subject) 'Let me hurt myself.'⁷

Finite verbs in factive mode and potential mode may also be inflected for tense. Although simple factive mode forms are unmarked for tense, they contrast with marked **remote past** factive forms, referring to events which occurred at a relatively remote time before the speech event. The time threshold is elastic, but minimally several days and usually several weeks or months separate the narrated event and the speech event:

wathi. (=h= factive; =i ls subject) 'I killed him (recently)' or 'I have killed him (right now).'

wathiki. (=ik= remote past) 'I killed him a long time ago.'

The **future** category, a sub-category of potential mode, contrasts with **remote future**, and this may be considered a contrast of tenses, and remote future a marked category:⁸

wasikin. (=V_kV_n future; =i(k)i(n) singular subject) '(singular subject) will kill him.'

wathvp. (=hvp remote future) '(subject) will kill him in the distant future.'

Potential mode hortative/imperative forms contrast an unmarked **immediate** with a marked **deferred** tense, where the deferred form refers to an event specified as separated by some interval, even a very short interval, from the speech event:

wasu. (wat= 'hit, kill him'; =u immediate, hortative, lp subject) 'Let's kill him now.'

wasuwok. (=wok P+ =ok deferred) 'Let's kill him later.'

Hypothetical mode forms are fundamentally timeless in reference and do not occur with contrastive tenses.

Verbs are also inflected for categories of aspect. **Progressive aspect** is marked by periphrastic constructions with an auxiliary verb related to the verb *wela=*, *loko=* 'continue', and may occur with any event mode; this aspectual category refers to events occurring over an

appreciable span of time or to events recurring on several occasions. Normal aspect pre-supposes factive mode and is marked by a suffix in the next order outward from the factive mode subject markers. This category refers to events regularly occurring as normal for the subject and event involved. Abnormal continuative aspect is marked in what for most verbs is a single form pre-supposing factive mode and marked by a suffix in the next order outward from the factive modal suffix. This form occurs followed by forms of the verb *wela=*, *loko=* 'continue' as a carrier of other inflectional categories when such other categories are marked. Abnormal continuative aspect refers to an event or series of events continuing over a period of time in a way that is in some sense abnormal for the subject and event involved. Superficially dissimilar in form and distribution relative to event mode markers, these categories are grouped as aspects because of restrictions on co-occurrence and patterns of substitution. There are also two non-finite verb forms referred to as participles in this study which often signal aspectual meaning. These are the factive iterative participle, commonly recognisable as including the factive mode marker =h= plus the participle ending =yk, which usually signals an intercalated series of events sharing some semantic component or components but contrasting in one or more other components; and the potential basic participle, marked by the ending =yk, occurring after consonant-final stems, =lyk, occurring after vowel-final stems, where the participle often occurs repeated to signal a protracted event or series of events. All other verb forms are considered to be in an unmarked non-continuative aspect:

- wathy-laky. (=hy- progressive stem marker; -laky + wela= 'continue'; =k= factive; =y ls subject) 'I am hitting (or killing) him.'
- wathytek. (=h= factive; =y ls subject; =te= normal; =k empty closure morph) 'I normally hit (or kill) him (where killing may refer to members of an enemy group, referred to as third person singular).'
- watho welaky. (=h= factive; =o P+ =ho abnormal continuative)
'I am killing him (the enemy) all the time (as in a winning streak).'
- watyk watyk waka. (=yk basic participle) 'killing-him killing-him he-came, i.e. He came killing (the enemy) all along the way.'
- wam kok wathyk, hamvlvk wathyk hakathe. 'pig big killing (wat= 'kill'; =h= factive; =yk iterative participle) little killing he-did-it, i.e. He killed pigs, now big ones, now little ones.'

In these last examples, involving more than one word, and in other multi-word examples the convention is adopted of providing a word-for-word gloss followed by a free translation. In the word-for-word gloss, word space corresponds to word space in the Dani example; two hyphens correspond to a single hyphen in the example; and single hyphens join

words used to gloss a single word nucleus or clitic.

The remaining inflectional categories marked in Dani verbs mark relationships between events, including such temporal relationships as sequence and simultaneity, such logical relationships as purpose, and such referential relationships as anticipation of a following or implied verb with the same subject or a different subject. The formal markers of these and other verbal inflectional categories will be surveyed in this chapter, while the syntactic constructions involved will be treated in Chapter 5.

Each event mode occurs with largely distinctive sub-categories. Discussion of inflectional categories and their markers will proceed from the most elaborately inflected mode, factive, through hypothetical mode to potential mode. Both factive mode and potential mode forms include non-finite as well as finite forms. The chapter concludes with a separate treatment of periphrastic progressive aspect forms, which occur in all modes.

2.2. FACTIVE MODE CATEGORIES

2.2.1. Finite Forms with Contrastive Person Categories of Subject

2.2.1.1. *Simple Factive* (van der Stap's near past tense 1966:15)

The simple factive paradigm of the verb *wat= 'hit, kill him'* follows:⁹

- wathi. (=h= factive; =i 1s subject) '*I killed him.*'
 wathu. (=u 1p subject) '*We killed him.*'
 wathin. (=i= empty stem formative with 2 subject; =n 2s subject)
 '*You (sg) killed him.*'
 wathip (=i= as above; =p 2p subject) '*You (pl) killed him.*'
 wathe. (=e 3s subject) '*He killed him.*'
 watha. (=a 3p subject) '*They killed him.*'

Other allomorphs of the mode and subject markers may be seen in the following paradigms, where =k= marks factive:

	nek= 'eat'	i= 'say'	la= 'go'
1s	nykky (=y 1s)	yky	laky
1p	nokko (=o 1p)	oko	lako
2s	nekken (=e+=n 2s)	eken	laken
2p	nekkep (=e+=p 2p)	ekep	lakep
3s	nikke (=e 3s)	ikhe (=he 3s)	laka (=a 3s)
3p	nekka (=a 3p)	eka	lakeikha (=eikha 3p)

In the above paradigms the person and number symbols refer to subject categories. A very few other allomorphs of the subject markers occur in other categories.¹⁰ The first person subject markers =y singular

and =o plural and the second person markers consisting of the empty stem formative =e= with =n singular and =p plural occur following the factive marker allomorph =k=. The third person subject markers must be described in terms of distribution with specific stems. The factive marker is realised as the allomorph =k= following vowel-final verb roots and stems and also following the root nek= 'eat', uniquely. The stem of 'eat' in this category might also be symbolised nVk=, and the stem of 'say' be symbolised V=, where V is realised as y preceding (non-contiguously) a final y; as o preceding a final o; as i preceding the third person singular subject marker; and as e elsewhere. Paradigms of other verbs in this category are included in the appendix.

The simple factive forms are normally to be glossed by English preterit or perfect, referring to events which are accomplished fact in the immediate or recent past. With verbs of motion, simple factive forms frequently refer to an event that has only begun; sometimes 'come' with a first person subject refers to an event that is certainly planned for the future and considered as good as accomplished. The verb wela=, lokoi= 'continue' is unique in a number of respects, which will be treated further in Chapter 3; in simple factive forms it commonly refers to present time, although it may refer to past time:

- wathi. 'I killed him (recently)' or 'I have killed him (just now).'
- laky. 'I went (recently)' or 'I'm going (now).'
- waky. 'I came (recently)' or 'I've arrived (now)' or 'I'll come. (certainly).'
- welaky. 'I am (here)' or 'I was (here).'

2.2.1.2. Remote Past (van der Stap's remote past tense 1966:16)

Events which are considered to have occurred long ago may be referred to in the marked remote past tense category, which requires the factive mode category. The threshold of contrast is flexible, but minimally the five or six days normally counted, and commonly several weeks or months separate the narrated event from the speech event. In texts referring to events of the long ago mainly in the remote past tense, sometimes verbs in simple factive are interspersed, making it clear that the simple factive category is an unmarked category which may include reference to events in the distant as well as the recent past. Remote past forms do not occur interspersed in texts referring to the recent past in the simple factive category.¹¹

The following paradigms are of minimal remote past forms, consisting of the verb root plus the marker of factive mode plus the remote past marker plus the subject marker:

	wat= 'kill'	nek=, na= 'eat'	i= 'say'	la= 'go'
1s	wathiki	nasiki	isiki	lakaki
1p	wathuku	nasuku	isuku	lakaku
2s	wathikin	nasikin	isikin	lakakin
2p	wathikip	nasikip	isikip	lakakip
3s	wathikhe	nasikhe	isikhe	lakeikhe
3p	wathukwha	nasukwha	isukwha	lakoukwha

The first form in the first column may be glossed '*I killed him long ago*'; the first form in the second column '*I ate it long ago*'; the first form in the third column '*I said it long ago*'; and the first form in the fourth column '*I went long ago*'; and other forms may be glossed analogously.

Morphologically, the first form may be analysed as:

wathiki (wat= 'kill'; =h= factive; =ik= remote past; =i 1s subject)
'*I killed him long ago.*'

The verb nek=, na= 'eat' occurs with the stem allomorph na= in remote past forms. Verbs with variable vowel stems in simple factive occur with a single unchanging allomorph in remote past, e.g. i 'say'. In these forms including the remote past marker, the factive category is marked by =k= with the stems la= 'go', wa=, wet= 'come', a=, at= 'acquire', -a=, -at= 'become', and -la=, -lat= 'incur a process and the resulting state'; following other vowel-final stems in these forms the factive category is marked by the allomorph =s=. Elsewhere, following vowel-final stems the allomorph =k= occurs, and following consonant-final stems the allomorph =h= occurs. The remote past marker is best cited as =ik=. Following the sequence ak, the allomorph =eik= occurs before =he, =oukw= occurs before =ha, and =ak= occurs before other endings. Elsewhere (i.e. not after ak) the allomorph =uk= occurs before =u, =ukw= occurs before =ha, and =ik= occurs before other endings. In first and second person the subject markers in remote past forms are like those occurring in simple factive forms with consonant-final stems. In third person, the singular subject marker is =he, and the plural subject marker is =ha.

2.2.1.3. Normal Aspect (van der Stap's habitual aspect, 1966:20)

Normal aspect is a category referring to the aspectual quality of events which normally recur, whether frequently or infrequently; this category requires the presence of the modal category factive in the same verb:

nekka. (simple factive) '*They ate it.*'
nekkatek. (normal action) '*They normally eat it.*'
watha. (simple factive) '*They killed him.*'

wathatek. (normal action) *'They normally kill him (as of an enemy group referred to as third person singular, members of which are killed when opportunity permits).'*

wa'-lakeikha. (simple factive) *'They died.'*

wa'-lakeikhatek. (normal action) *'They normally die, i.e. they are mortal (each one dying at the end of his lifetime).'*

Normal aspect also occurs in remote past forms, but only when the prior action category to be described also occurs. The simple normal aspect forms of wat= 'hit, kill' are:

wathytek. *'I normally hit him (or kill him).'*

wathusek. *'We normally hit him, etc.'*

wathittek. *'You (sg) normally hit him, etc.'*

wathisep. *'You (pl) normally hit him, etc.'*

wathetek. *'He normally hits him, etc.'*

wathatek. *'They normally hit him, etc.'*

Analogous forms of three other verbs follow:

	nek=, na= 'eat'	i= 'say'	la= 'go'
1s	nykkytek	ykytek	lakytek
1p	nokkotek	okotek	lakotek
2s	nekkettek	ekettek	lakattek
2p	nekkesep	ekesep	lakasep
3s	nikketek	ikhetek	lakatek
3p	nekkatek	ekatek	lakeikhatek

The form nykkytek may be glossed *'I normally eat it'*; the form ykytek *'I normally say it'*; and the form lakytek *'I normally go.'*

The allomorph =y= of the first person singular subject marker occurs directly following the factive marker when preceding a normal aspect or prior action marker; it also occurs finally directly following the factive marker allomorph =k=. The basic form of the normal aspect marker is =te=, realised as =se= (1) directly preceding =p (see below); and (2) following i or u when directly preceding =k. When not followed by a marker for prior action, the normal aspect marker is obligatorily followed in second person plural forms by the anatactically realised subject marker =p and in other forms by the empty closing element =k. The sequence =n plus =te= in second person singular forms is realised as =tte=, and the sequence =p plus =te= in second person plural forms is thus realised as =sep. Otherwise subject markers occur as in simple factive forms followed by the normal aspect marker and the empty closing element.

2.2.1.4. *Prior Action* (van der Stap's perfect past tense, 1966:22)

The category of prior action includes two components of meaning, both involving relationships of events in sequence: (1) completion of the first event before initiation of the second; and (2) anticipation that the verb realising the second event will have the same subject as the verb realising the first event. Some qualifications of this second component will be treated in Chapter 5. When an event setting marker, described below, occurs in the same verb, the second of these components is cancelled. The verb marked for prior action refers to the first event as described here. This relationship is commonly between discrete events of the same major event category, motion followed by motion or process followed by process, where the processes are viewed as discrete wholes and not included as stages in a higher-level process:

lakasik waka. '*he-went-prior he-came, i.e. He has gone and come back.*'
The second event may be implicit rather than explicit in the context:

lakasik. '*He has gone (and has since then returned, or gone elsewhere).*'

This category also occurs with normal aspect marked in the same verb:

wolok wakatesik nekkatek. '*carrying he-normally-comes-prior they-normally-eat-it, i.e. After she brings (sweet potatoes) they (including her) eat them.*'

In this last example the referent of the subject of the first verb is included in the reference of the subject of the second, and this counts as 'same subject'. Prior action requires the presence of factive mode in the same verb, and may also occur with normal aspect, as noted, and/or remote past. The forms are surveyed here, and their meaning and use in context will be further treated in Chapter 5.

The simple prior action forms of *wat= 'hit, kill'* are:

wathytyk '*After I struck him I....*'
wathosik, wathusik '*After we struck him we....*'
wathettik '*After you (sg) struck him you*'
wathesip, wathisip '*After you (pl) struck him you....*'
wathesik '*After he struck him, he....*'
wathasik '*After they struck him, they....*'

The forms including normal aspect and prior action are as follows:

wathytesik '*After I strike him, I....*'
wathotesik '*After we strike him, we....*'
wathetettik '*After you (sg) strike him, you*'
wathetesip '*After you (pl) strike him, you....*'
wathetesik '*After he strikes him, he*'
wathatesik '*After they strike him, they....*'

The glosses '*strike*' and '*struck*' have been used in the above paradigms to facilitate comparison of the simple prior forms and those including normal aspect, where the sense '*strike*' is more common, but the forms in either paradigm may of course have the sense '*kill*'.

In these forms the allomorph =y= of the first person singular subject marker occurs following the factive mode marker and preceding any prior action or normal aspect marker, as already noted for normal aspect forms. The allomorphs =e= of the empty stem formative with second person subjects, and =o= of the first person plural subject marker occur in the speech of some informants when these elements immediately follow the factive mode marker in a form which also includes the prior action marker.

The remote past prior action forms of *wat= 'hit, kill'* are:

wathikisik 'After I struck him long ago, I....'

wathukusik 'After we struck him long ago, we'

wathikittik 'After you (sg) struck him long ago, you'

wathikisip 'After you (pl) struck him long ago, you....'

wathikhesik 'After he struck him long ago, he'

wathukwhasik 'After they struck him long ago, they....'

The remote past normal aspect prior action forms of this same verb are:

wathikitesik 'After I used to strike him long ago, I....'

wathukutesik 'After we used to strike him long ago, we....'

wathikitettik 'After you (sg) used to strike him long ago, you....'

wathikitesip 'After you (pl) used to strike him long ago, you....'

wathikhetesik 'After he used to strike him long ago he....'

wathukwhatesik 'After they used to strike him long ago, they'

The forms in this last paradigm are rather uncommon but do occur. It is to be noted that normal aspect forms with or without the prior action marker have no past reference when the remote past marker is not included, but forms including the remote past marker always refer to past time.

The basic form of the prior action marker may be cited as =ti=. The allomorph =ty= occurs immediately following the allomorph =y= marking first person singular subject. The allomorph =si= occurs according to the general morphophonemic rule given at the outset, extended in this case to inter-vocalic morpheme-initial (as well as morpheme-final) t before a high close vowel. The allomorph =ti=, cited as basic, occurs elsewhere. Note that the second person subject markers =n singular and =p plural are anatactically realised in combination with the prior action marker when it occurs, whether or not a preceding normal aspect marker also occurs: =n is realised as =t= preceding the prior action

marker =ti=, and =p is realised anatactically immediately following the prior action marker. Where =p marking a second person plural subject does not occur, the empty closing element =k is obligatory. This closing element occurs only once but obligatorily in forms including the normal aspect marker and/or the prior action marker but not including the second person plural subject marker =p. This closing element =k or the second person plural subject marker =p occurs following the prior action marker, if any, or otherwise following the normal action marker, as illustrated in the preceding paradigms.

2.2.1.5. Event Setting

Any of the factive forms described to this point may occur with a further outermost suffix indicating that the event referred to in the verb is viewed as the setting for an event referred to in the following verb or implicit in the context, verbal or situational. The first event, marked with the event setting form on the verb, is viewed as completed before the second event, and the verb referring to the second event is anticipated as having a different subject from the verb referring to the first event. Some further considerations concerning the meaning and use of this category will be included in Chapter 5. The marker of this category is the same morpheme which occurs with nouns and some other stems to mark 'place where':

- i 'water'; ima 'in or along the water';
- sili 'courtyard'; silimo 'in the courtyard';
- lese 'cookhouse'; lesema 'in the cookhouse'.

With verb forms also this marker sometimes occurs with a spatially defined sense to mark 'place where':

- Mola o wuthikhomo pi akeikhe. 'Mola (a name) house he-built-long-ago-setting descend he-came-long-ago, i.e. He came down where Mola had built his house.'

Very much more frequently the 'event setting' is not spatial in reference but marks completion of one event and a shift of attention to a different participant as subject of the verb referring to a second event, where this second verb may be implicit; the examples are from texts:

- wathomo. 'He has killed him (and now attention is turned to what others did or will do after that).'

- nekkenma. 'You (sg) have eaten him (and I am going to do something about it).'

- lakeikhomo...lakoukwha. 'he-went-long-ago-setting they-went-long-ago, i.e. After she went (leaving her husband), they (the husband and his party) went (to get payment).'

All factive forms cited in the paradigms presented up to this point may be expanded by the addition of the 'event setting' marker. The allomorphs of this marker are =ma, =mo, occurring as follows. The allomorph =mo occurs following the third person singular subject markers =e and =he, which are then realised as =o and =ho; following the allomorph =ty= of the prior action marker with the associated empty closing element =k; and following any syllable including a high close vowel i or u. Elsewhere, so far as these factive forms are concerned, =ma occurs. The simple factive forms of wat= 'hit, kill' with event setting are as follows:

wathimo 'After I killed him, (someone else)....'
 wathumo 'After we killed him, (someone else)....'
 wathinmo 'After you (sg) killed him, (someone else)....'
 wathipmo 'After you (pl) killed him, (someone else)....'
 wathomo 'After he killed him, (someone else)....'
 wathama 'After they killed him, (someone else)....'

Sample forms from other paradigms of this verb follow:

wathyte'ma 'After I strike him, (someone else)....'
 wathyty'mo 'After I struck him, (someone else)....'
 or 'After I had finished striking him, (someone else)....'
 wathytesi'mo 'After I finish striking him, (someone else)....'
 wathikimo 'After I struck him long ago, (someone else)....'
 wathikisi'mo 'After I had finished striking him long ago, (someone else)....'
 wathikitesi'mo 'After I used to finish striking him long ago, (Someone else)....'

Other forms of these paradigms and analogous forms of other verbs may be seen in Appendix A. The maximal forms described above are rare but do occur. The maximal forms in the filed corpus used as the narrowest base for this study are not simple primary verbs:

wanhy-lakakutesik-en (wan= 'take'; =hy- progressive stem; progressive auxiliary + wela=, loko= 'continue'; =k= factive; =ak= remote past; =u lp subject; =te= normal aspect; =si= prior; =k closure; -en 'source') 'And after we used to dig (garden), (we used to....)'
 ki akakitesik-en (ki potential stem of 'enter'; a= + wa=, wet= 'come'; =k= factive; =ak= remote past; =i ls subject; =te= normal aspect; =si= prior; =k closure; -en 'source') 'And after I used to come in here (I used to go out again).'

The clitic -en glossed 'source' in these examples has a very wide variety of functions and will be treated further, in terms of the sense in these examples, in Chapter 5.

The suffixes occurring in finite factive forms with person categories of subject marked are summarised in Table 1. This table does not include markers of personal objects, which are normally prefixes and will be described in Chapter 3, nor progressive aspect forms which include an outer-layer auxiliary verb and are described at the end of this chapter, nor post-cliticised relators, which are described in Chapters 3, 5 and 6.

TABLE 1 ORDERS OF SUFFIXES IN FINITE FACTIVE VERB FORMS WITH CONTRAST OF PERSON OF SUBJECT									
Order:	(1) Voice: Reflexive	(2) Mode: Factive	(3) Tense: R. Past	(4)* Stem: 2D Pers., No.	(5) Subject: Pers., No.	(6) Aspect: Normal	(7) Relator: Prior	(8)* Closure W/ 6,7	(9) Relator: Setting
Obligatory	±	+	±	+	+	±	±	±	±
Mutually Oblig. with				2s,2p in (5),(8)	2s,2p require (4)	(8)	(8)	(6),(7)	
Other Restrictions				See notes ***, ****.	See notes ***, ****. If (3) and (6), then (7).		See under (6).	See note ****.	
Filled by:	reflexive =a.	factive =h, =k, =s=nt.	remote past =ik=, =uk=, =ukw=, =ak=, =eik=, =oukw=nt.	empty morph =i=, =e=.nt	ls: =i, =y; lp: =u, =o; 2s: =n, =t=ntt; 2p: =p=ntt; 3s: =he, =e, =a; 3p: =ha, =a, =eikha=nt.	normal =te=, =se=.nt	prior =ti=, =ty=, =si=.nt	closure setting =k(=); 2p: =p.	
Example:	wat= watasikitetti'mo	=s= =a=	=ik= =a=	=j= =a=	--- =te=	=t=ntt=	=ti=	=l=ntt=ntt=	=mo
*	Order (4) and usually (8) occupied by 'empty morphs'; see text.								
**	See text for conditions of occurrence of allomorphs.								
***	If a 2s subject occurs (5), with normal (6) and/or prior (7), the subject marker is realised as =t= before (6) if (7) is not filled, otherwise before (7).								
****	If a 2p subject occurs (5) with normal (6) and/or prior (7), the subject marker =p= is realised anatactically in order (8), and =k (8) does not occur.								
*****	Automatically realised allomorph of =k.								

2.2.2. Finite Forms with No Contrast of Person Categories of Subject

2.2.2.1. *Prohibitive* (van der Stap's short and long prohibitive aspects, 1966:61-62)

The Dani prohibitive category is marked in forms which appear to include the factive mode marker, as if what were prohibited were not the possibility of performing an act, nor the act considered as hypothetical, but the act viewed as fact.¹² The simple prohibitive forms of *wat* = 'hit, kill' are:

wathvn. 'Don't (you sg) kill him.'

wathvp. 'Don't (you pl) kill him.'

Some minor class verbs with vowel-final roots exhibit vowel harmony in these forms; the examples are of *i* = 'say':

vkvn. 'Don't (you sg) say it.'

vkvp. 'Don't (you pl) say it.'

The verbs *la* = 'go', *wa* =, *wet* = 'come', *a* =, *at* = 'acquire', and *-la* =, *-lat* = 'incur a process', and *-a* =, *-at* = 'become' do not exhibit vowel harmony in this category:

lakvn. 'Don't (you sg) go.'

lakvp. 'Don't (you pl) go.'

Forms of other verbs and reflexive voice forms may be seen in Appendix A.

The normal aspect marker with the associated empty closing element occurs with this category; the resultant meaning is often 'don't ever do it', although in some cases simple prohibitive forms and prohibitive forms marked for normal aspect appear to be used interchangeably:

wathvtek. 'Don't (you sg) ever kill him.'

wathvsep. 'Don't (you pl) ever kill him.'

Prohibitive forms are analysed as consisting of the verb root plus a reflexive voice marker if any is present, plus the factive mode marker =*k*= with stems ending in vowels and the stem *nek* =, *na* = 'eat', or =*h*= elsewhere, plus the prohibitive marker =*v*=, plus the second person singular or plural marker =*n* or =*p*, and, optionally, the normal aspect marker =*te*= . When the normal aspect marker occurs, =*p* plus =*te*= is realised anatactically as =*sep*, and =*n* plus =*te*= is realised as =*tte*=, obligatorily followed by the empty closing element =*k*, as in the major factive categories. These facts are summarised in Table 2.

TABLE 2
ORDERS OF SUFFIXES IN FACTIVE PROHIBITIVE VERB FORMS

Order:	(1) Voice: Reflexive	(2) Mode: Factive	(3) Modal Subcategory: Prohib.	(5)* Subject: Second Person	(6)* Aspect: Normal	(8)* Empty: Closure with Normal	
Obligatory	±	+	+	+	±		
Mutually Oblig. with:					(8)	(6)	
Filled by:	reflexive: =a=.	factive: =h=, =k=.**	prohibitive: =v=.	2s: =n, =t=***, 2p: =p****.	normal: =te=, =se=.**	closure: =k. 2p: =p****.	
Example:	wat=	=a=	=k=	=v=	=t=	=te=	=k
	watakvttek. 'Don't ever hurt yourself.'						
*	Suffix orders are numbered for comparison with Table 1 (rather than consecutively). The second person stem formative morphs displayed in Table 1 in order (4), the prior action marker displayed in that table in order (7) and the setting marker displayed in order (9) do not occur in prohibitive forms.						
**	Conditions of allomorph occurrence are described in the text.						
***	If a second person singular subject occurs (5) with normal aspect (6), the subject marker is realised as =t= before (6).						
****	If a second person plural subject occurs (5) with normal aspect (6), the subject marker =p is realised anatactically in order (8), and =k does not then occur in order (8).						

2.2.2.2. Remonstrative (van der Stap's common prohibitive aspect, 1966:63)

When an undesirable action has been begun or seems to be actively contemplated, it may be prohibited either with the prohibitive forms described above or with a verb form homophonous with the third person singular simple factive form followed by the free particle hvk 'wrong'. There is no contrast of person or number of the subject in this form, which is most frequently used with second person reference but also occurs with third person reference:

wathe hvk. 'Don't kill him (often said to a person or persons who have threatened or attacked someone).'

Reflexive voice forms and forms of other verbs may be seen in Appendix A.

2.2.2.3. Abnormal Continuative Aspect (van der Stap's idiosyncratic aspect, 1966:69)

The abnormal continuative aspects refers to events regarded as recurring over a period of time in a way which is unusual either because of a change in a cycle of activity or because of individual specialisation in contrast to the activities of others. The non-reflexive voice form of *wat* = 'hit, kill' is:

watho 'killing him (e.g. an enemy group) continually'.

Reflexive voice forms and the forms of some minor class verbs exhibit contrast between singular and plural subject:

watikho 'singular subject hurting himself continually';

watvky 'plural subject hurting themselves continually'.

Where such contrast for number of the subject occurs in this category, the singular form is semantically unmarked, i.e. it may occur with reference to either a singular or a plural subject, but the plural form is marked, occurring only with reference to a plural subject.

The reflexive voice markers occurring with this category include unique allomorphs, e.g. =i= in next to the last example. The factive mode marker occurs obligatorily, as =k= after vowel-final roots and stems, and after the allomorphs of the root *nek*= which occur in these forms, and as =h= elsewhere. The abnormal continuative marker is realised as =o following the factive marker =k= with the roots *la*= 'go', *wa*=, *wet*= 'come', *a*=, *at*= 'acquire', *-a*=, *-at*= 'become', *-la*=, *-lat*= 'incur a process' and the allomorph *nik*= of the root *nek*=, *na*= 'eat'; elsewhere the category marker is realised as =ho (automatically occurring as =o following the factive marker =h=). The allomorphs =o, =ho have two senses, one with reference to a subject of either number, and the second, when contrasted with marked plural subject forms, with implicit reference to a singular subject. The portmanteau =y occurs as a marker of abnormal continuative aspect and plural subject. The patterns of inflection may be seen in Appendix A.

Abnormal continuative forms often occur followed by a form of the verb *wela*=, *loko*= 'continue', although they also occur with no other verb following in the sentence of implied:¹³

watho wetek. (*wetek* 3sp present progressive + *wela*=, *loko*= 'continue') '(third person subject) is, are hitting him all the time.'

spppvtv nikko. (*nik*= *nek*-, *na*= 'eat'; =k= factive; =o abnormal continuative) '(subject) is eating sweet potatoes (e.g. after a period of illness or after weaning).'

These forms contrast in meaning with normal aspect and progressive

aspect forms, although the ranges of meaning also overlap:

japu wanhatek. (wan= 'take', in this idiom 'dig'; =h= factive; =a 3p subject; =te= normal; =k closure) '*garden they-normally-dig, i.e. People dig gardens.*'

japu wany'-lay. (=yk 3sp present progressive stem; -la= + wela=, loko= 'continue'; =y 3p subject, factive) '*garden they-are-digging, i.e. They are digging gardens (now).*'

japu wanho. (wan= 'take', 'here dig'; =h= factive; =ho abnormal continuative) '*garden subject-digs-continually-abnormally, i.e. (subject) is engaged in a burst of garden digging (in contrast with his own previous activity or the activities of others).*'

2.2.3. Non-Finite Factive Forms

The remaining factive mode categories are marked in non-finite forms. The finite forms treated up to this point normally occur as the main, final verbs in sentences or, in the case of forms including prior action or event setting markers, are built by the addition of affixes to forms which so occur. More importantly, in finite forms the event mode category 'factive' has independent value that may be interpreted from the standpoint of the context of utterance. In contrast, the category 'factive' in non-finite forms is a relative category that must be interpreted in terms of the event mode marked in a superordinate verb. Non-finite forms are normally dependent upon a superordinate verb in the context and are not constructed by adding affixes to more independent forms. It is to be noted that the presupposed superordinate verb is sometimes implicit rather than explicit.

2.2.3.1. The Factive Subordinate Stem

Several non-finite factive forms are built upon factive stems which occur with contrast of singular and plural number of the subject. The categories employing this stem are factive relative to the event referred to in the superordinate verb. That is to say that from the vantage point of the event referred to in the superordinate verb, the event referred to in the subordinate forms is viewed as factual, even though it is not necessarily factual as yet from the vantage point of the speaker. The forms are briefly introduced here; they will be treated in syntactic context in Chapter 5.

The factive subordinate stem when it refers to a singular subject is homophonous with the third person singular simple factive form. When this stem refers to a plural subject it is homophonous with the simple prohibitive form minus the markers of subject categories. The patterns of inflection may be viewed in Appendix A; these forms for the verb

wat= 'hit, kill' in a non-reflexive voice are:

wathe- 'singular factive subordinate stem';

wathv- 'plural factive subordinate stem'.

These stems never occur as independent forms without a relational suffix, clitic or particle marking a particular category, as described below.

(1) Conditional. Factual conditions of the form, "If X occurs, Y occurs or will occur," may be expressed in sentences the protasis of which consists of a clause including the factive subordinate stem followed by the relator halok, loosely glossed as 'if', which is realised as halok with singular subject forms of the subordinate stem and as salok with plural subject forms. This relator is cliticised to the factive subordinate stem forms; it also occurs as an independent particle with conditional meaning with other verb forms, but in those constructions it occurs only in the form halok. As is even clearer to see in some other dialects, this relator is derived from the verb ha= 'see' inflected for what is referred to later in this study as a perfect participle, anticipating a superordinate verb with the same subject. The form salok is derived from a form prefixed to mark a third person plural personal object, and halok represents the unprefix form with implicit reference to a third person singular object. It is possible to understand how such forms came to be used in conditional sentences by interpreting examples to have meant, at one stage, "When the subject of the verb in the apodosis perceives the subject of the verb in the halok protasis having done what is specified in the factive subordinate stem, then he (the subject of the verb in the apodosis) will act as specified in the apodosis." The forms of the verb wat= 'hit, kill' in non-reflexive voice are:

wathe-halok.... 'If (singular subject) kills him....'

wathv-salok.... 'If (plural subject) kill him....'

ap wathv-salok-he, kvt-esi wanhatek. 'man plural-subject-killing-him--if--topic, white-heron--its-feathers they-normally-take, i.e. If they kill a man, they get white heron feathers.'

The patterns of inflection of reflexive voice forms and of other verbs may be seen in Appendix A. Other examples of conditional sentences with this construction are treated in Chapter 5.

(2) Coincident Punctiliar. An event which is: (a) regarded as very roughly temporally coincident with another event referred to in a verb with a different subject, and (b) considered as relevant setting for that other event, and (c) not progressive in aspect, is frequently referred to in a verb form consisting of the factive subordinate stem plus the suffixed relator =nem. Such forms are frequently chosen to give a point of reference for the time or situation of the event referred

to in the superordinate verb. The punctiliar aspect simply specifies that the verb is not marked as referring to progressive aspect. These forms of the verb *wat= 'hit, kill'* in non-reflexive voice are:

wathenem.... 'When (singular subject) kills him, or killed him, then....'

wathvnm.... 'When (plural subject) kill him, or killed him, then....'

sokopelan al wathenem, tum-hoko wathukwha. 'pandanus-air-roots its-"guts" when-singular-subject-beats-it (last two words comprise an idiom meaning 'beat hard') thrust--manner they-killed-him-long-ago, i.e., They killed her with a (spear)-thrust when she was pounding pandanus air-roots (to get fibres).'

Reflexive voice forms and analogous forms of other verbs may be seen in Appendix A. Other examples in context are treated in Chapter 5.

There is another sense of these forms which is rare in this dialect but does occur, referring to an action which is undesirable. With this sense, the second event, for which the event referred to in the *=nem* form provides a specialised kind of setting, is frequently implicit in the situational context. The verb *wela=, lokoi= 'continue'* occurs in this form only with this sense, and both roots of the verb have been recorded:

welakanem '(singular subject) had better not stay.'

lokokvnm '(plural subject) had better not stay.'

Peni wakanem.... '(It's too bad) Ben is coming (for a storm is brewing).'

(3) Coincident Progressive. An event which is regarded as (a) concurrent but disregarded (or potentially disregarded) background to another event referred to in a verb with a different subject, and (b) progressive in aspect, may be referred to in a verb form consisting of the factive subordinate stem plus the cliticised relator *-kkolek*. The forms of the verb *wat= 'hit, kill'* in non-reflexive voice in this category are:

wathe-kkolek, watho-kkolek 'while (singular subject) is hitting, killing him....'

wathv-kkolek 'while (plural subject) are hitting, killing him....'

The alternative singular subject form, listed second above, occurs with the singular subject marker, normally *=e*, assimilated to the first vowel of *-kkolek*. The verb *wela=, lokoi=* occurs in this category in the irregular form *wetek- kkolek 'while (subject) is, are continuing or staying....'*

jyttoko wetek-kkolek ik-a? 'This-way subject-is--while let-me-speak-- invitation, i.e. Shall I speak while it (the microphone) is like this?'

wesa ikho-kkolek nekken. *'taboo singular-subject-saying--while you (sg)-ate-it, i.e. You ate it while (I) was saying that it was taboo (and disregarded my warning).'*

Reflexive voice forms and analogous forms of other verbs are displayed in Appendix A; other contextual examples are provided in Chapter 5.

2.2.3.2. Factive Gerund

A verb form consisting of the verb root or reflexive stem plus the factive mode marker plus a factive gerund ending, which is most commonly realised as =v (or =y with some minor class verbs) occurs with similar senses in two common environments: (1) preceding the mental state terms *nelu* 'my knowledge, I know how to...' and *nokkot* 'my ignorance, I don't know how to...' to refer to the action known or unknown by the subject in terms of his ability to perform it; and (2) with the clitic -kkwe 'path, direction' to refer to the place where an action is performed or sometimes to the occasion for performing an action. There is also a productive derivational pattern in which this form of a verb, most commonly a verb referring to a process, with =kkwe suffixed rather than cliticised, occurs with reference to the instrument with which a process is performed. The factive gerund of the verb *wat=* 'hit, kill' in non-reflexive voice is:

wathv 'hitting, killing him';

wathv nelu. 'I know how to hit, kill him.'

wathv-kkwe we'no. 'killing--direction (you-sg)-come-later, i.e.

Come where (or when) they are killing him, beating him.'

hesi wathvkkwe 'pigment applying-instrument, i.e. something with

which to apply pigment (a neologism referring to a paintbrush)'.

Reflexive voice forms and analogous forms of other verbs are displayed in Appendix A, and some further contextual examples are provided in Chapter 5. This form is to be compared with the **potential gerund** described below, which occurs with mental state terms such as 'like' and 'fear'.

2.2.3.3. Iterative Participle.

There is a factive form which may be labelled a participle which occurs in two major kinds of environments, with two distinct senses: (1) presupposing a superordinate verb in a construction referring to a special class of recurrent events; and (2) presupposing the negative particle *lek* in the commonest negative construction. This form, like the factive gerund, is not contrastive for person or number of the subject. The form of the verb *wat=* 'hit, kill' in non-reflexive voice

in this category is:

wathyk '*killing him*'.

This form is interpreted to include the factive marker =h=. The reflexive voice form includes no overt, separate factive marker, however:

watyyk '*hurting oneself*'.

In these reflexive voice forms and the forms of some minor class verbs in this category, the iterative participle marker =yk is interpreted to be a portmanteau also signalling factive mode. In this dialect the factive marker does not occur after vowel-final stems, but that marker does occur in this environment in a neighbouring closely related dialect. The loss is interpreted to be the result of a phonological process of weakening of the [g] allophone of /k/ intervocally, a process which is also evident in other forms in this dialect and in comparative data.¹⁴

With the roots la= '*go*', wa=, wet= '*come*', a=, at= '*acquire*', -a=, -at= '*become*' and -la=, -lat= '*incur a process*', the marker =yk occurs after the stem in its factive form (minus the factive marker) in non-reflexive voice:

layk '*going*'; wayk '*coming*'.

With other vowel-final roots and stems, including reflexive forms, the marker =yk occurs with a root or stem allomorph including a final assimilated vowel y:

hyyk (← ha=) '*seeing*';

yyk (← i=) '*saying*';

watyyk (← wat= + =a= reflexive) '*hurting oneself*'.

With the root nek=, na= '*eat*' the marker =yk occurs following a stem consisting of a root allomorph with the vowel y plus the factive marker allomorph =k=:

nykkyk '*eating*'.

With other consonant final roots in non-reflexive voice, the factive marker allomorph =h= occurs followed by the iterative marker =yk:

wathyk '*killing him*'.

As a participle presupposing a superordinate verb, this form refers to events as recurrent, particularly to two or more events which share some semantic component or components but contrast in one or more other components and which recur in intercalated sequence, like '*coming and going*', '*roasting and steaming*', or '*my carrying it and his carrying it (in turns)*'. The modal meaning of these forms, like other non-finite forms, is relative to the superordinate verb:

wam kvthyk wathyk svppvthyk ikhetek. '*pork/pigs carving killing distributing he-normally-says, i.e. He regularly carves pork, kills pigs and distributes pork.*'

The senses and environments in which this participle occurs will be

further treated in Chapter 5. This participle is to be compared with the similar but contrastive basic participle described under potential mode forms below.

As a form occurring with the negative particle *lek* in the most common negative construction in the language this participle apparently specifies the factual status of an event to be negated. But here, as with other non-finite forms, the modal value of the construction is determined not from the factive marker in the participle but from the implicit modal categories in *lek* as a non-verb predicate (see the discussion on modal categories in Chapter 6). Such predicates have, unless otherwise marked, implicit factive event mode. Where another event mode category is specified, a verb such as *wela=*, *loko=* 'continue' is included as a carrier of inflectionally marked categories, and the modal meaning of the participle is then relative to the modal meaning of that verb:

- lay'* *lek*. 'going not, i.e. (The subject) *didn't go*.'
wathy' *lek*. 'killing-him not, i.e. (The subject) *didn't kill him*.'
wathy' *lek* *lokokin*. 'killing not (singular-subject)-will-continue, i.e. (The subject) *will continue or remain not killing him*.'

2.3. HYPOTHETICAL MODE CATEGORIES (van der Stap's *irreal*, 1966:34)

Verbs inflected in the hypothetical mode refer to events which are regarded as hypothetical, whether they are events which might have happened but did not, or which might still happen but are not predicted or commanded or advised by the speaker. The marker for this mode may be cited as basically *=|*, realised as *=i|* after nasals or laterals and as *=|* elsewhere; this marker occurs immediately following a reflexive voice marker, if any is present, or otherwise immediately following the verb root.

2.3.1. Simple Hypothetical Forms, with Subject Markers

The subject markers occurring in this category exhibit a limited set of person-number contrasts, with only four contrastive markers occurring. The morphologically complex marker which in factive mode signals a second person plural subject is extended in meaning in the hypothetical mode to refer also to all third person subjects, both singular and plural.¹⁵

- wa'le*. 'I might have killed him (but didn't); I would like to kill him (but am not predicting it).'
- wa'lo*. 'We might have killed him (but didn't), etc.'
- wa'len*. 'You (sg) might have killed him (but didn't), etc.'
- wa'lep*. 'You (pl), he, she, they might have killed him (but didn't), etc.'

palile. 'I might have severed it (but didn't), etc.'

palilo. 'We might have severed it (but didn't), etc.'

palilen. 'You (sg) might have severed it (but didn't), etc.'

palilep. 'You (pl), he, she, they might have severed it (but didn't), etc.'

Reflexive voice forms and analogous forms of other verbs in this category may be viewed in Appendix A.

2.3.2. Prior Action with Hypothetical Mode

A very few examples have been observed of verbs in the hypothetical mode with prior action marker suffixed:

kamo ilosik.... 'desisting we-say-hypothetical-prior, i.e. If we had desisted, then we....'

2.3.3. Event Setting with Hypothetical Mode

Hypothetical forms with the event setting marker are relatively common in the protasis of contrary-to-fact conditions, best glossed in English with 'if' clauses. These will be treated further in Chapter 5. These forms of the verb wat= 'hit, kill' in non-reflexive voice are:

wa'lema 'if I had killed him (but I didn't)....' or 'if I should kill him (but I do not predict that)....'

wa'loma 'if we had killed him (but we didn't), etc....'

wa'lenma 'if you (sg) had killed him (but you didn't), etc. ...'

wa'lepma 'if you (pl), he, she, they had killed him (but didn't), etc....'

napvlal-hapvlal ilepma-te,... ap-hvny ... inapvlal wanhy-lokoilep.
'my-skin--your-skin (an idiom for the eternal life possessed by snakes) say- hypothetical-2p/3-subject-setting--topic people their-skin take--continue-hypothetical-2p/3-subject, i.e. If (the snake) had said, "Change your skins (i.e. renew your lives)", then people would have kept renewing their lives.'

2.4. POTENTIAL MODE CATEGORIES

Potential mode is not marked by a mode-specifying affix in the position occupied by the markers of factive and hypothetical modes, but rather is marked in portmanteau suffixes which also specify modal sub-categories. The major potential mode finite categories are hortative/imperative and future, with several minor categories.

2.4.1. Finite Potential Forms

2.4.1.1. Hortative/Imperative (van der Stap's adhortative aspect, 1966:42-56).

There is a set of potential forms which are inflected to refer to the commanding, encouragement or permission of an action, with contrast of 'immediate' versus 'deferred' and 'imperative' versus 'hortative' categories. The maximum contrast is observed, as is expected for imperatives, in second person forms; the minimum contrast is observed in first person singular forms. First and third person forms are frequently ambiguous:

- wasik. 'Let me kill him now, or later (asking your permission),'
 or 'I'll kill him now, or later (reporting my decision).'
- wasuwok. 'Let's kill him later (I am directing you to participate)',
 or 'Let's kill him later (I am acceding to your direction).'
- wa'nek. 'Let him, her or them kill him now (implying either that I am giving my permission or am asking you to give your permission or encouragement).'

The forms of the verb *wat* = 'strike, kill' in non-reflexive voice follow; the forms in which there is no contrast of hortative versus imperative are labelled hortative:

- wasik. (1s hortative) 'Let me kill him', or 'I'll kill him' (now or later).
- wasu. (1p immediate hortative) 'Let's kill him now.'
- wasuwok. (1p deferred hortative) 'Let's kill him later.'
- wasin. (2s immediate imperative) '(You sg) kill him now.'
- wa'nok. (2s deferred hortative) '(You sg) kill him later please.'
- wa'ni. (2p immediate imperative) '(You pl) kill him now.'
- wasupakeik. (2p deferred hortative) '(You pl) kill him later please.'
- wa'no. (2 deferred imperative) '(You sg/pl) kill him later.'
- wa'nek. (3 immediate hortative) 'Let him, her, them kill him now.'
- wasuwak. (3 deferred hortative) 'Let him, her, them kill him later.'

In the discourse context of interrogative logical mode to be discussed in Chapter 6, the first person hortative forms uniquely exhibit a first person inclusive versus exclusive contrast, and the 'immediate' versus 'deferred' contrast is frequently lost:

- nit wasu a? (1p exclusive hortative) 'Shall we (not you) kill him?'

The appropriate answer is:

- hit wa'ni. (2p immediate imperative) '(You pl) kill him now.'
- nit wasuwok a? (1p inclusive hortative) 'Shall we (including you) kill him?'

The appropriate answer is:

- wasuwok. (1p deferred hortative) 'Let's kill him later.'

Reflexive voice forms and analogous forms of other verbs may be seen in Appendix A. Note the automatic occurrence of allomorphs of verb roots with final t and k, realised with final s before i and u, and as glottal stop before n, according to the general morphophonemic rules. In the non-reflexive voice forms, the =i= following the root is interpreted to be a stem-formative empty morph occurring in these forms after consonant-final roots and stems and before suffixes consisting only of a consonant with no vowel. Thus =k is interpreted to be a portmanteau marking first person singular subject, hortative, potential mode; =n(=) is a portmanteau marking non-first person subject, implicitly second person singular and immediate imperative if not otherwise marked, and potential mode. Occurring following this marker =n(=) are: =i marking second person plural; =o marking second person deferred imperative; =ek marking third person immediate hortative; and =ok marking deferred hortative in this position and also following =u(=). The marker =u(=) may similarly be interpreted as a portmanteau marking hortative, implicitly first person plural immediate unless otherwise marked. Occurring following this =u(=) are: =wok (elsewhere =ok) marking deferred hortative; =pakeik marking second person plural deferred hortative; and =wak (elsewhere =ak) marking third person deferred hortative. In the reflexive forms, which are displayed in the appendix, the basic reflexive marker is =a= following the verb root. This reflexive marker =a= plus =u(=) are realised as =o= before a syllable with the vowel a and as =v(=) elsewhere.

2.4.1.2. *Hortative/Imperative Intentional* (van der Stap's intentional aspect, 1966:57).

The deferred hortative forms (where there is a contrast between deferred and immediate) may occur followed by the post-cliticised form ylvk, the perfect participle of i= 'say', with vowel changes, to refer to intention, planning or preparation for a contemplated action. The forms of the verb wat= 'hit, kill' in non-reflexive voice are:

- wasik-ylvk '(singular subject) is planning to kill him';
- wasuwok-olvk '(plural subject) are planning to kill him';
- wa'nok-olvk '(subject) is planning for you (sg) to kill him';
- wasupakeik-ylvk '(subject) is planning for you (pl) to kill him';
- wasuwak-alkv '(subject) is planning for him, her them to kill him'.

These glosses may be more easily understood if the form of i= 'say', ylvk 'having said', is interpreted to refer to the inner speech of the planner:

- wasik-ylvk 'subject is saying to himself, "Let me kill him".'

Frequently these forms are dependent on a following superordinate verb, but particularly the first person forms may occur as main final verbs. These formally first person forms may refer, as noted above, to any person category because of the quotative construction in the forms:

an lak-alk. *'I let-me-go/I'll-go--having-said, i.e. I'm getting ready to go.'*

2.4.1.3. Hortative/Imperative Facilitative

The same hortative forms which occur in the intentional category described above also occur with the cliticised relator -en (realised as -nen after vowels, -en after consonants) 'source' to refer to an event which is facilitated or cued by the event referred to in a following presupposed verb. The forms of the verb wat= 'hit, kill' in non-reflexive voice in this category are:

wasik-en *'so that I may kill him';*
 wasuwok-en *'so that we may kill him';*
 wa'nok-en *'so that you (sg) may kill him';*
 wasupakeik-en *'so that you (pl) may kill him';*
 wasuwak-en *'so that he, she, they may kill him'.*

These forms are treated in this section because they are based on finite forms, even though they are regularly non-finite. In this category the participant marked as subject of the hortative form is considered to have the initiative, as is perhaps indicated by the occurrence of the relator =en, which may often be glossed 'source'.¹⁷ These forms contrast with the intentional forms described above, where the participant marked as subject of any following superordinate verb and also functioning as subject of the participle -ylvk has the initiative and is making the plans:

wolo' loak-en wok-eisan. *'carrying let-3-subject-go--source take--(you-sg)-transfer-it-to-them-now, i.e. Give them to them so that they can carry them off.'*

In this example the objects referred to were weapons, given only reluctantly by the addressees to the receivers, who are referred to as the personal object of the final verb and the subject of the facilitative form. Compare:

namelaik a'noko wo'-ne'nok-olvk waky. *'my-bailer-shell that-known-to-us take--you(sg)-transfer-to-me--having-said I-came, i.e. I have come for you to give me my bailer shell.'*

In this last example the subject of the final verb was very anxious to recover his shell, which was only reluctantly surrendered by the subject of the hortative form in the intentional construction. These forms

will be treated further in Chapter 5 with contextual examples, and the inflection of reflexive voice forms and analogous forms of other verbs may be seen in Appendix A.

2.4.1.4.1. Future (van der Stap's near future tense, 1966:7)

The future category refers to events that are confidently expected to occur in the future; there is also a distinct and rather uncommon remote future category specifically marked to refer to events anticipated in the distant future. In the regular future forms only number, not person, of subject is contrastive; the forms of *wat* = 'hit, kill' in non-reflexive voice are:

wasikin. '(Singular subject) will kill him.'

wasukun. '(Plural subject) will kill him.'

Reflexive voice forms and analogous forms of other verbs are displayed in Appendix A.

The marker of the future category is the discontinuous morpheme =*(V)k(V)n*, intercalated with markers of number of subject: =*i(k)i(n)* singular and =*u(k)u(n)* plural, in non-reflexive voice. In reflexive voice the markers of number of subject are portmanteau affixes also marking the reflexive category: =*e(k)ei(n)* singular, reflexive, and =*o(k)oi(n)* plural, reflexive:

watekein. '(Singular subject) will hurt himself.'

2.4.1.5.2. Future with Event Setting

The future category forms also occur with the event setting marker to refer to the predicted event as the relevant setting for another event, usually referred to in a verb with a different subject:

wasikinmo.... 'Since (the singular subject) is going to kill him....'

wasukunmo.... 'Since (the plural subject) are going to kill him....'

honay kukunmo ylvk-he,...wvt pal-inaphatek.... 'men's-house plural-subject-will-enter-setting having-said--topic initiation sever--they-do-to-them, i.e. Since they are going to enter the men's house, (their mothers' brothers) initiate them.'

2.4.1.5. Remote Future¹⁸

There is an uncommon marked category referring to events predicted for the distant, not the immediate future. This category is not marked for person or number of the subject. In normal use, the future forms described in the preceding sections are unmarked forms semantically, referring either to the immediate or the remote future, but the marked remote future category refers explicitly to the distant future.

The form of the verb *wat= 'hit, kill'* is, in non-reflexive voice:

wathvp. '(Subject) will kill him in the distant future.'

Reflexive voice forms and analogous forms of other verbs may be viewed in the appendix. These forms are analysed as including the remote future marker realised as *=hvp* after consonants and *=kvp* after vowels. Like other potential mode category markers, this is a portmanteau also marking the potential mode.¹⁹

2.4.2. Non-Finite Potential Forms

2.4.2.1. Potential Gerund (van der Stap's objective infinitive, 1966:66)

There is a potential form referring to events as potential, with no contrast of person or number of the subject; these forms commonly occur preceding the mental state terms: *na'yt 'my dislike, I don't want to...'*, *najvk 'my fear, I am afraid to...'*, *walok 'desire, (subject) wants to...'*, and *nekkaly 'my embarrassment, I am ashamed to....'*. These potential gerund forms also occur, but rarely, as final verbs in sentences. The form of *wat= 'hit, kill'* in non-reflexive voice is:

wasu 'killing him (regarded as potential).'

wasu na'yt. 'killing-him my-dislike, i.e. I don't want to kill him.'

jy wasu? 'this killing-him query, i.e. Would anyone kill this (fellow)?'

Reflexive voice forms and analogous forms of other verbs may be viewed in Appendix A.

2.4.2.2. Potential Gerund with Event Setting

The form described in the preceding paragraph also occurs with the event setting marker to refer to future events upon which other events, referred to in verbs with different subjects in most cases, are or will be contingent:

wasumo 'if (subject) kills him, (then someone else....)'

With the post-clitic *-te*, to be discussed in Chapter 6, these forms occur as final verbs inciting someone to the act referred to, as if the form might be understood as meaning, *'If you did it, then what? (so go ahead and do it!).'*

wasumo-te. 'Go on and kill him--why don't you?'

2.4.2.3. Potential Gerund with Predictive (van der Stap's voluntative aspect, 1966:67)

The potential gerund also occurs with the predictive suffix realised as *=sak* to refer to events considered as possible, probable or desirable; the context determines the meaning in each case. There is no contrast

of person or number of the subject. The form of the verb *wat= 'strike, kill'* in non-reflexive voice is:

wasusak. 'The subject might, probably will, ought to kill him.'

...hano asusak.... 'good subject-become-predictive, i.e. (The old war) will probably become peaceful (good).'

In this example the speaker did not relish the thought of peace coming with the advance of government administration, but foresaw it as probable.

...akeikhe wasusak.... 'another subject-kill-predictive, i.e. (We) ought to kill some more (but won't get the chance).'

This example from the same text indicates the judgment of the speaker that his side ought to have killed some more of the enemy group, i.e. that such action would be desirable, but the context indicates that he knows this will very likely not be the case.

...an-en wasusak-a? 'me--by subject-kill-predictive--invitation query, i.e. (If we fought, do you think) I could kill him?'

In this example the speaker was asking his addressee whether he, the speaker, would be able or likely to come off as the killer in a personal engagement, thus as to whether the event would be possible, or probable.

This form has been treated in this section on non-finite potential forms even though it is regularly finite, because it is based on a non-finite form.

2.4.2.4. Potential Gerund with Preclusive

The preclusive category refers to events that would be reasonably expected but are considered practically certain not to occur because of the known nature of the participants or the circumstances; the connotation may be either favourable or unfavourable. The forms marking this category are composed of the potential gerund as a stem, with vowel assimilation of final *u* to *v* preceding the category marker, the suffix *=hvk*, which also occurs as an independent particle meaning 'wrong' both in other constructions and the factive remonstrative forms already described. The form of the verb *wat= 'strike, kill'* in non-reflexive voice in this category is:

wasvhvk. '(subject) wouldn't kill him (although he might be expected to).'

In this example, the speaker may refer to a situation in which the person who is referred to as object of the verb ought to be struck or killed, but the subject would not perform the deed, because of his cowardice or fear; or he may refer to a situation in which the person ought not, in the speaker's judgment, to be killed or struck, and the subject would not strike him even though he had provocation to do so.

Reflexive voice forms and analogous forms of other verbs may be seen in Appendix A.

2.4.2.5. Potential Stem

There is a potential stem which has never been observed to occur by itself as an independent or sentence-final verb but rather occurs in two main environments: (1) as a stem preceding verbs of directional motion, and (2) with the clitic *-noko* in the portentive category described below. There is no contrast of person and number of the subject in this category. The form of the verb *wat=* 'strike, kill' in non-reflexive voice is:

wasi... 'to kill him'.

This category, like many others, can be adequately treated only in examples with context, and these will be provided in Chapter 5. This stem is identical in form to the first person singular hortative form minus the subject indicator *=k*:

wasik. 'Let me kill him.'

wasi lan. 'to-kill-him (you-sg)-go-now, i.e. Go kill him.'

heik. 'Let me place it.'

hei lan. 'to-put-it (you-sg)-go-now, i.e. Go put it (there).'

2.4.2.6. Potential Stem with Portentive (van der Stap's contingent aspect, 1966:69)

There is a potential category referring to events as undesirable but liable to occur and therefore meriting prevention if possible. The forms marking this category consist of the potential stem, described in the preceding section, plus the post-cliticised category marker *-noko*. There is no contrast of person or number of the subject in this category. The form of the verb *wat=* 'hit, kill' in non-reflexive voice in this category is:

wasi-noko. '(The subject) is liable to kill him (and ought to be prevented from doing so).'

Reflexive voice forms and analogous forms of other verbs may be seen in Appendix A.

2.4.3. The Potential Participles

There are four non-finite potential forms which can be labelled participles. They are assigned to the potential mode because they include no marker for either of the marked event mode categories, but it is to be understood that the modal meaning of these forms, like all other non-finite forms, is to be interpreted relative to the event mode

of the superordinate verb. The last two of these participial categories are set apart from the first two and from all other categories described to this point in that they occur, with some special exceptions to be noted, only for verbs of process and they do not occur with marked reflexive voice or marked personal objects.

2.4.3.1. *Basic Participle* (van der Stap's durative aspect, 1966:70)

There is a potential participle which resembles but contrasts with the factive iterative participle. The latter is characteristically recognised by the combination of the factive mode marker plus the suffix =yk (but see the exceptions described above); the former, or basic participle, commonly consists of the verb root, with distinctive allomorphs occurring for some verbs, plus the category marker =yk after consonants, =lyk after vowels. This participle is here labelled 'basic' because it appears to include the widest range of senses and occur in the widest range of environments of any of the participles. Any label fitting one of these senses seems unsuited for other senses. These senses and uses of this participle in comparison and contrast with other participles, will be treated in Chapter 5. In non-reflexive voice, this form of the verb wat= 'hit, kill' is:

watyk '*hitting, killing him*'.

In reflexive voice the form of this verb in this category is:

watylyk '*hurting oneself*'.

Verbs with roots ending in k occur with allomorphs in which t replaces k in this category, and the verbs a=, at= '*acquire*', -a=, -at= '*become*' and -la=, -lat= '*incur a process*' occur with the t-final allomorphs in this category. Roots with final akh in reflexive voice stems occur with the stem-final reflexive marker =a= added. Elsewhere, vowel-final roots and stems, including reflexive stems, occur with root or stem allomorphs with final y:

jatyk (jak=) '*planting*';

ylyk (i=) '*saying*';

nylyk (nek=, na=) '*eating*';

lylyk (la=) '*going*';

atyk (a=, at=) '*acquiring*';

jakhalyk (jak=) '*planting for oneself*'.

These and analogous forms of other verbs are displayed in Appendix A.

This basic participle occurs in a number of environments.

(a) This participle is the stem form of the main verb in third person present progressive aspect forms to be described below:

waty'-lako. '*He is hitting, killing him.*'

(b) This participle sometimes occurs duplicated, occasionally with no explicit superordinate verb, to refer to an event which is repeated a number of times:

ane ylyk ylyk. '*his-talk saying saying, i.e. He kept talking.*'

(c) Any verb except a verb of directional motion or the verb glossed 'continue' may occur in this form preceding a verb of directional motion to refer to an event occurring during the motion, where the subjects of the verbs are the same:

o haly hylyk ki akeikhe. '*village firewood putting enter he-came-long-ago, i.e. He invaded, setting fire to the villages as he came.*'

(d) This form also occurs preceding another verb in any mode to refer to an event in the same focus of interest, referred to in a verb usually with the same subject, where the event referred to in the basic participle precedes the event referred to in the following verb:

lylyk wesikin. '*having-gone singular-subject-will-come, i.e. (Subject) will go and come back.*'

(e) This form of the verb wela=, lokoi= 'continue' is lokolyk 'continuing' and occurs in a special sense referring to a state (or event, when used with another verb) which continues throughout the time span of another event referred to in a superordinate verb, where the subjects of the two verbs are the same in reference. This will be treated further as the -lokolyk progressive coincident action (same subject) construction in Chapter 5.

joma lokolyk wathi. '*here continuing I-killed-him, i.e. I killed him while I was staying here.*'

Further examples and discussion of these uses of the basic participle will be found in Chapter 5.

2.4.3.2. Perfect Participle (van der Stap's detached active past participle, 1966:72)

There is another potential participle which occurs to refer to events in relationship to other events, particularly when those other events are events of motion. Verbs referring to carrying or escorting occur in this form to refer to events which are coterminous with the motion event referred to in the following motion verb. Verbs referring to other kinds of actions, which do not presuppose simultaneous motion, occur in this form to refer to events completed before the motion referred to in the following verb. For further elaboration of these senses and uses, see Chapter 5. This form of the verb wat= 'hit, kill' in non-reflexive voice is:

wa'luk '*having killed him*'.

In reflexive voice, this form of this verb is:

watalok *'having hurt oneself, themselves'*.

These forms consist of the verb root plus any reflexive voice marker plus the category marker, realised as =iluk after n, l and, alternatively, p; as =luk after stops otherwise (alternatively with =iluk after p); as =lok after a; and as =lvk in the form ylvk, from the root i= 'say'.

jetalok lakeikha. *'having-slung-him-on-a-pole-reflexive they-went, i.e. They slung him on a pole (for themselves) and carried him off that way.'*

wa'luk wakeikha. *'having-killed-him they-came, i.e. They killed him and then came.'*

2.4.3.3. Specialised Perfect Participles

Three forms which are quite clearly perfect participles in origin now function in specialised, different ways, although these functions are related to the meaning of this participial category:

ylvk *'having said'* (and with many other glosses);

halok *'if'*, from the sense *'having perceived'*;

wolok *'carrying'*, (from the verb wok- + wan= 'take').

These forms will be treated in terms of contextual examples in Chapter 5, but it may be noted that ylvk *'having said'* has been described above as an element in the intentional forms of verbs, and halok has been described in its realisations as -halok and -salok in factive conditional forms.

2.4.3.4. Manner Participle (van der Stap's first bound active past participle, 1966:73)

The manner participle occurs in several senses to be treated in Chapter 5. The commonest sense refers to an event regarded as a preliminary part or stage of a larger event, where the terminal stage of the same larger event is referred to in a superordinate verb. As already noted, this participle does not occur with marked reflexive voice nor with marked personal objects referred to in verbal affixes; in general only process verbs are inflected for this category. This form of the verb wat= *'strike, kill'* is:

watoko *'striking, killing'*.

Similarly verbs whose roots end in any consonant except k occur with the category marker =oko added to the root:

paloko (pal=) *'severing'*;

kvtoko (kvt=) *'cutting up for distribution'*.

verbs whose roots end in ak occur with =o suffixed to the root as the

category marker:

- jako (jak=) '*planting*';
 isako (isak=) '*steam cooking*';
 wetako (wetak=) '*roasting*'.

Verbs whose roots end in *yk* or *vk* occur as an allomorph with the corresponding high close vowel followed by the suffix =*hoko* as the category marker:

- ikhoko (yk=) '*making a net*';
 wukhoko (wvk=) '*chopping*'.

The following examples are only tokens; these forms are treated in context in Chapter 5:

- su jo laloko ythatek. '*net cord spinning they-normally-make-nets, i.e. They spin cord and make nets with it.*'
 wam esakko hyaloko hekatek. '*pig its-ear slitting they-normally-put-it, i.e. They slit pigs' ears and leave them that way.*'

Related to these manner participles in =*oko* are forms of incurred process secondary verbs which consist of the verb root plus the clitic -*hoko* after consonant-final roots, -*soko* after roots with final diphthongs ending in *i*, and -*toko* after other vowel-final roots. These forms occur in a wider variety of syntactic contexts than the perfect participles discussed above, and most commonly refer to the manner in which the event referred to in the superordinate verb is performed:

- lappuk-hoko ki aka. '*grouping-manner enter he-came, i.e. (The enemy) grouped and invaded.*'
 hane kei-soko in. '*your-talk vigorous-manner (You-sg)-say-now, i.e. Speak loudly (or fast).*'
 pette-toko ki akeikha. '*crowding--manner enter they-came, i.e. They crowded in here.*'

2.4.3.5. Past Participle (van der Stap's resultative aspect, 1966:71)

The past participle refers in most cases to the state resultant from the process marked in the verb root, and occurs both as an attributive to nouns and as a substantive. This form of the verb *wat* = '*hit, kill*' is:

- watek '*killed*' or '*a corpse*'.

Similarly verb roots with any final vowel except a high vowel or a diphthong or any final consonant except *k* occur in this category in a form consisting of the verb root plus the category marker =*ek*. Verbs with a diphthong ending in *i* in the final syllable of the root occur in this form without the *i* in the root and with the past participle marker realised as =*ik*:

- kelik (keil=) '*hung up*'.

Verbs with the vowel *v* in the final syllable of the root occur in this category in a form consisting of the root plus the category marker realised as =*yk*:

kvtyk (*kvt*=) '*cut up for distribution*'.

Verbs with roots ending in *k* occur in a variety of forms. Roots with final *ak* frequently occur in this category in a form identical to the manner participle, as described in the preceding section:

isako (*isak*=) '*steam cooked*';

jako (*jak*=) '*planted*'.

Verbs with roots ending in *yk* or *vk* frequently occur in this category in forms ending in *uku*, where the first *u* replaces the root vowel:

muku (*mvk*=) '*felled*';

uku (*yk*=) '*netted*'.

As has been noted, these forms do not occur with marked reflexive voice or with marked personal objects, and in general only verbs referring to processes are inflected in this form:

wam kvtyk '*pork cut-up, i.e. pork cut (for distribution)*';

silli palek '*grass-skirt severed, i.e. a doffed grass skirt*';

kvtyk nykky. '*cut-up I-ate-it, i.e. I ate the cut up (food)*'.

Past participles of some verbs also occur before the verb *wela*=.

loko= '*continue*' to refer to a continuing state resulting from the event:

akoin wakanek wetek. '*her-husband taken subject-continues, i.e.*

She took and still has a husband.'

A related sense is particularly common with verbs of perception and mental activity; in these cases, however, the sense is active rather than passive:

asuk holek welakatek. '*his-ear hearing he-normally-continues, i.e.*

He keeps listening.'

epetek wetek. '*remembering subject-continues, i.e. (Subject) has it in mind.*'

Related to these past participle forms of primary verbs of process are forms of incurred process secondary verbs which consist of the verb root plus the clitic *-sek* after consonant-final roots, *-tek* after vowel-final roots. These forms will be treated in Chapter 3:

tek-sek '*broken off*';

si-tek '*folded*'.

There are also several other secondary verb roots which occur with both =*oko* manner participle forms and =*ek* past participle forms, not as attributives or substantives but in other uses and senses to be treated in Chapter 5. The forms will be introduced in Chapter 3 under secondary verbs.

2.5. THE CATEGORY OF PROGRESSIVE ASPECT

It was pointed out in the discussion of factive mode categories above that normal aspect forms and abnormal-continuative aspect forms contrast in aspectual meaning with other factive forms. Except for those forms and some constructions including the basic (=yk, =lyk) and iterative (=hyk) participles, the categories of factive, hypothetical and potential event modes discussed to this point may be interpreted to be implicitly non-continuative in aspect. All verbs except the verb wela=, lokoi= also occur in periphrastic forms marked for progressive aspect in all event modes. The verb wela=, lokoi= 'continue' is interpreted to include this aspectual meaning implicitly.

Progressive aspect refers ambiguously to: (1) action done repeatedly at intervals (thus overlapping in reference with the normal action forms); or (2) action extended over a period of time. The forms consist of a stem of the verb marked for this category plus a cliticised auxiliary verb derived from the verb wela=, lokoi= 'continue'. In potential and hypothetical mode categories, the auxiliary is identical with the analogous form of wela=, lokoi= 'continue'; in factive mode categories the auxiliary may be interpreted to be a contracted form of that verb in its factive stem wela= minus the syllable we, so that here the auxiliary is accidentally homophonous with the analogous forms of the verb la= 'go', except for third person forms in the present progressive category. Since progressive aspect forms are related so closely in form and meaning to the verb wela=, lokoi= 'continue', they might well be treated with that verb, but are included rather at this point in the discussion as forms marking an 'outer layer' inflectional category, occurring in all three event modes. In progressive aspect, there is a further contrast not present in non-progressive categories; this is the contrast between present and past tenses. The forms of the verb wela=, lokoi= 'continue' and the progressive aspect forms of other verbs are ambiguous in simple factive forms with first and second person subjects; they may refer either to present time or recent past time. In third person, however, the forms which are analogous to simple factive forms of other verbs are only past in reference, and special forms occur with present progressive reference. The first and second person forms may be referred to as present/past progressive aspect forms, and the third person forms referred to specifically as either present or past progressive aspect forms. These forms of the verb wat= 'hit, kill' in non-reflexive voice are displayed with the analogous forms of wela=, lokoi= 'continue' and simple factive forms of la= 'go' in Table 3.

The ambiguity of the first and second person present/past progressive

TABLE 3

PRESENT/PAST PROGRESSIVE FORMS OF wat= 'hit, kill' COMPARED WITH ANALOGOUS FORMS OF wela=, loko= 'continue' AND SIMPLE FACTIVE FORMS OF la= 'go'					
Present/Past Progressive of wat= 'hit, kill' (non-reflexive)	Present/Past of 'continue' (Implicitly Progressive)	Simple Factive Forms of la= 'go'			
wela=, loko= 'hit, kill' (non-reflexive)	Present/past				
wathy-laky	'I am, was hitting him.'	welaky	'I am, was staying.'	laky	'I went, am on my way.'
wathy-lako	'We are, were hitting him.'	welako	'We are, were staying.'	lako	'We went, are on our way.'
wathy-laken	'You (SG) are, were hitting him.'	welaken	'You (SG) are, were staying.'	laken	'You (SG) went, are on your way.'
wathy-lakep	'You (PL) are, were hitting him.'	welakep	'You (PL) are, were staying.'	lakep	'You (PL) went, are on your way.'
Present		Present			
waty'-lako	'He is hitting him.'	wetek	'He is staying.'		
waty'-lay	'They are hitting him.'	(wetek)	'They are staying.'		
Past		Past			
wathy-laka	'He was hitting him.'	welaka	'He was staying.'	laka	'He went, is on his way.'
wathy-lakeikha	'They were hitting him.'	welakeikha	'They were staying.'	lakeikha	'They went, are on their way.'

aspect forms may be removed by the addition of a prior action marker; the resultant forms then have unambiguous past time reference. It is to be noted that the inflection of progressive aspect forms for the major factive finite categories employs the past progressive forms in third person. The special present progressive third person forms do not occur with other affixes except for the event setting marker =ma, =mo usually in a spatial sense. Normal aspect and abnormal-continuative aspect forms do not occur inflected for progressive aspect, but almost all other finite forms do occur so inflected.²⁰ However, several non-finite categories do not occur in this aspect. Of the participles, only the basic (=yk, =lyk) participle occurs in progressive aspect and there functions to refer to an event which continues at least throughout the time span of another event referred to in a superordinate verb, where the subjects of the two verbs are the same. These forms will be treated in syntactic context in Chapter 5. The progressive aspect forms of sample verbs are displayed in Appendix A.

It is to be noted that in third person present progressive forms there occur distinctive forms of the auxiliary verb, -lako 'third person singular', and -lay, -laky 'third person plural', and a distinctive progressive stem of the verb which is identical, as already noted, with the basic (=yk, =lyk) participle. Elsewhere, the progressive stem of the verbs la= 'go', wa=, wet= 'come', a=, at= 'acquire', -a=, -at= 'become' and -la=, -lat= 'incur a process' is homophonous with the third person singular simple factive form. For other verbs with vowel-final roots and for vowel-final reflexive voice stems, there are distinctive present/past progressive stems in the first and second person plural forms. These stems consist of the verb root or reflexive stem allomorph with the vowel v as the syllabic in the final syllable and an added consonant k, followed by the suffixed progressive stem marker allomorph =v. In first and second person singular forms in the present/past progressive category and in all other progressive aspect categories of these same vowel-final roots and stems; the progressive stem consists of the verb root or reflexive stem allomorph with the vowel y as the syllabic of the final syllable and an added consonant k, followed by the suffixed progressive stem marker allomorph =hy.²¹ The verb nek=, na= 'eat' is inflected analogously to these vowel-final verbs, but occurs with the first and second person singular present/past progressive stem (which also occurs elsewhere as noted above), marked with the progressive stem marker allomorph =y. In non-reflexive voice forms of other verbs with roots with final k, the progressive stem consists of a root allomorph with final t replacing k, followed by the suffixed category marker =hy. All other consonant-final verb roots in non-

reflexive voice forms exhibit a progressive stem consisting of the verb root plus the progressive stem marker =hy. These patterns of inflection are displayed in Appendix A.

The distinctive meaning of progressive aspect forms may be seen in contrastive examples:

wathi. 'I killed him', or 'I have killed him'.

wathy-laky. 'I am killing him' or 'I was killing him'.

wathytyk.... 'I killed him and then I....'

wathy-lakytyk.... 'I used to kill him (of an enemy group) and then I....' or 'I was killing him and then I....'

wathiki. 'I killed him long ago'.

wathy-lakaki. 'I used to kill him (e.g. an enemy group) long ago' or 'I was killing him long ago.'

In discourse, progressive aspect forms are frequently paralleled by normal aspect forms referring to the same event, where the progressive aspect form concludes one sentence and it is recapitulated in the beginning of the next sentence by a normal aspect form:

...ki aka-lakaki. ki akakitesik.... 'enter come--I-used-to-long-ago. enter I-normally-came-long-ago-prior...., i.e. I used to come in here. After I would come in....'

The iterative participle constructions which carry a kind of aspectual meaning may occur with progressive aspect forms of the inflection-carrying verb:

japu wanhyk svppvvtv jathyk yly'-lay. 'garden digging sweet-potatoes planting they-are-saying, i.e. They are engaged in digging garden and planting sweet potatoes.'

Similar examples occur with normal aspect forms:

wam kvthyk wathyk svppvthyk ikhetek.... 'pork/pig carving killing distributing he-normally-says, i.e. He regularly carves pork, kills pigs and distributes pork.'

The overlap of this sense with the meaning of the abnormal-continuative category is evident from the sentence which precedes the last example:

kain kvtho watho mottok hakathatek.... 'important-men carving (abnormal-continuative) killing-it(abnormal-continuative) altogether they-normally-do-it, i.e. Big men (in contrast with others) regularly carve (pork) and kill (pigs).'

Normal aspect, abnormal-continuative aspect and progressive aspect as marked aspectual categories share a component of meaning referring to events which are regarded as durative or recurring, in contrast with the unmarked non-continuative aspect implicit in other verb categories. The three major marked aspects, while thus overlapping in meaning, also contrast with each other, as has been discussed under each category.

Normal aspect refers to what the subject normally does whether or not he is currently doing it. Abnormal-continuative aspect refers to what the subject does over an appreciable period of time abnormally, contrasting either with his own activity at other periods or with the activities of others. And progressive aspect refers to what the subject is currently doing, in the case of present progressive forms, or to what he was or will be doing at the time specified in other forms:

wam watho. *'pig killing (abnormal-continuative), i.e. (subject) is killing pigs (in a burst of pig-killing, as at least time, or in contrast to others, as of a major leader).'*

wam waty'-lako. *'pig he-is-killing-it (present progressive), i.e. He is killing pigs now (either right now or currently).'*

wam wathetek. *'pig he-kills-it-normally, i.e. He kills pigs.'*

2.5.1. Progressive Prior

There are forms occurring in this dialect with the verb *wela=, lokoi=* 'continue' and with progressive aspect forms of other verbs to refer to an event which has not yet occurred or is not yet complete but will have been completed before another event referred to in a verb with the same subject. The marker for this category is the suffix =ppik occurring with the stem allomorph *loko=* of *wela=, lokoi=* 'continue', whether as a primary verb or as the auxiliary marking progressive aspect:

lokoppik 'after (subject) will have continued (or remained), then (that subject....)';

wathy-lokoppik 'hitting-(or killing)-him--after-the-subject-will-have-continued, i.e. After (the subject) will have kept hitting him (or killing him, e.g. of an enemy group), then (that subject will....)';

jakkul-ethy-lokoppik-en wesikin-a? 'teach/learn--transferring-to-him--after-subject-will-have-continued--source singular-subject-will-come--query, i.e. After (you) teach him for a while, are (you) coming back?'

NOTES

1. In all major respects the orthography used here represents the segmental phonemes as analysed in my description of the phonology (Bromley 1961). The following simplifications and adjustments have been made. In general intonational contrasts have been represented only where crucial to the discussion. Glottal stop before vowel-initial items at intonation contour onset is omitted here. The velar nasal phoneme is represented by the familiar digraph *ng* as in the currently used practical orthography, and the high open vowels /ɪ/ and /ʊ/ are represented by the more readily available symbols *y* and *v*, also as in the practical orthography used for Dani speakers. Proper names are capitalised here, but sentence initial words are not capitalised. Examples are punctuated with the common graphic devices of period to represent sentence terminal with downgliding intonation, question mark to represent upgliding intonation in questions, exclamation mark to represent sentence terminal with intonation contours marking surprise by the inclusion of level one (high in a four-level scale), and comma to represent sentence medial intonation contour terminal characterised by pause or potential pause.

Because of the skewness of Lower Grand Valley phonological patterning as compared with that of neighbouring dialects, the phonemic orthography sometimes obscures comparison with forms cited by Father van der Stap. The difficulty is minimal if the reader recalls that initial *p*, *t*, *k* and medial *pp*, *tt*, *kk* in Lower Grand Valley are reflexes of the proto-Dani phonemes *b**, *d**, *g**. Those same proto Dani phonemes have unaspirated voiceless stop reflexes in the Mugogo dialect described by van der Stap, as they have in Lower Grand Valley, and he writes *b*, *d* and *g* as proposed in my earlier study.

Neither the generally phonemic orthography used in this study nor the cross-dialect practical orthography proposed in my earlier study is

in current use in material for Dani readers. To make the spelling more readily understandable for non-Dani school teachers, a system more compatible with Indonesian spelling has been adopted. Although a similar system earlier seemed distasteful to me and was rejected (Bromley 1961:93), it has proven to be more practicable and more acceptable to the burgeoning number of new literates than I would have predicted.

For the present descriptive study, however, the phonemic orthography with minor adaptations as noted offers major advantages in morpheme recognition. The reader wishing to pronounce the examples will find detailed phonetic information in my earlier study (1961). As minimal tips for rough approximations, he should recall that intervocalic p is a voiced fricative [b], intervocalic t a voiced flap [ʔ], intervocalic k a voiced fricative [g]; that i and u are very high close and tense vowels, in contrast with the more open and less tense vowels /ɪ/ and /ʊ/ here written y and v; that ei, ai and oi, au and ou are monosyllabic diphthongs; that t, n, l or k occurring after these diphthongs is palatalised; and that hyphen represents a juncture separating a preceding fully-stressed form from a post-cliticised form with no stress or suppressed stress if only one such juncture occurs in a word. Series of such junctures are more complex.

2. The right hand form in parenthetical identifications of morphemes is thus often equivalent to a lexemic unit in Lamb's stratificational model (1966), but this practical guide to morphology does not attempt to treat these data in terms of that model.

3. Clitics are in Dani postposed units which are stressless or have suppressed stress and are thus phonologically dependent on a preceding normally stressed word nucleus (compare Bromley 1961:49-52).

4. The second rule is not an automatic rule of phonotactics throughout the lexicon. Forms with intervocalic t before high close vowels do occur morpheme medially, but the rule as stated, with the proviso 'morpheme finally', is valid. Compare the morphemically simple forms:

wutik 'hard';

peti 'casuarina species'.

Later in this chapter certain forms will be encountered (the prior action factive forms) where this rule needs to be extended to intervocalic t before high close vowels morpheme initially, but this extension is not valid for the whole lexicon.

5. The reader will note that this account of verb roots is quite different from that in van der Stap, who describes *s* and *l* as the commonest root-final consonants in verbs (1966:65). The description in the text accounts for the occurrence of *k* and *t* in such forms as *isako* 'steam-cooked'; *isak-om.* 'Steam cook it for him!'; *hakatoko* 'treating'; *hakat-inaphatek.* 'They normally treat them', as well as accounting for the *s* in the desinences of *isasin.* 'Steam-cook it', and *hakasin.* 'Treat him.'

Other differences between the description here and that found in van der Stap are based on dialect difference. Still others reflect differences in hearing and phonemic interpretation. Others reflect differences in interpretation of grammatical categories. And yet others reflect different organisation of the material. The most important differences phonologically are: (1) his omission of any notation of the juncture between fully-stressed word nuclei and clitics which are stressless or have suppressed stress. He writes *wokosin* (1966:77) and *wetasin* (1966:45) for what are written here *wok-osin* 'Give it to him now', and *wetasin* (with no clitic juncture) 'Roast it now'. Compare *laken* 'You (sg) went' and *lak-en* 'so that I may go'. (2) He writes word-medial *h* where I hear a voiced velar fricative, which I interpret to be an allophone of /*k*/ and write *k*. Compare his *wahy* (1966:13) for what is written here *waky* 'I came'. The most important differences in interpretation of verb categories are the description here of two contrastive voices and three contrastive modes, and the treatment here of his three object voices as three of four contrastive personal object roles and relationships (1966:87-100).

The work of Father van der Stap is highly important and praiseworthy; it is the first and only major publication on Dani grammar. His description of 'energetic voice' prompted the re-examination of my own analysis, and the new insight gained is reflected in the interpretation incorporated in this study. My interpretation is not the same as his but includes insights of his which I had simply missed. For the most part, however, this study is independent of his work and is based on my own earlier and continuing research. I have the great advantage of being able to move the focus of attention beyond morphology per se because so much of the morphology has been reported, even if often differently analysed and worded, in his pioneering monograph.

6. Categories of event mode are not the only mode categories in Dani. In Chapter 6 two further sets of modal categories, relative to utterances as such rather than verbs, will be introduced. One of these is what may be labelled 'dialogue mode', referring to the attitude of the

speaker to the addressee's further participation in the dialogue. Dialogue mode categories are optionally marked in clitics attached to words of various classes, but are constituents in construction with whole utterances in most cases. The other major kind of modal category is what may be termed 'logical mode', contrasting interrogative with non-interrogative utterances. This contrast is marked by the use of question words and by intonation. Thus Dani treats the categories traditionally described in English grammar as declarative, imperative and interrogative moods in three distinct sets of modal categories. The function of English imperative mood is fulfilled by Dani hortative/imperative forms of potential event mode, together with non-interrogative logical mode and optionally also with 'decisive' dialogue mode. The relationships and meanings of these modal categories will be treated in Chapter 6.

7. The glosses of reflexive voice forms given here are by no means exhaustive. For the range of senses of reflexive voice see the discussion in Chapter 3.

8. The term "mark" is used in this study in two different senses. In such forms as "marker" the term is used to refer to morphemes or combinations of morphemes which indicate the presence of a category or categories in a form. The term "marked category" or "semantically marked" refers not to the addition of morphological markers, but rather to semantic relationships in the sense specified by Jakobson:

The general meaning of a marked category states the presence of a certain (whether positive or negative) property A; the general meaning of the corresponding unmarked category states nothing about the presence of A, and is used chiefly, but not exclusively, to indicate the absence of A. (1957:5)

Unmarked categories thus have two senses, one including the sense of the related marked category, and the other excluding it. In the example in the text, both future and remote future are morphologically 'marked', but only the latter is the semantically marked member of the pair, since the future category occurs both in a wide sense to refer to an event in the near or distant future, and also in a narrow sense, in contrast to the remote future, to refer to the near future. Remote future, as a marked category, refers only to the remote future, never to the near future.

9. The order of presentation of person and number categories in paradigms is determined by the structure of the paradigm in question. Most

paradigms are presented in the order: first person singular, first person plural, second person singular, second person plural, third person singular, third person plural. I am indebted to Professor Lounsbury for suggesting this simple but often illuminating shift in order of display. There are some cases where another order is more illuminating, as in certain progressive aspect categories, where the following order is adopted: first person singular, second person singular, first person plural, second person plural, third person singular, third person plural.

10. The allomorphs of these markers are summarised in a note in the discussion of hypothetical mode forms below.

11. Earlier I thought I recorded one example in this dialect of reference to an immediately accomplished event as well and truly done by the use of a remote past form. Further check makes this suspicious as probably a misheard simple factive reflexive form, since I was aware of remote past forms at the time but was not aware that the verb in question occurred in reflexive voice. What I thought I heard as *jakkulhiki* 'I learned it long ago' was probably *jakkulyky* 'I've learned it myself.'

12. The logic of this inclusion of the prohibitive category in the factive mode seems less than transparent. There is one bit of evidence that might lead one to treat the markers that appear to be factive mode markers as rather homophonous with those markers. That evidence is the fact that the verb glossed 'continue' is inflected in the major factive categories by use of the root *wela=*, but is inflected in the major potential categories and hypothetical categories by use of the root *loko=*, and it is the latter root which occurs in the prohibitive forms for this verb. However, this evidence is not clearcut, since there are a few categories which occur with either root of this verb; and the verb *nek=*, *na=* 'eat' occurs in simple factive forms with the former root, but in remote past, which is clearly a factive category, with the latter root, which also occurs in potential and hypothetical categories. All other verbs occur in the prohibitive category in forms which may be interpreted as factive. Also, this is the only category besides the major factive forms already described which has been observed to include the normal aspect marker.

13. Father van der Stap calls attention to the unusual character of action marked in this category by his label 'idiosyncratic'. In Lower Grand Valley a number of examples indicate that the remarkable quality of the event is not necessarily idiosyncratic in the sense of the contrast of the actions of one participant with the actions of others, but is even more often unusual in the sense of contrast of successive periods of action by the same participant or participants. These forms are frequently encountered in comment on bursts of changed activity at turns of the warfare or gardening cycle or changes in health or personal maturation.

14. Compare the alternative roots wakan=, wan= 'take' both occurring in this dialect, and the local term paik 'forest animal' with the mid and upper valley term bpakei 'forest animal'. The latter form is also cognate with the Lower Grand Valley form hakeik 'rat'; paik appears to be a cognate form borrowed from the south Ngalik language area.

15. According to this interpretation, the four subject markers which do occur in hypothetical mode may be identified with the subject markers occurring with factive mode. The allomorphs of these markers may now be summarised.

First person singular: =y(=) occurs finally following the factive allomorph =k=; medially following any factive marker and preceding a normal aspect or prior action marker: yky 'I said it'; wanhytek 'I normally take it'; wanhytyk 'I took it (and then I....)'

=e(=) occurs following the hypothetical marker: wa'le 'I almost hit him (or killed him) but didn't.'

=i(=) occurs elsewhere: wathi 'I hit him'; lakaki 'I went a long time ago'; wathikitesik 'after I used to hit him long ago'. Note that in this last example the subject marker =i=, which is the middle i in the form, follows the remote past marker =ik=, not the preceding factive marker =h=. 'Following' and 'preceding' are thus to be understood as meaning 'immediately following' and 'immediately preceding' unless otherwise specified.

First person plural: =o(=) occurs finally following the factive marker allomorph =k=; medially following any factive marker allomorph and preceding a sequence of normal and prior markers, or, in some informants' speech, preceding either alone; and following the hypothetical marker: oko 'We said it'; wathotesik 'after we hit him (as we normally do)'; wathusik, wathosik 'after we hit him'; wathusek, wathotek (later less common) 'We normally hit him'; wa'lo 'We almost hit him (but didn't).'

=u(=) occurs elsewhere: wathu 'We hit him'; lakaku 'We went long ago'; wathukutesik 'after we used to hit him long ago'.

Empty second person stem formative: =a= occurs following the sequence ak where the k is the factive marker and a normal or prior marker occurs in the form: lakattek 'You (sg) normally go'; lakattik 'after you (sg) went'; lakatettik 'after you (sg) go (as you normally do)'.

=i= occurs following the factive marker allomorph =h= if no prior marker occurs in the form; and following any remote past marker: wathin 'You (sg) hit him, killed him'; lakakin 'You (sg) went long ago'; wathittek 'You (sg) normally hit him'; wathikittik 'after you (sg) hit him long ago'.

=e= occurs elsewhere, i.e. following the factive marker allomorph =k= where that marker is not preceded by a, and following the factive marker allomorph =h= where there is a prior marker in the form and following the hypothetical marker: wateken 'You (sg) hurt yourself'; nekkep 'You (pl) ate it'; wathesip 'after you (pl) hit him'; wathetettik 'after you (sg) hit him (as you normally do)'; wa'len 'You (sg) almost hit him (but didn't)'.

The empty second person stem formative does not occur in prohibitive forms.

Second person singular: =t= occurs preceding the normal marker =te= or the prior marker =ti=: for order see Table 1, p.38 and Table 2, p.40: wathettik 'after you (sg) hit him'; wathittek 'You (sg) normally hit him'; wathetettik 'after you (sg) hit him (as you normally do)'.

=n= occurs elsewhere: wathin 'You (sg) hit him'; nekken 'You (sg) ate it'; wathinmo 'after you (sg) hit him (someone else....)'; wa'len 'You (sg) almost hit him (but didn't)'.

Second person plural (the basic sense of the category): =p= occurs in all environments. For position in factive forms see Table 1, p.38, and Table 2, p.40: wathip 'You (pl) hit him'; wathisep 'You (pl) normally hit him'; wathetesip 'after you (pl) hit him (as you normally do)'.

Second person plural plus third person (extended sense of the category, occurring only in hypothetical mode): =p= occurs in all environments: wa'lep 'You (pl), he, she, it or they almost hit him (but didn't)'.

Third person singular (in factive mode only): =a= occurs with the verbs la= 'go'; wa=, wet= 'come'; a=, at= 'acquire'; -a=, -at= 'become' and -la=, -lat= 'incur a process' when no reflexive voice or remote past marker occurs in the form: laka 'He went'; wakatesik 'after he comes (as he normally does)'.

lvny. (lp immediate imperative) 'Let's go now (with command to get going).' If this form is taken into account, the morpheme analysis given in the text needs to be revised to indicate that =n(=) is a portmanteau marking subject other than first person singular (the speaker by himself), implicitly second person singular and immediate imperative if not otherwise marked, and potential mode. Occurring following this marker are: =i marking plural of subject; (this =i is realised as =y following a syllable with a high open vowel); =o marking second person deferred imperative; =ek marking third person immediate hortative; and =ok marking deferred hortative in this position and also following =u(=). The marker =u(=) may similarly be interpreted as a portmanteau marking hortative/imperative, implicitly first person plural immediate unless otherwise marked as third person. The person category in this morpheme is retained and the implicit second person category in =n(=) is lost in the combination of these morphemes. Occurring following this =u(=) are: for the verb la= 'go' the combination =n(=) with =i, with resultant first person plural immediate imperative meaning; =wok (elsewhere =ok) marking deferred hortative; =pakeik marking second person plural deferred hortative; and =wak (elsewhere =ak) marking third person deferred hortative. In the reflexive forms, which are displayed in the appendix, the basic reflexive marker is =a= following the verb root. The combination of this or any other stem final a plus =u(=) is realised as =o= before a syllable with the vowel a and as =v(=) elsewhere.

One other form has also been observed which is not taken into account in the text of the study as originally written:

wasiok. (1s deferred hortative) 'Let me kill him later', or 'I'll kill him later'.

This form is encountered for many verbs but is not used by many speakers in the dialect being described; it is, however, common in the sub-dialect spoken across the Balim river from Kurima. If these forms are taken into account the =i= following the root can be interpreted not as a stem-formative empty morph but rather as a morpheme implicitly marking first person singular subject unless another person marker occurs, and =k= in the common first person singular form can be interpreted to mark hortative and potential mode following =i.

17. The relator -en, -nen 'source' also occurs following many other verb forms, as well as words of other classes. The verb forms include a number already described with no mention of the possibility of the addition of this relator. With those other verb forms, however, the function of the relator is essentially conjunctive, without modifying

the grammatical meaning of the verb to which it is cliticised. In this facilitative category the semantic relationship of the relator to the verb is much closer and does importantly change the grammatical meaning of the verb. The conjunctive use of *-en*, *-nen* with other verb forms will be discussed in Chapter 5, and some of the other uses of this relator are treated in Chapter 3.

18. This category is not the same as van der Stap's indefinite future. His examples include, and are all analogous to, "*wetasisikin*", which he glosses with two senses, "singular actor will roast (later)" and "one actor will roast in the dim future" (1966:10). I interpret this form to include the potential stem *wetasi* 'to roast it' and a contracted form of *wesikin* '(singular subject) will come', with the resultant meaning '(singular subject) will come to roast it'. In the dialect described in this study, the analogous form would be: *wetasi esikin* '(singular subject) will come to roast it'. If my interpretation is correct, the future category here is not remote future but simply future.

19. These forms include an *h* or *k* that is homophonous with the factive mode marker. It might be possible to interpret these forms to include the factive marker and this category thus to be a factive mode category. If that interpretation were adopted, it could be observed that many events which can not confidently be predicted so long as the time-span is limited can be predicted with full confidence for the indefinite future. Thus one may not say with complete confidence, "It will rain tomorrow", but one can say with as complete confidence as is possible, "It will rain sometime". However, this interpretation, which was earlier adopted, has been rejected for the following reasons.

- (1) Local speakers link the remote future category with the future category and may use the latter whenever they may use the former; they do not use any factive category in these environments.
- (2) There are some speakers of this dialect who employ forms of the verb 'come' in this category which do not contain the troublesome consonant: *wakvp*, *wesvp*. '(Subject) will come in the remote future'. The second of these alternatives employs the root allomorph which otherwise occurs in potential mode forms. Also the verb *wela=*, *loko|=* 'continue' is inflected for this category in a form employing the root *loko|=*, which otherwise occurs in potential and hypothetical mode categories, with a few exceptions: *lokokvp*. '(Subject) will stay (there) in the remote future'. (See however note 12, p.69, where similar evidence, so far as the roots of 'continue' are concerned, was not considered sufficient to determine the mode of prohibitive forms.

Other evidence motivates different decisions in the two cases, as noted in the discussions of the two cases.)

20. Remonstrative forms and the construction of the iterative participle with the negative particle *lek* have not been observed in progressive aspect.

21. As will be described in Chapter 3, verb roots ending in *p*, *k* or a vowel occur in reflexive voice with final *k* (which replaces *p* in that case, or is added in the case of the vowel-final roots) plus *h*. These root allomorphs are followed by a vowel marking reflexive voice, and it is following that voice marker that the progressive stem allomorph *=hy* occurs preceded by an added *k*. That *k* is here assigned to the voice marker. Thus the consonant *k* is added twice in these forms, once in special root allomorphs, and again in special reflexive voice marker allomorphs:

hakhykhy-laky. 'I am placing it for myself.'

In this example *hakh=* is a special root allomorph of *hei=* 'put'; *=yk=* is a special allomorph of the reflexive voice marker; *=hy-* is the progressive stem marker; and the auxiliary includes the root *-la=*, interpreted as a contraction from *wela=*, *loko=* 'continue', plus the factive marker *=k=* and the first person singular subject marker *=y*.

CHAPTER 3

SINGLE EVENTS AND EVENT PARTICIPANTS: CATEGORIES OF CASE AND VOICE

In the last chapter, the inflection of Dani verbs was partially sketched as a background for the remainder of this study. Deliberately omitted from that chapter was consideration in any detail of categories of voice or personal object, which are marked in an 'inner layer' of inflection. Attention may now be turned to these matters and others that concern the relationship of participants, particularly personal participants, to single events as referred to in what are here termed single verbs, which may include one or two post-cliticised auxiliary verbs.

These are the relationships of case and voice that have been in the focus of attention of linguists in recent years, particularly in the work of Charles J. Fillmore (1966b, 1968a, 1968b, 1971), but also and independently in the studies published by the tagmemicists (e.g. Pike 1964; Wise 1968:39-40), the stratificationalists (e.g. Lamb 1964; Gleason 1968; Taber 1966; Cromack 1968), Wallace Chafe in his own version of generative semantics (especially 1970b), and M.A.K. Halliday of the London school (1967a, 1967b, 1968, 1970). Most of this work has been done on English and has emphasised the discrepancy between the underlying semantic relations Fillmore labels 'case' and the surface structures in which these are encoded. However, the discussion has also involved other languages, and specific sets of case relationships have been suggested as language universals (e.g. Fillmore 1968a:1-5). To the familiar inventory of devices utilised to encode case relationships, such as prepositions and case endings, Dani adds constructions with auxiliary verbs, so that the data are of interest in terms of the developing study of 'case' in a sampling of languages of the world.

3.1. CASE RELATIONSHIPS MARKED BY POSTPOSED RELATORS

The semantic relationships of participants to events in Dani are signalled by one or more of the following devices: word order; semantic components of the lexical items; post-posed relators, including post-positions, post-clitics and suffixes; direct affixation to verbs; and affixation to auxiliary verbs. The relationships marked by post-posed relators are also, in several cases, marked by one of the other devices as well, so that it is useful to begin the description with these relators.

3.1.1. Spatially Oriented Relators

3.1.1.1. Locative Relators

Locative relators: senses of 'target' and 'locus'. An important set of relators has fundamentally locative senses, including in each case a sense referring to the goal or target of motion and a sense referring to the location of an event or participant; the context disambiguates these two kinds of locative senses, which may be labelled 'target' and 'locus'.

(1) The suffix =m. There is a non-productive suffix =m occurring with a few stems in a locative sense. In the filed corpus it occurs only with the noun *ekki* 'his hand, arm':

jy nekkim hako lokolyk-he.... 'this my-hand-in grasping while-same-subject-continues--topic, i.e. While (I am) keeping hold of this in my hand....'

ekkim heikhe. 'his-hand-in he-put-it, i.e. He put it into his hand.'

(2) The suffix =la. There is a productive although relatively uncommon suffix =la occurring in locative senses with the specific meanings 'inside' or 'into'. In the corpus filed for this study it occurs with two stems: *su* 'net'; *ay* 'his house'. Other stems recorded with this suffix include: *al-apat* 'his stomach'; *akvn* 'its (marsupial) pouch'; *tokke* 'inhabited valley':

...vkkvlasu it sula wo'lo'ma.... 'his-headnet they net-inside carrying-setting, i.e. when they were carrying his headnet in their nets.'

akvnla kikhe. 'pouch-into he-entered, i.e. It (the baby marsupial) got into its (mother's) pouch.'

wvtama ayla noko suku.... 'pandanus its-house-inside sleep we-said-long-ago, i.e. We slept in the pandanus (season) house.'

(3) Related to the suffix =la is the form *a'la*, an obligatorily possessed noun also serving as a relator and meaning 'inside him, her or it':

...otto a'la kisuku.... 'automobile its-inside we-entered-long-ago,
i.e. We got into the car....'

na'lla-nen kakalikin. 'my-inside--source singular-subject-will-split-
it, i.e. I'm going to think it up from inside myself.'

(4) The suffix =ma, =mo.¹ There is a productive and very common suffix =ma, =mo occurring in a number of senses and functions, including a locative sense with the meanings 'toward' or 'at, in' a place such as a village, stream or valley. Stems with which this suffix occurs may be indicated in the lexicon, but among them are demonstrative stems in the following combinations:

joma 'here' (compare jy 'this');

atoma 'there (closeby)' (compare aty 'that, closeby');

attoma 'there (non-spatial)' (compare atty 'that, abstract');

eloma 'there (distant)' (compare yly 'that, distant');

a'loma 'there (as referred to in the immediate context)'

(compare a'ly 'that, as referred to in the immediate context').

This suffix is also used in the construction of place names; a particularly common pattern of village naming employs this suffix following names of streams or sites:¹

Minimo 'village and area along the stream Mini';

Sokou'mo 'village and area in the gorge'; sokouk 'gorge';

Hettyki-ma 'village and area along the Hettyky creek'

(+ Hettyky plus ima; + i 'water', =ma 'at, in').

This suffix also occurs with many noun stems, but by no means all nouns, particularly with reference to valleys, streams, villages and some kinds of houses, in locative senses meaning 'to' or 'at, in':

ima 'in the water' or 'along the stream' (i 'water');

ouma 'home, at home' (o 'village, house');

tokkoma 'in, to the inhabited valley' (tokke 'inhabited valley');

o-kkama 'in, to the forest' (o-kka 'wild vegetation' + o 'wild plant, tree', ekka 'leaf');

lesema 'in, to the cookhouse' (lese 'cookhouse');

hettumo 'on, onto the fire' (hettouk 'fire');

japumo 'in, to the garden being dug' (japu 'garden being dug');

silimo 'in, to the village yard' (sili 'courtyard').

All of these forms including =ma, =mo occur in clauses both to specify location 'where' and location 'to which':

ouma wetek. 'home (subject)-stays, i.e. (subject) is home.'

ouma laka. 'home he-went, i.e. He went home.'

Minimo welako. 'Minimo we-stay, i.e. We are in Minimo.'

Minimo lako. 'Minimo we-went, i.e. We are going to Minimo.'

joma lokon. 'here you(sg)-stay-now, i.e. Stay here.'

joma eme. 'here you(sg)-come-now, i.e. Come here.'

With stems not referring to place, the suffix =ma, =mo also occurs to refer to time in the sense 'time when', and to condition in the sense 'in the condition specified as':

opanma 'when it (is) unfinished' or 'in an unfinished condition'
(opan 'unfinished');

hanoma 'when or where (it is) good' or 'in a good condition'
(hano 'good');

enekekema welaky. 'outstanding-setting I-stay, i.e. I am situated
in a very nice place' (enekekke 'outstanding');

at elumo inalele-kke lakeikhetek. 'he his-knowledge-setting their-
anus--direction he-normally-ascends, i.e. Since it (a supernaturally
endowed lizard) knows (the thieves), it goes up their anuses'
(elu his-knowledge).

Other functions and senses of =ma, =mo in sequences of verbs have been introduced in the preceding chapter and will be further treated in Chapter 5. The glosses of many of the examples there and here indicate that a common feature labelled 'setting' occurs in these various senses.

(5) The clitic -opa, -pa (the former following consonants, the latter following vowels) 'on, onto'. This clitic occurs in several of the same senses as the suffix =ma, =mo, although frequently with different stems, as well as in distinctive senses.

This clitic occurs in a locative sense with the meanings 'place to which, onto which' and 'place at which, on which'. Where =ma, =mo typically occurs in a locative sense with stems referring to streams, valleys and enclosures like houses or villages, the clitic -opa, -pa typically occurs with stems referring to mountains, plateaus, housetops and other elevated places:

ikhe-pa lakaku. 'plateau-on we-went-long-ago, i.e. We travelled on
the plateau.'

o-pa welakeikhe. 'tree-on he-stayed-long-ago, i.e. He stayed up in
the tree.'

But with the stem ay 'his house', this clitic occurs in a sense indistinguishable from the sense of =ma, =mo with o 'house, village':

ay-pa wetek. 'his-house-at subject-is, i.e. He is at home.'

Compare ouma wetek. 'He is at home.'

There are examples where the senses 'place on which' and 'place at which' appear to be clearly distinguishable:

ke-pa helal-opa kelik.... 'doorway--at ceiling-poles--on hung-up,
i.e. (It is) hung on the ceiling poles by the doorway.'

The sense 'place on which' is figuratively extended to refer to a thing, person or action on which someone or something depends:

tvky-pa welako. 'sacred-battle-objects--on we-stay, i.e. We depend on the sacred objects dedicated to warfare.'

The spatial or literal locative sense occurs meaning 'place to which' as well as 'place at which', and 'place onto which' as well as 'place on which':

ay-pa laka. 'his-house--to he-went, i.e. He went home.'

tvm-opa lakasikhe. 'roof--onto he-ascended-long-ago. i.e. He climbed up onto the roof.'

The clitic -opa, -pa also occurs with personal names to refer to the person to or toward whom motion is directed:

Otosi-pa wako. 'Rose--to we-came, i.e. We came to Mr. Rose.'

With terms other than personal names, the form opa occurs as a separate postposed particle with obligatory person-marking prefixes to specify the person toward whom the motion is directed:

nopa 'to me';

ninopa 'to us';

hopa 'to you(sg)';

hinopa 'to you(pl)';

opa 'to him, her, it';

inopa 'to them'.

tok-enek-he ninopa wakasik aty. 'arrow--only--topic to-us it-came-prior that-closeby, i.e. That is the arrow and that is all that came to us.'

...namy-lak inopa-te, wakakisik welakaki. 'my maternal-uncle--and-associates to-them--topic, I-came-long-ago-prior I-stayed-long-ago, i.e. I came to my uncles and stayed.'

Both the cliticised and independent forms of this relator occur with terms referring to persons also to specify the person on whose person, either literally or metaphorically, an event takes place:

inopa hakathatek. 'on-them they-normally-do-it, i.e. They perform ceremonies (e.g. of healing) on them.'

inopa-kke watoko hep-ekatek. 'on-them--direction striking leave--they-normally-say, i.e. They apply (the mud pigment) to them and leave it.'

This clitic -opa, -pa also occurs in several non-locative senses. Frequently it occurs with nouns to refer to the instrument or material with which an action is performed:

...Henayppv posije-pa lipiloko wathe.... 'Henaipu (a name) axe--with lacerating he-hit-her, i.e. He lacerated Henaipu with an axe.'

...pyte ekka-pa jeiloko wok-othukwha. 'two leaf--with wrapping take--they-transferred-to-him-long-ago, i.e. They gave him two wrapped up in a leaf.'

This clitic also occurs to specify the price of an item or the thing given in exchange for something in barter:

wam-opa wanhi. *'pig--with I-took-it, i.e. I bought it for a pig.'*

Further, -opa, -pa occurs with terms referring to stages in the day, the life cycle or the feast cycle or other cycle of activity to specify the occasion or stage at which an event occurs:

...lya-pa ja henayppv lakeni-o. *'light--at here sleeping-floor you(pl)-ascend-now--decisive, i.e. Go up on the sleeping floor right now in the daylight.'*

... jekketek-opa-at...wakaki.... *'child--at--predicate I-came-long-ago, i.e. It was when I was just a child that I came here.'*

wam mauke watyk-en hopuk kvtyk-mekke-pa hokotek-at. *'pig major-feast killing--source later cut-up--sort--on we-normally-put-it--also, i.e. After we kill the pigs at the major feast, later, during the time when the cut-up meat is still around, we place it (a ceremonial bit of pork on the fireplace pole) then also.'*

In a related sense, this clitic occurs to specify extent of time or space or number, particularly with counted units:

inekki-te, joma-te, jy-pa noko-kosi'mo-nen.... *'their hand--topic, here--topic, this--at sleep--we-said-prior-setting--source, i.e. After we had slept this many nights (counted on the hand)....'*

(6) Historically and semantically the clitic -paka is related to the clitic -opa, -pa, but both occur now in the dialect under study, although -paka is very much less common. Every example with -paka is paralleled by examples with -opa, -pa in similar senses, but the converse is not true:

...haly eto-paka wvkha layk isathukwha.... *'firewood source--at to-chop-reflexive going-iterative they-steam-cooked-it-long-ago, i.e. They made repeated trips to the woods to chop their own firewood and thus cook the meal.'*

In the last example -paka specifies 'place where'.

...alep lakeikha-he-a-paka-at.... *'earlier they-went--topic--query--basis--predicate, i.e. It was on the supposition that maybe they had gone ahead....'*

Here -paka specifies the basis on which a further action is performed.²

The relator marking 'path', -kke, -kkwe. Another spatially oriented sense, distinct from the locative senses of 'target' and 'locus' is frequently marked in the post-cliticised relator -kke, -kkwe, which is semantically related to and derived from the independent noun ke, kwe 'trail'. This relator may occur in expressions which appear to mark the locative senses of 'target' and 'locus', but also and more commonly

occurs to specify the route of motion, where other expressions occur to specify its target.³ With demonstrative stems it specifies direction or route deictically, i.e. oriented to the location of the speaker and addressee:

jy-kke '*in this direction*' or '*on this route*' (jy '*this*')
 yly-kke '*in that direction (at a distance)*' or '*on that (distant) route*'.

This clitic also occurs with place names and other locative constructions, including those in which one of the locative relators (=la; =ma, =mo; -opa, -pa) occurs:

Uwe aik jy-pa-kke.... '*Uwe water's-edge this--on--direction, i.e. On this side of the Uwe river....*';
 ouma-kke '*his-village-setting--direction, i.e. toward the village' or 'on the village route*';
 ima-kke '*water-setting--direction, i.e. toward the water' or 'via the water route (either in the water or along the stream)*';
 ima-kke lakasuku.... '*water-setting--direction we-ascended-long-ago, i.e. We went up (by boat) on the river.*'
 Wesakeima-kke (Wesageik (stream name)-setting--direction, i.e. toward Wesageima';

...tvan-lak Wesakeima-kke ki akoukwha.... '*European--and-associates Wesageima--direction enter they-came-long-ago, i.e. The Europeans came in via Wesageima (the landing site of the Archbold expedition).*'

This clitic also occurs with some bound stems, including ettak- '*outside*':
 etta-kke '*toward or via the outside*'.

With similar 'directional' senses, this clitic occurs with other stems, including the noun appot '*his back*' in a construction referring to reversing the direction of motion:

nay-pa nappot-kke lakaki.... '*my-house--to my-back--direction I-went-long-ago, i.e. I went back home.*'

...ap-hvny inay-pa-kke, somong-kke...ouma-kke ama-noko hyly'
 lakoukwha. '*people their-house--to--direction vacant-direction... village-setting--direction those--known putting they-went-long-ago, i.e. They went depositing (blood) as they went via the people's houses, the vacant villages and those villages (there).*'

With the stem epe'na '*some*' this clitic occurs in a metaphorically extended sense to refer to different segments of a whole:

epe'na-kke '*some (versus others)*'.

In a similar sense this relator occurs as a suffix with a contracted and cliticised form of wetek '(the subject) stays' to refer to opposed parties in war, feud or exchange:

Wamatve nit-etekke akasik wathenem-he.... *'Wamarue our--side he-became-prior when-he-killed-him--topic, i.e. When Wamarue joined our side and killed (a man)....'*

The clitic -en, -nen marking source. The postclitic -en, -nen (the former following vowels, the latter following consonants) occurs in a variety of senses.

(1) As with others of the relators, it is useful to consider the spatial sense with resultant meaning *'place from which'* as fundamental for this clitic. It is to be noted that this clitic in this sense does not occur as a member of the same class as the suffix =ma, =mo or the clitic -opa, -pa. Rather the clitic -en, -nen occurs with terms which are implicitly locative, such as place names, or are marked with locative relators, and adds the further meaning *'from which'*:

Esiset ouma-nen lakasukwha.... *'Esiset his-village-setting--from they-ascended-long-ago, i.e. They went up from Esiset's village.'*

...Otosi-pa-nen atty-nen-he...Molama wako. *'Rose--at--from that--source--topic Molama we-came, i.e. From that place of Rose's we came to Molama.'*

...Pasema-nen wolok wakeikhatek. *'Pasema--source carrying-it they-normally-come, i.e. They bring it from Pasema.'*

The clitic -en, -nen also occurs following the clitic -opa, -pa in expressions that might be glossed *'on the basis of the term specified'*. This is thus a figurative extension of the sense *'place from which'*:

wam atty-pa-nen wanusak-a? *'pig that--on--source subject-could-take--query, i.e. Can he receive it on the basis of (killing) pigs?'*

(2) This clitic also occurs in a metaphoric sense specifying the *'person by whom'*, i.e. the agent of transitive verbs. The relationship of this sense to the spatially defined sense *'place from which'* is clear in a number of examples where the source of an event referred to in a transitive verb is specified in spatial terms:

...joma-nen mottok wathatek. *'here--from altogether-they-normally-kill-him, i.e. This side (of the war) keeps killing the enemy.'*

...joma-nen je wanhukwha.... *'here--from wealth-stone they-took-long-ago, i.e. This side made a wealth-stone payment....'*

Where the unmarked order, which is subject, personal object, verb, is altered and/or there is any ambiguity sensed by the speaker, the subject of a transitive verb, occupying the role *'agent'*, is frequently marked by this clitic:

...vkkvl-opa-kke wam-en nasikhe-kke.... *'his-head--on--direction pig--by he-ate-long-ago--direction, i.e. ...on his head, where the pig had eaten....'*

...ap-hvny palu-nen nasukwha.... 'people python--by they-ate-long-ago, i.e. As for the people, the pythons ate them.'

In these last two examples, it is uncommon for pigs or pythons to eat people. It is particularly uncommon for a non-human participant as subject to be referred to in a subject marking affix specifying plural number, as in the last example. In both cases, the clitic -nen 'source' occurs to mark the subject unambiguously.

...ap Wvkkahvpy Meake-nen ta' muk-isa ki akeikhe. 'man Wuka-Hubi Meage--by first chase--to-do-it-toward-them enter-he-came-long-ago, i.e. As for the Wuka-Hubi, the Meage first invaded in this direction to chase them out.'

Here the Wuka-Hubi have been topicalised by placing the term in initial position, but the Meage are unambiguously marked as the referents of the subject by the occurrence of -nen. This marker also occurs in many examples where there would be no ambiguity without it:

...it inakony-nen-he, wam mottok wanhy-lakeikhatesik.... 'they their-husbands--by--topic, pig altogether take--they-normally-continue-prior, i.e. Their husbands, after they finish collecting all the pigs....'

To anticipate the discussion of intransitive verbs and reflexive voice forms, it is important to note that the marker -en, -nen 'source' does not occur with the subjects of intransitive verbs nor of reflexive verbs where the subject occupies both agent and patient roles:⁴

an laky. 'I I-went, i.e. I went.'

Never, in this simple sense: (an-en laky.)⁵

an watyky: 'I hurt myself.'

Never, in this sense: (an-en watyky.)

But where the subject of a reflexive voice verb does not occupy the patient role and there is another occupant of that role, reflexive voice forms may occur with the subject marked with -en, -nen:

an watyky. 'I I-killed-it-reflexive, i.e. I killed it for myself.'

In this sense also: an-en watyky. 'I--source I-killed-it-reflexive, i.e. I killed it for myself.'

Thus the clitic -en, -nen is an optional marker of subjects of transitive verbs where those subjects are not also direct objects in reflexive constructions.

(3) The clitic -en, -nen also occurs to refer to the 'instrument' of an action, in two sub-senses. Body parts and psychological faculties considered to be the source or bodily instrument of an action may be marked with this clitic:

na'la-nen kakalikin. 'my-inside--from singular-subject-will-split-it, i.e. I'll think it up from inside me.'

...an nekki-nen wam watoko ithiki.... 'I my-hand--with pig killing I-netted-her-long-ago, i.e. I married her with pigs I killed myself (i.e. from my own herd and by my own action, whoever actually shot them).'

This clitic also occurs with some other instruments which are not body parts, particularly helep 'stone':⁶

akeikhe helep-en watha. 'another stone--with they-killed him, i.e. They killed another with a stone.'

(4) The clitic -en, -nen also occurs to specify the cause of an action, including events referred to in intransitive verbs:

epe-te ouk-en wa'-laka.... 'his-self--topic sickness--source die--he-incurred, i.e. As for him himself, he died of sickness.'

o hotok-at-en-he men-akeikhe. 'village close--predicate--from--topic stand--he-did-long-ago, i.e. Because the village was close by, he stopped.'

inajvk-en heise mottok pukuleka.... 'their-fear--from flight altogether they-dispersed-themselves, i.e. They dispersed and fled because they were afraid.'

(5) The facilitative construction introduced in the preceding chapter and further described in Chapter 5 includes the clitic -en, -nen:

wolo' loak-en wok-eisan. 'carrying let-3sp-go--source take--transfer-it-to-them-now-(2s-subject), i.e. Give it to them so that they can carry it off.'

(6) This clitic also occurs optionally with some expressions of time to refer to 'time when':

...hopuk-en wo'-nethe. 'Later--source take--he-transferred-it-to-me, i.e. Later he gave it to me.'

...ninekki akeikhe-nen-he...wathuku. 'our-hand another--source--topic...we-killed-him-long-ago, i.e. On another day we killed him.'

(7) Further, the clitic -en, -nen also occurs, as will be noted again in Chapter 5, as an optional loose link within sentences occurring with clauses or non-finite verb forms outside the nuclear verb phrase (see Chapter 5); some forms, including the facilitative construction, which already includes -en, -nen, do not occur with this link. This use of this clitic as a link occurs most commonly in narrative, where earlier events may be viewed as the 'source' (in a very loose sense) of later events:

wo'-nesi akoukwha-nen...akeikhe wo'-nethikhe. 'take--to-transfer-it-to-me they-came-long-ago--source...another take--he-transferred-it-to-me-long-ago, i.e. They came and gave me one, and then he gave me another.'

wolo' lylyk-en hyt-hano-o. 'carrying having-gone--source (you)-
examine--see-it--decisive, i.e. After you take it (there), look
at it.'

...wa'lekka saloko helvk-en...ki aky. 'thatch covering having-put--
source enter I-came, i.e. After we finished putting on the thatch,
I came in here.'

...ouma pi akeikhesik-en wa'-lakeikhe.... 'home descend he-came-
long-ago-prior--source die--he-incurred-long-ago, i.e. After he
came down here he died.'

welakoresik-en, pvk-akanem-en heta'ne hokotek. 'we normally-continue-
prior--source dry--when-it-becomes--source grass-fire we-normally-
put-it, i.e. After we have waited a while, when it dries up, we
set grass fires.'

ouma wuluphukusi'mo-nen...humusi akoukwha. 'home we-exited-long-ago-
prior-setting--source... to-run they-came-long-ago, i.e. After we
had gone out to the village, they came running.'

3.1.1.2. Relative Order of Spatially Oriented Postposed Relators

The postposed relators surveyed thus far have fundamental senses which are spatially oriented although most of them occur in non-spatial extended senses as well. This basic set of postposed relators occurs in three distinct relative orders. The first order is occupied by any member of the subset including the suffixes =la 'inside, into' and =ma, =mo 'at, in, to' and the clitics -opa, -pa 'on, at, onto', and more rarely -paka 'on'; only one member of this subset may occur in a construction. The second order is occupied by the subset which includes only the directional clitic -kke, and the third order is occupied by the subset which includes only the clitic -en, -nen in the sense '(place) from which':

TABLE 4 RELATIVE ORDER OF SPATIALLY ORIENTED POSTPOSED RELATORS		
FIRST ORDER	SECOND ORDER	THIRD ORDER
=la 'into, inside' =ma, =mo 'to, at, in' -opa, -pa 'onto, on, at' -paka 'at, on'	-kke 'direction' or 'via'	-en, -nen '(place) from which'

... Jvkheakeima omula-kke-nen.... 'Jukeageima (place) cave-inside--direction--source, i.e. From the direction of the cave at Jukeageima....'

... wea'ma-kke-nen kyly'-lako.... 'bad-setting--direction--from entering--he-is, i.e. It (a python) is going in from the direction of the bad area.'

3.1.2. Non-spatially Oriented Relators

Besides the important set of spatially oriented postposed relators surveyed above, there are a number of other postposed relators. Some function specifically in the structure of utterances and will be considered in Chapter 6. Others function primarily in relating events to other events, as referred to in clauses and non-finite verb forms within sentences and will be considered in Chapter 5. The remaining relators will be briefly surveyed here.

3.1.2.1. The Benefactive Relator *hesik*

The postpositional particle *hesik* occurs in several senses. Following substantive expressions it occurs to specify the person or persons or situations because of whom or in whose interest or for the sake of which an action is performed:

wathi....ap *hesik-at*. 'I-killed-it man for--predicate, i.e. I killed it (a pig); it was for a male (child).'

hat *hesik wok-hosi aky*. 'you (sg) for take--to-transfer-to-you (sg) I-came, i.e. For your sake I brought it to give to you.'

The relator *hesik* also occurs with substantive expressions to refer to the intended referent of a comment, where the reference was not obvious or was even deliberately veiled:

...mo *hesik attoko ykhy-lakoukwha*.... 'sun about that-way speak--they-used-to-long-ago, i.e. About the sun they used to say that (or talk that way).'

In a related sense, the postposition *hesik* occurs with substantive expressions and some verb forms, including basic (=yk, =lyk) participles and coincident punctiliar (=nem) forms, to refer to the element or event which is considered to be the explanatory basis for an action:

ap atyk *hesik heka*. 'man killing (+ watyk) because of they-placed-it, i.e. They placed it because they had killed a man.'

he *hesik watha-a? wam hesik watha-a*. 'woman because-of they-killed-him--invitation-query pig because-of they-killed-him--invitation, i.e. Was it over a woman or a pig that they killed him?'

This postposition also occurs in a special sense suffixed to the

numeral root makky- 'one' to mean 'in one operation, without repetition':
 makkyhesik we'no. 'once (you)-come-later, i.e. Come just once (and
 get the matter settled in that one visit).'

3.1.2.2. Substantive Co-ordinators: Intonation

Nouns and noun phrases are frequently co-ordinated by juxtaposition, with only intonation as an overt relator:

4 3- 2 4- 3 4-3 2 - 4
 nen Mulaik-he mvlvpan henakko wolok wakoukwha. 'then Mulaik(clan)
 --topic flies yaws-papillomata carrying they-came-long-ago, i.e.
 And as for the Mulaik clan, they brought flies and yaws sores.'
 4 - 3 4 - 3 2 - 4
 jy-mekke ty-mekke ettake palhikhe. 'this--sort that-- sort its-
 name he-invoked(cut)-long-ago, i.e. He called on all sorts of
 things.'

3.1.2.3. Co-ordinating Clitics -non, -on

When the list is considered complete, frequently the substantive expressions are co-ordinated by the postclitic -non, -on (the former following vowels, the latter following consonants), attached to each item in the list, including the last. Frequently the 'overt comma' or topic marker -he, -te is further postcliticised to all but the last item:

Hapula-non-he, Lakalek-on-he, akeikhe Mulai'-mekke-non hynaken wathu.
 'Habula--and--topic Lagalek--and--topic another Mulaik--sort--and
 three we-killed-him, i.e. We killed three, Habula and Lagalek and
 another who was of the Mulaik clan.'
 Wettappo helep-on-he paly-non wolok wakoukwha. 'Wetapo stone--and--
 topic tobacco--and carrying they-came-long-ago, i.e. The Wetapo
 (clan) brought stones and tobacco.'

3.1.2.4. The Particle mel as a Co-ordinator

Lists may also be co-ordinated by the inclusion of the particle mel (men in some sub-dialects) after each item, including the last. This particle occurs elsewhere as a hesitation form:

...heitte mel, hakki mel, hom mel, svppvtv mel tathvnmel-he....
 'ginger or bananas or taro or sweet-potatoes or when-plural-
 subject-dig--topic, i.e. When they dig sweet potatoes or taro or
 bananas or ginger....'

Note in this last example that the verb is in fact only appropriate for getting sweet potatoes, but here occurs also as a kind of surrogate for the verbs appropriate for the other objects in a special kind of

"gapping" (Ross 1968).

...je mel, sail mel ama-noko.... *'wealth-stones and cowrie-shell-belts and those--known-to-us, i.e. ...those wealth stones and cowrie shell belts....'*

3.1.2.5. *The Negative Particle lek as a Co-ordinator*

Like at least one other language in the highlands of Irian Jaya, Dani utilises the particle lek, which elsewhere means 'not', to co-ordinate lists with the meaning 'both...and' (specifically not the meaning 'neither...nor'); the particle follows each term, including the last:⁷

hat-he hakwe lek, ...hakot lek, hoe lek atty.... *'you--topic your (sg)-wife and your(sg)-younger-sibling and, your(sg)-older-sibling and that, i.e. As for you, your wife and younger and older sblings....'*

3.1.2.6. *Constructions with the Relators eppetak and inom 'together with'*

Related to the co-ordinate constructions treated above, but different from them in most cases, are the constructions with the particles meaning 'together with'. The form eppetak 'together with one other person' is used of two persons (or anthropomorphised terms), and obligatorily includes the prefix n= if the speaker is one of the persons, or the prefix h= if the addressee (but not the speaker) is one of the persons. This particle occurs only once in the construction following the independently expressed term or terms. Particularly when the speaker or addressee is one of the persons referred to, he is often referred to only in the prefix:

hat hakot akwe eppetak-he.... *'you(sg) your(sg)-younger-sibling his-wife two-together--topic, i.e. Your younger brother and his wife....'*

neppetak hopuk lvok-a? *'one-with-me later let's-go-later--invitation-query, i.e. Shall we two go together later?'*

The form inom 'together (of more than two persons, or of non-personal things)' also obligatorily includes the prefix n= if the speaker is included in the reference, or h= if the addressee (but not the speaker) is included in the reference.⁸ This particle may occur once following the independently expressed term or terms:

an It ninom-at attoko-at hakathy-lokousak-o. *'I they we(>2)-together--predicate that-way--predicate doing--subject-would-continue--decisive, i.e. I can keep on doing it just that way with them.'*

The form inom, particularly with the 'manner' clitic -hoko, -toko (the

former following consonants, the latter following vowels), also occurs following each term in a list, like the co-ordinating particles described above:

wam amok inom-hoko-te, musan-mekke inom-hoko.... *'pig its-fat together--manner--topic, Oenanthe-javanica-ferns together-manner, i.e. ...pig fat with Queen Anne's lace (?)'*

3.1.2.7. Relators Marking Resemblance or Comparison

The post-clitic *-neken* occurs with adjective and some other stems to refer to a moderate degree of the quality or characteristic specified by the stem:

ko'-neken *'big--rather, i.e. rather big (ones)'*;
 ...sve eakwytte'-neken hea'-neken nasikhe.... *'bird little-ones--rather quickly--rather he-ate-it-long-ago, i.e. He ate the rather small birds up pretty quickly.'*

The independent post-position *hakke* *'like'* and the related, shorter form *hak* *'like'* occur following words of all classes to specify a term resembling the preceding term:

Hinakasoko hakke.... Akalapy hakke.... *'(a boy) like Hinagasogo, (a boy) like Agalabi.'*
 lasak hakke. *'subject-should-go like, i.e. It looks as if (subject) might go.'*
 lek hakke *'not resembling, i.e. almost none' or 'apparently not'.*

3.1.2.8. Relators Specifying Exclusion

The independent post-position *enek*, *nek* (the former after consonants, the latter after vowels) *'only, exclusively'* occurs after words of several classes. Following substantive expressions it specifies that the referents of the substantive expression are the only referents included:

it Eilelekkwe-lak, Lyo-lak enek, Apane mel nek mukisoko.
'them Eilelekwe--and--associates Lyo--and--associates only, Abane also only chase--we-did-toward-them, i.e. We drove out only Eilelekwe and his followers and Lyo and his followers and also Abane--just them.'
 Wakanoko nek elu. *'Waganogo only his-knowledge, i.e. Only Waganogo knows.'*
 pelal-on-he, sve ipipilo-non nek-he.... *'snake--and--topic, bird Ibibilo(species name)--and only--topic, i.e. The snake and the bird named Ibibilo, just them'.*

Following predicates, this relator specifies that the predicate applies to all cases; cases to which it does not apply are excluded:

elu nek. *'his-knowledge only, i.e. He knows them all (there is none he doesn't know).'*

wakeikha nek. *'they-came only, i.e. They all came (there is none who didn't come).'*

The function of the relator halok in conditional sentences, introduced in the preceding chapter, will be further treated in Chapter 5. This relator also occurs with substantive expressions in a sense that may be glossed 'in the case of':

...jykkytvky halok, inopa hakathatek-at. *'children if on-them they-normally-do-it--also, i.e. In the case of children, they treat them also.'*

...okko halok-he, Esese-nen wo'-nisoak. *'payment if--topic, Esese--from take--let-third-person-transfer-to-us, i.e. So far as payment goes, let Esese give it to us.'*

3.1.2.9. The Post-clitic -hoko 'manner'

The post-clitic which is realised as -hoko after consonants, -soko after diphthongs ending in i and -toko after other vowels, occurs with secondary verb stems and some other stems to form manner-specifying adverbs. Adjective stems occur both with and without this clitic with no apparent difference of meaning:

ekka hano isathatek. ekka hano-toko isatyk-he.... *'leaves good they-normally-cook-it. leaves good--manner having-cooked-it--topic, i.e. They cook greens well. And after they have cooked the greens well....'*

inom-hoko loppok loppok wakeikhate'-mekke. *'they-together--manner orderly orderly they-normally-come--adversative, i.e. They normally come together in careful order, but (not this time).'*

...loppok-hoko se'-nise' lokou-mekke.... *'orderly--manner watch--seeing-us subject-continue--adversative, i.e. They ought to have waited for us carefully, but....'*

This same clitic also occurs with pronouns and nouns to emphasise contrast between participants:

...hit-hoko hinali'ma wa'lep...an-hoko nali'ma-at nekein-o. *'you(pl)--contrast your(pl)-aloneness-setting you(pl)-kill-hypothetical...I--contrast my-aloneness-setting--also singular-subject-will-eat-it--decisive, i.e. About you (I wish that) you would kill (your festive pigs) by yourselves...as for me, I'm going to eat (the feast) by myself, too (i.e. at a separate time).'*

3.1.2.10. *The Post-clitic -mekke*

The post-clitic *-mekke* is one of the most widely distributed relators in the language, and occurs in a number of senses. Those senses concerned with relationships between clauses will be treated in Chapter 5. This relator also occurs in several senses in substantive expressions:

(1) Post-cliticised to a name or noun or pronoun, it often means that the referent of that term is the owner, in some sense, of the item that usually precedes but may follow the term to which *-mekke* is cliticised:

...vkkvlasu Alea'-mekke.... *'his-headnet Aleak--'s, i.e. Aleak's headnet'*;

...Vkkymheaty-kmekke wam.... *'Ukumhearik--'s pig'*.

(2) Post-cliticised to names, pronouns or other substantive expressions referring to persons, this clitic also occurs to specify that someone else is a member of the social group, such as a moiety or clan, to which the person or persons referred to in the *-mekke* expression belong:

ap aty nit-mekke. *'man that us--sort, i.e. That man belongs to our group (clan, moiety, etc.).'*

(3) Post-cliticised to expressions of location, origin, size or quality, the clitic *-mekke* specifies that the class characterised by the preceding term includes the item under discussion; the construction with *-mekke* may be attributive to another substantive or may itself function as a substantive:

akko pyte Jakkatetta-mekke....*'his-pig two Jakarta-- sort, i.e. his two pigs from Jakarta'*;

...hotok jy-mekke.... *'close-by this--sort, i.e. (people) of the close by group'*;

nakoin jy-te alve-mekke. *'my-husband this--topic mature--sort, i.e. My husband here is an old man.'*

sukkan-opa-mekke *'sacred-stones--on--sort, i.e. the (pigs) which are "on" (i.e. consecrated for) the sacred stones'*.

(4) The post-clitic *-mekke* may occur to specify that the item under discussion is of the material or substance referred to in the term to which *-mekke* is cliticised:

hat-ekken je-mekke *'sacred-power--seed wealth-stone--sort, i.e. a sacred object made from a wealth stone'*;

wvtama wam ake-mekke lakasikhe. *'pandanus pig its-tail--sort it-went-up-long-ago, i.e. Pandanus, that's a pig's tail that went up (into the forest).'*'

(5) Post-cliticised to substantive expressions *-mekke* may occur to contrast participants (compare *-hoko* above):

at-mekke kelakeik a'noko ki aka-kkolek-he, an-mekke wusakeik waky.
'he--contrast inward that-known-to-us enter coming--while--topic,
I--contrast downward I-came, i.e. While HE was coming in that way,
I came down.'

(6) Although no examples occur in the filed corpus, -mekke also occurs to specify that the referent of the term to which it is cliticised is or was in fact the real item for which something else was mistaken or substituted. This adversative sense, related to sense (5) above, is also related to an important sense of -mekke as a marker of inter-clause relationships; this will be treated in Chapter 5.

an-mekke-at-he, Vkkvmheatyk eka. *'I--adversative--predicate--topic,*
Ukumhearik they-said, i.e. It was really me, but they said it was
Ukumhearik.'

wam-mekke sve ekatek. *'pig--adversative bird they-normally-say,*
i.e. They are really pigs, but they say they are birds.'

3.2. CASE RELATIONS MARKED IN POST-POSITIONS AND VERBS

It has been noted that all the post-posed relators with locative reference are ambiguous; depending on the context they may refer to position in a location or to motion toward or to the location. The ambiguous category may be labelled 'locative', and the specific included senses 'locus', referring to location in a position, and 'target', referring to orientation toward or to a position. These relations are also marked by some verbs, and the roles marked by post-posed relators may be identified with those marked by verbs, to be described below.

It has also been noted that the post-clitic -en, -nen 'source' refers both to movement from a location, when post-cliticised to terms of location, and to agency with substantive expressions referring to the agent of transitive verbs. The identification of these relationships is more problematic, however, although the gloss 'source' has been suggested for the common feature of these meanings. It would be possible to postulate a 'source' or 'ablative' role with specific subsenses 'place from which' and 'agent', but that would suggest that the 'agent' role is oblique, when in fact the 'agent' role is clearly opposed to all other roles occurring with events and is normally realised by the grammatical subject of the verb. As will be noted, if any occupant of the 'agent' role occurs, that occupant will be realised as subject. The identification of the senses of -en, -nen marking 'place from which' and 'agent' as subsenses of a single role is therefore rejected, although the semantic relationship is clear.

Of the post-posed relators which are not spatially defined, the

particle *hesik* 'for, because of' marks some relations which are also marked by verbs and auxiliaries. The sense 'for the benefit of', frequently observed with this particle may be identified with the 'beneficiary' role also marked by verbs and auxiliary verbs.

3.3. CASE RELATIONSHIPS MARKED IN VERBS

3.3.1. Survey of Verb Classes

Case and role relationships marked by post-posed relators have been treated together, since a number of these relationships occur with several classes of verbs. The remaining semantic relationships of participants to events are most easily described in terms of the events and the verbs realising them. Both on a gross scale, in terms of large classes of verbs, and on a fine scale, in terms of specific lexical verbs, there are contrastive possibilities for 'case' relationships (cf. Fillmore 1968b). Transitive verbs, for example, occur with objects realising roles in a pattern different from and larger than the pattern observed with intransitive verbs. In Dani, however, the grossest classification of primary verbs (i.e. verb stems which may be directly inflected as verbs) is not into transitives and intransitives, but rather into a very large major class of 'process' verbs and a small closed minor class of other primary verbs. This distinction was already introduced in Chapter 2 in terms of the phonological shape of the verb roots involved; in a very high percentage of cases, but not all, the roots of major class verbs end in a consonant, and the roots of minor class verbs end in a vowel. This correlation is not, of course, complete. The label 'process verbs' suggests that members of the class share a semantic component 'process', referring to what is conceived to be directed toward a change of state in the patient, often realised as a direct object. Minor class verbs refer to events not including this component of 'process'. This contrast is reflected in contrastive possibilities of inflection and occurrence. No minor class verb occurs with the auxiliary verb *-la=*, *-lat=* 'incur a process', nor with any of the four auxiliaries to be described as specifying contrastive relationships with personal objects. Nor does any minor class verb occur inflected in an *=ek* past participle in a sense that might be glossed 'processed in the way specified', nor in an *=oko* manner participle in a sense that might be glossed 'processing the patient in the way specified', as most such participles may be glossed. All of these possibilities are open for most major class verbs. It is useful, then, to begin with verbs with the largest array of role possibilities, the major class verbs, and of these the transitive major class verbs. For

reasons which will become apparent in the course of the study, two minor class verbs which also function as auxiliaries, three other auxiliaries and some secondary verb stems are also included in the discussion in this section.

3.3.2. Case Relationships Marked in Verbs: Major Class Transitives

3.3.2.1. Word Order as a Marker of Case

So far as substantives referring to the major personal participants in an event are concerned, it is clear that the unmarked word order in Lower Grand Valley Dani is subject, direct object, indirect object, verb, where the subject occupies an 'agent' role, the direct object a 'patient' role, and the indirect object a role such as 'beneficiary', and where the subject and one other personal participant, functioning either as direct or indirect object, are commonly also referred to in affixes to the verb with its auxiliaries. Where this order of external substantives occurs, the substantive referring to the subject realising the role 'agent' is frequently not otherwise marked; external substantives referring to objects are regularly not otherwise marked:

...Jaukkaleke he ythe.... 'Jaukaleke woman he-netted-her,
i.e. Jaukaleke gave a woman in marriage.'

...ap kv-t-esi wanhatek. 'man white-heron--its-feathers they-normally-
take, i.e. Men get white heron feathers.'

epe na'loko-ak jy wok-othi-o. 'its-self my-man's-daughter--one this
take--I-transferred-it-to-her--decisive, i.e. I gave the (bird)
itself to this daughter of mine.'

In the above examples, as in most cases, features of verb agreement and the semantic components of the terms further serve to mark relationships. In the first example above, both speaker and addressee know Jaukaleke to be a leading man and know that men give women in marriage, not vice versa, and these semantic and cultural facts serve to reinforce the word order marking the sentence as a subject-object-verb construction.

When for purposes of topicalisation the unmarked order of elements is altered, the subject realising an 'agent' role frequently remains unmarked if the semantic features of the terms allow for little ambiguity:

...wam at nak-alk.... 'pig he let-me-eat-it--having said,
i.e. As for pork, he's preparing to eat (the feast).'

Here the likelihood of pigs eating men is remote (although one example occurs in the filed corpus), and the context removes any possibility of that interpretation, so the subject remains unmarked. But where the unmarked order of participants is altered and/or there is any ambiguity

sensed by the speaker, the subject may be marked by the relator -en, -nen as already described above:

...vkkvl-opa-kke wam-en nasikhe-kke.... *'his-head--on--direction pig--by he-ate-long-ago--direction, i.e. on his head, where the pig had eaten (his flesh)....'*

Here the noun wam 'pig' is marked as referring to the subject (also marked in the verb) by the clitic -en 'source', so that the uncommon event of a pig eating a person may be unambiguously understood as intended by the speaker.

3.3.2.2. Case Relations Marked by Direct Affixation to Verbs: Subjects

3.3.2.2.1. Subject as Agent

Every finite verb in Dani has a subject implicit or explicit, and in most cases, as already described in Chapter 2, the number and/or person of the subject is marked in a suffix to the verb. Further attention will be turned to the roles occupied by the subjects of minor class verbs, but it is important to note that with major class verbs, there is a simple rule for realisation as subject. If there is an occupant of an agent role with an event, whether that occupant is referred to in a verbal affix or external substantive or is implicit in the verb, the occupant of that role is realised as subject, whether or not the same participant also occupies some other role with the same event:

an wathi. *'I I-killed-him, i.e. I killed him.'* Also:
wathi. *'I-killed-him, i.e. I killed him.'*

Here the speaker as agent is realised as subject, marked in the first person singular subject marker =i suffixed to the verb and, optionally, in the independent pronoun an 'I'.

an watyky. *'I I-hurt-myself (one sense of this form), i.e. I hurt myself.'* Also:
watyky. *'I-hurt-myself.'*

In this reflexive form, to be discussed further, the speaker occupies both 'agent' and 'patient' roles and is realised as subject, marked in the first person singular subject marker =y suffixed to the verb and, optionally, in the independent external pronoun an 'I'.

3.3.2.2.2. Subject as Patient

If there is no agent role with an event, the occupant of the patient role is realised as subject of the verb:

o palhe. *'weather it-severed, i.e. The weather cleared.'*

an wa'-laky. 'I die(+wat= 'hit, kill')--I-incurred, i.e. I died (or fainted).' Also:

wa'-laky. 'die--I-incurred, i.e. I died (or fainted).'

In the first example o 'weather' is patient in the event and is subject, as marked in the =e third person singular subject marker suffixed to the verb. In the second and third examples, the speaker is patient and is realised as subject, as marked in the first person singular subject marker =y suffixed to the auxiliary verb.⁹

3.3.2.3. Case Relations Marked by Direct Affixation to Verbs: Objects

Verbs may be marked for objects as well as subjects, but here a clear distinction is made between human (or in some cases animate) objects and non-human (or inanimate) objects. All transitive verbs have an object, implicit or explicit, but only human (or in some cases animate) objects may be marked in affixes to verbs. These overtly marked objects may thus be referred to as 'personal objects', and they may be either direct or indirect objects. Indeed, the marking of these objects is determined not primarily by the contrast between direct and indirect object categories but rather first by the contrast between personal and non-personal object categories, and then further, in the case of personal objects, but contrastive semantic relationships, including case relationships, between the verb and the personal object, whether direct or indirect. These major contrasts, excluding the case categories, are represented in Figure 2, where the horizontal line marks the first contrast in Dani, but the vertical line the first contrast in English.

FIGURE 2
TYPES OF OBJECTS OF VERBS

Personal direct	Personal indirect
Non-personal direct	xx

Dani overtly contrasts five sets of semantic relationships between verbs and personal objects marked in affixes to verbs. Four of these five sets of relationships may include personal objects as either direct or indirect objects. Only direct personal objects are marked in the prefixes which may be directly attached to the stem of the verb wat= 'hit, kill', and this is the only major class verb which occurs with such directly attached object-marking prefixes. Two minor class verbs,

ha= 'perceive' and hei= 'put' also occur with personal objects marked by direct affixation to the primary verb stem. Otherwise, overtly marked personal objects occur only with major class verbs and some secondary verbs but are marked in prefixes to post-cliticised auxiliary verbs, which specify the semantic relationship of the main verb to the personal object. There are four of these auxiliaries, one identical to the primary verb ha= 'perceive', one identical to the primary verb hei= 'put', and two which occur only as auxiliaries, -et= marking dative relationships, and -ap= marking generalised personal objective relationships. These auxiliaries do not function like the auxiliaries in familiar Indo-European languages to mark such categories as tense or mode, but rather to mark semantic relationships of verbs and personal objects, including case relationships which are often marked in other languages by prepositions or case endings.¹⁰ Like those other means of marking such relationships, all four auxiliaries do not occur with every major class verb. Rather it must be specified for each verb in the lexicon which auxiliaries may occur and what the resultant meaning of each combination is, for while general areas of meaning can be assigned to the auxiliaries as such, specific meanings and senses vary in combination with different verbs.

3.3.2.3.1. Personal Object as Patient: The verb wat= 'hit, kill'

The verb wat= 'hit, kill' is unique in several respects, including the fact noted above that only this verb of all major class verbs occurs with personal objects marked in prefixes directly attached to the verb. The paradigm of this verb in the simple factive category is displayed in Table 5. The notes to that table point out some of the morphological facts that are relevant. It should be noted that the object markers are overt only in first and second persons and plural number: n= first person; h= second person; (=)in= plural, where the plural marker occurs suffixed to the overt person marker, if any, or if none, initially, and the whole person and number marking unit occurs replacing the initial w of the verb root wat=. By this analysis the category 'third person singular object' is implicit in the root of this verb and every transitive verb (cf. Aschmann and Wonderly 1952:144-145). Also, as with three of the four auxiliaries and minor class verbs which occur with personal object prefixes, the unmarked third person singular category may refer to an object which is human, non-human but animate, or inanimate:

ap wathe. 'man 3s-killed-3s, i.e. He killed a man.'

wam wathe. 'pig 3s-killed-3s, i.e. He killed a pig.'

sa'lip wathe. 'stopper 3s-applied-3s, i.e. He put the stopper in.'

TABLE 5
PERSONAL OBJECT PREFIXES WITH THE VERB *wat= 'hit, kill'* IN THE SIMPLE FACTIVE CATEGORY

OBJECTS SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx*	xx	hathi	hinathi	wathi	inathi
WE	xx	xx	hathu	hinathu	wathu	inathu
YOU(SG)	nathin	ninathin	xx	xx	wathin	inathin
YOU(PL)	nathip	ninathip	xx	xx	wathip	inathip
HE/SHE/IT	nathe	ninathe	hathe	hinathe	wathe	inathe
THEY	natha	ninatha	hatha	hinatha	watha	inatha

* Verbs with personal objects with reference identical to or including or included in the range of reference of the subject are inflected in distinct reflexive voice forms.

NOTES ON MORPHOLOGY:

Stem: *wat=, =at=*, the latter occurring with personal object prefixes. Where no prefix occurs, a third person singular object '*him, her, it*' is implicit.

Personal Object Prefixes: *n=* 'first person'; *h=* 'second person'; *(=)in=* 'plural of personal object'. The plural marker occurs suffixed to the person marker, if any, or otherwise initially, and any person and/or number marking prefix occurs with the bound root allomorph.

Mode Suffix: *=h=* 'factive'.

Subject Marking Suffixes: *=i* 'first person singular'; *=u* 'first person plural'; *=in* 'second person singular'; *=ip* 'second person plural'; *=e* 'third person singular'; *=a* 'third person plural'. The second person suffixes may be segmented; see note 15, p.71-73.

In the close glosses of these examples, category symbols have been deliberately substituted for the pronouns used in most cases, as a reminder that there is no contrast of gender in these affixes. The objects in these examples and all objects referred to in the person and number marking prefixes directly attached to this verb are direct objects occupying a 'patient' role.¹¹ This patient role is thus interpreted to be the same for both personal and non-personal objects.

While *wat= 'hit, kill'* is the only major class verb which occurs with directly attached prefixes marking personal objects, this pattern of prefixation is not the only pattern of reference to personal objects occurring with this verb. It shares with many other major class verbs the possibility of referring to other contrastive relationships with personal objects by means of periphrastic constructions with any one of four auxiliary verbs. The constructions with these auxiliary verbs modify the major class verb in three ways.

- (1) They permit affixed marking of a personal object in marked person and number categories, i.e. first and second person and plural number, where otherwise major class verbs other than *wat= 'hit, kill'* are not marked for personal objects.
- (2) They modify and enlarge the selection of roles available for occupancy by a personal object.
- (3) As if forming a compound verb, they add a semantic component to the verb which characterises the total event in its relationships to the participants involved. Since two of the auxiliary verbs employed also occur as minor class primary verbs in related senses, it is useful to treat the minor class verb first in each case, followed by its use as an auxiliary.

3.3.2.3.2. *The Verb of Deposition, hei= 'put'*

The verb *hei= 'put'* occurs with directly affixed markers of personal object categories in a pattern unique to this verb. The paradigm of this verb in the simple factive category is presented in Table 6. The alternative forms with first person objects reflect a reinterpretation of what, according to evidence from other dialects, were the older forms, and the creation by analogic change of new forms patterned after other constructions with person-marking prefixes. The marker of second person in the older paradigm is *=ak=*, occurring, uniquely, infixes between the initial *h=* of the verb root and a vowel which may be interpreted as part of root allomorphs.¹² The marker of first person, in the older forms, is *=an=*, suffixed to the *h=* allomorph representing the verb root. The marker of plural of first and second persons in this older paradigm is *=in=*, uniquely prefixed to the person markers.

TABLE 6
PERSONAL OBJECT PREFIXES WITH THE VERB *hei* = 'put' IN THE SIMPLE FACTIVE CATEGORY

OBJECTS SUBJECTS	ME (Older form) (Newer)	US (Older form) (Newer)	YOU (SG)	YOU (PL)	HIM/HER/IT	THEM
I	xx*	xx	hakaky	hinakaky	hyky	hiskyky
WE	xx	xx	hakoko	hinakoko	hoko	hisoko
YOU (SG)	hanhin, nakeken	hinanhin, ninakeken	xx	xx	heken	hiseken
YOU (PL)	hanhip, nakekep	hinanhip, ninakekep	xx	xx	hekep	hisekep
HE/SHE/IT	hanhe, nakeikhe	hinanhe, ninakeikhe	hakeikhe	hinakeikhe	heikhe	hisikhe
THEY	hanha, nakeka	hinanha, ninakeka	hakeka	hinakeka	heka	hiseka

* Reflexive forms are distinctively inflected; see text and also note on Table 5.

NOTES ON MORPHOLOGY:

Stem (older forms): h= before object markers with final n; hv= if no object marker; h..v= elsewhere.
v here + y before ky; o before ko; i after iC before khe; ei elsewhere before khe; e elsewhere. If no object marker occurs, 3s object is implicit.

Stem (newer forms): third person object forms as above; elsewhere, =kei= before khe, =ke= elsewhere.

Personal Object Affixes: (old) =an= 'first person'; =ak= 'second person'; =in= 'plural of first, second person'; =is= 'plural of third person' (person category implicit). Plural markers are prefixed to person markers, if any, and any person and/or number marking affix occurs following the initial h of the root.

New Object Affixes: n= 'first person'; h= 'second person'; =in= 'plural of first, second person', suffixed to the person marker; first or second person marker plus plural marker, if any, occur prefixed to =a= stem formative with marked personal object categories (first or second person), and this unit occurs prefixed to the stem; =is= 'plural of third person' as in old paradigm.

Mode Suffix: =h= after consonants, =k= elsewhere 'factive'.

Subject Markers: See note 15, p. 71-73.

But by reinterpretation and analogic change, the initial h= in the second person forms is treated as the marker of second person, followed by the pluraliser =in= where it occurs, and the initial n= of the newer forms similarly marks first person object, also followed by the pluraliser =in= where it occurs. In this paradigm, the verb root in first and second person forms may be interpreted to be =akV=, where the quality of the final vowel is determined by the environment, or the root may be interpreted to be just =kV=, remembering that h and k are reflexes of the same proto-Dani phoneme, and the initial =a=, following the object person and number markers, be interpreted to be a marker of the presence of a prefixed personal object of first or second person, analogous to the a occurring with possessive prefixes with nouns which are not obligatorily possessed:

su 'net';
 asu 'his, her net';
 nasu 'my net';
 hasu 'your(sg) net'.

The third person plural object forms are best interpreted as consisting of =is= as a marker of 'plural of third person' infix in the verb root consisting of the initial h and a following vowel. The third person singular object category is implicit in the verb root when no other object marker occurs, and may refer to a human, non-human but animate or inanimate object.

The personal object of this verb may be either direct or indirect; when direct, the object may be considered to occupy a patient role, and when indirect, to occupy a beneficiary role:

hat joma hakako.... 'you(sg) here we-placed-you(sg), i.e. We have stationed you here.'
 ...esi henoko hakako.... 'its-feathers pulling-out we-put-for-you(sg), i.e. We have saved its feathers for you.'

In the first example the personal object is direct, and in the second example it is indirect, but it is important to note that the verb form is identical in the two cases.

3.3.2.3.3. The Auxiliary of Deposition, -hei=

An auxiliary verb which, with minor exceptions to be noted, is identical to the primary verb hei= 'put' occurs with a number of major class and secondary verb stems in several senses, all of which include a component of deposition or 'putting'.

(1) With secondary verb stems referring to direction and distance, the auxiliary -hei= occurs in constructions meaning to send or propel

a person or thing in the direction or over distance as specified. These secondary verb stems are in effect attributive stems to the verb *hei* = 'put' in this construction, although formally *-hei* here fulfills the definition adopted for an auxiliary. The semantic relationships with personal objects are the same as those noted for the primary verb *hei* = 'put'. These secondary verb stems include:

- iyak*- 'upward'
- pelak*-, also *wusak*- 'downward';
- wulak*- 'outward';
- kelak*- also *melak*- 'inward';
- wuttelak*- 'across a stream';
- lak*- 'over a distance'.

In the same pattern observed for the primary verb *hei* = 'put', first or second person or plural personal objects are marked in affixes to the auxiliary, whether the person or persons referred to are direct objects, occupying a patient role, or indirect objects, occupying a beneficiary role:

- svppvtv kela*'-*nakeikhe*. 'sweet-potatoes inward--he-put-for-me, i.e. He sent sweet potatoes into (the house) for me.'
- anepu a'la kela*'-*nakeikhe*. 'airplane (ane 'its noise', =*pu* [*bu*] 'woo') inside-it inward--he-put-me, i.e. He put me into the airplane.'

In the first example the personal object is indirect, occupying a beneficiary role, and in the second example the personal object is direct, occupying a patient role, but the verb forms are identical.

(2) With a number of major class verb stems, the auxiliary *-hei* occurs in constructions referring to the performing of an event in such a way that something is considered to be 'deposited' in some sense. Thus this auxiliary adds a semantic component of 'putting' to the meaning of the verb unit and also specifies role relationships with participants in the event. In observed cases with major class verbs where a personal object occurs marked in a prefix to this auxiliary, the personal object is indirect and occupies a role as beneficiary in any of several senses. The resulting verb with the auxiliary might often be loosely glossed 'do it and leave or deposit the product for the personal object.' Where the direct object occupying the patient role is a product of the event and is left at a distance from the beneficiary, this is the verb construction commonly employed:

- hakki jukul-hanhe*. 'bananas change-colour--he-put-for-me, i.e. He put some bananas away to ripen for me.'
- ekka lipil-hanhe*. 'leaves rip--he-put-for-me, i.e. He ripped out some weeds for me.'

su hikkal-hanhe. *'net untie--he-put-for-me, i.e. He unravelled a net for me.'*

hettouk mokkal-hanhe. *'fire kindle--he-put-for-me, i.e. He lit a fire for me.'*

poke hipil-hanhe. *'hole dig--he-put-for-me, i.e. He dug a hole for me.'*

su koil-hanhe. *'net hang--he-put-for-me, i.e. He hung a net up for me.'*

haly wvk-hanhe. *'firewood chop--he-put-for-me, i.e. He chopped some firewood for me.'*

The factor of distance from the beneficiary is not, however, a critical element. The product may be deposited directly on the beneficiary's body. Here however, the meaning overlaps with the meaning of the construction with the locative auxiliary to be described, and in a number of cases both constructions occur with reference to the same kind of event, as will be noted. The construction with *-hei=* emphasises the 'depositional' character of the event and is preferred, e.g., for reference to application of pigment:

wekki wat-hanhe. *'charcoal strike--he-put-for-me, i.e. He put charcoal pigment on me (for me).'*

i kesal-hanhe. *'water pour-out--he-put-for-me, i.e. He poured water over me (for me).'*

neil-ekken hekken-hanhe. *'my-eye--seed(= my-eye) open--he-put-for-me, i.e. He opened my eyes for me (as when the lids are cemented shut with mucous matter).'*

holim y'-nakeikhe. (yk= 'make net; don apparel') *'phallocrypt don--he-put-for-me, i.e. He put a gourd on me (for me).'*

In some examples something is removed from the beneficiary, so that it appears to be a part of the beneficiary that is 'deposited' or left as affected. In all such examples, the same event may be referred to with the 'locative' auxiliary to be described:

naik tale-nakeikhe. *'my-tooth dig-out--he-put-for-me, i.e. He dug something out of my tooth for me.'*

In some examples the event is psychological; the verb in the following example also occurs with the 'locative' auxiliary in a similar sense:

epe'-nakeikhe. *'think--he-put-for-me, i.e. He reminded me.'*

(3) The component of 'putting' or deposition frequently is associated with a completive sense. Constructions with the auxiliary *-hei=* frequently occur in discourse as recapitulations of the preceding event, marking it as completed before the next event begins. This is only one of several devices so employed, but highlights the completive sense

sometimes signalled by this construction:

wvtama-te me wathetek. me wat-heikhetesik-he, epe ythetek.

'pandanus--topic pandanus-flowers it-normally-bears (idiomatic sense of wat=, only with pandanus flowers). pandanus-flowers bear--it-normally-puts-prior--topic, its-self it-normally-bears, i.e. As for pandanus, it bears flowers. After it finishes bearing the flowers, it bears fruit.'

...hynaken wathuku. wat-hylyk-he sekkeloko nasuku. 'three we-killed-him-long-ago. kill--putting--topic cutting-up-raw we-ate-it-long-ago, i.e. We killed three. After we had killed them (left them dead) we cut them up and ate them.'

(4) With the depositional auxiliary -hei= more than with any of the other auxiliaries to be described, there are a number of special allomorphs that occur in particular constructions or with particular senses. The following treatment is illustrative, not exhaustive.

(a) The secondary verb root hep- 'spare, leave out, neglect' occurs only with special allomorphs based on the forms of the older paradigm of -hei=, but with no initial h. The person or persons referred to in the object-marking prefix may be occupying a patient role as a direct object or a beneficiary role as an indirect object:

an hep-anhe. 'me spare--he-put-me, i.e. He spared me (and did not kill me when he might have).'

wam hep-anhe. 'pig neglect--he-put-for-me, i.e. He neglected (to designate) a pig for me.'

(b) A verb root wap-, historically related to the major class primary verb wat= 'hit, kill', occurs with the auxiliary -hei= in a special sense connoting humiliating punishment or defeat:

wap-hakaky. 'defeat--I-placed-you, i.e. I have roundly trounced you (said to the leader of a defeated group, or to an individual punished by beating or wounding).'

(c) With the roots hep- and wap- and many other verb roots, the form of the auxiliary -hei= marked for third person plural object reference occurs either as listed in Table 6, p.102, or in shortened forms minus the initial syllable hi, with no apparent reference to plural beneficiaries or personal patients but rather with direct objects which are often inanimate but are treated with a connotation of carelessness or negative valuation:¹³

hep-isan. Also: hep-san. 'Discard it,' or 'Forget about it.'

Contrast:

hep-ein. 'Spare him,' or 'Leave it alone.'

wap-hisan. Also: wap-san. 'Beat him, her, them up,' or 'Punish him, her, them.'¹⁴

henet-hisan. '*pull-out--put-it-for-them, i.e. Pull it out for them,*'
or '*Yank it out.*'

Compare the form with the contracted auxiliary:

henet-san. '*pull-out--put-it-carelessly, i.e. Yank it out.*'

tot-hisan. '*wipe--put-it-for-them, i.e. Wipe it off for them,*' or
'*Rub it out.*'

Compare the form with the contracted auxiliary:

tot-san. '*wipe--put-it-carelessly, i.e. Rub it out (it's worthless).*'

3.3.2.3.4. *The Verb of Perception, ha= 'perceive, see'*

The third of the three primary verbs occurring with directly affixed markers of personal object categories is *ha= 'perceive, see'*. The paradigm of this verb in the simple factive category is displayed in Table 7. Here again the marker of first person objects is *n=*, of second person objects *h=*, and the marker of plural with personal objects, in all persons, is *(=)is=*, which is suffixed to the person marker, if any, or if none, occurs initially. Here there is also an empty morph consisting of a vowel occurring following the person marking prefixes when no plural marker occurs; the quality of the vowel is determined by the following vowel, as noted in Table 7. With this verb, as with *wat= 'hit, kill'* and *hei= 'put'* the verb stem without object-marking prefixes is interpreted to include implicit reference to a third person singular object, which may be human, non-human but animate, or inanimate. As a primary verb, this verb occurs only with direct objects; these are not, however, interpreted to occupy a 'patient' role, for neither the state nor the position of the object is changed. Rather, for reasons that will become more apparent, it is suggested that the objects of the verb *ha= 'perceive'* occupy a role which may be narrowly labelled 'target', which is one sense or sub-role of a larger set of sub-roles with the general label 'locative'. The persons referred to in the personal object marking prefixes occupy this role, as do third person singular objects, including inanimate objects, occurring with the forms of the verb with no object-marking prefixes:

neeken-a? '*you(sg)-saw-me--invitation-query, i.e. Did you see me?*'

hyyky. '*I saw you.*'

hyky. '*I saw him, her, it.*'

TABLE 7

PERSONAL OBJECT PREFIXES WITH THE VERB ha= 'perceive' IN THE SIMPLE FACTIVE CATEGORY

OBJECTS SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx*	xx	hyyky	hisyky	hyky	isyky
WE	xx	xx	heoko	hisoko	hoko	isoko
YOU(SG)	neeken	niseken	xx	xx	heken	iseken
YOU(PL)	neekep	nisekep	xx	xx	hekep	isekep
HE/SHE/IT	neelkhe	nisikhe	heelikhe	hisikhe	heikhe	isikhe
THEY	neeka	niseka	heeka	hiseka	heka	iseka

* Reflexives are distinctively inflected; see text and note on Table 5.

NOTES ON MORPHOLOGY:

Stem: hv= if no object marker; =v= elsewhere; V + y before ky; o before ke; i after ic before khe; ei elsewhere before khe; e elsewhere. The basic root of this verb in many categories is ha=. If no object marker occurs, a third person singular object is implicit.

Personal Object Prefixes: n= 'first person'; h= 'second person'; =v= stem formative with first, second person where no plural marker occurs, where V + y before y; e elsewhere; (=)is= 'plural of person'. The first or second person stem formative or the 'plural of person' marker occurs suffixed to any first or second person marker or, if none, the 'plural of person' marker occurs initially. Any person and/or number marking unit occurs prefixed to the bound allomorph of the root.

Mode Suffix: =k= 'factive'.

Subject Marking Suffixes: =y 'first singular'; =o 'first plural'; =en 'second singular'; =ep 'second plural'; =he 'third singular'; =a 'third plural'. See note 15, p.71-73.

3.3.2.3.5. *The Locative Auxiliary -ha=*

An auxiliary verb which is identical in form to the primary verb *ha=* 'perceive' occurs with a number of secondary and major class primary verb stems in several senses.

(1) With secondary verb stems referring to direction and distance, the auxiliary *-ha=* occurs to refer to seeing in the direction or over the distance specified. These secondary verb stems are the same as those noted under sense (1) of the depositional auxiliary *-hei=* above.

Certain other secondary verb stems particularly related to watching, looking, examining and other events of visual perception also occur with the auxiliary *-ha=*. These include:

hyt- 'examine';

set- 'watch for, wait for'.

All of these constructions occur with direct objects occupying the 'target' sub-role of the locative role, as discussed above:

eil-ekken kela'-neeikhe. 'his-eye--seed(=his-eye) inward--he-saw-me,
i.e. He looked in at me.'

hy'-nean. 'examine--(you-sg)-see-me-now, i.e. Examine me.'

All of the secondary verb stems treated in this section (sense (1) of *-ha=* 'perceive') are semantically attributive to the verb *-ha=*, which is equivalent to the primary verb *ha=* in these constructions, although formally this verb fulfills the definition of an auxiliary. The semantic relationships with personal objects are those noted for the primary verb *ha=* 'perceive'.

(2) The secondary verb root *muk-* 'chase' and the secondary verbs of pointing weapons occur with the auxiliary *-ha=*. These stems include:¹⁵

mumut- 'threateningly point (or thrust without contact) a weapon,
fist or tool';

pappakat- 'threateningly pull a bow';

pisinit- 'discharge an arrow';

tumut- 'thrust with a spear'.

The personal objects marked in the prefixes to the auxiliary are here interpreted to be direct objects occupying a 'target' role as suggested above for objects of *ha=* 'perceive'. The weapon, if mentioned, may be interpreted to occupy an instrument role:

tok pisinit-neeikhe. 'arrow shoot--he-did-at-me, i.e. He shot at
me with an arrow.'

seke tumu'-neeikhe. 'spear thrust--he-did-at-me, i.e. He thrust
at me with a spear.'

mu'-niasikhe. 'chase-out--he-did-at-us-long-ago, i.e. He chased
us out.'

(3) With a number of major class verb stems, the auxiliary *-ha=* occurs with prefixes marking personal objects to refer to the person on or near whose body surface an event occurs. It will be recalled that the post-positional relators referring to location are ambiguous and refer, depending on the context, both to 'place at or in which' and 'place to which'. It is suggested here that the auxiliary *-ha=* may be interpreted to have a similar range of meanings. When this verb occurs as a primary verb meaning '*perceive*' and as an auxiliary with senses related to perception and to the pointing of weapons and chasing, the object, whether personal or non-personal is the 'target' to which the event is directed. As an auxiliary with many major class verbs, *-ha=* is part of a construction with two objects, one direct, occupying a 'patient' role, and one indirect and personal, occupying a locative role, specifying the 'locus' or place at which the event occurs. The sub-roles 'target' and 'locus' or 'place to which' and 'place at which' comprise the role labelled 'locative'. Examples of this construction include:

- nappoto pa-neeikhe. '*my-beard cut*(pal= '*sever*')--*he-did-on-me*,
i.e. *He cut my beard (on and for me).*'
- naik tale-neeikhe. '*my-tooth hollow-out*(talel= '*hollow out*')--*he-did-on-me*, i.e. *He dug (something) out of my tooth.*'
- su ko'-neeikhe. '*net take-off*(kot= '*remove net*')--*he-did-on-me*,
i.e. *He took my net off me.*'
- tok hene'-neeikhe. '*arrow pull-out*(henet=)--*he-did-on-me*, i.e.
He pulled an arrow out of me.'
- napy saka-neeikhe. '*my-lice crush*(sakal=)--*he-did-on-me*, i.e.
He crushed my lice.'
- napy wa'-neeikhe. '*my-lice kill*(wat=)--*he-did-on-me*, i.e. *He killed my lice.*'
- l kesa-neeikhe. '*water pour-out*(kesal=)--*he-did-on-me*, i.e.
He poured water over me (as in treating illness).'
- neil-ekken hekke-neeikhe. '*my-eye--seed*(=my-eye) *open*-(hekken=)--
he-did-on-me, i.e. *He opened my eyes (as when cemented with mucus).*'
- nekki sopa-neeikhe. '*my-hand wash*-(sopal=)--*he-did-on-me*, i.e.
He washed my hands.'
- neil-ekken mule-neeikhe. '*my-eye--seed*(=my-eye) *muddy*-(mulel=)--
he-did-on-me, i.e. *He put out my eye.*'
- hesi juku-neeikhe. '*mud-pigment colour-change*-(jukul=)--*he-did-on-me*, i.e. *He painted me with mud pigment.*'
- noumo lape'-neeikhe. '*my-sore close*-(lapet=)--*he-did-on-me*, i.e.
He covered my sore (as with a leaf).'

There is one common example in which the event is located spatially but not on the body surface:

kwe hv'-neeikhe. 'door open-(hvt=)--he-did-on-me, i.e. He opened the door for me.'

This example is most easily treated as an idiomatic extension of the person's presence to include the door in his immediate surroundings.

The event may also be psychological or verbal:

ettake epe'-neeikhe. 'his-name think-(epet=)--he-did-on-me, i.e. He reminded me of his name.'

hinok wo'-neeikhe. 'inquiry take-(wok- + wakan=)--he-did-at-me, i.e. He inquired (about something) from me.'

There are a few examples with major class and secondary verb stems in which the personal object is the only object and appears to occupy both the 'locus' locative role and the 'patient' role:

kyky-neeikhe. 'do-this-(jykyn=)--he-did-on-me, i.e. He did this to me (implying an event on the body surface).'

hu'-neeikhe. 'blow-(hut=)--he-did-on-me, i.e. He blew on me (in treatment of pain or illness).'

In all of the examples with personal objects occupying a 'locus' locative role, the reader may suggest that the relationship is in every case also 'benefactive' to just as great an extent as the relationships described in terms of a 'beneficiary' role with the auxiliary -hei= above. This is indeed true, and it would be possible to postulate that each of the personal objects treated under this sense of the locative auxiliary -ha= occupies an additional role, 'beneficiary', as well as the 'locus' sense of the locative role. However the locative relationship is criterial for the fundamental sense of these uses of the auxiliary -ha=, and it appears unnecessary to multiply roles postulated or to complicate names for roles by labelling the relationship under discussion 'locative benefactive' as compared with the simple 'benefactive' or 'beneficiary' label employed in relation to the depositional auxiliary -hei=.

(4) The auxiliary -ha= also occurs with a number of secondary verb stems and some major class verb stems without any reference to a personal object. In these cases it appears useful to interpret this direct non-personal object as occupying both the 'locus' variety of locative role and the 'patient' role. In many of these cases the resultant meaning is to activate the object or put it into motion, so that an inceptive sense is present:¹⁶

wam seil-han. 'pig flush-(seil=)--do-it, i.e. Flush the pig (out of the brush).'

o wat-han. 'tree strike--do-it, i.e. Push the tree over.'

esake kyokot-han. 'torch illumine-(kyok- 'shine', =Vt- transitiviser)
--do-it, i.e. Light a torch.'

hekki langat-han. 'your(sg)-hand outstretch-(lang- 'spread', =Vt-
transitiviser)--do-it, i.e. Spread your arms.'

There are other related examples which, by virtue of the meaning of the verb root, refer to the restraining or ending of activity, but even here, the sense of the auxiliary seems to mark the initiation or activation of the process of restraint or termination:

sepet-han. 'hold-down-(sepet=)--do-it, i.e. Hold it down.'

haly sijokot-han. 'firewood remove-(sijok- 'separate', =Vt-
transitiviser)--do-it, i.e. Spread the (burning) firewood (so as
to cool the fire down).'

inakko opol-han. 'their-pigs exhaust-(opol=)--do-it, i.e. Finish
their pigs off.'

3.3.2.3.6. The Dative Auxiliary -et=

Personal objects of verbs, including the majority of personal objects that would be glossed by English indirect objects, are also marked by person and number prefixes to the dative auxiliary -et=, which does not occur as a primary verb. The paradigm of this auxiliary in the simple factive category is displayed in Table 8. The markers of person categories are n= 'first person' and h= 'second person'. The unmarked auxiliary root -et= is interpreted to include an implicit category 'third person singular personal object'. In this case, the third person singular category refers only to humans and animals, not to inanimate objects. The forms marking plural personal objects are not inflected forms of -et= but are rather identical with the analogous forms of the locative auxiliary -ha= as described above. Thus with plural personal objects, the contrast between the dative auxiliary and the locative auxiliary is neutralised.

The personal object marked in prefixes to the dative auxiliary are interpreted to occupy a 'recipient' role. In almost all examples either a process is performed on a direct object and the processed product is given to the recipient, or a verbal expression is directed toward, and believed to be heard by, the recipient.

In many examples, it is the direct object which is received:

svmvkka pa-nethe. 'sweet-potato-leaves cut-(pal=)--he-transferred-
to-me, i.e. He cut sweet potato leaves for me and gave them to me.'

su ka'-nethe. 'net mend-(kat=)--he-transferred-to-me, i.e. He
mended the net for me and gave it to me.'

TABLE 8

PERSONAL OBJECT PREFIXES WITH THE DATIVE AUXILIARY -et= IN THE SIMPLE FACTIVE CATEGORY

OBJECTS SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT*	THEM
I	xx**	xx	-hethi	(-hisiky)	-ethi	(-isyky)
WE	xx	xx	-hethu	(-hisoko)	-ethu	(-isoko)
YOU(SG)	-nethin	(-niseken)	xx	xx	-ethin	(-iseken)
YOU(PL)	-nethip	(-nisekep)	xx	xx	-ethip	(-isekep)
HE/SHE/IT	-nethe	(-nisikhe)	-hethu	(-hisikhe)	-ethe	(-isikhe)
THEY	-netha	(-niseka)	-hetha	(-hiseka)	-etha	(-iseka)

* 'It' here refers only to animals; inanimate objects do not occur with this auxiliary.

** Reflexive forms are distinctively inflected; see text and note in Table 5.

NOTES ON MORPHOLOGY:

With Plural Personal Objects forms identical with the analogous forms of the locative auxiliary -ha= are used; see Table 7, p.108.

Stem in forms with singular objects: -et=. If no object marker occurs, the initial e of the auxiliary is lost following a vowel-final verb root: joko- 'teʔ' + -ethi + joko-thi 'I told him.' Following a verb root with final ek, ak or ok, the third person singular object forms occur with an initial vowel a the quality of the final root vowel: wok- 'take, move' + -ethi + wok-othi 'I gave it to him.' Where no object marking prefix occurs, a third person singular human or animate object is implicit. With the third person plural object marker, in normal rapid speech the auxiliary occurs following verb roots with final ak or ok in forms beginning -eis=: wok- + -isyky + wok-eisyky 'I gave it to them.'

Personal Object Prefixes: n= 'first person'; h= 'second person'; where no plural marker occurs, person markers are prefixed directly to the auxiliary; plural object forms are, as noted, identical with analogous forms of the locative auxiliary -ha= or ha= 'perceive'.

Mode Suffix: =h= after stem-final consonants; =k= elsewhere, 'factive'.

Subject Marking Suffixes: =y after =k= 'factive', =i elsewhere, 'first singular'; =o after =k= 'factive', =u elsewhere, 'first plural'; =en after =k= 'factive', =in elsewhere, second singular; =ep after =k= 'factive', =ip elsewhere, 'second plural'; =e after h, =he elsewhere 'third singular'; =a 'third plural'. See note 15, p.71-73.

su ko'-nethe. 'net doff-(kot=)--he-transferred-to-me, i.e. He took off (his) net and gave it to me.'

wam kv'-nethe. 'pork carve-(kvt=)--he-transferred-to-me, i.e. He cut me a piece of pork and gave it to me.'

i hina'-nethe. 'water fill-vessel-(hinak=)--he-transferred-to-me, i.e. He got me some water in a vessel and gave it to me.'

wam wa'-nethe. 'pig kill-(wat=)--he-transferred-to-me, i.e. He killed a pig for me and gave it to me.'

su wo'-nethe. 'net take-(wok- + wakan=)--he-transferred-to-me, i.e. He gave me a net.'

This last example includes the regular expression for giving physically transferrable items when no other process is involved.

su y'-nethe. 'net make-net-(yk=)--he-transferred-to-me, i.e. He made a net for me and gave it to me.'

he y'-nethe. 'woman ceremonially-marry (idiomatic extension from 'make a net')--he-transferred-to-me, i.e. He gave me a wife (in ceremonial first marriage).'

In some examples the event is in two stages with a time interval between them, the transfer occurring at a later time than the process:

wam pa-nethe. 'pig sever-(pal=)--he-transferred-to-me, i.e. He set a pig (from a litter) aside and gave it to me (even though I may not receive it immediately).'

wam ku-nethe. 'pig foster-(kul=)--he-transferred-to-me, i.e. He raised (my) pig for me and gave it to me.'

In some cases it is not the direct object which is received by the recipient, but rather the product or item processed by the action on the direct object:

ekka pule-nethe. 'leaf unwrap-(pulel=)--he-transferred-to-me, i.e. He took off the wrapper and gave (the unwrapped item) to me.'

wokul' to'-nethe. 'mud wipe-off-(tot=)--he-transferred-to-me, i.e. He wiped off the mud and gave (the wiped object) to me.'

The recipient of a verbal message is marked as the personal object of most verbs of telling, teaching, confessing and rebuking by the occurrence of personal object prefixes with the dative auxiliary -et=:

wene joko-nethe. 'message tell-(joko)--he-transferred-to-me, i.e. He told me the message.'

ettake jakku-nethe. 'his-name teach/learn-(jakkul=)--he-transferred-to-me, i.e. He taught me his name.'

wam pukka-nethe. 'pig expose-(pukka=)--he-transferred-to-me, i.e. He confessed (the matter of) the pig to me.'

There is one common verb of rebuking which takes only one object, the personal object occupying the recipient role. Thus, so far as

clause or surface structure is concerned, it is useful to consider the personal object to be the direct object, but it also appears useful to consider that object to occupy the recipient role. The verbal message which is transferred is implicit in the root:

an wena'-nethe. 'me rebuke-(wenak=)--he-transferred-to-me,
i.e. He bawled me out.'

In the above illustrations of verbal events, the message transferred or the term referring to that message presents a problem in terms of the specification of the role occupied. This problem will be discussed further in connection with the minor class verb *i* = 'say', below.

3.3.2.3.7. *The Generalised Personal Object Auxiliary -ap=*

The last of the auxiliaries occurring with personal object prefixes is what is here labelled, for want of a better term, the generalised personal object auxiliary *-ap=*. This auxiliary, like the dative auxiliary *-et=*, does not occur as a primary verb. The paradigm of *-ap=* in the simple factive category is presented in Table 9. The markers of person and number of personal objects with this auxiliary are those familiar already from their occurrence with *wat=* 'hit, kill': *n=* first person, *h=* second person, and *(=)in=* plural of person categories, this last marker occurring unaffixed to the person marker, if any, or if none, initially; the whole person and number marking unit occurs prefixed to the auxiliary root *-ap=*. This auxiliary does not occur in this dialect without a person and/or number marking prefix. That is to say that, unlike the other auxiliaries and primary verbs occurring with prefixes referring to personal objects, the auxiliary *-ap=* includes no implicit category of 'third person singular object' in the unmarked root.¹⁷ With a few secondary verb stems this lack is compensated for by the occurrence of the relatively uncommon auxiliary verb *-at=* with implicit reference to a third person singular object. With major class primary verb stems, however, no such substitute auxiliary occurs, and the simple, directly inflected verb occurs ambiguously, referring either to the patient role elsewhere signalled by the simple form, or to the generalised personal objective relationship with patient role elsewhere signalled by the occurrence of *-ap=* in one sense.

The meaning of the relationship signalled by this auxiliary in its various senses is best approached inductively through examples. Some major class verbs occur with this auxiliary and an independent noun occupying the patient role. In these cases, the personal object marked in the prefix to the auxiliary occupies a beneficiary role. The event is not viewed as one of depositing something for the beneficiary, nor as an event located on his body, nor as an event of transfer of an object or message, but rather as an event in which the personal object

TABLE 9
PERSONAL OBJECT PREFIXES WITH THE GENERALISED PERSONAL OBJECTIVE AUXILIARY -ap=
IN THE SIMPLE FACTIVE CATEGORY

SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx*	xx	-haphi	-hinaphi	xx**	-inaphi
WE	xx	xx	-haphu	-hinaphu	xx	-inaphu
YOU(SG)	-naphin	-ninaphin	xx	xx	xx	-inaphin
YOU(PL)	-naphip	-ninaphip	xx	xx	xx	-inaphip
HE/SHE/IT	-naphe	-ninaphe	-haphe	-hinaphe	xx	-inaphe
THEY	-napha	-ninapha	-hapha	-hinapha	xx	-inapha

* Reflexives are distinctively inflected; see text and note on Table 5.

** This auxiliary does not occur without a personal object prefix. Verbs with third person singular objects semantically related to the verb like objects marked in prefixes to this auxiliary in other persons or plural number occur with no auxiliary: wo'-naphe 'He received me'; wanhe 'He received him' or 'He took it.'. The bound stem wok- occurs with this auxiliary in the sense 'carry something for someone' with third person plural object markers for all third person objects: wok-inaphe 'He carried it for him, them.'. A few secondary verb roots occur with a substitute auxiliary -at= with implicit third person singular object reference: hokot-athe 'He praised him, her, it'; compare: hoko'-naphe 'He praised me.'

NOTES ON MORPHOLOGY:

Stem: -ap=. There is no implicit object category with this auxiliary.

Personal Object Prefixes: n= 'first person'; h= 'second person'; (=)in= 'plural of person'; the plural marker occurs suffixed to the person marker, if any, or otherwise initially, and any person and/or number marker occurs prefixed to -ap=.

Mode Suffix: =h= 'factive'.

Subject Marking Suffixes: =i 'first person singular'; =u 'first person plural'; =in 'second person singular'; =ip 'second person plural'; =e 'third person singular'; =a 'third person plural'. See note 15, p.71-73.

is, as a person, relieved, favoured or ceremonially benefitted. In other words, the personal object is related to the event in some other way than those specified by the depositional auxiliary -hei=, the locative auxiliary -ha=, the dative auxiliary -et= or by direct pre-fixation to the verb wat= 'hit, kill':

nal soma'-naphe. 'my-faeces-(n= first person; al faeces) disposed-(sopak=)--he-did-for-me-as-person, i.e. He disposed of my faeces for me (as a personal favour, i.e. for a sick person).'

su-kkwe wo'-naphe. 'baggage take-(wok- + wakan=)--he-did-for-me-as-person, i.e. He carried the load for me (relieving me).'

wakkun wa'-naphe. 'funeral-pig kill-(wat=)--he-did-for-me-as-person, i.e. He killed a funeral pig for me (said, e.g., by a ghost).'

sili mitta'-naphe. 'grass-skirt assemble-(mittak=)--he-did-for-me-as-person, i.e. He made a grass skirt for me (with emphasis on the personal favour).'

svmvka keta-naphe. 'sweet-potato-leaves tie-up-(ketal=)--he-did-for-me-as-person, i.e. He tied up the greens for me (in preparation for cooking).'

In many more examples, however, no noun referring to another patient occurs, and the person referred to in the prefix to the auxiliary is the direct object of the verb unit (including the primary verb and the auxiliary) and occupies the patient role. This is the construction used to refer to personal direct objects of most major class verbs. When asked what things people steal, an informant listed sweet potatoes, bananas, and items like nets, all with constructions including the major class primary verb wakan= 'take, move', with no auxiliary. In the same list he included women, but here the verb construction shifted to the bound pre-auxiliary stem wok- of the verb wakan= 'take, move', with the generalised personal objective auxiliary:

wok-inaphatek. 'take-(+ wakan=)--they-normally-do-to-them-as-persons, i.e. They normally take them.'

This is the construction used to refer to life crises, like birth, initiation, marriage and cremation:

joma ta'-naphukwha. 'here procreate-(tak=)--they did-to-me-as-person-long-ago, i.e. They (my parents) begat and bore me here.'

ku-naphe. 'foster-(kul=)--he-did-to-me-as-person, i.e. He raised me.'

y'-naphe. 'marry-(extension of meaning from yk= 'make net')--he-did-to-me-as-person, i.e. He married me,' or 'He gave me in ceremonial marriage,' (where the subject may be either the brother or the husband of the bride).

loi-naphe. 'burn-up-(loil=)--he-did-to-me-as-person, i.e. He cremated me (as said by a ghost).'

There are many other verbs occurring with this auxiliary:

je'-napha. 'put-on-pole-(jet=)--they-did-to-me-as-person,
i.e. *They slung me on a pole (to carry me).'*

pa-naphe. 'sever-(pal=)--he-did-to-me-as-person, i.e. *He cut me off (from my family), taking me as his wife.'*

Sometimes a body part is affected, but this construction is used not to emphasise the location of the event but only its personal effect:

nekki saka-naphe. 'my-hand crush-(sakal=)--he-did-to-me-as-person,
i.e. *He crushed my hand.'*

nekki homa'-naphe. 'my-hand tie-up-(homak=)--he-did-to-me-as-person,
i.e. *He tied up my hands, arrested me.'*

In the above two examples the body part terms may be considered to occupy the 'locus' locative role.

There are a number of idioms including verbs with the generalised personal objective auxiliary in which a noun is a constituent with the verb stem to form an idiomatic phrase unit which is in effect a single verb. This noun is in such cases not considered to occupy a patient role; the person referred to in the person-marking prefixes to the auxiliary verb is considered to occupy the patient role, as in the preceding examples:

haik wa'-naphe. 'happiness strike-(wat=)--he-did-to-me-as-person,
i.e. *He greeted me,* or *He thanked me.'*

wvt pa-naphe. 'ceremonial-initiation-term sever-(pal=)--he-did-to-me-as-person, i.e. *He initiated me.'*

nettaka sa-naphe. 'my-name cover-(sal=)--he-did-to-me-as-person,
i.e. *He named me.'*

jokkal y'-naphe. 'married-woman's-skirt marry(extended from yk=
'make net')--he-did-to-me-as-person, i.e. *He married me ceremonially,* or *He gave me in ceremonial marriage.'*

This last example occurs either with or without the noun jokkal 'married woman's skirt' with no apparent difference in meaning. It appears clear that the personal object marked in the prefix to the auxiliary is a direct object, occupying a patient role, for if one asks concerning this event, "What did he net?", he will often be corrected to ask "Whom did he net?" or will receive an answer to the latter question as if that had been asked.

There are also some problem examples, where there may be an idiomatic noun-verb unit forming a phrase-verb, but the situation is not clear:

eil-ekken siki-naphe. 'his-eye squint-(sikil=)--he-did-to-me-as-person, i.e. *He squinted (to beckon) me.'*

hinok wo'-naphe. 'inquiry take-(wok- + wakan=)--he-did-for(?)--me-as-person, i.e. *He inquired about me.'*

3.3.2.3.8. *Summary of Personal Object Relationships*

To review the constructions of verbs and auxiliary verbs with personal objects, Table 10 is provided.

TABLE 10		
VERBS AND AUXILIARIES MARKED FOR PERSONAL OBJECTS		
VERB	MEANING OF VERB, OR SEMANTIC COMPONENT ADDED BY AUXILIARY	ROLES AVAILABLE TO PERSONAL OBJECT
wat=	'hit, kill (him)'	patient (direct object)
hei=	'put'	patient (direct object) beneficiary (indirect object)
-hei=	depositional auxiliary. Something is deposited, either the person or something for him.	patient (direct object) beneficiary (indirect object)
ha=	'see'	target (direct object)
-ha=	locative auxiliary. Something is (1) aimed at the person or (2) done on his body surface.	target (direct or indirect object) locus (indirect or direct object)
-et=	dative auxiliary. Something is done for the personal object and the product given to him, or a verbal message is given him.	recipient (indirect or rarely direct object)
-ap=	generalised personal objective auxiliary. Something is done for or to the personal object in a way not specified by other auxiliaries.	patient (direct object) beneficiary (indirect object)

Table 10 is arranged, as the discussion has been arranged, to suggest that the semantic component added by the auxiliary -ap= is a generalised value including all personal object relationships not specified by the other auxiliaries. Among these are, as noted in the discussion, the nebulous relationships involved in ceremonial treatment and other events where the person is affected as a person. This means that -ap= is the unmarked member of the set of person-object-marking auxiliaries, and the forms referring to third person singular objects lend supporting evidence to this interpretation:

pal-hein. 'sever--put-it-for-him, i.e. Cut it and leave it for him (i.e. of grass).'

pal-han. 'sever--do-it-on-him, i.e. Cut it (e.g. hair) on him.'

pal-esin. 'sever--transfer-it-to-him (less common but regular alternate form for the more common irregular pal-om), i.e.

Cut it (i.e. a stalk of bananas) and give it to him.'

palin. 'sever-it, him, i.e. Cut it,' or 'Take her (by severing her from her family) as a wife.'

The particular semantic relationships marked by the other auxiliaries are still marked with third person singular personal objects, even though the personal object is then implicit in the auxiliary. But the relationship marked by the auxiliary -ap= with other persons and plural number is not overtly marked with third person singular objects, so that the simple verb, with no auxiliary, becomes an unmarked form ambiguously referring either simply to an implicit non-personal object occupying a patient role, or to a personal object occupying a patient role.

It is to be noted that this interpretation does not equate the relationship between the personal object of wat= 'hit, kill' marked by direct affixation to that verb, and the relationship between the personal object of that verb or any other marked by affixation to the auxiliary -ap=. The role occupied by the personal object is in the first case always and in the second case often a patient role, but in the second case the semantic component 'personal objective relationship' has been added to the verb with which the object occurs.¹⁸

It is useful to compare and contrast the meanings of constructions with the same verb root but different case or role-specifying forms. Only the verb.wat= 'hit, kill' occurs in all five possible constructions:

nathe. 'He hit me,' or 'He killed me,' (with the personal object direct and occupying a patient role).

wakkun wa'-naphe. 'funeral-pig kill--he-did-for-me-as-person, i.e. He killed a funeral pig for me (said by a ghost),' (where the personal object is indirect and occupies a beneficiary role).

haik wa'-naphe. 'happiness strike--he-did-to-me-as-person, i.e. He greeted me,' (where the personal object is direct and occupies the patient role).

wam wa'-nethe. 'pig kill--he-transferred-it-to-me, i.e. He killed a pig for me and gave it to me,' (where the personal object is indirect and occupies the recipient role).

napy wa'-neeikhe. 'my-lice kill--he-did-on-me, i.e. He killed my lice,' (where the personal object is indirect and occupies the locus sub-role of the locative role).

hesi wa'-nakeikhe. or: hesi wat-hanhe. 'mud strike--he-put-it-for-me, i.e. He put mud-pigment on me,' (where the personal object is indirect and occupies the beneficiary role).

The stem *wok-*, which is the bound pre-auxiliary stem form of the verb elsewhere realised as *wakan=*, *wan=* 'take, move', occurs with the four auxiliaries:

wo'-naphe. 'take--he-did-to-me-as-person, i.e. He received me,' (where the personal object is direct and occupies the patient role).

su-kkwe wo'-naphe. 'baggage take--he-did-for-me-as-person, i.e. He carried my load (relieving me),' (where the personal object is indirect, occupying the beneficiary role).

hinok wo'-naphe. 'inquiry take--he-did-for(?)-me-as-person, i.e. He inquired about me,' (where the personal object is perhaps indirect, occupying the beneficiary role, but the case is problematical).

wam wo'-nethe. 'pig take--he-transferred-to-me, i.e. He gave me a pig,' (where the personal object is indirect, occupying the recipient role).

nappoto wo'-neeikhe. 'my-beard take--he-did-it-on-me, i.e. He plucked my beard,' (where the personal object is indirect, occupying the locus locative role).

hinok wo'-neeikhe. 'inquiry take--he-did-"on"-me, i.e. He inquired (about something) from me,' (where the personal object is perhaps indirect, and in any case may be interpreted to occupy the locus locative role).

japu wo'-nakeikhe. 'garden take-(here, idiomatically, dig)--he-put-it-for-me, i.e. He dug the garden for me,' (where the personal object is indirect, occupying the beneficiary role).

The verb *pa=* 'sever' also occurs with all four personal object-marking auxiliaries:

pa-naphe. 'sever--he-did-to-me-as-person, i.e. He severed me (from my family, taking me as his wife),' (where the personal object is direct, occupying the patient role).

wvt pa-naphe. 'initiation-term sever--he-did-to-me-as-person, i.e. He initiated me,' (where the personal object is direct, occupying the patient role, and the noun preceding the verb forms an idiomatic unit with the verb).

wam pa-nethe. 'pig sever--he-transferred-it-to-me, i.e. He set a pig apart and gave it to me (although the transfer may be later),' (where the personal object is indirect, occupying the recipient role).

hakki pa-nethe. 'bananas sever--he-transferred-it-to-me, i.e. He cut a stalk of bananas for me and gave it to me,' (where the personal object is indirect, occupying the recipient role).

nesi pa-neeikhe. 'my-hair sever--he-did-on-me, i.e. He cut my hair,'
(where the personal object is indirect, occupying the locus
locative role).

hakki pa-nakeikhe. 'bananas sever--he-put-it-for-me, i.e. He cut
a stalk of bananas and saved it for me,' (where the personal
object is indirect, occupying the beneficiary role).

It is to be noted that the relationships specified by these auxiliaries are not mutually exclusive, and that where they overlap, more than one construction may be employed to refer to the same event viewed differently. The idiom 'tie a person's hands' has come to mean 'arrest'; this event may be viewed as occurring on the body surface and referred to with the locative auxiliary, or as placing rope on the person and referred to with the depositional auxiliary, or as personally affecting the one arrested in a general way and referred to with the generalised personal objective auxiliary:

nekki hele homa'-neeikhe. 'my-hand tying-vine tie-up--he-did-on-me,
i.e. He tied rope on my hands,' or 'He arrested me.'

nekki hele homa'-nakeikhe. 'my-hand tying-vine tie-up--he-put-it-
for-me, i.e. He left my hands tied with rope,' or 'He arrested me.'

nekki hele homa'-naphe. 'my-hand tying-vine tie-up--he-did-to-me-
as-person, i.e. He tied me up with rope on my hands,' or 'He
arrested me.'

Applying fat or pigment to the skin may be viewed in terms of the location of the event on the body or in terms of the 'putting' of the pigment on the skin; the latter is preferred but both occur:

wekki lapu-neeikhe. 'charcoal smear-(lapu!)=--he-did-on-me, i.e.
He put charcoal on me.'

wekki lapu-nakeikhe. 'charcoal smear--he-put-it-for-me, i.e. He
put charcoal on me.'

There are some alternative expressions and some regularly used expressions which are still problematical in terms of the scheme of contrasts outlined here:

hetamo'-nethe. 'sharp-rebuke-(hetamot)--he-transferred-to-me,
i.e. He bawled me out.'

This last example occurs as expected with the dative auxiliary, like other verbs of telling, rebuking, etc. But also occurring is:

hetamo'-nakeikhe. 'sharp-rebuke--he-put-it-for-me, i.e. He bawled
me out.'

However, if this verb is derivationally related to hetam, a kind of magical curse put especially on pigs, occurrence of the depositional auxiliary -hei= is not exceptional, and the second example could be glossed, 'He put me under a curse,' understood as hyperbole.

Transitivised secondary verb stems, a construction to be noted later also, occur either with the depositional auxiliary *-hei=* or the locative auxiliary *-ha=*; some stems have been observed to occur with one of these auxiliaries, while others occur with either, in what appears sometimes to be an arbitrary classification. A number of these stems which occur with only one auxiliary occur with personal objects marked in prefixes to that auxiliary even when the semantic relationship seems inappropriate according to the patterns observed with other verbs. One commonly recorded example is the generalised expression for help with physical labour:

jamakat-han. *'Help him.'*

leket jamaka'-neeikhe. *'fence help--he-did-on-me(?)*, i.e. *He helped me (build) a fence.'*

It seems difficult to see how any sense of location on or even near the body surface of the personal object could be involved here.

3.3.2.3.9. *Multiple Personal Objects: Priorities and Restrictions*

The discussion thus far has neglected the fact, obvious in several of the examples, that the same verb sometimes occurs with two personal objects:

he y'-nethe. *'woman marry-(extended from yk= 'make net')--he-transferred-to-me*, i.e. *He gave me a wife in ceremonial marriage.'*

Here both the object occupying the recipient role, marked in the prefix *n=* 'first person', and the object occupying the patient role, referred to overtly in the independent noun *he 'woman'*, are personal. Exactly analogous examples occur with other verbs:

ap wa'-nethe. *'man kill--he-transferred-to-me*, i.e. *He killed a man for me (and gave me the symbol of the victim, where the speaker is the man responsible for a battle, or battle with a particular group).'*

In all such examples, only one personal object is overtly marked.¹⁹ This is selected according to criteria of person categories and the possibilities of overt marking. Where more than one personal object occurs, a first person object, whether direct or indirect or whatever its role relationship to the event, takes priority over any other. If no first person object occurs, a second person object takes priority over any other. If the persons involved are all referred to in the third person, a role which may be marked overtly takes priority, and/or the speaker's focus of attention determines the choice. The following examples are all possible statements about a wedding:

he y'-nethe. *'woman marry--he-transferred-to-me*, i.e. *He gave me a wife in ceremonial marriage.'*

Here the first person object marker refers to the speaker as the groom, occupying the 'recipient' role, and this person category is selected for overt marking with the dative auxiliary.

netouk-en y'-naphe. *'my-opposite-sex-sibling--by marry--he-did-to-me-as-person, i.e. My brother gave me in marriage.'*

The first person reference to the speaker as bride, the direct object occupying a patient role with the generalised personal objective relationship, is selected for overt marking.

sa yk-hethe. *'who marry--he-transferred-to-you(sg), i.e. Whom did he give you as a wife?'*

The second person reference to the addressee as groom, the indirect object occupying a recipient role, is selected for overt marking.

akwe yk-ethe. *'his-wife marry--he-transferred-to-him, i.e. He gave him a wife in ceremonial marriage.'*

The dative relationship, with the personal object occupying a recipient role, may be overtly marked with a third person singular object, and is selected for marking. But if the speaker does not wish to refer to this dative relationship and simply speaks of the ceremonial marriage of the bride with no mention of the groom, or if the groom functions as subject, occupying an agent role, the simple verb occurs, since the generalised personal objective auxiliary -ap= does not occur with third person singular objects:

he ythe. *'woman he-married-her', i.e. either 'He gave a girl in ceremonial marriage,' or 'He ceremonially married a wife.'*

3.3.2.4. Reflexive Voice

If a person or persons occupying an agent role realised as subject of a verb are co-referential with the person or persons occupying any other role elsewhere realised as a personal object, whether direct or indirect and regardless of the oblique roles involved, the contrastive object relationships are neutralised, and the verb occurs in a marked reflexive voice form. Co-referentiality refers not only to cases of identical reference, but also to cases of included reference, where the persons who are agents include or are included among the occupants of an oblique role. Thus in these forms the contrast between direct and indirect objects and the contrasts among the object-marking roles are neutralised. Morphologically, verb roots with final p occur in these forms with final k replacing the p, and the verb roots with final vowels which occur inflected for reflexive voice occur with an added final k. All k final stems in these forms occur with an h following the k. These forms are then, in general, inflected like the analogous forms of the verb ha= 'perceive'. The reflexive forms of

samples of these various classes of verbs in the simple factive category are displayed in Table 11.

These forms afford further evidence for the assertion that the category 'personal object' is a higher level category than the contrastive object or oblique role-specifying categories, as it was earlier demonstrated that the role-specifying categories are higher level categories than the categories 'direct' and 'indirect' with reference to objects. Note these examples with the verb *wat= 'hit, kill'*:

nathe. 'He hit me.'

watyky. 'I hurt myself,' (with subject occupying agent and patient roles).

hesi wa'-nakeikhe. 'He put mud on me.'

hesi watyky. 'I put mud on myself,' (with subject occupying agent and beneficiary roles).

napy wa'-neeikhe. 'He killed my lice,'

napy watyky. 'I killed my own lice,' (with subject occupying agent and locus locative roles).

ap wa'-nethe. 'He killed a man for me and symbolically gave him to me.'

ap watyky. 'I killed a man for myself (as the leader responsible for the battle),' (with subject occupying agent and recipient roles).

haik wa'-naphe. 'He greeted me.'

haik watyky. 'I greeted myself (said in irony),' (with subject occupying agent and patient roles).

In the first two examples and the last two examples, the personal objects are interpreted to be direct objects; in the other examples they are indirect objects.²⁰

3.3.2.4.1. Reflexive Forms of the Dative Auxiliary

There is one exception to the generalisation that the contrastive object relationships are neutralised in reflexive voice. With certain stems, reflexive forms of the dative auxiliary are observed to occur in two different senses. First, with some verbs of verbal communication, reflexive forms of this auxiliary occur to refer to the subject addressing himself:

joko-thi. 'tell-(joko- secondary verb, 'tell')--I-transferred-to-him, i.e. I told him.'

joko-tyky. 'tell--I-transferred-to-myself, i.e. I told myself.'

wenak-athi. 'rebuke--I-transferred-to-him, i.e. I rebuked him.'

wenak-atyky. 'rebuke--I-transferred-to-myself, i.e. I rebuked myself.'

TABLE 11
REFLEXIVE FORMS OF VERBS IN THE SIMPLE FACTIVE CATEGORY

VERB SUBJECT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	selepen= 'sew up'	pal= 'sever'	yk= 'make net'
I	jakhyky*	watyky	jakhyky	selepenyky	palyky	ikhyky
WE	jakhoko	watoko	jakhoko	selepenoko	paloko	ikhoko
YOU(SG)	jakheken	wateken	jakheken	selepeneken	paleken	ikheken
YOU(PL)	jakhekep	watekep	jakhekep	selepenekep	palekep	ikhekep
HE/SHE/IT	jakheikhe	watikhe	jakheikhe	selepenikhe	palikhe	ikhikhe
THEY	jakheka	wateka	jakheka	selepeneka	paleka	ikheka
VERB	wvk= 'chop'	i= 'say'	ha= 'see'	hei= 'put'	a=, at=	nei= 'travel'
SUBJECT					'acquire'	
I	wukhyky	ikhiky	hakhyky	hakhyky	akhyky	neikhyky
WE	wukhoko	ikhoko	hakhoko	hakhoko	akhoko	nelkhoko
YOU(SG)	wukheken	ikheken	hakheken	hakheken	akheken	neikheken
YOU(PL)	wukhekep	ikhekep	hakhekep	hakhekep	akhekep	neikhekep
HE/SHE/IT	wukhikhe	ikhikhe	hakheikhe	hakheikhe	akheikhe	neikhikhe
THEY	wukheka	ikheka	hakheka	hakheka	akheka	neikheka

*For glosses of these forms, see the text. They are ambiguous in multiple senses; e.g. watyky 'I hurt myself'; 'I killed it for myself'; 'I applied (pigment) to myself'; 'I killed (my lice) on myself'; 'I greeted myself' (with haik).

NOTES ON MORPHOLOGY:

Stems: In this category, roots with final p occur with final p replaced with final k; roots with final vowel occur with added final k; all roots and stems with final k occur with added h following k.
 Reflexive Marker: The whole inflectional desinence signals 'reflexive', but in terms of morpheme analysis, the vowel following the root or stem may be isolated as the reflexive marker, where that vowel is y before ky, o before ko, i before khe after a preceding high close vowel, ei before khe elsewhere; e elsewhere.

Mode Suffix: =k= 'factive'.

Subject Markers: See note 15, p.71-73.

But reflexive forms of the dative auxiliary have also been observed, although rarely, in which a third person singular referent occupies the recipient role, but the subject occupies an agent role which has been in some sense reinforced to signify that the subject himself acts in a way which is particularly right and proper for him. This might be interpreted in terms of a beneficiary role occupied by the subject simultaneously with the agent role to signify that the subject acted for his own benefit. But that misses the sense of the construction. It appears preferable to suggest here and in some other reflexive forms to be discussed the most satisfying interpretation is in terms of a secondary reinforcement of a single role, in this case the agent role, to mean that this agent and no one else acted in a way particularly proper or fitting for him. Compare the English sentences: '*I bought it for myself,*' where the subject acts for his own benefit, and '*I bought it myself,*' where the subject and no other acts.²¹

napput wok-othi. '*my-man's-son move--I-transferred-to-him,*
i.e. *I gave it to my son.*'

napput wok-otyky. '*my-man's-son move--I-transferred-reflexive,*
i.e. *I gave it to my son myself.*'

3.3.2.4.2. The Auxiliary -lat=, -lat= '*incur a process*'

Most transitive major class primary verbs also occur with the auxiliary verb -la=, -lat= (with allomorphs minus the initial l following verbs with final n or l). This auxiliary verb is inflected like the minor class verb a=, at= '*become*', which it resembles both in form and in meaning. The auxiliary -la=, -lat= specifies that the subject as patient incurs the full process referred to in the preceding verb stem and as a result is changed in state. There is no implication or specification of agency in this construction, however, although indeed the event in the real world may have resulted from an agent's act. Indeed, no agent role may occur except in the rather rare reflexive forms, where the subject may occupy both patient and agent roles. The resultant meaning of this construction is thus different from English passive constructions, which do imply agency, and resembles middle voice constructions in many languages.²²

These facts have as corollaries two restrictions on the occurrence of this auxiliary. The subject of a construction of a verb stem with this auxiliary occupies simply the patient role. But most verbs without auxiliaries do not occur with personal occupants of the patient role; rather, most major class verbs occur with a personal object of marked person and/or number category occupying a patient role only in construction with the generalised personal objective auxiliary -ap=.

Where no auxiliary is present, only the verb *wat=* 'hit, kill', of major class verbs, occurs with personal objects occupying simply a patient role. So also, of major class verbs, only the verb *wat=* has been recorded with personal subjects in the construction including the auxiliary *-la=*, *-lat=*. With other major class verbs, only non-personal subjects occur in this construction. Second, the verb *wat=*, which elsewhere occurs in the senses 'hit, kill', occurs in this construction only in senses related to 'kill', involving the completed process. There are other major class verbs with similar varieties of senses; the verb *hetak=* occurs in the senses 'hunt for' and 'find', and only the latter sense occurs in the construction with *-la=*, *-lat=*.²³

wa'-laky. 'I died (as said by a ghost, or, in a weakened sense, of fainting).'

wa'-laka. 'He, she, it (of an animal) died,' or 'It got firmly inserted (of a stopper).'

pal-aka. 'It got cut off.'

hene'-laka. 'It got pulled out (*henet=*).'

wo'-laka. 'It got moved,' or 'It got dug (of a garden).'

There are problems in the English glosses of these examples. English has no simple term bridging the senses 'kill' and 'die'; either one needs to gloss 'kill' as 'cause to die', or preferably, as 'end life', which in most verb forms occurs in an unmarked active sense, but in the construction with the auxiliary *-la=*, *-lat=* occurs in a marked sense meaning 'enter the state of ended life'. Further the English glosses including 'got' have more implication of agency than the Dani forms. The form *pal-aka* may refer to the result of an agent's effort or to the result of an inherent process of rotting or weakening; it simply states that the subject incurred the process of severing to the point of becoming severed.

The auxiliary *-la=*, *-lat=* 'incur a process', also occurs with a few secondary verb stems of body position, and with these secondary verbs the subject occupies the roles of 'patient' and 'agent':

hv'-laka. 'He sat down.'

men-aka. 'He stood up.'

wein-aka. 'He lay down.'

This auxiliary also occurs contrastively inflected for reflexive voice. In some cases the reflexive forms signal that the subject occupies an agent role as well as the patient role:

wo'lakheikhe. 'He left,' or 'He cleared out.'

The second gloss deliberately attempts to capture the connotation of sarcasm or irony which often occurs. In many cases the reflexive forms occur in ironic or abusive speech. In these forms the subject appears often not to occupy an agent role simultaneously with the patient role,

to indicate that he acted to incur the process specified, but rather to occupy a reinforced patient role, analogous to the reinforced agent role suggested for some reflexive forms of the dative auxiliary *-et=*. The resultant meaning is that the subject has undergone or incurred the process inexplicably and often finally, often with the exclusion of the possibility of agency. While the non-reflexive forms of the auxiliary *-la=*, *-lat=* do not imply or specify agency, they do not exclude the possibility. In many cases, the reflexive forms of this auxiliary appear to exclude that possibility:

wa'-laka. '*end-life--he-incurred, i.e. He died.*'

wa'-lakheikhe. '*end-life--he-incurred-reflexive, i.e. He up and died (inexplicitly).*'

This example was extracted from a text about a pig that unexpectedly and inexplicably died. Imperative forms of this construction frequently occur in abusive speech:

wa'-lakhan. '*Drop dead!*'

wo'-lakhan. '*Clear out!*'

The second example occurs in a speech of a headman ordering his younger half-brother to leave his village and garden area not just momentarily but finally.

3.3.3. Case Relationships: Major Class Intransitive Verbs

There are major class process verbs which occur both transitively and intransitively, and others which occur only intransitively, besides a very large number which occur only transitively. Of about 250 major class process verb roots, thirty have been observed to occur both transitively and intransitively, and six to occur only intransitively. The intransitive major class process verbs, and the intransitive senses of major class process verbs which also occur transitively share the identifying characteristics of the major class of process verbs as a whole: (1) Phonologically, these roots end in consonants. (2) These verbs refer to a process, that is an event that changes the state of a patient. (3) These verbs occur inflected in past participle and manner participle forms. (4) Most of these verbs occur with the auxiliary *-la=*, *-lat=* '*incur a process*'.

Like constructions with the auxiliary *-la=*, *-lat=*, the intransitive process verbs in many cases occur only with non-personal subjects occupying a patient role:

o palhe. '*weather it-severed, i.e. The weather cleared.*'

Compare:

hele palhe. '*tying-vine he-severed-it, i.e. He cut the tying vine.*'

In this transitive use, the subject occupies an agent role, the object a patient role.

hele pal-aka. '*tying-vine severed-it-became*, i.e. *The tying vine became severed.*'

o pal-aka. '*weather severed-it-became*, i.e. *The weather cleared.*'

In both of the last two examples, the subject occupies a patient role.

It is not clear what semantic contrast, if any, there is between the last example and the first example, with the intransitive verb. Other examples of major class verbs also occurring transitively but occurring intransitively with non-personal subjects are:

ekken lolhe. '*fruit it-fell-off*, i.e. *The fruit fell off,*' or '*fruit he-picked-it*, i.e. *He picked the fruit.*'

ekken lolek. '*fruit fallen*, i.e. *windfalls*', or '*fruit picked*, i.e. *picked fruit.*'

o healhe. '*weather it-brightened*, i.e. *The day dawned.*'

ekka healhe. '*leaves he-exposed-to-light*, i.e. *He spread the leaves out for exposure to light.*'

ohealek '*tomorrow* (idiomatically fused form).'

There are other major class process verbs which occur only intransitively with subjects occupying a patient role:

inepe hytha. '*their-selves they-swelled*, i.e. *They filled out.*'

oumo hythe. '*his-sore it-swelled*, i.e. *His sore swelled.*'

oumo hytyk '*his-sore swollen*, i.e. *his swollen sore.*'

Other examples occur only with non-personal subjects:

ekka hiselhe. '*leaf it-got-dark*, i.e. *The leaves turned dark (green).*'

ekka hiselek '*leaf darkened*, i.e. *dark green leaves.*'

ekken hulelhe. '*seed it-sprouted*, i.e. *The seed sprouted.*'

ekken hulelek '*seed sprouted*, i.e. *a sprouted seed.*'

There are other examples of major class verbs occurring intransitively to realise events which are consciously instigated by personal subjects occupying, apparently, both agent and patient roles. These verbs, however, are not marked for reflexive voice:

nattokotha. '*they-gathered* (intransitively), i.e. *They gathered together*' or '*they-gathered-it* (transitively), i.e. *They gathered it up.*'

nattokotek '*gathered* (either of collected things or of assembled people).'

ettenhe. '*he-turned-around* (intransitively), i.e. *He turned around,*' or '*he-turned-it-over* (transitively), i.e. *He turned it over.*'

ettenek '*turned* (either of things that have been turned over or people who have turned around).'

The two intransitive finite verbs in the last four examples are interpreted to have personal subjects occupying both agent and patient roles: the transitive senses of these verbs have personal subjects occupying only an agent role. There are several other examples, all of them semantically grouped with one or the other of the two verbs in the last four examples: (1) verbs referring to gathering and scattering where each participant moves himself but the status of the group is changed; and (2) verbs referring to changes of location or position of one or more participants in relation to a preceding position or the position or location of another or others in the group, apart from deictic and geographic orientation. Examples of the first category are:

nattokot= 'gather'; tekel= 'gather'; hoil= 'mass together';
hvnet= 'join together'.

Examples of the second category are:

etten= 'turn around'; sukul= 'turn back'; koil= 'hang on', i.e.
attach oneself to (another person)';
hykyl= 'move out of the way'; kilel= 'fall away, leave'.

The intransitive major class verbs which are interpreted to occur with personal subjects occupying both agent and patient roles are semantically similar to the reflexive forms of other major class verbs; with one possible exception (tekel= in a special sense 'pack up and move'), these verbs have not been observed marked for reflexive voice. Nor have the intransitive major class verbs with non-personal subjects occupying patient roles been observed inflected for reflexive voice in these senses. The shared semantic and distributional characteristics of these verbs make them a significant sub-class of major class process verbs.

There is one major class process verb in the present lexicon which occurs only in marked reflexive voice forms, with personal subjects occupying a patient role:

kytymtyky. 'I got superficially scratched.'
kytymetek 'superficially scratched'.

Thus this verb, although a major class intransitive verb, differs in important ways from the other major class intransitive verbs.

3.3.4. Case and Role Categories Marked in Minor Class Verbs

Minor class verbs were provisionally characterised in Chapter 2 as having vowel-final roots, in contrast with major class verbs, which have consonant-final roots. This phonological contrast is not perfectly correlated with the more important semantic and syntactic criteria, however. Minor class verbs, insofar as they realise events, realise

events which do not include the semantic component 'process' referring to an event directed toward a change of state in the patient. Minor class verbs do not occur with any of the inner layer auxiliary verbs, i.e. with neither the object-role-marking auxiliaries nor the auxiliary -la=, -lat= 'incur a process'. Nor do minor class verbs occur inflected in the past participle =ek or the manner participle =oko forms in senses referring to changed states or processes affecting patients.

When attention is turned to positive properties shared by minor class verbs, the formal fact that almost all of these verbs have vowel-final roots means that they resemble the reflexive forms of major class verbs. In discussing reflexive forms of major class verbs this resemblance was noted from the other direction when it was stated that reflexive forms are inflected like the minor class verb ha= 'perceive'. But minor class verbs also appear to resemble reflexive voice forms semantically in that the subject of these verbs appears very often to occupy some additional role besides agent.

It appears useful to recognise at least one minor class verb as realising not events but semantic properties of events elsewhere realised with no verb and, on the surface, as a carrier of inflectional endings. This verb is wela=, lokoi= 'continue', which also occurs as an auxiliary.

3.3.4.1. *Minor Class Verbs of Directional Motion*

There is a finite set of twelve minor class verbs realising events referring to the movement of a participant through space in a single direction defined in terms of deictic and in ten cases also geographic orientation. There are two verbs of simple deictic motion:

la= 'go'; laka 'he went';
wa=, wet= 'come'; waka 'he came!.

Besides these there are ten verbs of topographically and deictically oriented motion, including five simple verbs referring to topographically oriented motion which is also deictically oriented as motion away from the speaker and/or addressee:

lakei= 'go up'; lakeikhe. 'He went up.'
pi= 'go down'; pikhe. 'He went down.'
wvlvp= 'go out'; wvlvphe. 'He went out.'
ki= 'go in'; kikhe. 'He went in.'
wutta= 'go across'; wuttikhe. 'He went across.'

These same stems occur with a postposed contracted form derived from wa=, wet= 'come' in periphrastic constructions referring to analogous movements toward the speaker and/or addressee:

lakei-aka. 'He came up.'
 pi-aka. 'He came down.'
 ki-aka. 'He came in.'
 wulupi-aka. 'He came out.'
 wutta-aka. 'He came across.'

The semantics of deictic and geographic orientation in this set of verbs will be further discussed in Chapter 4.

The verbs of directional motion exhibit no contrast between reflexive and non-reflexive voice, but it is attractive to consider them implicitly reflexive. The subject of these verbs occupies an obligatory patient role and usually also an optional agent rôle referring to the initiator of the movement. Where both roles are interpreted to occur, the occupant or occupants must be identical:

pikhe. 'He went down' (with the subject occupying agent and patient roles) or 'He fell down' (with the subject occupying a patient role).

pile pyky. 'I-fall-hypothetical I-descended, i.e. I fell where one is liable to fall' (with the subject occupying only a patient role). The form pile is now 'frozen' as an idiomatic manner adverb, occurring in this form with all person categories.

wasi pyky. 'to-kill-it I-descended, i.e. I went down to kill it.' Here the transitive major class verb stem wasi (wat= 'hit, kill') requires an agent role with the construction, and thus signals the occurrence of the agent role, besides the obligatory patient role with the motion verb.²⁴

Since with verbs of motion there is never an occupant of the patient role that is different from the occupant of the agent role, where that occurs, and the occupant of the patient role is always subject, any independent noun or pronoun referring to the subject is not marked with the clitic -nen 'source', as has already been noted. Rather, this clitic occurs with locative terms to mark 'place from which', as other relators occur to mark a locative relationship which with motion verbs signals 'place to which'. These have been treated earlier in this chapter.

The directional motion verbs are involved in important restrictions on the sequence of verbs; these restrictions classify these verbs into a set which contrasts with all other verbs. These matters will be further treated in Chapter 5.

3.3.4.1.1. The Verb of Consumption: nek=, na= 'eat, consume'

The verb nek=, na= refers to eating food, drinking liquids, smoking tobacco, and to the consumption of combustibles by fire. It is uniquely

inflected in factive categories as the only verb in the language with a root-final consonant *k* which is a reflex of proto-Dani */g/. This verb, like the directional motion verbs, is not inflected to contrast reflexive and non-reflexive voices. There is an obligatory patient role occurring with this verb, but this role is never overtly marked in affixes to the verb, even with reference to cannibalistic eating of human patients. The role is rather implicit in the stem of the verb and may also, of course, be occupied by independent nouns. The verb is thus clearly transitive, and the subject occupies the agent role. Any independent noun or pronoun referring to the subject may be marked by the clitic *-nen* 'source'. It is useful to treat *hettouk* 'fire', when it occurs as subject of this verb, as also occupying the agent role. However, as a minor class verb, this verb is quite different from major class process verbs. The patient is not 'processed' but rather consumed. Past participles, manner participles and constructions with *la=*, *-lat=* 'incur a process' do not (with one problematical exception) occur with this verb.²⁵ Further, the fact that this verb, as a minor class verb, does not occur with any of the object-role-marking auxiliaries, makes it an interesting hypothesis to suggest that this also is an implicitly reflexive verb, and that the subject occupies a beneficiary role as well as an agent role.

nikke. 'He ate it' (with the subject occupying the agent and possibly also beneficiary roles, and the unspecified object implicit in the stem occupying the patient role).

at-en nikke. 'him--by he-ate-it, i.e. He ate it' (with the subject, referred to both in the verb suffix *=e* and the independent pronoun *at*, occupying the agent role).

wam nikke. 'pig he-ate-it', i.e. either, and more probably, 'He ate pork', (with the external noun *wam* occupying the patient role) or 'The pig ate it' (with the external noun *wam* and the verb suffix *=e* referring to the subject occupying the agent and possibly also beneficiary roles).

3.3.4.1.2. *The Verb of Believing: akka= 'believe'*

The verb *akka=* 'believe' refers to understanding and believing propositions. Like the verbs of directional motion and the verb *nek=*, *na=* 'consume', this verb is not inflected to contrast reflexive and non-reflexive voices. Most typically it occurs with a preposed clause referring to a proposition or statement which is believed, in a construction which is analogous to quoted clauses with the verb 'say' and other verbs of speaking. The interpretation of roles occurring with this verb is still problematical. Both Chafe (1970b:144f) and Fillmore

in recent writings (e.g. 1970b:116) have used the term 'experiencer' to label the role occupied by the subject of verbs similar to this, including, for Chafe, mental states like 'know' and 'like', mental processes like 'see' and 'learn', and derivative mental actions like 'teach' and 'remind' (1970b:144-146). Dani surface structure clearly distinguishes four types of 'mental activity'. Mental states are realised as special possessed nouns functioning as sentence nuclei; these include *nelu* 'my knowledge', *nokkot* 'my ignorance', *na'mouk* 'my affection', *namolo* 'my liking', *na'yt* 'my dislike' and *najvk* 'my fear'. There are other verbs of mental activity, like *epet* = 'think, remember, figure out', which are major class process verbs. There are also several secondary verbs of mental activity, including *hut-ha* = 'recognise, get the point', *mot-ha* = 'not recognise, not get the point'. And there are at least two verbs of mental activity, *ha* = 'perceive' and *akka* = 'believe' which are minor class verbs.

Indeed it is the point of analysis of roles to recognise similar semantic relationships signalled by diverse surface structures, but it appears that in these cases it may be presumptuous to settle quickly for a role labelled 'experiencer' to handle all four types. There are several threads of Dani evidence that make it a tempting, if hesitant and tentative, analysis of the roles occupied by the subject of *akka* = 'believe' to suggest that these are the roles 'agent' and 'patient'. First, like other minor class verbs, this verb formally resembles reflexive voice forms of major class verbs in its pattern of inflection, and most such forms signal that the subject occupies an agent role and some oblique role. Second, the subject does not occur marked with the clitic *-nen* in the filed corpus, and this construction seems unnatural, so that the subject is not treated like the subject of a transitive verb with a separate patient. Third, this verb occurs in imperative forms which are exhortations and commands, not just imprecations. Verbs that occur with subjects occupying only a patient role have not been observed to occur with imperative forms which are exhortations and commands.

Two other roles occurring with the verb *akka* = 'believe' need to be noted. Very frequently the obligatorily possessed noun *a'la* 'his inner self' occurs preceding this verb to specify the psychological faculty involved in the event. It is perhaps useful to identify this role with the role 'instrument' also occurring with reference to instruments external to the agent, although such external instruments are commonly marked with post-clitics, particularly *-opa*, *-pa* 'locative' and *-nen* 'source', while *a'la* is not so marked in this construction.

Further this verb occurs typically with a preposed clause referring

to a proposition or statement which is believed. The construction parallels the construction of the verb 'say' with quotative clauses. In the case of the verb akka= 'believe', what is believed seems clearly not to be a patient; this is no entity which is processed, moved or otherwise affected. Rather it is suggested that the 'believer' is a patient, as well as an agent, and what is believed is an integral and inseparable part of the very event of 'believing'. This kind of element has been called 'complement' by Chafe, in that the occupant of this role "completes the meaning of the verb" in the fashion observed in 'sing a song' (1970b:156-8); Fillmore had earlier used the more obscure term 'factitive' for this relationship (1968a:25). It is here suggested that the traditional grammatical term 'cognate' may be more suitable and more specific for this relationship, although it must be re-defined in terms of meaning rather than form, so that 'fight a war', 'believe a proposition' and 'say a statement' are all examples of the relationship:

... ninappe-li-ak okote'ma ylvk na'la akkykhy-laky. 'our-mouths--
 lying we-normally-say-setting having-said my-inner-self believing--
 I-am..., i.e. I am believing that we lie (about that matter)' or
 'I am becoming convinced that we lie (about that matter).'

In this example, according to the hesitant, tentative role analysis suggested above, the speaker occupies the agent, and patient roles with the final verb; the term na'la 'my inner self' occupies the instrument role, and the clause concluding with the quotative form ylvk 'having said' occupies the cognate role.

The function of 'believe' and 'say' in parallel ways to refer to the speaker's involvement in narrated events will be further treated in Chapter 6.

3.3.4.2. Minor Class Verbs with Contrastive Reflexive Voice Forms

The remaining minor class verbs which realise events exhibit marked contrast of reflexive versus non-reflexive voice. This may be evidence that these verbs cannot be interpreted as implicitly reflexive. However, it is also possible to treat this contrast as in some sense secondary like the occurrence of reflexive forms of the dative auxiliary -et= described earlier in this chapter. In these minor class verbs, as well as those described above, there appears to be implicit the same kind of restricted range of personal reference which constitutes the main meaning of 'reflexive', and marked reflexive voice appears to add a further semantic specification.

3.3.4.2.1. *The Verb of Poly-directional Motion: nei= 'move about'*

The verb *nei= 'move about'* implicitly refers to multiple events and as a consequence is defective in its inflection, occurring only in such categories as normally refer to multiple events. It has not been observed in simple imperative or future forms, only in progressive aspect periphrastic constructions. It has not been observed alone in simple factive form, but is observed in normal action forms and the 'abnormal-continual =ho' aspect, as well as in progressive action constructions. It also occurs as the initial member of a derivational paired verb construction with the second member *wei=*, otherwise non-occurring, and this construction, which refers to multiple events by its derivation, has been observed in simple factive categories. In non-reflexive voice this verb is inflected like *hei= 'put'*, but in reflexive voice occurs with the stem *neikh=*, with *k* and *h* added to the vowel final root as described for reflexives, rather than with a form analogous to the irregular reflexive forms of *hei= 'put'*.

This verb has not been recorded with reference to involuntary movement, so that the subject appears to occupy obligatorily the roles 'agent' and 'patient', as suggested for the directional motion verbs when referring to voluntary movement. In the reflexive voice forms, the subject may be considered to occupy a reinforced agent role as well as the patient role.²⁶ In the observed examples there appears to be a connotation of extra effort and intensity expended by the subject, and this sense may perhaps best be captured by positing a reinforced agent role analogous to that suggested for reflexive forms of the dative auxiliary *-et=*. The resultant sense here is that the subject himself moves about with intensity, with the component of intensity signalled both by the frequently observed paired stem and the reflexive form:

kwe nekatek. 'path they-normally-move, i.e. They travel around.'

kwe nikho. 'path subject-abnormally-continues-moving, i.e. He's travelling around (e.g. after a period at home), or He's up and around (after a period of illness), or He's walking (after learning to walk).'

nyky wyky. I-moved-around (with paired echo verb signalling intensity), i.e. I went all over.'

*neikhyky weikhyky. 'I-moved-around-reflexive (with paired echo verb signalling intensity), i.e. I myself travelled all over.'*²⁷

3.3.4.2.2. *The Verb of Speech: i= 'say'*

The verb *i= 'say it, speak'* occurs inflected in the pattern displayed in the appendix. The subject of this verb appears to occupy the role

'agent', at least, and any independent noun or pronoun referring to the subject is frequently marked with the post-clitic *-nen* 'source', like the subject of other transitive verbs. This verb is typically preceded by a noun like *wene* 'message' or *ane* 'his voice', or by a quotative clause; these elements are here interpreted to occupy a cognate role analogous to that proposed for the verb *akka* = 'believe'. What is said is an implicit and inseparable part of the event of speaking. This verb also occurs, although rarely, inflected for marked reflexive voice. The reflexive forms do not refer to talking to oneself, but rather occur with a sarcastic connotation which may be attributed to the occurrence of a reinforced agent role occupied by the subject, analogous to that suggested for the reflexive forms of the dative auxiliary *-et* =. The resultant sense is that the subject said it himself, often with a connotation of finality. If the verb *i* =, like other minor class verbs, is considered to be in some sense implicitly reflexive in all forms, it may be suggested hesitantly that the subject of all forms occupies a beneficiary role as well as an agent or reinforced agent role, to indicate that speaking is always an event in the speaker's own sphere of concern as a producer of speech, as eating is an event in the speaker's sphere of concern as a consumer of food. An alternative interpretation would be to suggest that the subject occupies both an agent role and a source role similar to that occupied with spatial terms referring to 'place from which'.²⁸

wene ikhe. 'message he-said-it, i.e. He told the news', (where *wene* is interpreted to occupy a cognate role, the subject to occupy an agent role and, according to the interpretation adopted above, also a beneficiary role).

ane ikhikhe. 'his-voice he-said-it-reflexive, i.e. He spoke on his own, "He spoke his piece", (where *ane* is interpreted to occupy a cognate role, and the third person singular subject marked in the verbal suffix *=he* to occupy the agent role, reinforced in the reflexive form, and the beneficiary role as explained above).

What may be interpreted to be this verb *i* = 'say' also occurs as part of several noun-verb phrase units which are in effect idiomatic verbs in which the verb element acts as the carrier of inflectional endings. In these cases the meaning 'say' is no longer present in any literal sense, and the roles associated with these idiomatic verb units are in some cases different from those associated with the verb *i* = meaning 'say'. With the nouns *we* 'dawn' and *hi* 'dusk', which only occur in these phrases, the verb *i* = does not occur with contrastive reflexive forms, and it appears that the noun *o* 'weather', which commonly precedes these units, occupies a patient role. With the nouns *noke*, *noko* 'sleep'

and kamo 'desisting' all forms of the verb, including marked reflexive forms, occur. In these latter cases, any independent noun or pronoun referring to the subject is not marked with -nen 'source', and it appears useful to suggest that the subject occupies agent and patient roles in the non-reflexive (i.e. implicitly reflexive) forms, and a reinforced agent role as well as a patient role in the reflexive forms:

- o we ikhe. 'weather dawn it-"said", i.e. *It dawned*,' (where the subject, o 'weather', is interpreted to occupy a patient role).
- noko ikhe. 'sleep he-"said", i.e. *He slept*,' (where the subject is interpreted to occupy agent and patient roles).
- noko ikhikhe. 'sleep he-said-reflexive, i.e. *He went off to sleep himself*,' (where the subject is interpreted to occupy a reinforced agent role and patient role.)

This verb also occurs as an auxiliary, as will be noted, with a large class of secondary verb stems.

3.3.4.2.3. *The Verb of Inceptive Possession: a=, at= 'acquire'*

The verb a=, at= 'acquire', is inflected in the pattern displayed in the appendix, with the root allomorph a= occurring in most factive categories, and the root allomorph at= occurring in most potential and hypothetical categories. The subject of this verb appears to occupy a role which may be identified with the recipient role which also occurs with the dative auxiliary -et=; in some examples the subject appears also to occupy an agent role simultaneously with the dative recipient role. This verb also occurs with marked reflexive voice forms, and the subject of these forms may be interpreted to occupy a reinforced agent role as well as the recipient role. In one example in the field corpus, the subject of a reflexive form of this verb occurs marked with the post-clitic -nen 'source'. The item or person possessed may be considered to occupy a patient role:

- at wam aka. 'he pig he-acquired, i.e. *He acquired a pig* (by some choice or act), or *He got a pig* (by no act of his own),' (where wam 'pig' is interpreted to occupy a patient role, and the subject is interpreted to occupy, in one sense, only a recipient role and in the other sense agent and recipient roles).
- at-en wam akheikhe. 'he--by pig he-acquired-reflexive, i.e. *He took the pig for himself*,' (where the subject is interpreted to occupy a reinforced agent role and a recipient role, and wam 'pig' to occupy a patient role).

3.3.4.2.4. *The Verb of Perception: ha= 'see, perceive'*

This verb and the related locative auxiliary -ha= have been introduced already in the discussion of markers of personal objects. The roles occupied by the objects of this verb and the related auxiliary were suggested to be the 'target' and 'locus' sub-senses of the locative role in most cases. The primary verb ha= 'see', as a minor class verb of mental activity, appears to be similar to the verb akka= 'understand' in terms of the roles occupied by the subject. It was hesitantly suggested for the latter verb that the subject occupies the familiar agent and patient roles simultaneously, rather than the 'experiencer' role proposed by Fillmore and Chafe. The evidence cited there is relevant to this case also: the reflexive-like pattern of inflection suggests that the subject occupies an agent role plus some oblique role, and the apparent infrequency or awkwardness of the marker -nen with the independent pronoun or noun referring to the subject suggests that the subject occupies both agent and patient roles. However the verb ha= 'perceive' and the related locative auxiliary, unlike the verb akka= 'understand', also occur in forms contrastively marked for reflexive voice. It is suggested that the subject of these reflexive forms occupies a reinforced agent role as well as a patient role, to indicate that the subject saw something himself.

Very frequently the obligatorily possessed noun eil-ekken 'his eye' occurs occupying an instrument role preceding the primary verb ha= 'perceive' or the related auxiliary where it has the sense 'see':

an neil-ekken hyky. 'I my-eye--seed (= 'my eye') I-saw-it, i.e. I saw it'; where neil-ekken occupies an instrument role, the unspecified object implicit in the stem occupies a target role, and the subject, referred to in the independent pronoun an and the verbal suffix =y, occupies, according to the interpretation above, agent and patient roles.

an neil-ekken hakhyky. 'I my-eye--seed (= 'my eye') I-saw-it-reflexive, i.e. I saw it myself,' (where the roles are as in the previous example except that the agent role is reinforced; this reflexive form is rare).

In constructions where the locative auxiliary -ha= occurs in senses other than 'see', the roles occurring are distinct from those occurring with ha= 'perceive' and are determined by the verb as a unit including the auxiliary. In all such cases, the subject appears to occupy the agent role, but in only a very few cases does it also occupy the patient role:

seke tumut-han. '*spear thrust--do-it-on-him/it*, i.e. *Thrust the spear at him*, or *Thrust the (garden) spade (into the ground)*,' (where seke '*spear*' occupies an instrument role, the unspecified object implicit in the auxiliary stem occupies a target role, and the subject marked in the verbal suffix -n second person singular, occupies an agent role).

hykyl-han. '*remove--do-it-on-him*, i.e. *Get out of the (his) way*, *Move over*', (where there is an unspecified object implicit in the stem occupying the locus role, and the subject, marked in the verbal suffix -n second person singular, occupies the agent and patient roles).

3.3.4.2.5. *The Verb of Deposition: hei= 'put'*

The verb hei= '*put*' and its related depositional auxiliary -hei= have been introduced in the discussion of markers of personal objects. In that discussion the roles occupied by the objects of this verb and the related auxiliary were suggested to be in most cases the roles '*patient*' and '*beneficiary*'. Clearly the subject occupies at least the agent role, and a noun or pronoun referring to the subject is very frequently marked by the post-clitic -nen '*source*'. This verb, like other minor class verbs, resembles the reflexive forms of major class verbs in its pattern of inflection and is interpreted to be in some sense implicitly reflexive. It is suggested here that the subject occupies agent and beneficiary roles simultaneously when there is no separate occupant of the beneficiary role. However, this verb and the related auxiliary occur contrastively inflected for reflexive voice, and it is attractive to suggest that the subject of reflexive forms occupies simultaneously the agent role and, in this case, a reinforced beneficiary role, analogous to the reinforced agent role suggested for some examples of the reflexive forms of the dative auxiliary -et=, and the reinforced patient role suggested for the reflexive forms of the auxiliary -la=, -lat= '*incur a process*'. This interpretation is suggested by such examples as the following:

hat hakeikhe-a? ekkakatek hakheikhe-a. '*you he-put-for-you--query himself he-put-reflexive--query*, i.e. *Did he save it for you or did he keep it for himself?*' (where the subject of the final reflexive verb is interpreted to occupy agent and reinforced beneficiary roles; the subject of the first verb occupies the agent role and the personal object referred to in the independent pronoun hat '*you(sg)*' and the verbal affix =ak= occupies the beneficiary role).

3.3.4.3. Some Problem Verbs

As noted above, the criteria for distinguishing major and minor class verbs are multiple, and as is usually the case with classes determined by more than one criterion, the classes defined by the various criteria are not exactly the same. Like maps of dialects bounded by isoglosses, the major distinctions are clear, but there are border areas where classification is more problematic. Two examples of a half dozen observed cases will be treated:

3.3.4.3.1. The Verb of Vigorous Reciprocal Action: jap= 'fight'

The verb jap= 'fight' has some characteristics of major class verbs, in that, phonologically, it has a consonant-final root and the manner participle form japoko has been recorded. However, no past participle form has been recorded, and the verb does not occur with the auxiliary -la=, -lat= 'incur a process' nor with any of the other inner layer auxiliary verbs. The event referred to in this verb is not treated, thus, as a process. It is rather a reciprocal event, and the specific kind of event is specified in a preposed noun which occupies what may be labelled a cognate role, analogous to the role occupied by 'song' in 'sing a song':

weim japha. 'war they-fought, i.e. They fought a war, battle.'

wene japha. 'talk they-fought, i.e. They argued.'

a japha. 'intercourse they "fought", i.e. They copulated.'

jele japha. 'play-fight they fought, i.e. They played war.'

This verb has been observed in marked reflexive forms, but only rarely:

naeim jakhyky. 'my-battle I-fought-reflexive, i.e. I fought my own war (the one for which I was ceremonially responsible).'

Here it appears that the subject occupies agent and beneficiary roles. Elsewhere, in non-reflexive forms, it is to be noted that the verb is normally implicitly reciprocal and commonly occurs with a plural subject, so that the subject realises both agent and, in a somewhat special sense, patient roles:

weim japha. 'war they-fought, i.e. They fought a battle (with each other),' (where the subject may be interpreted to occupy agent and patient roles).

This verb shares more characteristics with minor class than major class verbs, and may be considered a borderline minor class verb.

3.3.4.3.2. The Verb of Hearing: hol= 'hear'

The verb hol= 'hear' exhibits some characteristics of major class verbs, in that it has a consonant-final root and is inflected for what are, in form, past and manner participles, holek and holoko. It does

not occur with the inner layer auxiliary verbs, however, and the participles do not occur with reference to process:

at ane holek. 'he his-talk heard/obeyed, i.e. (Someone or some persons) listen to his words (and obey them), or His words are obeyed (by someone or some persons),' where the participle has an implicit subject, unlike past participles of most major class verbs.

holoko lokokin. 'hearing/obeying singular-subject-will-continue, i.e. (Singular subject) will keep on listening, or obeying.'

Manner participles of transitive major class verbs do not occur in this construction. In most examples, the subject of this verb appears to occupy an agent role and also, in some sense, a patient role, in the way those roles are interpreted to occur with the verb ha= 'see', also. What is heard is here interpreted to occupy a cognate role. The verb is thus interpreted to be a minor class verb.

3.3.4.3.3. The Verb of Progressive Aspect: wela=, lokoi= 'continue'

The minor class verbs described thus far include verbs which occur as primary verbs to realise events and also occur as auxiliary verbs to realise grammatical categories related to events referred to in other verbs. There remains for consideration one verb which realises grammatical categories related to events or propositions which are elsewhere referred to in clauses without verbs.

The verb of progressive aspect: wela=, lokoi= 'continue' is unique in several respects. The gloss 'continue' suggests that the meaning of this verb is similar to the grammatical category 'progressive aspect'. Indeed, 'progressive aspect' may be considered to be an extension of the meaning of this verb and to be signalled by an auxiliary identical to or in some forms contracted from forms of this verb. Only this verb, of all primary verbs, does not occur with periphrastic progressive aspect forms, since it implicitly includes this category in its meaning and is itself the marker of the category. Sample forms of this verb have already been displayed in Table 3, p.62, besides the simple factive forms of the verb la= 'go' and the present past progressive aspect forms of the verb wat= 'hit, kill'. The forms of la= 'go', like most factive forms, have as their commonest time reference the recent past, although like other motion verbs, these forms also refer to motion begun and in progress. The analogous forms of wela=, lokoi= 'continue', in contrast, have as their commonest time reference the present, although they may refer to any span of time in the past that continues to and includes the present. Note that the third person forms both of the verb wela=, lokoi= 'continue' and of the auxiliary occurring in the present progressive forms of wat= 'hit, kill', are irregular when they are compared

with the analogous forms of *la= 'go'*, and that the forms resembling the analogous forms of *la=* occur only with unambiguous past time reference.

Further, it is to be noted that the verb *wela=, loko= 'continue'* occurs as a primary verb most often, although not always, in clauses which also occur with no verb:

an joma. '*I here, i.e. I am here, I'll stay here.*'

an joma welaky. '*I here I-continue, i.e. I am here, or, I am staying here,*' or '*I was here, or I was staying here.*'

an hano. '*I good, i.e. I'm all right, I'm good.*'

an hano welaky. '*I good I-continue, i.e. I am all right (not just at the present moment).*'

Where no other predication is made than existence or presence this verb is required, however:

an welaky. '*I I-continue*' or welaky. '*I-continue*', i.e. '*I'm present*' or '*I'm still alive*'.

wam wetek. '*pig it-continues, i.e. There is a pig, or There is some pork.*'

In view of these facts, this verb is here interpreted to occur as a primary verb in one sense meaning '*be present*' and in another related sense meaning '*continue to be in the state specified by the preceding term*'. This second sense is in fact the progressive aspect category, here seen to be a category occurring in equational clauses as well as with verbs.

This verb does not occur inflected for reflexive voice, nor does it occur with any auxiliary verb. The subject of this verb is here considered to occupy the role '*patient*' to mean that the occupant of the role is in the state or location specified by the preceding term. This is simply an extension of the meaning of the patient role from those cases where it refers to the participant who undergoes a change of state or location to cases where it refers to the participant who is in a specified state or condition.²⁹ There are also examples where the subject is the instigator of the event, and may be considered to occupy agent and patient roles simultaneously:

o hano lokokin. '*weather good singular-subject-will-continue, i.e. The weather will stay good,*' (where the subject, o '*weather*' is considered to occupy simply the patient role.

an joma lokokin. '*I here singular-subject-will-continue, i.e. I will stay here,*' (where the subject is instigator of the "*staying*" and is considered to occupy the agent role as well as the patient role.

3.3.4.3.4. *The Auxiliary Verb of Progressive Aspect: -wela=, -la=, -loko= 'continue'.*

The outer layer auxiliary specifying progressive aspect is in all forms except the past and present progressive forms homophonous with the verb *wela=, loko= 'continue'* as described above. What are here interpreted to be contracted forms derived from that verb are employed in the past (including the remote past) and present progressive forms. Forms of this auxiliary and the analogous forms of the primary verb meaning *'continue'* are displayed in Table 12. This auxiliary, as the outer layer or final verb element in a verb which includes it, carries the inflectional affixes specifying mode (but not voice) and subject person and number. However the roles occurring with the verb are determined by the preceding verb stem and inner layer auxiliary, if any.

3.3.5. Case Relationships Marked in Verbs: Verbalised Stems
(and Mental State Terms)

3.3.5.1. *The Auxiliary -a=, -at= 'become'*

The auxiliary verb *-a=, -at= 'become'* is homophonous with the verb meaning *'acquire'* already described above. This auxiliary occurs post-cliticised to adjectives, nouns referring to achievable status or condition, the negative particle *lek* and certain adjective and noun phrases. The resultant constructions are interpreted to be verbalised stems referring to entering the state described by the preceding element. This meaning is semantically very similar to that signalled by the auxiliary *-la=, -lat= 'incur a process.'* with major class process stems and a few others, and by the auxiliary *-i= 'incur a process'* with secondary verbs of incurred process. The auxiliary *-a=, -at=*, like the minor class primary verb with which it is homophonous, is inflected like the auxiliary *-la=, -lat= 'incur a process.'* The subject of this auxiliary, too, is interpreted to occupy a patient role, and the subject of marked reflexive voice forms is interpreted to occupy a reinforced patient role:

lek-aka. 'not--it-became, i.e. It gave out, or He disappeared,'

(where the unspecified subject is interpreted to occupy a patient role).

kok-aka. 'big--he-became, i.e. He grew large.'

ap-aka. 'man--he-became, i.e. He became a man.'

lek-akheikhe. 'not--it-became-reflexive, i.e. It just gave out

(inexplicably, or finally), or *He disappeared (inexplicably, or finally),'* (where the unspecified subject is interpreted to occupy

a reinforced patient role).

TABLE 12
 A COMPARISON OF SOME FORMS OF THE VERB *wela=*, *loki=* 'continue' WITH
 FORMS OF THE AUXILIARY OF PROGRESSIVE ASPECT

Present/past Progressive: See Table 3, p.62.

Factive with Prior Marker			
welakytyk	'I was staying'	wathy-lakytyk	'I was hitting him'
welakosik	'we were staying'	wathy-lakosik	'we were hitting him'
welakattik	'you(sg) were staying'	wathy-lakattik	'you(sg) were hitting him'
welakasip	'you(pl) were staying'	wathy-lakasip	'you(pl) were hitting him'
welakasik	'he/she/it was staying'	wathy-lakasik	'he/she/it was hitting him'
welakeikhasik	'they were staying'	wathy-lakeikhasik	'they were hitting him'
Future			
lokokin	'(sg subject) will stay'	wathy-lokokin	'(sg subject) will keep hitting him'
lokokun	'(pl subject) will stay'	wathy-lokokun	'(pl subject) will keep hitting him'
Immediate Imperative			
lokeik	'let me stay'	wathy-lokeik	'let me keep hitting him'
lokou, lokouk	'let's stay (now)'	wathy-lokou(k)*	'let's keep hitting him now'
lokoni	'(you sg) stay (now)'	wathy-lokoni	'(you sg) keep hitting him (now)'
lokoinek	'(you pl) stay (now)'	wathy-lokoinek	'(you pl) keep hitting him (now)'
lokoinek	'let him/her/it/them stay (now)'	wathy-lokoinek	'let him/her/it/them keep hitting him (now)'

* Occurs both with and without final k.

With phrases, this auxiliary is cliticised to the last word in the phrase, but the whole phrase becomes, in effect, a secondary verb stem:

hinae lek-hakke nek-akep.... *'your-legs not--sort only--you(pl)-became, i.e. You are all turning out not to have very good walking legs,'* (where -hakke is a constituent with lek, meaning *'rather not'* or *'resembling not'*; this construction is a constituent with hinae *'your legs'*, meaning *'(walking) legs (that are) like no (legs)'*, and the relator nek *'exclusively'* is a constituent with this whole construction; the auxiliary form -akep *'you became'* is in turn a constituent with the whole construction that precedes).³⁰

3.3.5.2. Mental State Terms

Passing reference has been made to the fact that Dani handles psychological events and states in four different ways. There are some psychological events which are referred to in major class verbs, including epet= *'calculate, remember'*. Others are referred to in minor class verbs, including akka= *'believe'* and ha= *'perceive'*. Still others are referred to in secondary verbs, including hvt- which occurs with -ha= to mean *'recognise, get the point'*, and mot-, which occurs with -ha= to mean *'fail to recognise, miss the point'*. But mental states are referred to in a special set of nouns, almost all of them obligatorily possessed, which function as predicates. The possessive prefix, with or without an independent noun or pronoun, refers to the person experiencing the mental state, a patient relationship. The commonest terms are:

- nelu *'my-knowledge, i.e. I know'*;
- nokkot *'my-ignorance, i.e. I don't know'*;
- na'mouk *'my-affection, i.e. I like (a person)'*;
- namolo *'my-large-intestine, extended to my-liking, i.e. I like (a thing or event)'*;
- nettay-kken *'my-heart, extended to my-fondness (for a person)'*;
- walok *(desire, i.e. (someone) likes (thing or event)'*;
- na'yt, napyt *(my-dislike, i.e. I don't like (thing or person), I don't want to (event)'*;
- najvk *'my-fear, i.e. I am afraid of (person, thing, event)'*;
- nekkaly *'my-shame, i.e. I am ashamed or embarrassed.'*

As suggested in the glosses, these terms have implicit present time reference. When reference to another time or some verbal aspect is intended, these nouns occur with inflected verbs, particularly the auxiliary -a=, -at= *'become'* and also the verb wela=, loko= *'continue'*. Frequently the subject of the auxiliary or verb is the patient also referred to in the prefix on the possessed noun, but the noun which

specifies the mental state may also be treated as the subject:

nelu-aky. *'my-knowledge--I-became, i.e. I have come to know.'*

nelu-aka. *'my-knowledge--it-became, i.e. I have come to know.'*

najvk welaky. *'my-fear I-stay, i.e. I am afraid (not just momentarily).'*

najvk wetek. *'my-fear it-is, i.e. I am afraid, I have fear.'*

These terms may occur with reference to a person or thing concerning whom the state is experienced or felt, and that person or thing may be said to occupy a cognate role:

o nokkot. *'village my-ignorance, i.e. I don't know the village.'*

hane najvk. *'your-speech my-fear, i.e. I am afraid of your talk.'*

These terms may also occur with reference to events in terms of the participation of the person occupying the patient role in the mental state terms. The words of knowledge and ignorance occur with the factive gerund, and the other terms occur with the potential gerund, as described in Chapter 2.

hakathv nelu. *'doing-it my-knowledge, i.e. I know how to do it.'*

hakathv nokkot. *'doing-it my-ignorance, i.e. I don't know how to do it.'*

hakasu na'yt. *'do-it my-dislike, i.e. I don't want to do it, or I don't like to do it.'*

hakasu nekkaly. *'do-it my-shame, i.e. I am ashamed (or embarrassed) to do it.'*

3.3.6. Case Relationships Marked in Verbs: Secondary Verbs

Although adjectives and nouns and other forms occurring with the auxiliary *-a=*, *-at=* 'become' are described above as a variety of secondary verb stems, they are really verbalised in those constructions and regularly occur without the auxiliary, which, in effect, is a carrier of inflectional endings in what are elsewhere clauses without surface verbs. There are other stems, including one very large class and a number of smaller classes, which do not commonly occur independently but which do commonly occur with post-cliticised auxiliary verbs. These are the stems which, with the accompanying auxiliaries, comprise the major varieties of secondary verbs.

3.3.6.1. Incurred Process Secondary Verbs

Besides the major class primary verbs there is a very large class of secondary verb roots which refer to processes as incurred and to the resultant states. In terms of the number of roots in the lexicon, this class is indeed observed to be larger than the major class of

primary verbs, but in terms of frequency in text, the number of primary verbs is much larger. The primary verbs also demonstrate more stability in form and meaning as evidenced in comparison of related dialects and languages. It appears that the primary verbs are closer to the heart of the lexicon, and these secondary incurred process verbs are more peripheral, as evidenced in the considerable degree of formal and semantic variation displayed by related dialects. There are sub-classes of these roots in terms of their distribution, but typically these roots occur: (1) as verbs with the auxiliary verb *i=* related to the homophonous verb meaning 'say' signalling that the subject incurs the process specified; (2) as manner adverbs, semantically similar to one sense of the *=oko* manner participles of major class process verbs, with the post-clitic *-hoko*, *-toko*, (the former occurring after consonant-final stems, the latter after vowel-final stems); (3) as adjectives, semantically similar to past participles of major class process verbs, with the post-clitic *-sek*, *-tek* (the former occurring after consonant-final stems, the latter after vowel-final stems) to specify the state resultant from the process. In addition, a number of these roots, along with many adjectives and the negative particle *lek*, occur with a verbalising/transitivising morpheme *(-)Vt=*, followed by the depositional auxiliary *-hei=* or the locative auxiliary *-ha=*. Some of these roots also occur, like some major class process verb roots, as independent words, particularly in sacred incantations and formulas.

3.3.6.2. *Constructions with the Auxiliary Verb i= 'incur a process'*

The auxiliary verb *i=* 'incur a process' is related to and homophonous with the verb *i=* 'say' and occurs with the secondary verb roots of incurred process. The resultant construction refers to incurring the process and coming into the resultant state. This is thus analogous in meaning to the constructions of major class verbs with *la¹*, *lat=* and has a sense comparable to the middle voice of many languages. The subject of the verb thus occupies a patient role and in most cases is a non-personal referent marked in third person singular subject-marking affixes on the auxiliary. There are a few of these roots which, in construction with the auxiliary *-i=* 'incur a state', occur with personal subjects which appear to occupy simultaneously both agent and patient roles:

tip-ikhe. 'abut--it-did, i.e. It abutted,' (where subject occupies the patient role).

sup-ikhe. 'explode--it-did, i.e. It exploded,' (where subject occupies the patient role).

kattok-ikhe. '*stay-put--it-did*, i.e. *It* (e.g. of rain) *stayed put* (and didn't come as expected), or, *He stayed put*,' (where the personal subject appears to occupy both agent and patient roles).

kattok-yky. '*stay-put--I-did*, i.e. *I stayed put*.' (where the subject appears to occupy both agent and patient roles).

A few of these roots which may occur with personal subjects of the verb construction have been observed with reflexive forms of the auxiliary. Here it appears that the subject occupies a reinforced agent role as well as the patient role:³¹

lapo-ikhikhe. '*hide--he-did-reflexive*, i.e. *He hid himself*,' (where the subject is interpreted to occupy a reinforced agent role and the patient role).

3.3.6.3. Constructions with the Manner Clitic -hoko, -toko

The secondary verb roots of incurred process also occur with the clitic -hoko (after consonant-final stems), -toko (realised as -soko after diphthongs with final i, after vowel-final stems) preceding other verbs, both transitives and intransitives, to specify the manner of the event referred to in the verb. Implicitly associated with the root is a patient role, which may be occupied by an unspecified referent identifiable from the context or by an independent noun or pronoun.

tip-hoko hein. '*tightly (abutted)--manner put-it*, i.e. *Place it tightly abutting (on something)*,' (where an unspecified referent in the context occupies the patient role implicit in the root tip-).

tek-hoko laka. '*severed-manner he-went*, i.e. *He left permanently*,' (where the subject of the verb laka occupies the patient role implicit in the root tek-).

In other examples, these forms appear to refer to a process which is a preliminary stage or operation the completion or concluding stage of which is reported in the following verb; this parallels many examples of =oko manner participles of major class verbs:³²

tek-hoko wo'-nethe. '*severed-manner move--he-transferred-to-me*, i.e. *He broke it off and gave it to me*,' (where a referent identifiable from the unquoted context as a piece of pork occupies the patient role implicit in the root tek-).

neppetak opakke tek-hoko ako. '*we-two-together its-main-part severed-manner we-came-into-possession*, i.e. *We broke it in the middle and each took half*,' (where the referent also implicit in the third person singular possessive form of opakke (its main part) also occupies the patient role implicit in the root tek-).

3.3.6.4. *Constructions with the State-Marking Clitic -sek, -tek*

The secondary verb roots of incurred process also occur with the clitic -sek (after consonant-final stems), -tek (after vowel-final stems) to specify the state resultant from the process. The associated noun or pronoun occupies the patient role implicit in the secondary verb root:

- oapvt tip-sek. '*his-disposition abutted, i.e. He is tight.*'
 hele tek-sek. '*tying-material severed, i.e. The tying vine is broken off.*'

3.3.6.5. *Constructions with the Transitivity/Verbalising Morpheme (-)Vt-*

The constructions of secondary verb roots of incurred process with the transitiviser (-)Vt- parallel constructions of adjective roots with this same morpheme as a verbaliser; however, the morphology appears to be more complex in the case of the secondary verb roots, so that they are treated separately here. The transitivising element has several allomorphs.

(a) There is a set of secondary verb roots with final k which occur with root allomorphs minus this k preceding the suffixed allomorph =t- of the transitiviser; in effect, the final k of the root is replaced by t:

- kettek- → kettet-: kettek-hoko '*tightly (of binding)*';
 kettet-han. '*Tighten it.*'
 te'mek- → te'met-: te'mek-hoko '*tightly (of door)*';
 te'met-han. '*Shut it tightly.*'
 myak- → myat-: myak-hoko '*in an opened-out manner*';
 myat-han. '*Open it out (e.g. of sweet potato).*'

(b) Vowel-final secondary verbs occur with a suffixed t in the transitivised stem:

- si- → sit-: si-toko '*folding*'; si-ikhe. '*It folded*';
 sit-han. '*fold it.*'
 soma- → somat-: soma-toko '*bending over*'; soma-ikhe '*He bent over*';
 somat-han. '*Bend it over.*'
 so- → sot-: so-toko '*cooling off*'; so-ikhe. '*It cooled off*';
 sot-han. '*Cool it off.*'

(c) If not members of the set described under (a), secondary verb roots with final k and a diphthong in the final syllable, roots with the vowel e in the final syllable and some roots with other vowels in the final syllable occur with the allomorph =et- of the transitiviser cliticised, or often in rapid speech suffixed to the secondary verb

root. The suffixed forms will be cited:

nakouk- → nakouket-: nakouk-ikhe. '*It went out (of fire).*'

nakouket-hein. '*Put it out.*'

hauk- → hauket-: hauk-hoko '*picking up*'; hauket-hein. '*Pick it up (only in a special idiom).*'

hek- → heket-: hek-ikhe. '*It came to be separated from something slightly.*' heket-han. '*Separate it a little (from something).*'

sykpyk- → sykpyket-: sykpyk-ikhe. '*It became abundant, excessive,*'
sykpyket-hein. '*Make it abundant.*' (This root, a form derived by echo pairing from the simpler root syk, occurs in a neighbouring dialect as seikpeik-, with a diphthong in the final syllable.)

(d) Elsewhere (i.e. consonant final roots not included in the sets described under (a) or (c) above), the secondary verb roots occur with an allomorph of the transitiviser which consists of a vowel of the quality of the final vowel, or the initial vowel phoneme of the final diphthong of the root plus t, and this (-)Vt- unit is post-cliticised, or often in rapid speech suffixed to the root. The suffixed forms will be cited:

sikkip- → sikkipit-: sikkip-hoko '*breaking off*';

sikkipit-han. '*Break it off.*'

hylyng- → hylyngyt-: The simple root is observed only in the form hylynghylyng '*scratching*'. hylyngyt-han. '*Scratch it (pig's back).*'

hyak- → hyakat-: hyak-hoko '*put in the open (e.g. of pigs)*';

hyakat-han. '*Put them (pigs) in the open (as before the feast).*'

kyok- → kyokot-: kyok-hoko '*lit (a torch)*'; kyokot-han. '*Kindle (a torch).*'

houm- → houmot-: houm-ikhe '*It snarled,*' houmo'-neeikhe '*It snarled at me.*'

hvtvk- → hvtvkvt-: hvtvk-hoko '*sinking into the water (of people)*';
hvtvkvt-han. '*Push him down in the water.*'

happuk- → happukut-: happuk-hoko '*calmly*'; happukut-hein '*Calm him, quiet it, steady it,*'

The transitivised stems occur primarily with the locative auxiliary -ha= and the depositional auxiliary -hei=; some of these constructions have been observed to include marked personal objects, but with other secondary verb roots, marked personal objects do not occur. A very few of the roots occur with the personal benefactive auxiliary -ap= with marked personal objects, and a very few others have been observed to occur with the auxiliary -la=, -lat= '*incur a process*', which otherwise occurs with major class verbs. Some roots occur with both

the locative auxiliary -ha= and the depositional auxiliary -hei= with what appears to be semantic contrast:

hesok heket-han. '*your-foot/leg separate-transitive--do-it-on-it*, i.e. *Move your foot away from (the fire)*,' (where the focus is on initiating movement of the object, which is also part of the body).

haly heket-hein. '*firewood separate-transitive--put-it*, i.e. *Move the firewood away from (the fire)*,' (where the focus is on the placing of the firewood as the end of the operation).

But this kind of suggested contrast does not prove to be consistent, and to a large extent it appears that some roots occur with the locative auxiliary -ha= predominantly or exclusively, and a smaller number occur with the depositional auxiliary -hei= predominantly or exclusively, and these facts must be stated in the lexicon:

hu'-neeike '*blow-transitive (+hut)--he-did-on-me*, i.e. *He blew on me (to treat me)*.'

teke'-nakeikhe '*broken-off-transitive--he-put-it-for-me*, i.e. *He broke the firewood in two for me*.'

mymyny'-naphe. '*enticing-away--he-did-to-me-as-person*, i.e. *He enticed me to leave*.' (This root has not been observed as a simple root *mymyn-* in this dialect, but does occur in a neighbouring dialect.)

tilipi'-laka. '*broken-and-separated--transitive--it-became*, i.e. *It broke in two*.' (The root is *tilip-*.)

The last two examples are rare constructions.

A few examples of 'transitivised' secondary verb roots have been observed with intransitive meaning, or, more accurately, reflexive meaning without reflexive form:

he'not-hv. (he'nok- '*stretching legs, standing on tip-toe*') '*Let's hurry up*.'

holomot-ha e'ni. '*gather-transitive--do come(plural)*, *Come gather together*.'

In these last examples the subject of the final verb is interpreted to occupy both agent and patient roles with the transitivised secondary verbs.

3.3.6.6. Secondary Verb Roots as Independent Words

Some of the secondary verb roots of incurred process also occur as independent words, particularly in sacred incantations and formulas. A few major class verb roots also occur thus:

lyok lyok! 'Peace, peace!' This was from a recorded incantation. The root is normally inflected as a secondary verb.
 lyok-eikhe. 'It got peaceful, or He became pleasing.'
 jak jak! 'Plant, plant!' This example is from the incantation to 'plant' the feet of locals securely; the term is the major class verb root jak= 'to plant'.

3.3.6.7. Derivational Relationships between Secondary Verbs of Incurred Process and Major Class Primary Verbs

A great many of the secondary verbs of incurred process appear to be derivationally related to primary verbs, although evidence for the direction of derivation is somewhat tenuous. Particularly, many major class verb stems with final l are related to incurred process stems with final k:

lyolhe. (lyol=) 'He made peace.'
 lyok-eikhe. (lyok-) 'It became peaceful, pleasant.'
 katelhe. (katel=) 'He trimmed the ends.'
 katok-eikhe. (katok-) 'The ends got even.'
 kakalhe. (kakal=) 'He split it.'
 kakouk-ikhe. (kakouk-) 'It split.'

Not all major class primary verbs with roots with final l are related in this way to secondary verbs of incurred process, nor are all secondary verbs of incurred process related in this way to observed primary verbs. When such pairs occur, there appears to be a semantic difference between the secondary verb root and the primary verb root. Most major class primary verbs are implicitly transitive, whereas the secondary verbs of incurred process are implicitly intransitive. Major class verbs occur with the auxiliary -la=, -lat=:

- o kakal-aka. (kakal= + -la=, -lat=) 'wood split--it-became, i.e. The wood split (either as the result of a man's splitting it or from natural causes).'
- o kakouk-ikhe. 'wood split--it-became, i.e. The wood split, (e.g. as it dried in the sun).'
- o kakal-akheikhe. (kakal= + -la= reflexive) 'The wood split (inexplicably or finally).'

There are also a number of major class primary verbs which appear to have been derived from transitivised secondary verbs:

tekethe. (teket=) 'He severed it, broke it off.'
 tek-ikhe. (tek-) 'It broke off.'
 teket-heikhe. (tek- + =Vt- transitive) 'He broke it off.'

A number of observed major class primary verbs similarly appear to have been derived from transitivised secondary verbs, but the secondary verbs

no longer occur or are not current in this dialect:

makathe. (makat=) 'He dallied, took excessive time.'

nattokotha. (nattokot=) 'They gathered together, or They gathered it up.'

3.3.6.8. Secondary Verb Stems Derived from Adjectives and other Stems

A number of adjectives and some other roots, including the negative particle lek, occur with the verbalising/transitivising morpheme =vt- as transitivised secondary verb stems. The construction is thus parallel to what was described for secondary verbs of incurred process occurring with this morpheme, but there are several apparent differences in detail. Morphologically, no adjectives have been observed with stem allomorphs in this construction, and a more restricted set of allomorphs of the transitivising morpheme has been observed:

(a) With vowel-final roots, the allomorph =t- is suffixed to the root:

hano 'good' → hanot-: hanot-heikhe. 'He made it good, fixed it.'

lvkvlvky 'crazy' → lvkvlvkyt-: lvkvlvky'-naphe. 'He made a fool of me.'

(b) With roots with final k, the allomorphs symbolised =vt- occur cliticised or suffixed to the root; the vowel is of the quality of the final vowel of the root, except that in these forms some speakers pronounce v following both vk and uk. Suffixed forms are cited:

weak 'bad' → weakat-: weakat-han. 'Spoil it.'

kok 'big' → kokot-: kokot-han. 'Make it big.'

eluk 'him-awake, him-alive' → elukut-, elukvt-: elukut-han. 'Wake him up.'

(c) With roots with final consonants other than k, the allomorph =et- occurs cliticised or often suffixed to the root. Suffixed forms are cited:

hikit 'straight' → hikitet-: hikitet-han. 'Straighten it.'

selang 'loose' → selanget-: selanget-han. 'Make it loose.'

kain 'important (in social status)' → kainet-: kaine'-nakeken. 'You made me important.'

Further, these forms occur frequently not only with the locative auxiliary -hə= and the depositional auxiliary -hei=, but also with the generalised personal objective auxiliary -ap=, which is rare with incurred process secondary verb stems:

ninelukv'-nisikhe. 'us-awake-transitive--he-did-on-us, i.e. He woke us up.'

weaka'-nakeikhe. 'bad-transitive--he-put-me, i.e. He ruined me.'

lvkvlvky'-naphe. 'crazy-transitive--he-did-to-me-as-person,
i.e. *He made a fool of me.*'

3.3.6.9. Other Secondary Verbs

There are a number of other classes of secondary verb roots, all of them smaller than the class of incurred process verbs. Also, as has already been noted, there are a number of kinds of phrase verbs, in which a noun object of some kind plus a verb have become an idiomatic verb unit. These will not be included in the brief survey here, which is restricted to roots and stems occurring with cliticised auxiliary verbs. This survey includes all the classes of roots for which the data in the lexical files are clear, but it appears certain that there are other secondary verb roots, and other constructions with those which are listed, which have not been recorded. This list gives a fair sampling of the kinds of roots and constructions involved.

(1) There are three secondary verb roots of posture or body position occurring most commonly with the auxiliary verb -la=, -lat=, usually glossed '*incur a process (and the resulting state)*'. The subjects of these verbs occupy the patient role and, unlike the subjects of most verbs with this auxiliary, also in most cases the agent role:

hv'-laka. (hvt-) '*He sat down.*'

mel-aka. Also: men-aka. (mel-, men-; mett=) '*He stood up.*'

wein-aka. (wein-, wett=) '*He lay down.*'

The last two roots, in the form which occurs before auxiliaries (indicated by hyphens in the examples), also occur with the depositional auxiliary -hei=, specifying that the agent, realised as subject, either causes the patient, realised as personal object, to assume the specified position, or puts some other patient into the specified position for the benefit of the participant realised as personal object, occupying a beneficiary role:

men-akein. (men- + nakein 2s-put-ls, or 2s-put-for-ls) '*Stand me up.*' or '*Stand it up for me.*'

This root has also been observed with the auxiliary -ha= in a construction meaning '*stand the personal object up*':

men-ean. (men- + nean 2s-do-toward?-ls) '*Stand me up.*'

These roots also occur in forms analogous to past participles of major class verbs, referring to the state of being in the position specified:

hvték '*seated*';

mettek '*standing*';

wettik '*lying down*'.

(2) There are distance and direction marking roots already noted in the discussion of the locative auxiliary *-ha=* and the depositional auxiliary *-hei=*. These roots are:

- lak- 'over a distance';
- lyak- 'upward';
- pelak- also wusak- 'downward';
- wulak- 'outward';
- kelak- also melak- 'inward';
- wuttelak- 'across the stream'.

All of these occur with the locative auxiliary *-ha=* to refer to directional looking, and with the depositional auxiliary *-hei=* to refer to sending a person over a distance or in a direction. The direction-specifying roots also occur with the generalised personal objective auxiliary *-ap=* to refer to placing a person or assisting a person to move in the direction specified:

- la'-neekhe. 'over-distance--he-saw-me, i.e. He looked at me (from a distance),' (where the subject occupies the agent and patient roles suggested for verbs of perception, and the personal object occupies the locative role 'target').
- lak-hanhe. 'over-distance--he-put-me, i.e. He sent me (some distance in a direction away from the speaker and addressee),' (where the subject occupies the agent role and the personal object occupies the patient role in this depositional relationship).
- lya'-naphe. 'upward--he-did-to-me-as-person, i.e. He put me up,' (where the subject occupies the agent role and the personal object occupies the patient role in this generalised personal objective relationship).

The directional roots also occur as major class verb roots with final *p*: lyap= 'put up'; pelap= 'put down'; wulap= 'put out'; kelap= 'put in'; wuttelap= 'put across a stream'.

(3) There are roots referring to holding and to imparting directional motion, where the agent who imparts the motion maintains contact with the patient who is held or moved:

- hak- 'grasping';
- lek- 'lifting';
- sepel- 'holding down';
- lit- 'pulling';
- hokkot- 'shoving'.

These roots all occur with the locative auxiliary *-ha=* to form verbs the subject of which occupies the agent role and the personal object of which occupies the patient role:

ha'-neeikhe. '*grasp--he-did-on-me, i.e. He grabbed me.*'

sepe'-neeikhe. '*hold-down--he-did-on-me, i.e. He held me down.*'

Except for the root hokkot- '*shoving*', these roots also occur in participle-like forms:

hako '*holding*';

lekesoko, leko '*holding up*';

sepetek '*held down*';

lisoko '*pulling*'.

This last form may also be derived from the major class verb lit- '*pull*'.

(4) There are roots referring to specialised kinds of looking; these occur with the auxiliary -ha= with the same roles as were described for the verb ha= '*perceive*':

set- '*watch for, guard*';

hyt- '*examine*';

hy'-neeikhe. '*examine--he-saw-me, i.e. He examined me.*'

These roots also occur with what are analogs of =oko manner participles of major class verbs:

setoko '*watching for, guarding*';

hytoko '*examining, watching*'.

(5) There is a class of stems referring to pointing or discharging weapons; these occur with the locative auxiliary -ha=. The subject of the resultant verbs occupies the agent role, and the personal object occupies the locative role 'target'. Derivationally, these stems are constructions including the =Vt- transitiviser/verbaliser and a secondary verb root, but they most commonly occur in this form:

mumut- '*threateningly gesture with a weapon, tool or fist*';

pappakat- '*prepare to shoot a bow by tensing the string and aiming*';

pisinit- '*shoot an arrow*';

tumut- '*thrust a spear or spade*'.

pisinit-heeikhe. '*Shoot-arrow--he-did-toward-you(sg), i.e. He shot an arrow at you.*'

tumut-heeikhe. '*thrust-spear--he-did-toward-you(sg), i.e. He thrust the spear at you.*'

(6) There are roots referring to chasing; these occur with the locative auxiliary -ha=. The subject of the resulting verbs occupies the agent role, and the personal object occupies the locative role 'target' or 'locus':

muk- '*chase*';

sat- '*drive (a pig); keep (flies) off*'.

mu'-neeikhe. '*chase--he-did-toward-me, i.e. He chased me out.*'

(where the speaker occupies the 'target' locative role).

sa'-neeikhe. '*shoo--he-did-on-me*, i.e. *He chased (flies) off me*,'
 (where the speaker occupies the 'locus' locative role).

(7) There are roots referring to understanding or recognition and mis-understanding or non-recognition; these occur both with the locative auxiliary -ha= and the depositional auxiliary -hei=. The personal object is interpreted to occupy the 'target' locative role with -ha= or the patient role with -hei=:

hvt- '*understand, recognise*';

mot- '*misunderstand, fail to recognise*'.

hvt-hanhe. '*recognise--he-did-on-me*, i.e. *He recognised me*.'

hvt-hanhe. '*recognise--he-put-me*, i.e. *He recognised me*.'

Both these stems occur in forms analogous to past participle forms of major class verbs, but with an included clitic juncture:

hvt-ek '*understood, or recognised, or recognisable*';

mot-ek '*misunderstood, or unrecognised, or hard to recognise*'.

(8) There is a root referring to experimentation or performance for the first time; the root occurs with the locative auxiliary -ha= in verbs the subject of which occupies the agent role and the personal object of which occupies the 'locus' role:

wal- '*experiment, try, do for the first time*';

wa-nean. '*try--do-it-on-me*, i.e. *Try it on me* (e.g. of an armband).'

(9) There are a number of roots occurring with the locative auxiliary -ha= but taking no personal object markers. The subject of these verbs occupies the agent role, and a non-personal referent implicit in the stem or specified in an external noun occupies a patient role; among these are:

mik- '*taste it*';

polot- '*poke at it*';

hot- '*pound on it (as of a wedge)*';

mik-heikhe. '*He tasted it*.'

(10) There are several roots of rejection or reprimand occurring with the auxiliary -hei= with marked personal objects, but not with the unmarked forms of that auxiliary. The forms marked for third person plural personal objects are used for all third person objects; these include:

halolot- '*neglect*';

hetamot- '*rebuke severely*';

hetamot-hisan. '*strong-rebuke--2s-place-for-3p*, i.e. *Rebuke him or them severely*,' (where the personal object occupies the patient role and the subject occupies the agent role).

(11) The stem hetek- 'leave alone' occurs with all forms of the depositional auxiliary -hei=:

hetek-hein. 'leave-alone--2s-put-3s, i.e. Leave him, her, it alone,'
(where the subject occupies the agent role, and the object implicit in the stem occupies the patient role).

(12) The stem hep- 'leave alone, forget about' occurs with the auxiliary -hei= but requires the older first person object marking forms, and all forms of the auxiliary occurring with this root occur as allomorphs minus the initial h. The unmarked auxiliary, with implicit third person singular object as patient connotes positive evaluation, and the third person plural object-marking form of the auxiliary connotes negative evaluation of the patient:

hep-ein. 'leave-alone--2s-place-3s, i.e. Leave him/her or it alone.'
hep-isan, hep-san. 'leave-alone--2s-place-3p, i.e. Forget about it, him, her, them.'

(13) The stem po- 'roughly place' occurs with the auxiliary -hei= with third person plural object-marked forms only, particularly the contracted forms like -san:

po-san. 'roughly-place--2s-put-3p, i.e. Put it, him, her, them down roughly.'

(14) There are several secondary verb roots occurring only with the dative auxiliary -et=. The subject of the resulting verbs occupies the agent role, and the object occupies the recipient role:

joko- 'tell';

mak- also melak- 'share food with';

muk- feed mouth-to-mouth with chewed food';

joko-the. 'tell--he-transferred-to-him, i.e. He told him.'

mela'-nethe. 'share-food--he-transferred-to-me, i.e. He shared food with me.'

muk-ethe. 'feed-mouth-to-mouth--he-transferred-to-him, i.e. She fed him (her baby) some (food) mouth-to-mouth.'

(15) The root hokot= 'praise, compliment, express amazement at!', and the derived stem mymynyt- 'entice' occur with the generalised personal objective auxiliary -ap= with first and second person and plural personal objects and with the auxiliary -at= with third person singular personal objects and, in the case of hokot-, also with non-personal objects. The subject of the resulting verbs occupies the agent role, and the personal object occupies the patient role in these constructions:

hoko'-naphe. 'praise--he-did-to-me-as-person, i.e. He complimented me, or He expressed amazement at me.'

mymynyt-athe. 'entice--he-did-to-her, i.e. He enticed her.'

(16) The roots hang- 'come to the ready with a weapon' and let- 'dry out' occur with the depositional auxiliary -hei= and the auxiliary -at=. The root hang- has also been observed, like a secondary verb of incurred process, with the clitics -sek and -hoko:

hang-athe. 'He brought (his spear) to the ready.'

let-heikhe. 'dry--he-placed-him/it, He put it out to dry, dried it out.'

hang-sek wetek. 'The subject is at the ready.'

(17) There are a number of 'bound adjective' roots which are observed to occur, like adjectives, with the auxiliary -a=, -at= 'become' and/or with the verbaliser/transitiviser =Vt- and an auxiliary verb. These roots have not been observed as independent words, however. Examples include:

nouk- 'lost'; nouk-aka. 'He got lost, or He lost out.'

nouke'-naphe. (nouk- + =et- transitive) 'lose-out--transitive--he-did-to-me-as-person, i.e. He made me lose out, cheated me.'

nong- 'confused' or 'left out';

nong-aky. 'confused--I-became, i.e. I got confused, or I was left out (didn't get the hoped-for award, e.g.).'

3.4. SUMMARY

This chapter has surveyed the semantic relationships of participants, especially personal participants, to events as realised in Dani verbs. These relationships of case or role are signalled by word order, overt post-posed relators (suffixed, cliticised and as independent particles), and by affixes attached directly to verbs and auxiliary verbs. It has been shown that Dani makes a high level contrast between personal and non-personal objects of verbs, and that subordinate to this contrast is a five-way contrast of semantic relationships of personal objects, whether direct or indirect, to the events referred to in the verbs; and that the contrast between direct and indirect objects is subordinate to both of these. Only one verb, wat= 'hit, kill', of the large major class of verbs occurs with directly attached affixes referring to personal objects other than third person singular objects. Other major class verbs take personal objects of other person and number categories by periphrastic construction with one of four auxiliary verbs which specify the semantic relationship of the object of the verb, whether the object is direct or indirect. These relationships specify an event as 'depositional', whether it is the personal object who is placed or something else is placed for his benefit; or 'located on the body surface', where either a second object is processed or, rarely, the personal object himself is processed on or near his body surface; or

'dative', where the product of a process or a message is given to the personal object; or 'generalised personal objective', where an event of processing either something external or the personal object himself is viewed as personally affecting him in some way not specified by one of the three other auxiliaries. These contrasts are in almost all cases neutralised in reflexive voice, which is employed if the subject occupies an agent role plus any oblique role, whether that oblique role is a patient role otherwise occupied by a direct object or one of the other oblique roles otherwise occupied by an indirect object.

A small class of verbs resembles reflexive voice forms of the major class verbs. These minor class verbs, including verbs of motion like 'go', 'come', 'ascend' and nine others, as well as other verbs like 'see', 'believe', 'eat' and 'put' are interpreted to be implicitly reflexive, with the subject occupying, typically, some oblique role as well as the agent role. Some of these verbs and some auxiliaries also occur in marked reflexive voice forms which are interpreted to mark reinforced roles, in some cases a reinforced agent role, in other cases a reinforced patient role, and in still other cases a reinforced beneficiary role.

A variety of classes of secondary verb roots and stems occur only with auxiliary verbs; the largest of these classes most commonly refers to events of incurred process, with the resulting state. The roots of these incurred process secondary verbs are implicitly intransitive and refer primarily to events incurred by non-personal participants as subjects. This construction with this class of verbs and a construction of major class process verb stems with another auxiliary are semantically similar to the category labelled middle voice in many languages.

The roles occurring with different classes of verbs and constructions of verbs with the various auxiliary verbs are summarised in Tables 13 and 14.

TABLE 13

ROLES REALISED AS SUBJECT, DIRECT OBJECT, AND INDIRECT OBJECT WITH
MAJOR CLASS PRIMARY VERBS AND SECONDARY VERBS OF INCURRED PROCESS

VERB CLASS, VERB	SEMANTIC VALUE	SUBJECT OF NON-REFLEXIVE	SUBJECT OF REFLEXIVE	DIRECT OBJECT	INDIRECT OBJECT
Major class, transitive, no aux.	process directed to change of state in patient	agent	agent plus (pnt, rcpnt, ben or loc)	patient (only 3s except wat=)	xx
with aux.: -la=, -lat=	incur a process, resulting state	pnt (non-per- sonal except wat=)	patient (reinforced)	xx	xx
aux.: -hei=	put; completive	agent		patient	(±) ben
aux.: -ha=	on body; inceptive	agent		pnt (± loc)*	(±) loc*
aux.: -et=	dative	agent	agent plus recipient; or agt (reinf)	pnt (or rcpnt with wenak= only)	rcpnt*
aux.: -ap=	personally affected object	agent	xx	patient or patient	xx ben
Major class, intransitive	process (naturally occurring; or relative motion-- see text)	pnt (± agt with relative motion verbs)	xx	xx	xx
Secondary, incurred process with -i=	incur a process, resulting state e.g. 'arack', 'bounce', 'abut'	pnt (+ agt with rare personal subjects) mainly non-personal	(only with personal subject) pnt plus agt (reinf)	xx	xx

ABBREVIATIONS: agt - agent; aux - auxiliary; ben - beneficiary; loc - locus;
pnt - patient; rcpnt - recipient; reinf - reinforced.

* Where the direct object occupies this role, no indirect object occurs.

TABLE 14
ROLES REALISED AS SUBJECT, DIRECT OBJECT AND INDIRECT OBJECT WITH MINOR CLASS VERBS

VERB	SEMANTIC VALUE OR GLOSS	SUBJECT OF NON-REFLEXIVE	SUBJECT OF REFLEXIVE	DIRECT OBJECT	INDIRECT OBJECT
Directional motion verbs:					
la=	'go'				
wa=, wet=	'come'				
lakel=	'ascend'				
pi=, wusa=	'descend'	pnt ± agt	xx	xx	xx
wvlvp=	'exit'				
ki=	'enter'				
wutta=	'cross'				
nek=, na=	'eat'	agt + ben*	xx	pnt	xx
akka=	'believe'	agt + pnt*	xx	cognate	xx
wela=, lokoi=	'continue'	pnt ± agt	xx	xx	xx
nei=	'travel, move about'	agt + pnt	agt (reinf) + pnt	xx	xx
i=	'say'	agt + ben*	agt (reinf) + ben	cognate	xx
a=, at=	'acquire'	repnt ± agt	agt (reinf) + repnt	pnt	xx
ha=	'see (or feel)'				
hol=	'hear (or smell)'	agt + pnt*	agt (reinf) + pnt	{target cognate	xx xx
hei=	'put'	agt ± ben**	agt + ben** ben (reinf)	pnt	(±)ben**
jap=	'fight (etc.)'	agt; agt + pnt (reciprocal) with with pl. subject	agt ± pnt + ben	cognate	xx

* Implicitly reflexive; see text.

** Role realised (with agent role) as subject if not realised as indirect object.

N O T E S

1. The allomorphic alternation between =ma, =mo is not fully predictable on the basis of the phonological shape of stems, although the regularities are pervasive. The allomorph =mo occurs only following stems with the syllabics i, ei, ai, y, v, ou, and u in the final syllable of the stem (whether that syllable is open or closed), except for: (1) one perhaps doubtful recording of =mo with the obscure plant species name kalei; and, more importantly, (2) factive verb forms, where =mo follows the third person singular subject markers otherwise realised as =e and =he but realised in this environment as =o and =ho:

wathe '*he hit him*'; wathomo '*he hit him and then (someone else....)*'

However, there are also stems with vowels including those listed above in the final syllable which nevertheless occur with the allomorph =ma, particularly:

i '*water*'; ima '*in the water*' or '*along the stream*';

ou= + o '*house, village*'; ouma '*in the house, village.*'

A number of place names consist of the names of streams plus this suffix. Stream names ending in vowels, except for those ending in the vowel i and also including the vowel i in the preceding syllable of a two-syllable form, occur with the form ima post-cliticised to the stream name, with loss of a final i or y of the stem and shift of the clitic juncture to precede the suffix =ma:

Mini stream name; Minimo '*along the Mini*';

Juki stream name; Juki-ma '*along the Juki*';

Hettyky stream name; Hettyki-ma '*along the Hettyky*'.

Verb forms including the allomorph =tyk of the prior action marker are followed by the allomorph =mo, as expected, but some phonologically similar forms are followed by =ma:

wakytyk '*I came (and then I....)*'; wakyty'mo '*I had come (and then someone else....)*'

ytty'ma '*outside*' (The simple form yttyk does not occur.)

ylyyk '*sloping up*'; ylyy'mo '*on the upward slope*'.

2. The form *opaka* with obligatory prefixation for person and/or number categories may be considered for practical purposes a homophone, although it is probably historically and semantically related. The form refers to possessed crops and commonly occurs with the suffix *=ma* 'setting' or the post-clitic *-kke* 'direction':

an *nopakama* 'among the plants which, with their produce, belong to me.'

3. Fillmore notes that David Bennett has also referred to a relationship he labels 'path' and suggests, hesitantly, calling this the Path or Itinerative case, noting that it is distinct from his 'goal' case (Fillmore 1971:28-29).

4. The marking of independent nouns and pronouns occupying the agent role has suggested to some observers an ergative case structure, in which the subject of transitive verbs is marked in a way contrastive with the object of transitive verbs, which, like the subject of intransitive verbs, is unmarked or differently marked. So far as independent nouns and pronouns are concerned, Dani indeed resembles such a pattern:

an *laky*. 'I I-went,' Never: (an-en *laky*); see note 5 below.

an *nathe*. 'me he-hit-me, i.e. He hit me.' Never: (an-en *nathe*.)

an *wathi*. 'I I-hit-him, i.e. I hit him.' Also:

an-en *wathi*. 'I-by I-hit-him, i.e. I hit him.'

However, agent and patient roles are obligatorily occupied by persons referred to in verbal affixes or implicit in verb stems, as well as optionally occupied by independent nouns or pronouns. But the obligatory affixed markers of subject are identical for transitive and intransitive verbs of the same conjugation class:

hyky. 'I-placed-it.'

pyky. 'I-descended.'

o *palhe*. 'wood he-cut-it, i.e. He cut the wood off.'

o *palhe*. 'weather it-cut (cleared), i.e. The weather cleared.'

In the first two of these last four examples, *=y* marks first person singular subject, and in the last two, *=e* marks third person singular subject; o 'wood, tree' and o 'weather-time universe' are homophones.

Personal objects, on the other hand, are marked very differently, as will be described in the text. The ergative pattern of cases at first suggested by the occurrence of *-nen* as an optional marker of agent with transitive verbs is not reflected in the verb morphology, as it is in true ergative languages. The clitic *-nen* appears to have as its first meaning a spatially defined sense 'place from which', and

its use to mark subjects of transitive verbs appears to be based on a metaphoric extension of that sense to refer to the subject as the source of the action, the participant out from whom the action moves.

5. Ungrammatical forms are marked here in three ways, simultaneously: the citation is preceded by a term like 'never'; the linguistic forms are not underlined; and the forms are parenthesised. These conventions have been adopted here to avoid the use of the asterisk, in the fashion of current literature, in a way which is contrary to its use in historical and comparative linguistics and sometimes in structural linguistics.

There are indeed three examples (in the filed corpus) of motion verbs with subjects referred to in independent pronouns followed by *-nen*. These cases appear to be of different kinds. In one example, a pause of self-interruption follows the *-nen*, so that the speaker may have altered his intended sentence in mid-passage. In another, the subject of the motion verb is also subject of an immediately following transitive verb, and the motion verb is related by a nominalising clitic to the independent pronoun subject; it is the function with the transitive verb which appears to be marked in the clitic *-nen*. In the third case, the *-nen* is further followed by the clitic *-at*, and this combination, as well as the clitic *-nen* by itself in other examples outside the filed corpus, does appear to occur before motion verbs as well as other intransitive verbs in a special sense referring to the action as emphatically the subject's own idea, not the result of someone else's planning. Thus one normally says:

an waky. '*I I-came, i.e. I have come.*'

And in this sense one does not say:

(an-en waky.)

But if it is desired to emphasise that the subject came of his own initiative, it is possible to say:

an-en-at waky. '*me--from--predicator I-came, i.e. It was my idea that I came.*'

Also, rarely:

an-en waky. '*me--from I-came, i.e. I came of my own initiative.*'

This last example sounds rather strange, and clearly the use of *-nen* with independent subjects of motion verbs is abnormal.

6. The noun *helep* 'stone' is more animate for Dani speakers than 'stone' is for English speakers. When asked what besides people are or is like people, an informant listed stones first, referring to several particular stones and also to a myth about the origin of stones in general. In one text a boy who refused to keep the proper food

taboos goes to sleep on a rock which seizes him and holds him forever:

...helep-en motto' nyng-hoko hak-hasikhomo.... 'stone--by altogether tight--manner grab--it-did-on-him-setting, i.e. The stone seized him very tightly....'

It may be that this animateness of stones is reflected in the use of -nen with stones as instruments, or it may be that -nen is used to eliminate the possible locative understanding that the clitic -opa, used with many instruments, might convey:

helep-en wathi. 'stone--with I-hit-him, i.e. I hit him with a stone.'
 helep-opa wathi. 'stone--on/stone--by I-hit-him, i.e. I hit him on a stone, or I hit him with a stone.'

7. A very similar pattern is observed in Kapauku or Ekagi (Ekari), the language spoken in the vicinity of Lake Panial in the western highlands of Irian Jaya (Doble 1960).

8. It is to be noted that usually non-personal referents, particularly inanimate referents, are treated in Dani as third person singular. Here such referents are treated as third person plural. The only other place where this may be interpreted to occur is with certain occurrences of the depositional auxiliary -hei-, which as a primary verb means 'put'; this auxiliary sometimes occurs with third person plural object-marking prefixes with apparent reference to inanimate objects:

lol-hisan, or: lol-san. 'Burn it up (with a connotation of carelessness or negative valuation).'

It appears to be unmotivated to postulate an implicit third person plural indirect object in this kind of example.

9. The reader will note that these simple rules for realisation of role occupants as subject are quite different from the rules in English or other languages with true passive constructions. In English the agent is frequently present as a role in an event realised as a verb the subject of which is the occupant of a patient role, and occupants of other roles, e.g. instrument, also occur realised as subjects:

I was hit by John.
 John's bat hit me.

10. Verbs marking case relationships have been reported from Machiguenga of Latin America and Kinyarawanda of East Africa (Gary and Keenan 1977:104, 117).

11. It will be noted that the verb *wat=* is polysemic, with two major senses reflected in the glosses '*hit*' and '*kill*' provided in some of the examples. This kind of polysemy is shared by a few other process verbs which occur with one sense referring to the initiation or carrying on of a process without bringing it to completion in such a way that the patient is changed, and with another sense referring to completion of the process in such a way that the patient is changed. These two senses of *wat=* '*hit, kill*' occur with all of the person-marking prefixes:

nathe. '*He hit me, or He killed me (said by a ghost).*'

hathi. '*I hit you, or I killed you (said over a body).*'

This contrast also occurs in other meanings of this verb, where the death of animate creatures is not involved, so that object-marking prefixes do not occur, but the contrast is correlated with the possibility of occurrence of the auxiliary verb *-la=, -lat=* '*incur a process and resulting state*', which only occurs with senses referring to completed processes involving a change of state in the patient. This will be further discussed in connection with that auxiliary.

In an earlier version of this chapter, it was proposed to treat this contrast in terms of contrastive patient roles, '*affected patient*' and '*patient*'. In view of the limited number of verbs involved it has been suggested that the contrast might better be handled in terms of polysemy of the verbs, as described above, with the patient role considered the same with both meanings. I am very much indebted here, and in much of the treatment of personal objects, to some observations and suggestions of Professor Lounsbury, my thesis advisor, although he of course is not responsible for the remaining infelicities of treatment.

12. It is to be noted that both *h* and *k* are reflexes of the same proto-Dani phoneme **/k/* (Bromley 1961:6-19). Father van der Stap refers to most of the personal object markers as infixes (e.g. 1966:89). I restrict the reference of the term '*infix*' to morphemes occurring inserted into another and otherwise unsegmentable morpheme; according to the analysis proposed here, there are very few such cases. The reader may compare Father van der Stap's different segmentation of morphemes.

13. It appears unmotivated to postulate reference to third person plural beneficiaries here, as if doing something for some unspecified '*them*' (in contrast to doing it for '*me*' or '*you*' or '*us*' or '*him*') were to do it carelessly. No informant has ever reacted that this is his interpretation of these forms, and it seems more likely that there

is here special idiomatic use of third person plural reference to inanimate direct objects with this special sense. It will be recalled that the relator *inom*, with third person plural prefixation, is also used of inanimate referents.

14. The root *wap-* does not occur with the unmarked forms of *-hei=*.

15. The stems ending in *=Vt-* are transitivised secondary verb stems of incurred process. This derivational construction will be treated in connection with secondary verbs later in this chapter.

16. Note Father van der Stap's term 'energetic voice' for some constructions with *-ha=* (1966:79-81).

17. This is in contrast with what is reported from the Mukoko area by Father van der Stap (1966:91-92), but is in agreement with my data for the other dialects in Grand Valley which I have studied.

18. In an earlier version of this chapter I interpreted the direct personal objects of verbs occurring with *-ap=* as occupying both a patient and a beneficiary role, to distinguish the personal quality of this relationship from the simple non-personal patient relationship occurring with simple verbs, with no auxiliary, and from the patient relationship occurring with personal objects marked in prefixes attached directly to the verb *wat=* 'hit, kill'. It now appears much simpler to recognise that each auxiliary adds not only role possibilities to the verb, but also a semantic component to what becomes a kind of verb compound, and that this component distinguishes the relationships signalled by the generalised personal objective marker *-ap=*. This auxiliary is then parallel with the other three in that a personal object can occur as either a direct object or an indirect object, but that in either case, a distinctive semantic component is present in the verb-auxiliary unit.

19. There are a few reflexive forms where the subject also occupies a personal object role and a distinct personal object also occurs occupying a different personal object role. Even in those forms there is only one personal object marked as object in terms of verb affixes, since the object role occupied by the subject is ambiguously marked in the reflexive voice form. These cases will be treated under the discussion of reflexive voice, below.

20. Although further check is needed, it appears that where the personal object is direct and occupies a patient role and is coreferential with the occupant of the agent role, any independent noun or pronoun referring to this person or these persons may not be marked with the clitic *-nen*, but where there is a distinct occupant of the patient role, this clitic may optionally occur with the form referring to the agent:

at-en nathe. *'him--by he-hit-me, i.e. He hit me.'*

an watyky. *'I I-hurt-myself, i.e. I hurt myself,'*

In the sense of the last example one may not say: (an-en watyky).

at-en hesi wa'-nakeikhe. *'him--by mud strike--he-put-for-me, i.e. He put mud-pigment on me.'*

In this sense, with hesi 'mud' as a separate occupant of the patient role, one may say:

an-en hesi watyky. *'me--by mud I-struck-myself, i.e. I put mud on myself.'*

21. Fillmore in recent work explicitly allows for the same 'argument' to serve more than one role or case (1970b:116). He also explicitly rejects the possibility of more than one noun phrase serving in the same case role within a single simple clause (1971:7). The suggestion made in the text for Dani is different from either of these. It is here proposed that the same participant may be related to an event not only by more than one role, as in most senses of the reflexive voice, but also, in certain cases, by a reinforced occurrence of a single role.

22. Father van der Stap refers to this construction as medial voice (1966:83).

23. A thorough re-check of all verbs in the lexicon must be made before a satisfactory list of such verbs can be compiled. Gero Bauer makes a similar distinction for English verbs and uses the labels 'telic' and 'atelic', but for distinct verbs rather than distinct senses of the same verb (1970).

24. After adopting this analysis I encountered Fillmore's treatment of English 'rise', in which he proposes a required object case and an optional agent case, the latter occurring in such examples as 'John rose', but not in such examples as 'The smoke rose'. This is equivalent to the description adopted here. Compare Fillmore (1970b:117). It is also interesting to note that a number of the verbs of motion in Koiné Greek are middle voice verbs, suggesting that the moving participant

is in Greek also related to the motion by more than just an agent role.

25. There is a fairly uncommon form *nokko* used only in the sense 'burned' which occurs like a past participle in construction with patient nouns. No such form has been recorded in the senses glossed 'eaten', 'smoked' or 'drunk'.

26. The verb of poly-directional motion is thus different in its semantic structure from the verbs of unidirectional motion. The latter do not occur with marked reflexive voice forms and may occur with the subject occupying only the patient role. Note that there are other verbs referring to events of motion which also differ from the directional motion verbs; the verbs of 'gathering', 'scattering' and 'changing direction' are major class intransitives, as described earlier in this chapter.

27. This pattern of paired stems with varying kinds of phonological modification is a productive pattern of derivation of both noun and verb stems, with a number of resulting senses, most of which include a component of intensity. Like most derivational phenomena, this pattern has been excluded from treatment here.

28. Fillmore employs roles labelled 'source' and 'goal' in combination with other roles to describe both spatial and abstract relationships. For example, he suggests that the subject of 'sell' occupies simultaneously the roles 'agent' and 'source' (1970b:117; compare 1971:12). That pattern of analysis was adopted by Donald Frantz in his dissertation on Blackfoot (1970). There are many attractive features to that sort of analysis for Dani also, particularly when one noted that the same surface marker, the post-clitic *-nen*, is frequently employed to mark 'place from which' and 'agent' of transitive verbs. However, after having been considered, that analysis has been rejected here. It required a great many more examples to be analysed in terms of two roles occupied by a single participant, where the present analysis limits this kind of plural role occupancy largely to reflexives and what are interpreted to be implicit reflexives. Further the overt marker *-nen* occurs in Dani to mark an agent only where the subject does not also occupy a patient role. The absence of such a role for the subject, usually together with occupancy of the patient role by another participant already accounts for what would be redundantly marked by positing a source role as well as an agent role for occupancy by the subject.

29. This is essentially the sense of the term 'patient' used by Chafe for the role of the noun accompanying verbs of state, which in his system include adjectives (1970b:98).

30. The relator *-nek* is normally a post-clitic but here receives word stress. There are problems of analysis and description of sequences of what are elsewhere clitics, and these problems are not adequately treated in my description of Dani phonology (Bromley 1961:52), nor will they be treated here.

31. It is clear that there are semantic differences between the roots which occur only in verbs with non-personal subjects and those which occur also in verbs with personal subjects. Further study of this class and the semantic composition of the members is needed. See also the section below on the relationship of many of these roots to major class process verbs.

32. These forms of secondary incurred process verb roots occur with a much less restricted array of superordinate verbs than is the case with the parallel *=oko* manner participles of major class verbs. In general, *=oko* manner participles of major class transitive verbs which do not also occur in an intransitive sense occur only preceding transitive verbs, and only *=oko* manner participles of intransitive major class verbs which are both transitive and intransitive may occur before intransitive verbs. Apparently these secondary verb stems are implicitly intransitive, and 'intransitive' is an unmarked category which in the context of transitive verbs has transitive reference. Most major class process verbs are implicitly transitive, and 'transitive' is a marked category which never has intransitive reference:

watoko wo'-nethe. *'killing move--he-transferred-it-to-me, i.e. He killed it and gave it to me.'*

But one may not say:

(watoko ako.) *'killing we-came-into-possession, i.e. We killed it and took it.'*

CHAPTER 4

SINGLE EVENTS AND UTTERANCE PARTICIPANTS: CATEGORIES OF DEICTIC ORIENTATION, PERSON, AND EVENT MODE

The preceding chapter described the categories of voice and role relating participants to single events. The relationships of those participants to the speech event was passed by without remark except for notation of person and mode categories in examples and paradigms. But in fact every event in discourse is oriented within the speech event, and the utterance-relative or deictic categories which reflect that orientation comprise some of the most important links tying events together in discourse. The positions of the speaker and addressee in time and space, the speaker's evaluation of the factual status of the events narrated, the identity of the speaker and addressee and their shared knowledge concerning the events are among the major deictic systems of concern. In this chapter these categories will be examined in relation to single events. In the next chapter, categories of person and mode in sequences of verbs in sentences are examined, and in Chapter 6 deictic categories will be examined in utterance context.

Before proceeding to treatment of these deictic systems it is useful to define some units of discourse. An **utterance** is here defined as the uninterrupted speech of one speaker (or, in the rare event of unison speech, one set of speakers in unison) to one addressee or set of addressees on one occasion. Uninterrupted speech is considered to be speech in which the speaker's role is not surrendered to silence except for what he and his addressees would consider to be pause or hesitation in the same conversation or monologue, nor is it surrendered to another speaker for other than brief signals that the addressee is listening. Utterance is thus equivalent to Pike's monologue (Pike and Lowe 1969:74). A **discourse** is defined as the speech of one or more

speakers to each other or the same or overlapping sets of addressees on one occasion. Tentatively, the topic of discourse is not included in these definitions, for very frequently topics shift through discourse without destroying demonstrable continuity. Other units need to be defined, but at least these are basic to any treatment of deictic phenomena.

4.1. PLACE DEIXIS AND THE VERBS OF UNIDIRECTIONAL MOTION

The location of the speaker and addressee(s) in space is marked in several Dani word sets. The most important of these sets in discourse is the set of unidirectional motion verbs already encountered in Chapter 2. These verbs are of high frequency in a number of kinds of discourse, but are also of interest in terms of their semantic structure and their patterning in sequence with other verbs; the former is treated here, and the latter is treated in Chapter 5. This set may be displayed in a paradigm with marked contrast of two kinds of orientation: (1) deictic orientation toward or away from the position of the speaker and/or addressees; (2) topographical orientation to one of three frames of reference - a valley, an enclosed space or a stream at one point in its course. In a valley, motion is either up or down, whether along the course of the stream or perpendicularly to the stream on the valley slopes, or vertically up or down. With reference to a house, a village area or some inhabited valleys and population centres, motion is oriented in or out of the enclosed area. At a point in the course of a stream, motion is across the stream.

TABLE 15		
VERBS OF UNIDIRECTIONAL MOTION		
TOPOGRAPHIC ORIENTATION	DEICTIC ORIENTATION	
	AWAY	TOWARD
Irrelevant	la= 'go'	wa=, wet= 'come'
To valley:		
Centrifugal (up)	lakei= 'ascend'	lakei a= 'come up'*
Centripetal (down)	pi= 'descend'	pi a= 'come down'
To enclosed space:		
Centrifugal (out)	wvlvp= 'exit'	wulipi a= 'come out'
Centripetal (in)	ki= 'enter'	ki a= 'come in'
To stream at point:		
Across	wutta= 'cross'	wutta a= 'come across'

*a= here is a contraction from wa=, a stem of 'come'.

The left hand column of verbs referring to motion away from the speaker and/or addressee(s) includes in each case a single verb root, whereas the right hand column includes verbs with two roots, one referring to directional motion as topographically oriented, the second referring to directional motion deictically oriented. So far as semantic complexity is concerned, the columns are equivalent; this would be more apparent if the left hand forms were glossed 'go up', 'go down', etc. The forms in the right hand column are semantically marked, however. The verb *la*= 'go', for example, is the unmarked member of this paradigm. This is the verb used where direction is irrelevant, e.g. of a child creeping:

wamlappuk lyly'-lako. 'creeping going--he-is, i.e. He is creeping.'
(of a child's stage of development).

Further, in each horizontal pair, the left hand member is unmarked and used where deictic orientation is irrelevant:

lakyyk-pyyk yly'-lay. 'ascending--descending saying--they-are,
i.e. They are going up and down.'

In the two pairs of motions in opposite directions included in the left hand column, the upper verb is regularly listed first in paired constructions like the last example:

wvlhyk-kyyk yly'-lay. (wvlhyk + wvl= alternate root meaning 'exit')
'exiting--entering saying--they-are, i.e. They are going out and in.'

Compare:

layk-wayk yly'-lay. 'going--coming saying--they-are, i.e. They are going and coming.'

The arrangement of verbs in Table 15 is thus not arbitrary but reflects distributional clues to semantic markedness.

There is also a verb of poly-directional motion which, as was noted in Chapter 3, is defective in its inflection (e.g. no simple imperative/hortative forms occur); it is also distinctive in distribution from the verbs of unidirectional motion:

nykhy-lokon. 'moving-around--(you sg)-continue, i.e. Keep on the move.'

4.1.1. Other Unidirectional Verbs

Verbs of directional locking and directional sending may be displayed in a paradigm exactly analogous to Table 15:

TABLE 16 VERBS OF DIRECTIONAL LOOKING		
TOPOGRAPHIC ORIENTATION	AWAY	DEICTIC ORIENTATION TOWARD
Irrelevant	lak-ha= 'look away'	lak-ha a= 'look here'
To valley:		
Up	lyak-ha= 'look up there'	lyak-ha a= 'look up here'
Down	pelak-ha= 'look down there'	pelak-ha a= 'look down here'
To enclosed space:		
Out	wulak-ha= 'look out there'	wulak-ha a= 'look out here'
In	kelak-ha= 'look in there'	kelak-ha a= 'look in here'
To stream at point:		
Across	wuttelak-ha= 'look across there'	wuttelak-ha a= 'look across here'

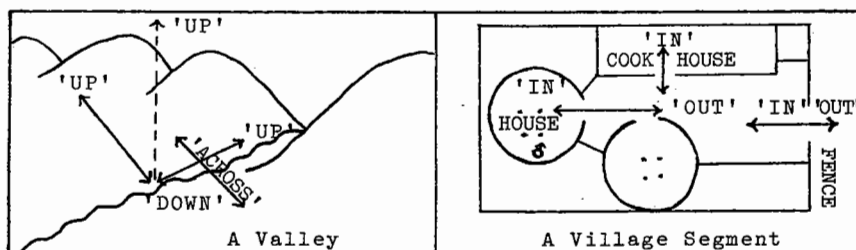
In most cases the noun *heil-ekken* 'your(sg) eyes' (or another form of this noun) precedes examples like those in Table 16.

TABLE 17 VERBS OF DIRECTIONAL SENDING		
TOPOGRAPHIC ORIENTATION	AWAY	DEICTIC ORIENTATION TOWARD
Irrelevant.	lak-hei= 'send away'	lak-hei a= 'send here'
To valley:		
Up	lyak-hei= 'send up. there'	lyak-hei a= 'send up here'
Down	pelak-hei= 'send down there'	pelak-hei a= 'send down here'
To enclosed space:		
Out	wulak-hei= 'send out there'	wulak-hei a= 'send out here'
In	kelak-hei= 'send in there'	kelak-hei a= 'send in here'
To stream at point:		
Across	wuttelak-hei= 'send across there'	wuttelak-hei a= 'send across here'

4.1.2. Topographical Orientation

The components of topographic orientation presuppose valleys, streams and enclosed areas like houses, valleys and some large population units. Part of the ranges of reference of these terms is indicated in Figure 3:

FIGURE 3
REFERENCE OF TOPOGRAPHIC DIRECTIONAL TERMS



Motion 'down' and 'in' is toward a more restricted range of destinations than motion 'up' and 'out'. It is suggested here that motion 'in' and motion 'down' share a semantic component which may be labelled 'centripetal' as over against motion 'up' and motion 'out', which share a component which may be labelled 'centrifugal'. In general, orientation to a valley or valley system is used for most motion, from short trips to the longest journeys. Motion oriented to enclosures is restricted to houses, villages and certain centres of population. And motion across a stream is referred to with the verb of crossing only when one stream is involved and the points of reference are fairly close to the stream. However, there are unpredictable patterns of reference of these terms with reference to different areas and from different vantage points. From Hetigima, where most of the data in this study were recorded, one goes 'in' to the next confederacy area down the Balim valley on the same side of the river, and goes 'down' to the next confederacy area down valley on the other side of the river. From Tangma, a point about fifteen miles down valley, where a slightly different dialect of Lower Grand Valley Dani is spoken, one goes 'down' to the next confederacy area down the Balim gorge on the same side and 'goes' to the next confederacy area down valley on the other side. These considerations may be excluded from attention here.

4.1.3. Deictic Orientation

A few years ago Charles Fillmore called attention to the deictic categories presupposed in the English verbs 'come' and 'go' (1966a). If some inconsistencies in his stimulating article are corrected, the

rules which he proposes for determining the presupposed deictic meaning of these verbs will work equally well for Dani.¹ In Lower Grand Valley Dani, if motion is toward the position of either the speaker or the addressee at the time of utterance or at a time yet future, it is defined as motion 'toward' the deictic reference point:

eme. '*Come here (toward the speaker now).*'

waky. '*I'm coming (toward the addressee now).*'

ohealek we'no. '*tomorrow (you sg)-come-later, i.e. Come tomorrow (toward where the speaker or addressee is now, or where the speaker will be tomorrow).*'

ohealek waky. '*tomorrow I-came, i.e. I'll come tomorrow (toward where the speaker or addressee is now or where the addressee will be tomorrow).*'

When referring to motion in the past there is an option of selection of a past position of the speaker or addressee at or near the time of the event, or, occasionally of selection of a point of vicarious reference even though neither the speaker nor the addressee participated in the events. However this selection of a vicarious reference point is very much less common than in English. There is only one example in the nine fairy tales in the filed corpus. Normally the narrator tells his tale as if it occurred in the setting of the utterance and uses the location of himself and his audience for deictic reference. Whenever a deictic reference point is established, it regularly remains constant for long segments of discourse. Neither of these conventions is observed in English, where vicarious reference points are constantly established and moved to be 'where the action is'.

4.1.4. Motion Verbs as Discourse Links

These verbs of directional motion serve as important discourse links. The retention of constant deictic reference points through long sections of discourse is a kind of linking mechanism. In one long travel narrative, the speaker shifted his point of reference to the site of the major developments in the tale (in which he was a participant), then later shifted back to the setting of the utterance. Meanwhile his local listener was confused and 'corrected' him three times, suggesting forms oriented to the speaker's and addressee's location at the time of utterance. In one fairy tale the deictic reference point was similarly moved to the scene of most of the events in the story, although of course neither speaker nor addressee participated in those events. But those examples are exceptions. In most fairy tales, as noted, the setting of the utterance is made the setting of the tale.

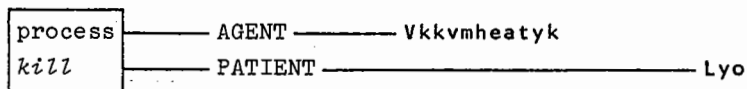
Dani also tends to include explicit reference to entrance of participants onto the scene and their departure from the scene; this also serves to tie narrative discourse together. This is not a rule without exceptions, and the 'exceptions' are partially a matter of backgrounding and foregrounding of participants in regular ways.² This kind of explicit reference to movements of participants and to stages of their movements has been observed in other languages as well (e.g. Saramaccan of Surinam, by Grimes and Glock 1970:418; Tonga of eastern Africa, by Jones and Carter 1967:113).

These mechanisms function the more noticeably because of the Dani opposition, already observed, of directional motion events on the one hand and all other kinds of events on the other. This opposition determines selection of verb categories used in referring to sequences of events, as will be described in Chapter 5. The syntactic contrasts serve to establish a continuity of movements of the participants, providing a setting for other events in relation to those movements.

4.2. EVENT MODE

An event with its directly involved participants is commonly represented graphically by stratificational grammarians with the device of a node, labelled with a gloss, identifying the event, and lateral solid lines with labels indicating roles which connect the event and the event participants, who are also labelled with glosses or names. It is convenient to put all event participants who are not either speaker or addressee on one side of such a diagram. Figure 4 partially represents the semological elements and relationships in a clause glossed, '*Ukumhearik killed Lio*'. The representation is only partial, however,

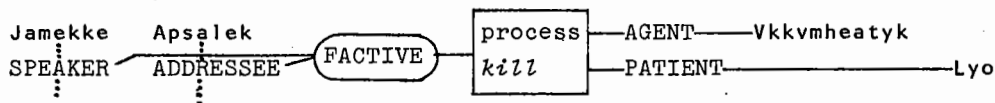
FIGURE 4
PARTIAL DIAGRAM OF AN EVENT



for it does not include an indication of whether this event is reported as a fact, with the appropriate gloss as given above, or whether it is reported as hypothetical, so that it might be glossed, '*Ukumhearik nearly killed Lio (but didn't)*', or whether it is reported as potential, so that it might be glossed, '*Ukumhearik will kill (or might kill, or is liable to kill) Lio*.' Every finite verb in the language is in fact, as described in Chapter 2, unambiguously inflected for one of these categories of event mode. Each of these modes refers to the judgment

of the speaker concerning the status of event as factual, hypothetical or potential as he reports it to the addressee. Thus the diagram above needs to be extended to include the speaker and addressee and their connection to the event via those utterance roles and the modal category:

FIGURE 5
DIAGRAM OF AN EVENT INCLUDING THE MODAL CATEGORY



The label 'factive' indicates that the event represented as a process, killing, is reported as a fact. It is significant that the modal category is differently related to the event from the more lexical components included in the box in Figure 5. Those components specify the event as a member of the class of processes and, within that class, as the process of killing. The event is related via the mode category to the speaker and addressee whether or not they are overtly referred to in the utterance; they are not overtly referred to in the clause realising the structure diagrammed in Figure 5. The relationship of the event to the speaker and addressee might at first appear to involve only the former and his judgment about the event, but it also involves the addressee. In one text in the filed corpus the speaker says to an addressee concerning a proposed trip with a third person who is present:

napyt yly'-lako. *'my-dislike saying--he-is, i.e. He says he doesn't want to.'*

The finite verb in this example is in present progressive aspect, factive mode. But the speaker then turns to the concerned third party and says:

lokoin-ha? hapyt-ha. *'plural-subject-will-go--query your(sg)-dislike--query, i.e. Are we going to go or don't you want to?'*

The finite verb in the second example is in the potential mode. What was reported as fact to one addressee is reported as a potential matter to another who will be making the decisions involved. Event mode is thus a category involving both speaker and addressee and is an obligatory category in all finite verbs.

4.2.1. Other Models for Describing Modal Categories

Related phenomena in English have recently been treated by John Robert Ross within a transformational framework. Ross notes that certain occurrences of reflexive pronouns in declarative sentences can

be accounted for by positing a 'performative' clause of the type '*I tell you*' as the highest level clause in the deep structure. This clause is then regularly deleted in declarative sentences, so that what in deep structure was an embedded clause appears in surface structure as an independent clause. Within the framework of tagmemics and, so far as I know, independently of Ross's work, Pike and Lowe have come to an equivalent position:

... in every declaration, be it a business letter, a book preface, a political manifesto, a simple monologue or a quotation of someone else's speech, the 'I-you' type of declaration like I tell you, I say to you, is implicit (1969:85fn).

The main point in these positions is that every sentence is structurally related to its deictic setting within the context of utterance, including the speaker and addressee. The question of interest is how this structural relationship, now recognised, can best be described. It may be noted first that commonly in connected discourse a modal category is relevant not to one clause only, but to long sequences of clauses. Therefore any clause by clause treatment is wasteful. However, Ross's model might be revised by positing a higher level performative verb relevant to a string of clauses or sentences labelled or treated as a unit.

A more basic objection is that this 'deep structural' relationship does not have the characteristics of 'surface structure' clauses. It is arbitrary to say, for example, whether the 'deep structure' verb is '*I tell you*' or '*I declare to you*' or '*I say to you*'. It is also not possible to posit anything other than a present tense declarative verb; there seems no useful purpose or even any possibility for positing a deleted form like '*I said to you*' or '*I will say to you*'. In other words, the elements that are relevant are not 'verbs' or 'clauses' but rather the utterance participants, the speaker and addressee, and the modal category relating them to the utterance. These elements and relationships are more economically treated in the stratificational model in terms of semological nodes and relationships as suggested here, with the speaker and addressee relevant for whole utterances. And, as will be evident in the discussion in Chapters 5 and 6, this inclusion of the speaker and addressee in the semological structure of every utterance is useful for and required by several sets of phenomena, including pronominalisation, as well as mode categories.³

4.2.2. Semantic Values of Dani Event Modes

The modal categories under discussion at this point are not exactly those treated by Ross. Categories like 'declarative', which he treated, and 'interrogative' are handled in Dani by mechanisms utilising intonation and optional clitics to mark what will be described in Chapter 6 as 'dialogue mode' and 'logical mode'. But the modal categories which are obligatory in Dani finite verbs are also deictic in reference. They have been identified in Chapter 2 as **factive mode** (including van der Stap's near past tense, remote past tense, habitual aspect, perfect past tense, etc. 1966:15-25); **hypothetical mode** (van der Stap's unreal aspect 1966:39) and **potential mode** (including van der Stap's near future tense and indefinite future tense 1966:7, 10; adhortative aspect 1966:42-56; intentional aspect 1966:57, etc.). These categories are here interpreted to be fundamentally modal because of what they contrast with and what they refer to. That these are categories of a single kind is suggested by the morphological pattern of verbal inflection described in Chapter 2, in which the second relative order of suffixation of primary verbs is occupied by the markers of these categories: (1) **-h-** after consonants or **-k-** after vowels (both are reflexes of proto-Dani */k/), except that **-s-** occurs after vowels before the remote past marker **-ik-**, **-uk-**; these mark factive mode; (2) **-l-** (**-il-** after /n/, /l/ and freely varying with **-l-** after /p/; **-l-** elsewhere); this marks hypothetical mode; (3) the absence of either of these and the occurrence of suffixes which mark sub-modal categories and potential mode as portmanteau morphemes:

- wathin (**-h-** factive) '*you (sg) killed, hit him*';
 wa'len (**-l-** hypothetical) '*you (sg) almost killed him, (might have but didn't, etc.)*';
 wasin (=in= potential, immediate imperative, 2s subject) '*kill him now (said to one person)*';
 wateken (=k= factive) '*you hurt yourself*';
 watelen (=l= hypothetical) '*You almost hurt yourself*';
 watan (=a= reflexive; =n potential, immediate imperative, 2s subject) '*Hurt yourself now (to one person), etc.*'

4.2.2.1. Hypothetical Mode

In this three-way contrast, the most semantically homogeneous category is that marked by the suffix **-l-**, **-il-**. Clearly the reference of these forms is to hypothetical status of an event, whether in past, present or future time. The glosses above served only as labels and need to be expanded by examples giving further evidence of the range of

meaning of this category:

... hinali'ma wa'lep.... *'your-(pl)-aloneness-setting you(pl)-kill-hypothetical, i.e. You ought to kill (the festal pigs) off by yourselves', (said concerning a feast not yet begun, with the expectation that the addressee will not heed the advice).*

... anepu le' lokoilepma, koma-mekke wani lelep. *'its-noise-wooo (airplane) not it-continued-hypothetical-setting, where--sort to-get he-go-hypothetical, i.e. If there had been no airplanes, where would he have been able to go to get (white pigs)?'*
(concerning the introduction of white pigs by missionaries several years before the utterance).

Thus the range of meaning of the hypothetical mode is clearly not confined to any time span, and the following glosses are all possible:

wa'le. *'I almost killed him (but didn't)', or 'I'd like to kill him (now or in the future, but don't expect it will be possible).'*

4.2.2.2. Factive Mode

When one turns to factive categories, it is with the recognition that the factive marker contrasts with the hypothetical marker, and that the latter has no time or tense reference. Further, categories including the factive marker do not all have past time reference; note particularly the normal action forms:

wathatek. *'They normally kill (e.g. pigs, animals).'*

Similarly the present progressive aspect forms are best interpreted as factives:

wathy-laky. *'I am killing him, it.'*

Further, the simple factive forms of some minor class verbs, particularly, are not limited in reference to past time, but include the present:

neilekken hyky. *'my-eye I-see-factive, i.e. I see it, or I saw it.'*

weak akkyky. *'bad I-believe-factive, i.e. I believe it's bad.'*

As was noted in Chapter 3, the time reference of first and second person simple factive forms of the verb *loko*=, *wela*= 'continue' is primarily to present time; the present is the reference understood unless the context makes it plain that past reference is intended.

joma welaky. *'here I-continue-factive, i.e. I am here, or less commonly, I was here.'*

With verbs of unidirectional motion, if the speaker is the subject and particularly if the motion is directed toward the addressee, the simple factive form occurs in the sense 'as good as done already'. Here the subject is in control of the event and can predict it with full confidence:

an waky. *'I'm coming, or I'm on my way,'* (e.g. in reply to a call).
 an ohealek waky. *'I tomorrow I-come-factive, i.e. I'll be here (at
 the addressee's future or present position) tomorrow.'*

This specialised sense of factive mode with motion verbs might be treated as an extension of meaning from the basic past tense sense, but normal action forms are less amenable to such treatment, and the contrast with hypothetical forms makes it clear that the fundamental meaning of this category is modal.

Only the factive sub-category 'remote past' appears to be primarily a tense category. It has never been observed in reference to future events. One example was recorded earlier of what appeared to be a remote past form with reference to an immediately past event, but this may very well have been a misheard example of the reflexive form in simple factive mode category. Normal action forms occur with the remote past marker, always with past reference, and so also the minor class verbs in remote past clearly have past time reference:

wathikitesik.... (-h- factive; -ik- remote past; -te- normal;
 -sik prior action plus closure) *'After I used to kill them
 (e.g. of pigs)....'*

wakaki. (-k- factive; -ak- remote past) *'I came some time ago.'*

joma welakaki. *'I used to be here a long time ago.'*

In connected discourse, a series of remote past forms is sometimes and by some speakers interspersed with simple factive forms referring to events in the same series with no apparent contrast of meaning:

...muk-isisikhe-at. muk-isisikhe-nen.... *'chase--he-did-at-them-
 long-ago--also. chase--he-did-at-them--source.... i.e. He
 chased them out too (remote past). After he chased them out
 (simple factive)....'*

akeikhe ninatha. ninathukwhama-nen.... *'another they-killed-us
 (simple factive). And after they had killed us (remote past)....'*

Both these examples are from the same text, only five sentences apart. In each example, both verbs refer to the same event; the second verb of each pair introduces a new sentence by recapitulating the last verb of the preceding sentence. In the first example, the sentence-final verb is remote past and the recapitulatory verb is simple factive. In the second example the sentence-final verb is simple factive and the recapitulatory verb is remote past. Most of the finite verbs in this text are in the remote past tense.

4.2.2.3. Potential Mode

Potential mode, as noted in Chapter 2 is not marked by a specific mode-marking suffix in the second relative order, but by portmanteau affixes that also mark modal sub-categories and also, in some of these sub-categories, subject. Typical potential categories, as already described, are future and hortative/imperative. But one potential form has been drafted for much wider service in the pidgin Dani now widely used in communication between some outsiders and some Dani speakers (see comment by Heider 1970:17). In this dialect, the second person singular immediate imperative form with collocated particles, has become the uninflected surrogate for the more than 2,000 inflected forms of some major class process verbs. This form was not a random choice by outsiders, however. It apparently was established for use in widened senses before 1954, when we became the first permanent European residents in the area; there is an example of a widened sense early in my first notebook. The semantic structure of Dani modes apparently facilitates this development. Compare:

an laky. '*I went, or I'm on my way (factive),*' - normal Dani.

an lan at-at. '*I go finished, i.e. I went,*' - pidgin Dani.

Interestingly enough, it is the outer layer mode and subject and relational markers that do not occur in this pidgin, and some Dani speakers tend to retain the inner personal object markers when they speak pidgin:

an wo'-nethe. '*I move--he-transferred-it-to-me (factive) i.e.*

He gave it to me. - normal Dani.

an wo'nesjn at-at. '*I move--transferred-to-me-finished, i.e.*

(Subject) gave it to me' - pidgin Dani.

This wider sense of the form has never been observed in conversation between Dani speakers (except for rare and obvious emulation and 'out-of-context' use of pidgin Dani for personal reasons); it does not occur in any of the recorded texts. The form is however certainly regular in pidgin Dani. The developing wider sense and the predisposing factors in the language which made that development possible are reflected in Father van der Stap's label 'infinitive' applied to this form in its wider use, considered separately from its use as an imperative form (1966:5). The potential mode may be seen to be the unmarked mode, occurring in a wide sense with reference to events of any modal category, as well as in narrower senses.

At a lower level of contrast, potential mode forms occur in contrast with factive forms but interchangeably with hypothetical forms. The potential gerund form (as labelled in Chapter 2) occurs thus:

ninom la-mekke. 'we-together go(potential gerund)--sort i.e. We ought to go, or to have gone, together'

ninom lelo. 'we-together we-go-hypothetical, i.e. We might have gone together (but didn't), or We ought to go together (but it isn't convenient to suggest it directly).'

Contrast:

ninom lako. 'we-together we-went, i.e. We went, or have started off, together (factive).'

In contrary-to-fact conditions, hypothetical forms normally occur in both protasis and apodosis, but several examples have been recorded with potential forms in one or both positions:

...atty-at ilepma-te jo-te ukumo-at wanhy-lokoilep.

'that(abstract)--predicate 2p/3-say-hypothetical-setting--topic-marker.... cord--topic-marker spun-setting--predicate take--2p/3-continue-hypothetical, i.e. If they had said that, then people would have (begun and) continued to get cord already netted.'

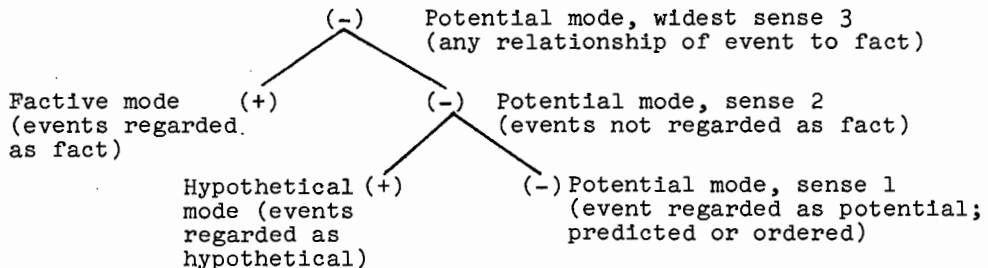
...atty-at ilepma-te... jo-te ukumo-at wanhy-lokousa'-mekke.

wanhy-lokoilep.... 'that(abstract)--predicate 2p/3-say-hypothetical -setting--topic-marker cord--topic-marker spun-setting--predicate take--subject-could-continue-(potential-predictive)--sort. take-2p/3-continue-hypothetical, i.e. If they had said that, then they could have (begun and) continued getting it (but didn't).'

These two examples from the same section of the same text refer to the conclusion of a myth about the reason for the work involved in netting. In the first example, the apodosis of the condition is in hypothetical mode. In the second example, the apodosis, referring to the same events, is in potential mode, then is recapitulated by a form in hypothetical mode.

These relationships of event modes may be diagrammed as a tree of senses, with unmarked senses identified by a minus sign, marked senses identified by a plus sign, as in Figure 6.

FIGURE 6
SEMANTIC RELATIONSHIPS OF DANI EVENT MODES



The numbered senses in Figure 6 refer to successive extensions of the meaning of potential mode, from the primary sense of events as not yet facts but predicted or advised by the speaker, to the widest sense of events with any relationship to fact. Plus signs indicate marked categories, and minus signs unmarked categories.

4.2.2.4. *Mode as a Discourse Linking Mechanism*

The discussion of mode thus far has largely concerned single events realised as single verbs and has demonstrated how such clearly tense-like categories as remote past are subsumed under fundamental mode categories like 'factive'. Within a given discourse or major discourse segment there is commonly a predominant modal category, one of the sub-categories described in Chapter 2. In the filed corpus of seventy-five texts utilised as the narrower basis for this study, there are texts which have as the predominant category remote past, simple factive, normal aspect, present, past and remote past progressive aspect, future and remote future; there are included segments paralleled easily outside the corpus with predominant hortative/imperative modal sub-category. A shift in the predominant modal category usually signals a division of the discourse, although shifts from remote past to simple factive occur commonly with some speakers with no apparent contrast in meaning or segmentation of the discourse. In sixteen of the texts in the corpus there is a shift from the predominant modal category in the body of the text to another category in the conclusion. Two of these examples are explanatory folk tales told in the remote past with conclusions in the normal or progressive aspect categories and hypothetical mode to say, "Because they did that, today we do this; if they had done otherwise, today we would be doing otherwise." There are also four other examples, including two folk tales and two local historical narratives, that bring the results of events in the remote past body of the text into normal or progressive action conclusions.

Besides the predominant modes of discourse and the major shifts of mode, there are in any sustained text multiplied examples of subordinate verbs with mode relative to the predominant mode. It is more useful to describe modal categories in subordinate verbs together with the person categories also marked in most such verbs, and these will be treated in Chapter 5.

4.3. PERSON CATEGORIES

Person categories referring to the speaker, the addressee, persons grouped with either by the speaker, and persons grouped with neither, are marked in several classes of Dani words, including the independent personal pronouns; verbs with person categories of subject and various kinds of personal objects; alienably and inalienably possessed nouns; and certain post-positions referring to personal destinations, locations and companions.

4.3.1. Markers of Person Categories

4.3.1.1. *The Independent Pronouns*

The independent pronouns are:

an	'I, me, my';
hat	'you (sg), your (sg)';
at	'he, him, his, she, her, (rarely it, its)';
nit	'we, us, our';
hit	'you (pl), your (pl);
it	'they, them, their'.

4.3.1.2. *Person Marking Prefixes*

These independent pronouns include the set of person markers which also occur as prefixes to nouns, some verbs and post-positions: n= 'first person', h= 'second person', implicit third person. These markers occur in more regularly shaped form as possessive prefixes to nouns, e.g. the inalienably possessed kinship terms and body parts:

noppase	'my father';
hoppase	'your (sg) father';
oppase	'his, her father';
ninoppase	'our father';
hinoppase	'your (pl) father';
inoppase	'their father'.

Alienably possessed nouns with consonant-initial roots are marked for possession with a vowel prefix, =a= in this dialect, and then inflected as above:

su	'net';
nasu	'my net';
hasu	'your (sg) net';
asu	'his, her net';
ninasu	'our net';
hinasu	'your (pl) net';
inasu	'their net'.

The possessed stem of alienably possessed nouns and the stem of inalienably possessed nouns may be considered to include the category 'third person singular' implicitly unless another person and/or number marking prefix occurs prefixed, and then the implicit category is cancelled (cf. Wonderly in Aschmann and Wonderly 1952:144-5).⁴

The same and other similar sets of person markers have already been observed as markers of various categories of personal objects of verbs. There, too, first and second person categories and plural number are overtly marked and third person singular is an implicit category. One paradigm only may be reviewed as illustrative:

nathe 'he hit me';
 hathe 'he hit you (sg)';
 wathe 'he hit him' or 'he hit it';
 ninathe 'he hit us';
 hinathe 'he hit you (pl)';
 inathe 'he hit them'.

Here again the overt markers are n= 'first person'; h= 'second person'; and here the 'plural of person' marker is (=)in=. The plural marker is postposed to any overt person category marker, and that construction, including the person category marker if any, is prefixed to the stem. The third person singular category is implicit in the stem.

The same set of markers occurs with post-positions of place, including opa 'toward, on him, her, it'; oppolik 'immediately behind him, her'; a'la 'inside him, her, it'; eppetak 'together with him, her (of two people)'; inom 'together with it, them (of three or more if personal)';

neppetak '(sg) with me';
 heppetak '(sg) with you (sg)';
 eppetak '(sg) with him, her';
 ninom 'together with me, us (total of three or more)';
 hinom 'together with you (total of three or more)';
 inom 'together with them, it (of people, total of three or more)'.

4.3.1.3. Suffixed Person/Number Markers (marking subjects of verbs)

The suffixes to verbs which mark person and number categories of subjects of verbs have already been surveyed in Chapter 2 and are further displayed in the appendix. While all of the sets of person-marking prefixes with various word classes include some form of the marker n= 'first person' and h= or k= 'second person', the person and number marking suffixes do not resemble those markers in form. Also,

the subject-marking suffixes display neutralisation and extensions of person and number meaning which are not observed with the prefixes. The full set of contrasts of three persons and two numbers is marked in the simple factive category, it will be recalled:

- wathi 'I hit, killed him';
 wathin 'you (sg) hit, killed him';
 wathe 'he hit, killed him (not himself), her, it';
 wathu 'we hit, killed him';
 wathip 'you (pl) hit, killed him';
 watha 'they hit, killed him'.

In these forms =h= marks 'factive mode' and the more distal suffix (interpreted to be complex in the second person forms) marks person and number.

Some hortative/imperative sets display a five-way contrast, with number non-contrastive in third person:

- wasik 'let me hit, kill him';
 wasin 'kill him now (to one person)';
 wasu 'let's hit, kill him now';
 wa'ni 'hit, kill him now (to two persons or more)';
 wa'nek 'let him, her, them hit, kill him now'.

In these forms it is useful to consider =i= in wasik and wasin as a stem-formative (or empty morph) in hortative/imperative categories with consonant-final stems and consonant-initial suffixes with no syllabic.⁵ Then =k may be considered to mark 'first person singular hortative, potential mode'; =u 'first person plural hortative, implicitly immediate, potential mode'; =n(=) non-first person hortative/imperative, implicitly second person singular immediate if not otherwise marked, potential mode; =i second person plural immediate (occurring only after =n(=) non-first); =ek third person immediate (occurring only after =n(=) non-first):

The hypothetical mode exhibits a four-way contrast of person and number categories marking the subject; the markers partially resemble the subject markers found in factive forms and may be identified with those markers with extension of meaning of the second person plural subject marker to include third person singular and plural.

- wa'le 'I almost hit, killed him, but didn't, etc.'
 wa'len 'you (sg) almost hit, killed him, but didn't etc.'
 wa'lo 'we almost hit, killed him, but didn't etc.'
 wa'lep 'you (pl), he, she, they almost hit, killed him, but didn't, etc.'

In these forms =l= marks hypothetical mode, and it is useful to consider =e simply a marker of first person singular subject and as such

an allomorph of the marker also occurring as =y and =i in factive; =o is then considered a marker of first person plural subject, an allomorph of the marker also occurring as =u in factive; the =e= in the second and last forms may be treated as a stem formative (or empty morph), =n the marker here of second person singular and =p here, in hypothetical mode, extended here to mark second person plural or third person.

Some categories, including the future category of potential mode, exhibit only the contrasts singular versus plural, with no person contrast:

wasikin 'singular subject *will hit, kill him*';

wasukun 'plural subject *will hit, kill him*'.

And there are a number of categories, already presented in Chapter 2, which are unmarked for person or number of the subject; these categories include the potential predictive:

wasusak '*the subject could, probably will or ought to hit, kill him*'.

The segmentations noted above involve some problems and matters of interest. There are indications that a matrix analysis of the sort proposed in recent years by Pike (e.g. 1962) may be possible. Note that there is a positive correlation between front vowels and singular number, back vowels and plural number, high vowels in first person forms, lower vowels in third person forms, with second person forms sometimes exhibiting vowels of intermediate height. These correlations have not yet been satisfactorily formalised. But another pattern of formal/semantic correspondence emerges in these paradigms. It has been noted in Chapter 2 that =n 'second person singular' and =p 'second person plural (extended in hypothetical forms to include third person)' are isolable segments. Further note that =n appears to occur in all three modes with semantic and formal similarity although this may be accidental:

wathin '*you (sg) killed him (factive)*';

wa'llen '*you (sg) almost killed him (hypothetical)*';

wasin '*kill him now (to one person)*'.

In the immediate imperative forms as noted above it appears that this marker =n occurs in the sense 'non-first person':

wasin '*kill him now (to one person)*';⁵

wa'ni '*kill him now (to two or more)*';

wa'nek '*let him, her, them kill him now*'.⁵

If =n(=) is here recognised as marking non-first person, and implicitly referring to 'second person singular' where not otherwise marked, there is a formal correlate for the semantic oppositions that are observed in the hypothetical mode, where =n marks 'second person singular' but =p marks 'second person plural or third person (singular or plural).'

4.3.1.4. *The Semantics of Person Categories*

Clearly Dani person and number markers are all identifiable in terms of the familiar oppositions of two numbers and three persons, and the full six-way contrast is commonly observed. But there are many indications that these contrasts are not best represented as a lattice diagram with vectors of equal and independent value. Note, first, that number is frequently non-contrastive in third person (e.g. the immediate and deferred hortative categories); number is non-contrastive in one category in second person (the deferred imperative), but there is no category in which either person or number is contrastively marked and number is non-contrastive in first person. The first person singular category referring to the speaker is the focal category around which the set of person/number contrasts is built. This set of contrasts then expands in two dimensions, a dimension of 'person', defined by participatory role in the utterance, and a dimension of number, defined in terms of maximum and minimum number of individuals referred to.

In the dimension of 'person' the first contrast is between 'speaker' or 'first person' and 'non-speaker' or 'non-first person'. The Dani immediate imperative forms provide, as noted above, a formal correlate for this semantic opposition. The further person contrast is between the category 'participant in the utterance event' and 'non-participant in the utterance event', where participation does not refer to presence or participation in the discourse but to participation in a particular single utterance as speaker, addressee or an associate included by the speaker with either. Thus in an example already referred to in terms of modal categories, there is in the corpus a three-way conversation among persons that may be labelled M., A., and B. Here M. says to A. concerning B., "He says he does not want to go," then he turns to B. and says, "Are we going or don't you want to? Let's go this afternoon." All three individuals are present and taking part in the conversation, but B is an utterance participant, a participant in the sense used to define person contrast, only in the second utterance, that which is addressed to B. Within two sentences B is referred to in first, second and third person categories.

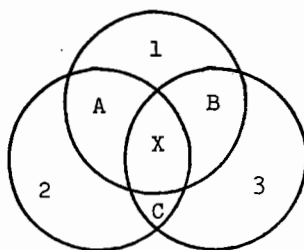
Number in these categories does not, it should be noted, specify the number of persons of the designated person category. Rather each person/number category is defined by (1) the utterance participant (or requirement that there be none) who is the focal member of the category, and (2) the number of individuals referred to. Thus 'first person plural' does not refer commonly to two or more speakers, but to a group of at least two individuals one of whom is a speaker. This point

has been made for English pronouns by Gleason (1965:125) and for general grammar by Jespersen (1924-1965:213). Definitions of person/number categories are thus different from componential definitions of e.g. kin classes such as '*father*', where the members of the class are kin types, e.g. F, FB, FFBS. Each type is simultaneously and equally a member of the first ascending generation, is male, is patrilineally related, and shares any other defining properties for the class in the particular system under discussion. Number is not involved. But in person/number categories, the members of the defined class are sets of positions in utterance participatory roles. Thus the 'first person plural' category has as its members sets like 'speaker plus addressee'; 'speaker plus speaker (unison)'; 'speaker plus non-participant'; each such set is defined as having the properties of (1) including the speaker and (2) minimum membership of two individuals.⁶

To define the six person and number categories exhibited in Dani, note needs to be made of the fact that the addressee is the 'focal non-speaker'. To put it another way, unless otherwise specified, the non-speaker is the addressee. The label 'addressee' is simply shorthand for 'focal non-speaker'. But if the focus of a class can be specified, the rest of the class can be specified as 'non-focal'. It appears that this is a useful way of treating the person/number categories of hypothetical mode, where the =p suffix in, e.g. wa'lep '*you (pl), he, she, they might have killed him*', is extended in reference from 'second person plural', to which it basically refers in factive mode, to include third person as well, i.e. all non-focal non-speaker categories.

One way of viewing these relationships is graphically:

FIGURE 7
CATEGORIES OF PERSON REFERENCE



Here the circle including the area labelled 1 represents the 'speaker', that including the area labelled 2 represents the focal non-speaker or addressee, and that including the area labelled 3 represents any other non-speaker, a non-participant in the utterance. It is the areas of overlap that are of interest. In Dani the set 'speaker plus addressee'

represented by area A (the Philippine language first-second person category of minimal membership, Conklin 1962:134-5; Thomas 1955:205); the set 'speaker plus non-participant' (traditional 'first person exclusive') represented by area B, and the set 'speaker plus addressee plus non-participant' (traditional 'first person inclusive') represented by area X are all first person plural categories. But as noted in Chapter 2, the first person plural hortative-imperative forms in the logical interrogative mode, and only then, exhibit a contrast between the set 'speaker plus addressee' together with 'speaker plus addressee plus non-participant' versus 'speaker plus non-participant (excluding the addressee)'.

The set 'addressee plus non-participant' represented by area C is normally the second person plural category, but as part of the 'non-speaker' category also involving the sets and persons represented by areas A, 2, 3 and B, enters into three other combinations of these areas: (1) All these areas may be included in a category that could be labelled 'not the speaker by himself', with area 2 considered focal. This is the analysis which has been suggested as possible for the marker =n(=) in immediate imperative forms, as noted above. (2) Areas 2 and C may be opposed to area 3, thus 'second person' as opposed to 'third person'. This is exhibited in the deferred imperative form, e.g. wa'no 'kill him later (to one or more addressees)'. (3) Areas C and 3 may be grouped as opposed to area 2, thus contrasting 'focal non-speaker' with 'non-focal non-speaker'. This is the contrast documented in Dani hypothetical mode.

4.3.2. Person Categories and the Problem of Reference

4.3.2.1. *What Do Person Categories Refer To?*

It was implicit in the discussion above that person categories refer ultimately to participatory roles in the utterance and not to noun phrases or any other elements in the verbal context which may refer to these roles or their occupants. This point is not commonly made. Bloomfield, for example, said, "...I replaces any singular substantive expression provided that the substantive expression denotes the speaker of the very utterance in which the I is produced...." (1933:248). This makes 'I' a substitute for a noun phrase, although Bloomfield qualified this position by saying, "the first person substitute I replaces mention of the speaker, and the second person substitute thou of the hearer. These are independent substitutes, requiring no antecedent utterance of the replaced form" (1933:255). Thus there is, in Bloomfield's analysis, a replaced element which need not be overt. This is not very

different from Chomsky's interpretation that pronouns are the products of a pronominalisation rule operating on deep structure referential lexical items indexed for identity (1965:145-6, 226fn); i.e. they reflect an abstract noun phrase in the deep structure which does not necessarily appear in the surface structure. But what noun phrase is represented by the first person category? Is it the speaker's name? If so, which name of the several which most Dani speakers have? Is it a descriptive phrase? If so which? The fact is that in this and many other examples the positing of any noun phrase or substantive element is arbitrary. Of the first 17 texts in the corpus, 16 include a first or second person category within the first two sentences, and no noun phrase occurs to identify any of these.

In the discussion of mode categories reference was made to John Robert Ross's proposal that every declarative sentence presupposes that the highest level clause in the underlying deep structure is a clause of the type, "I tell you", with the speaker as subject and addressee as object or indirect object of what Austin called a performative verb (Ross 1970:223-4, J.L. Austin 1962:6). Ross uses this device to explain certain phenomena of reflexivisation, and McCawley adopts it to treat first and second person categories.

However, this proposal does both too much and too little to be a satisfying solution. It does too much, as was noted in the discussion of mode categories, in repeating the proposed mechanism for every sentence, whereas reference to the speaker and the addressee extend over the spans of utterances as they have been defined in this chapter. The proposal does too little by not identifying the referents of the pronominal categories 'I' and 'you'. In any conversation including more than two persons, the speaker and the addressee for each utterance must be identified. The three-way conversation referred to above illustrates this point. In this conversation participant M says to A about B, "He says he doesn't want to go" and then turning to B says, "Are we going or don't you want to?" It is crucial to understanding these sentences to know that the addressee of the second sentence is different from the addressee in the first sentence but identical to the referent of the category glossed 'he' in the first sentence. Similar phenomena have been studied by Pike and Lowe, who suggest that person reference in conversation involves at least these independent vectors: (1) identification of the members of the cast; (2) the 'person' roles in the speech event; and (3) the 'case' roles in the narrated events (1969:70). First and second person reference is not to noun phrases or deleted substantives but to utterance participatory roles and their identified occupants. This means that such identified utterance role

occupants are relevant to the linguistic structure and may, in a stratificational model, be interpreted to be elements or nodes in the semological structure. These nodes are not lexical items as in Chomsky's model or deep structure clause elements as in Ross's model, but rather semological nodes or elements referring to real-world participants in the particular discourse. These are deictic elements, the interpretation of which is relative to the particular utterances in which they occur.

4.3.2.2. *The Notion of Third Person*

Fillmore speaks of third person as a non-deictic concept (1966a:223), and Jakobson implies this in his brilliant paper on shifters (1957:4), but there is a very important sense of the notion 'third person' which refers to any person who is not the speaker or addressee or associated by the speaker with either in a particular utterance. Such reference is by definition as deictic as first or second person reference. Reference to any individual changes from third to first or second person as that individual occurs as, or is grouped with, one of the primary utterance participants. There is, of course, a wider sense of third person which includes first and second person categories in indefinite third person plural reference. The Dani corpus particularly studied in preparation of this thesis has many examples of this:

ekate' lek akkyky. *'they-normally-talk not I-believed, i.e. They (all local persons including the speaker) don't talk about it, you know.'*

But even this wider sense of 'third person' is deictic in its interpretation in a very fundamental sense.

The point was made for first and second person reference that it is not to noun phrases either in the verbal context or in the deep structure but to semological elements of reference. This point is just as valid for third person reference, and has in fact been penetratingly made for English by several recent observers, including Geoffrey Sampson (1969 and ms). Sampson points out that Chomsky's referential indices cannot refer to lexical items, since the same lexical items can refer to different individuals, and different lexical items can refer to the same individual (ms:60). His point is part of an approach to a general theory of reference which makes the referents of noun phrases not items in the real world but elements in what he proposed as a referential component of a grammar, that component to contain all referents known to the speaker and addressee. This proposal is an advance beyond two other recent treatments of the same problem, particularly the treatment by Lauri Karttunen, who handles reference in terms of "mental images" in the speaker's mind (1968:27), and McCawley,

who treats the problem in terms of intended reference and the "conceptual repertoire" of the speaker (1968:139). Sampson's proposal is a significant improvement over these in that he includes the addressee in his consideration.

There have been similar proposals earlier, notably Strawson's 1950 treatment of the problem of reference, in which he stressed the great importance of the "context of utterance" including "the time, the place, the situation, the identity of the speakers, the subjects which form the immediate focus of interest and the personal histories of both the speaker and those he is addressing" (1950-1968:77). The fundamental insight is that reference, whether of pronouns or nouns, is not to lexical items or noun phrases but to referential elements which are dependent for their interpretation on the shared knowledge of the speaker and addressee. The whole problem of reference in general, including third person reference, is thus fundamentally deictic, dependent upon particular utterances and their 'context of situation' for interpretation.

4.3.2.3. *Suggested Limits for a Theory of Reference*

Sampson, and Strawson long before him, have rightly emphasised the deictic character of the problem of reference. But to follow their suggestions consistently is to despair of ever handling the problem of reference, as Bloomfield despaired of handling the problem of meaning, because one would have to know everything in the speaker's world (cf. Bloomfield 1933:139). The way out of Bloomfield's despair with regard to meaning has been the way he himself pointed out in isolating "*distinctive or linguistic meaning*" from meaning in general (1933:141, italics his). Similarly there are features of reference which are selected out of the ever-varying world of reference and structurally contrasted in language. It is to these features that the linguist's attention must be turned. It is no novelty to observe that many languages, perhaps all, contrast: (1) features of reference to the speaker, the addressee and others, or categories of person; (2) reference to positions in space and time relative to the positions of the speaker and addressee, or categories of deictic orientation and tense; (3) reference to two participants or terms as the same or different, e.g. in reflexive constructions, in categories of coreference; and (4) reference to what is known to both the speaker and addressee as contrasted with what is not known to both, e.g. in the use of such markers as the definite article, in categories of definite versus indefinite identity (compare Weinreich's list of deictic elements 1963-1966:154).

These and other structurally contrastive features of reference draw upon the wide and every-varying range of knowledge of speakers and addressees in any utterance situation, but it is the contrasts, not the whole universe of possible reference, that may be brought within the linguist's grasp. It was by perceiving the principle of structural contrast that the universe of phonetic infinity was brought into the manageable dimensions of phonemic patterns, and descriptive linguistics was born. It has been by pursuing this same principle that the study of semantics has pushed significantly forward in recent years (e.g. Bendix 1966; Goodenough 1956, 1967, 1968; Lamb 1964b, 1965, 1970; Lounsbury 1956, 1964a, 1964b, 1965; Lyons 1968, 1970; Morris 1938; Nida 1951, 1964; Scheffler and Lounsbury 1971; Weinreich 1963-1966; for a cautionary view see Wells 1958). Surely it is by pursuing this principle that the problem of reference can be brought within the domain of structural linguistics.

The present study does not attempt to construct a theory of reference in general, nor to treat the whole problem of reference for Dani in particular. It does attempt to treat contrastive deictic features which are utilised in Dani reference. Categories of deictic spatial orientation have been surveyed at the beginning of this chapter, and categories of deictic time orientation, particularly the features 'remote' versus 'immediate', were surveyed in Chapter 2. Person categories have been critically surveyed in the preceding discussion. Categories of coreference will be treated in the next chapter in the discussion of verbs in sequence, and have already been involved in the discussion of reflexive voice in Chapter 3. But there are other elements, which are also employed as contrastive features of reference. Attention may now be turned briefly to some of these. Reference to participants by affixes, independent pronouns and noun phrases involves such features as focus of attention, and reference by a pair of demonstrative terms involves features of shared knowledge. There is much work remaining to be done in these areas, but some contrasts and conclusions are clear.

4.3.3. Dani Mechanisms of Reference to Participants

4.3.3.1. *Affixes, Pronouns and Noun Phrases*

There are, basically, three ways to refer to human participants in Dani. The least explicit, simplest means is the use of a person/number marking affix, particularly an object-marking prefix or subject-marking suffix to a verb. This reference may be accentuated by inclusion of an independent personal pronoun, normally in agreement with the verbal

affix categories. Further, an independent noun phrase or other identifying phrase may be used either with or without the independent pronoun to identify the referent of the verbal affix:

waky. 'I-have-come'

an waky. 'I I-have-come, i.e. I have come (someone else hasn't).'

an Wakanoko waky. 'I Wakanoko I-have-come, i.e. I Wakanoko have come.'

waka. 'he-has-come'

at waka. 'he he-has-come'

at Wakanoko waka. 'he Wakanoko he-has-come'

Wakanoko waka. 'Wakanoko he-has-come, i.e. Wakanoko has come.'

There are, of course, verb categories where person/number contrasts are fewer or absent, as described in Chapter 2. But the mechanisms involved are perhaps most clearly seen in terms of the fully inflected categories like simple factive. Let it first be noted that the same real world event is referred to in all the above examples; a person named Wakanoko arrives at a place where the speaker and/or addressee is/are at the time of utterance or the time of arrival. In the first three examples Wakanoko is the speaker; in the last four he is neither speaker nor addressee. The difference among these expressions is not in terms of the event but in terms of the identifiability of the event participant in the context, including the verbal context and the context of situation or deictic context involving the knowledge of speaker and addressee. The expressions also differ in terms of the relationship of the referent of the event participant role to other participants and roles already established either in the discourse or in the knowledge of the speaker and addressee; these may be either roles in the utterance event or in the narrated events.

4.3.3.2. *Introducing Participants*

It has been said for more than one language that in a narrative each participant is realised once by a noun phrase to introduce it (e.g. for Kate by Gleason 1968:53; for Sango by Taber 1966:153; for English by Gleason 1965:346). This clearly is not true for Dani and as clearly also is not true for English. When the participants are known to both speaker and addressee and are sufficiently identified in the context and are neither contrasted with other participants nor in particular focus of attention, they are normally referred to in Dani by the minimal mechanism of person/number marking affixes even discourse initially:

lypaken-he, at-at hokot walha-o. 'across-stream--topic finished
truce they-made--decision, i.e. Across the river they've made
peace.'

esa a'noko-te, at-at hvnetha akkyky. 'bridge that-known--topic, finished they-joined I-believed, i.e. They have finished joining the bridge you know.'

ettay ama-noko waty'lai-ha? hep-iseka. 'victory-dance those--known striking--they-are--query discard--they-have, i.e. Are they having that victory dance or have they cancelled it?'

Each of these three examples is discourse-initial, and in each of the above cases attention is on some other element in the event which identifies it sufficiently that the participants realised as subjects of the verbs are referred to only in the verbal affixes. Of course, this minimal reference is very common to items or persons in the context of situation:

joko atty oko-mekke asuk holhe. 'there, that we-said--sort its-ear it-heard, i.e. There, it (the recorder) has heard what we said'.

The 'context of situation' includes the speaker and addressee, and the speaker, in the literal sense of oral speech, normally introduces himself without an independent noun phrase. If his role is not contrasted with the roles of others the speaker may introduce himself in the verbal affix only:

ik-a? 'I-speak-hortative--query, i.e. Shall I speak?'

y. a'noko lakaki akkyky. 'oh-yes that-known I-went-long-ago I-believed, i.e. Oh yes, you know I made that trip.'

One text is a woman's description of the planned activities of the next day, and there is no noun phrase or independent pronoun in the whole text to refer to the participants, who are the speaker and her associates. The sole reference to them is in the verbal affixes from beginning to end of the paragraph, and these affixes on future forms actually specify only that the subject is plural:

svppvtv tasukun....jakalukun....sopalukun.... 'Plural subject will dig sweet potatoes, will put them in nets, will wash them.'

The principle is clear and simple; where the speaker is adequately identified he normally never uses an independent noun phrase to identify himself, but where he is not adequately identified he may. One recorded example is a man's call across the river from a distance too great for clear identification:

an Wvtykka. 'I Wurika, i.e. I'm Wurika.'

With the introduction of writing and the multiplication of correspondence, the principle becomes clearer. Rather than leave identification of the writer to the end, following the Indonesian pattern taught to school children, Dani letters usually begin with identification:

an Elisa-nen hakathi-o. 'I Elisa--by I-did-it--decisive, i.e. I, Elisa, have written (this).'

The same principle applies to persons referred to in the third person. If identity is not sufficiently clear to the addressee, in the speaker's estimation, identifying phrases, frequently noun phrases or phrases including demonstratives, occur at the introduction to identify the participant:

Makasu-nen isikhe a'noko-a? *'Magasu--from he-said-long-ago that-known-to-us--invitation-query, i.e. (Are you referring to) those comments of Magasu's?'*

Here the participant who is subject is introduced by name.

...he Henayppv-nen-he.... *'woman Henaipu--by--topic, i.e. As for the woman Henaipu's deeds....'*

In this last example, the participant is introduced by a classificatory noun with a name.

jykkytvky hylmykkytvky hoina wani kvkvnem.... *'children girls crayfish to-get when-plural-subject-goes-in, i.e. When some boys and girls went in to catch crayfish....'*

Here the participants are introduced by a noun phrase.

The inclusion or use of an independent pronoun in introducing reference to participants serves not for identification, obviously, but either to focus attention on the participant rather than or as well as on the event, or to contrast the participant concerned with others, or to indicate that the participant occupies a role already established in the discourse or situation. These functions are involved with matters to be mentioned again in Chapter 6, but the following examples serve to illustrate the point:

an-he, jekketek-opa-te.... *'I--topic, child--on--topic, i.e. I, when I was a child....'*

In this last example, the speaker is also referred to in the subject-marker on the following verb, but focuses further attention on himself by the inclusion of the topicalised pronoun.

nit-he a'noko hep-isasuku. *'we--topic that-we-know discard--we-did-it-long-ago, i.e. We disregarded it (although others may have paid some attention).'*

In this example the speaker contrasts herself and her group with others by inclusion of the pronoun.

it-en wein ayetek Nattvkvne-lak weim apok ekasik-he....
'them--by battle permanent-resident Natugunhe(name)--and-associates battle summons they-said-prior--topic, i.e. After permanent resident Natugunhe and his group called for battle, then they....'

The initial pronoun in this last example is a convention for reference to enemy groups. In one text in the filed corpus local men are referred

to in the third person plural subject-marking affixes to verbs with no independent pronouns or noun phrases from the beginning of the text:

honay-te, ti'mo-kke hat-ekken kakkok paloko hekatek. 'men's-house--topic, back-of-house--direction sacredness--seeds (here an idiom for a kind of sacred objects) cupboard cutting they-normally-put-it, i.e. As for men's houses, they normally build cupboards for the sacred stones at the back and put them there.'

This text carries on through a description of the sacred stones and associated rites until there is reference to warfare. Then local men are referred to still in third person plural subject-marking suffixes to verbs, but enemies are referred to in the third person plural category with the added independent pronoun *it* 'they'. Interestingly, as objects of verbs, enemies are often referred to collectively in third person singular categories, while local men as objects are often referred to distributively in third person plural forms:

hopuk a'noko-mekke-at wathatek....nen it-en inatyk-he.... 'later that-we-know--sort--also they-normally-kill-him....then them-by having-killed-them--topic, i.e. Later they (locals) kill 'him' (the enemy) the same way. Then wehn they (enemies) kill them (locals)....'

4.3.3.3. A Model for Handling Reference to Participants

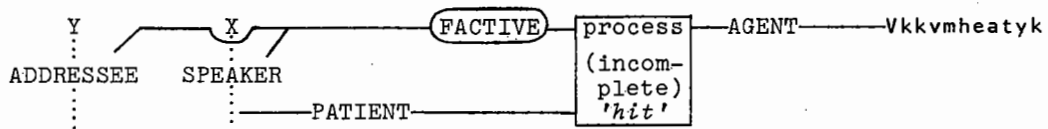
Attention in the above discussion has been largely focused on introductory reference to participants. In Dani a participant may be introduced into the discourse by a person and/or number marking affix, or by such an affix plus an identifying phrase, or by an affix plus an independent pronoun, or by an affix, an identifying phrase and an independent pronoun, depending on the amount of information needed to identify the participant to the addressee and on the relationship of the participant to the discourse. The function of pronouns and pronominal affixes is thus clearly not simply a matter of serving as "substitutes for substantive expressions" (Bloomfield 1933:256-7). That view of these elements underlies much recent work also, including Fillmore's work; he treats pronominal affixes as reflecting an "understood NP" (1968a:56-57). Even Gleason, who has contributed as much as any contemporary linguist to the study of reference to participants in discourse, says in *Linguistics and English Grammar*, "When a discourse is initiated noun phrases are used to introduce the dramatis personae. Thereafter pronouns are substituted in the majority of possible occurrences" (1965:346).

These views are not adequate to describe the Dani data, where as we

have noted there is frequently no noun phrase used to introduce a participant, where commonly a noun phrase and an independent pronoun occur together with reference to the same participant, and where regularly any noun phrase referring to the subject of a verb occurs with and presupposes a subject category usually marked in an affix to the verb. All these ways of referring to a participant (pronominal affix, independent pronoun, noun phrase or other identifying phrase) are mechanisms which can be usefully considered as alternative realisations of underlying referential elements.

Gleason's adaptation of Lamb's stratificational grammar affords a useful model for handling these phenomena by treating each participant in a discourse as a single 'node' in the semological structure (Gleason 1968:51). This model, with some modifications, has already been employed earlier in this chapter to treat mode categories. A sentence glossed '*Ukumhearik hit me,*' might be partially diagrammed as in Figure 8, labelling the speaker as X, the addressee as Y:

FIGURE 8
PARTIAL DIAGRAM OF AN EVENT



The same basic semological structure might be realised in several different ways, however, depending on factors which have not been included in this partial diagram. If *Ukumhearik* steps up and hits the speaker, the latter may report this fact, which is in the center of attention for both the speaker and any addressee observing the event, by using the affixed verb alone:

nathe! '*He-hit-me!*'

If *Ukumhearik* has not just hit him but is known by the speaker to be in the forefront of the addressee's attention, either because of their conversation or because they have just seen him, this basic semological structure could be realised as:

an nathe. '*me he-hit-me, i.e. He hit me.*'

Or, in this same general context, if the speaker wants to emphasise that it was *Ukumhearik* who hit him, and *Ukumhearik* is in the forefront of the addressee's attention, the sentence might be:

at-en nathe. '*him-by he-hit-me, i.e. He hit me.*'

If *Ukumhearik* is not in the forefront of attention, the sentence might be:

Vkkvmheatyk-en nathe. '*Ukumhearik--by he-hit-me, i.e. Ukumhearik hit me.*'

If Ukumhearik is not in the forefront of attention, or not alone in the forefront of attention, and so needs to be identified, but is also referred to as occupying some known role, the sentence might be:

at Vkkvmheatyk-en nathe. *'he Ukumhearik--by he-hit-me, i.e. It was Ukumhearik that hit me, or Ukumhearik in his function (as headman) hit me.'*

These various possibilities are not differentiated in the simple diagram which is Figure 8. However, if one assumes that any surface contrast has a semantic correlate, since 'contrast' by definition involves meaning contrast, these variations must be formalisable. Most of this work remains to be done, but some elements which must be included in the treatment of this problem are further discussed in Chapter 6.

There are two other kinds of deictic reference which point strongly to the conclusion that reference is not a phenomenon relevant only to noun phrases, referring to participants in events, but that any model for reference must allow for treatment of reference to events in verbs, as well.

4.3.3.4. Shared-knowledge Deixis

Many examples have included one of two morphemes which exhibit another deictic contrast, referring to shared knowledge. These morphemes are =noko and =naka, most frequently encountered in the deictic pronoun/attributives a'noko and a'naka. Of these, the first is much more common than the second. This term, a'noko, refers to what is supposed by the speaker to be known to the addressee. Such a supposition may be based on previous introduction in the discourse or on the previous experience of the participants; the form might be glossed roughly, *'the one I believe you know about'*. These forms are used in fairy tales and second-hand reports of events which neither the speaker nor the addressee directly experienced but which are known by both on the basis of shared information.

The contrasted form a'naka is restricted to reference to what is known from first-hand experience by one, but only one, of the speaker-addressee pair. It often serves to alert the addressee by indicating that the item referred to is not directly familiar to him. It might often be roughly paraphrased in English as *'the one we didn't observe together which is recognisable from the experience of one of us'*:

waka a'noko. *'he-came that-we-know, i.e. He came (as we both know).'*

waka a'naka. *'he-came that-known-to-one-of-us, i.e. He came (although I didn't see it you did), or He came (although you didn't see it I did).'*

Often the form a'naka is used in giving instructions about things

which the addressee has not yet observed but will observe:

hykyma a'naka. *'I-put-it-setting that-known-to-one-of-us, i.e. (It's there) where I put it (and although you haven't seen it, you will recognise it).'*

An example from text illustrates the contrast involved in these terms:

...nakko ke-pa...wetek a'naka hekki hak-helyk...lano isikhe. isikhe-mekke, wam a'noko ekki hak-hyky' lek-at.... *'my-pig trail--on...it-is that-known-to-one-of-us your-hand grasp--having-put...(you)-go-later he-said-long-ago. he-said-long-ago--adversative, pig that-we-know his-hand grasp--put not--predicate, i.e. "Those pigs of mine along the trail (you will see them), touch them as you go", he said. He said that, but he (the addressee) didn't touch those pigs with his hand....'*

In this example the speaker of the quoted instructions, who knows about the pigs, uses a'naka in instructing his addressee, who has not yet seen them. Then the discourse speaker or narrator, referring to the same pigs but speaking now to the discourse addressees, uses a'noko, since they are now familiar by virtue of the mention made in the earlier part of the sentence.

These forms referring to shared knowledge are not like definite articles in English and many other languages, for they occur attributive either to verbs or to nouns. And indeed, although much recent discussion of the problem of reference has been limited to noun phrases (e.g. Sampson MS), it is certainly true of Dani and appears to be true of English as well that either events or participants may be definite, and in Dani either may be referred to with the 'shared-knowledge' attributives.

4.3.3.5. *Deictic Stems of Variable Word-Class*

A further bit of evidence for including reference to events in a model for handling reference is the set of demonstrative roots which may occur simply as demonstrative pronouns, or with a clitic as pro-adverbs, or as derived pro-adjectives or pro-verbs, as seen below in Table 18.

TABLE 18
DEICTIC STEMS OF VARIABLE WORD CLASS

DEMONSTRATIVE PRONOUNS	PRO-ADVERBS	PRO-ADJECTIVES	PRO-VERBS
jy 'this'	jy-ttoko 'this way'	jykynyk 'like this'	jykynhe. 'He did this.'
aty 'that'	aty-ttoko 'in that way'	atykynyk 'like that'	atykynhe. 'He did that.'
atty 'that (abstract)'	atty-ttoko 'in that way'	attykynyk 'like that'	attykynhe. 'He did that.'
na 'what'	nykky-ttoko 'in what way'	nykkynyk 'like what'	nykkynhe. 'He did what?'

There are alternate forms for the pro-adverbs, but those listed in Table 18 are the most common. It is perhaps strange to list the pro-adjectives separately, for these are only the past participles of the verbs listed in the right hand column. However, these deictic forms appear frequently to be used with no reference to a state resulting from a process, but only to resemblance. The pro-adverb forms are derived from the demonstrative pronouns and not the verb stems. For the pro-verbs, one inflected form was cited in Table 18, but they are inflected as major class process verbs:

nykkyn-haphe. 'what--he-did-to-you-as-person, i.e. What did he do to you?'

atykynhy-lokon. 'that-ing-(you-sg) continue, i.e. Keep doing that.'

There are two other common demonstratives that have not been observed in this pattern of multi-class membership:

a'ly 'that (as referred to in the immediate context)';

yly 'that (in the distance)'.

This section has merely introduced these forms and not attempted to describe their occurrence in detail. The point to be made is the point also made in the preceding section concerning shared-knowledge deixis, that a model for describing reference must include more than noun phrases. The present study does not attempt to finalise such a model, but to make suggestions from the Dani data as to what that model should include.

4.4. SUMMARY

The present chapter has turned attention to the speaker and addressee as participants in events and has treated particularly the deictic categories of spatial orientation, event mode and tense, and person. A

critical review of the reference of person categories indicated the fundamentally deictic character of referential identification in general, and a brief look at some other deictic categories indicated that the problem of referential identification involves reference to events as well as participants. It has been suggested in this chapter that deictic categories, whether of mode or person, are utterance-relative categories that cannot be described economically in terms of syntactic structures of clauses or sentences with a performative verb model. Gleason's variety of stratificational model appears promising to handle these phenomena, but needs to be modified explicitly to include the speaker and addressee in the semological structure of every utterance. While the phenomena under discussion are fundamentally related to utterances, attention in this chapter had been largely confined to deictic categories in single events realised in single verbs. In the following chapter attention is turned to multiple events realised in sequences of verbs, and to the combination of features of meaning and reference that tie these sequences together.

NOTES

1. Fillmore says in his supposition rules, "The place to which one COMES is a place where I am or where you are," but inconsistently refers only to the speaker's location in the further statement, "...the place to which one GOES is a place where I am not." This should of course be amended to add, "or you are not" (Fillmore 1966a:223). Similarly he limits attention too narrowly in discussing the example, "WHEN DID YOU COME TO THE SHOP?" when he states that the supposition behind the example is, "I, the speaker, am in the shop." But this should be amended to add, "or you are in the shop," relevant when the example is part of a telephone conversation. Further, his rule three about the location of participants at times other than the time of utterance will not do for English, because English uses 'come' and 'go' in narrative with other reference points than the position of the speaker and hearer. Also his time restrictions will not work as they stand. "I CAME THERE YESTERDAY MORNING supposes that YOU WERE THERE YESTERDAY MORNING" (1966a:225); it may suppose that you are there now. Motion toward either the speaker's or hearer's position at either the time of utterance or the time of action is referred to by 'come'.

The same set of rules appears to work equally well for the Koiné Greek of the New Testament whenever deictic orientation is marked. However, there the verb *erchesthai* 'come' is the unmarked term. When the speaker or addressee is involved in the narrated events, *erchesthai* 'come' contrasts with such verbs as *poreuesthai* 'go':

I say to this one, "Go," and he goes (*poreuetai*) and to another, "Come," and he comes (*erchetai*). Luke 7:8.

There are at least two possible ways to handle the pattern of occurrence of these verbs, with *erchesthai* 'come' repeatedly used of movement in one direction and shortly thereafter of movement in the

opposite direction. In Mark 1:9, Jesus 'came' from Nazareth to the Jordan to be baptized, and in Mark 1:14 he 'came' (ἔλθεν in both cases) from the baptism and temptation back to Galilee. One could consider *erchesthai* 'come' as unmarked for deictic reference in Koiné Greek, and this was the solution adopted in writing this dissertation originally. However, noting both the very widespread, possibly universal, semantic markedness of 'come' in relation to 'go' in other languages, and the structure of narrative Greek in the New Testament, it now appears more useful to describe the deictic reference point as movable, the viewpoint of a vicarious observer who precedes the participants but always keeps his eye turned back on their movement, like a movie cameraman going ahead of the actors. This kind of mobile deictic reference point is normal in Koiné Greek, but very infrequent and, when it does occur, sometimes confusing to speakers of Dani.

Even the rules for establishing the deictic reference point with regard to the speaker and addressee in the context of their discourse with each other appear not to be universal, however. One observed example which requires rules different from those discussed above is Myang in northern Thailand, as described by Mundhenk. In that language the position of the addressee is the deictic reference point when writing letters, and the writer says, "I hope you'll be able to go see me soon," and, "...when you go back here" (1967:92). Dani letters are like English at this point, and so are the Greek letters of the New Testament. While not universal, it looks as if Fillmore's supposition rules are less language-specific than he supposed.

2. The regularities involved both in Dani and in Koiné Greek or English become obvious when one translates from one language into another. Informants helping to translate portions of the Christian scriptures into Dani have frequently commented on these problems. An informant who had understood that Jesus went up a hill in Mark 3:13 commented that he ought to come back down before entering the house in 3:20. Dani reaction to John the Baptist's 'appearing', if translated literally, is to regard him as one of the original ancestors or other supernatural beings appearing by magical means. Humans 'come' or 'go' to appear in a narrative.

3. I first approached these problems in a brief and hurried study of English discourse prepared as a course paper in 1965 and never published. In that paper I treated each event node as including speaker and addressee valence to specific participants in the conversation, but did not use any graphic device to connect the occurrences of the same

participant as related by utterance roles to successive events. In effect, that treatment exhibited the same wasteful repetition as Ross's proposal, but in a stratificational model did not require deletion of verbs or clauses (Bromley 1965 ms).

4. In some related dialects there are regular patterns of selection of distinct vowels marking the possessed stem of alienably possessed (and, historically, also inalienably possessed) nouns. This pattern is in those dialects determined by the articulatory features of the initial consonant and vowel of the root. There is a pattern of vowel dissimilation determined by the articulatory position of the relevant consonants. Thus in those dialects noun roots with the vowel a in the first syllable of the root occur with a prefix consisting of another vowel marking possession; e.g. o= occurs before root-initial bilabial consonants followed by a, and e= occurs before tongue tip and blade articulated consonants followed by a. This pattern is no longer productive in the Hetigima dialect of Lower Grand Valley Dani, which is the primary basis for this description. In this dialect the prefix a= is used before any consonant-initial noun root. Traces of the older pattern are still observable in inalienably possessed nouns, however:

noppase 'my father';
 nomame 'my strength';
 netake 'my lung';
 nesakko 'my ear'.

In the neighbouring dialect spoken at Tangma, this pattern is still partially productive; the possessed form of japu 'garden being dug' is ajapu 'his garden' in Hetigima, but is more commonly ejapu 'his garden' in Tangma.

5. If as was noted in Chapter 2 above (see note 16) the form lvny 'Let's go now (with command to get going)' is taken into account, the morpheme =n(=) indicates subject other than first person singular (thus not the speaker by himself), implicitly second person singular and immediate imperative if not otherwise marked.

6. This understanding of number is normal for Dani. Singular versus plural is a contrast marked in only two semantic areas: (1) the area under discussion, i.e. person and number categories marked in inflectional prefixes and suffixes; and (2) kinship terms and a few other social role terms. The meaning of the contrast between nakvn 'my husband' and nakvny 'my husbands' is not a matter of polyandry. The plural forms of kinship terms refer to a group (or even a single non-

focal member of a group) or set which is defined in part by its inclusion of a kinsman of the specified relationship. Thus *nakvny* 'my husbands' occurs in one sense that may be more adequately glossed as '*my husband and his associated relatives*'.

CHAPTER 5

MULTIPLE EVENTS: VERBS IN SEQUENCE IN SENTENCES

In the last chapter attention was turned to the speaker and addressee as participants in events and to such deictic categories as mode and person. These and related categories are important in the construction of sequences of verbs and clauses. Like many other languages of the highlands of Irian Jaya and its international neighbour Papua New Guinea, Dani exhibits verb 'chains', which typically include one final finite verb in each sentence. That verb is marked for event mode, and person and number of the subject, but is often preceded by medial verbs which are not marked independently for these categories but must be interpreted relative to the categories of the final verb. Particularly, very many of these medial verbs are marked to indicate whether the subject is or is not coreferential with the subject of the superordinate verb (cf. McCarthy 1965; Capell 1962:115, 119; Wurm 1964:88). This chapter treats sequences of verbs and clauses within sentences. It does not attempt to describe Dani syntax exhaustively, but is rather restricted to verbs and sequences of verbs and verb-nuclear clauses.

5.1. THE NUCLEAR VERB PHRASE

5.1.1. The Verb

A single verb, as described in Chapters 2 and 3, may be a simple primary verb, a primary verb stem with one inner layer auxiliary verb and/or one outer layer auxiliary verb, or a secondary verb consisting of a stem plus one inner layer auxiliary, plus or minus one outer layer auxiliary. A single event mode category and a single set of person and/or number categories of the subject are relevant for the whole unit:

palhe. (=h= factive; =e 3s subject) '*He severed it.*'

palhy-laka. (=hy progressive stem marker; -la= + wela 'continue' as the outer layer auxiliary of progressive aspect; =k= factive; =a 3s subject) 'He was severing it.'

pal-hethy-laka. (h= 2s object; =et= inner layer dative auxiliary; =hy progressive stem marker; -laka outer layer auxiliary as in the last example) 'He was severing it for you(sg) and giving it to you.'

pal-aka-laka. (-a= P+ -la=, -lat= inner layer incurred process auxiliary; =ka progressive stem marker; -laka outer layer auxiliary as in the last two examples) 'It was becoming severed.'

tip-ikhe. (tip- secondary verb root; -i= inner layer auxiliary of incurred process; =k= factive; =he 3s subject) 'It abutted.'

tip-ykhy-laka. (-yk= root allomorph of inner layer auxiliary of incurred process; =hy progressive stem marker; -laka outer layer auxiliary as in the second example above) 'It was abutting.'

5.1.2. Motion Verbs

Unidirectional motion verbs may consist, as described in Chapter 4, of a simple verb of deictically oriented motion, a simple verb of topographically oriented motion with implicit deictic orientation away from the speaker and/or addressee, or the stem of any of the verbs of topographically oriented motion with a contracted form of the verb wa=, wet= 'come' to mark the unit as deictically oriented toward the speaker and/or addressee. Any of these verbs may be followed by an outer layer auxiliary marking progressive action:

pikhe. (pi= 'descend'; =k= factive; =he 3s subject) 'He went down, or He fell.'

pi aka. (pi potential stem of 'descend'; a= + wa=, wet= 'come'; =k= factive; =a 3s subject) 'He came down, or He fell down here.'

pi aka-laka. (a= + wa=, wet= 'come'; =ka progressive stem marker; -la + wela=, lokoi= 'continue' as outer auxiliary of progressive aspect; =k= factive; =a= 3s subject) 'He was coming down, or He was falling down here.'

In these verbs, too, event mode and person and/or number of the subject are categories which are relevant for the whole unit.

5.1.3. Motion Verbs Plus Potential Stems

Outside of, and normally preceding, the unit here labelled verb, forms of other verbs may occur in varying degrees of dependency on that verb. The closest degree of dependency is represented in the occurrence of a potential stem of one verb, which may not be a unidirectional

motion verb nor the verb *wela=*, *loko|=* 'continue', preceding a form of a unidirectional motion verb, whether simple or maximally expanded as described in the preceding paragraph. The preposed verb may consist either of the potential stem of a simple primary verb or of a verb root or reflexive stem with the potential stem of an inner layer auxiliary:

pali pi aka-laka. 'to-sever descend coming--he-was, i.e. He used to come down to cut it off.'

In this example the preposed potential stem *pali* 'to sever' occurs in construction with the maximally expanded verb of motion which follows.

pa-nesi pi aka-laka. 'sever--to-transfer-to-me descend coming--he-was, i.e. He used to come down to cut it off for me and give it to me.'

Here the preposed form is a construction of the verb root *pa|=*, automatically realised as *pa=* before *n*, with the potential stem of the dative inner layer auxiliary *-et=*.¹

There are two distinct semantic relationships realised by this construction of the potential stem with a motion verb. If the preposed potential stem, which may in no case be a unidirectional motion verb, implies simultaneous motion of the subject, the total construction specifies a single motion of the subject. Preposed stems of this kind thus refer to the manner or method of motion and include such stems as those which may be glossed 'running' or 'leaving':

hunut-ha pi aka. (hunut- secondary verb stem 'run'; -ha= potential stem of the locative auxiliary) 'run--do descend he-came, i.e. He came running down.'

wo'-lakha lvphe. (wok- + wan= 'move, take'; -lakha reflexive voice potential stem of -la=, -lat= 'incur a process'; lvphe + wvlvphe) 'move--incur-one's-self he-exited, i.e. He cleared out.'

This analysis indicates that the semantic or semological constructions realised by these verb phrases must be described to include semantic components, such as the component 'motion' of verbs including the unidirectional motion verbs, and also specifications for some elements that they presuppose certain semantic components in other elements. Thus the semological units realised as the preposed potential stems in the last two examples must be described as presupposing the component 'motion' in the element realised as the motion verbs. This is not merely a matter of semantic co-occurrence restrictions but is crucial to the interpretation of the semantic relationship of the two elements. Thus this analysis views what underlies these two-verb constructions not as two sentences which might be glossed, in the case of the third example on this page, 'He ran', and 'He came', but as semological constructions of elements which are semantic components and

specifications; these elements occur in 'bundles', with the tactics of their occurrence and the rules of their realisation specific for each language. While English provides a rather large number of surface verbs which often include components of motion, direction of motion and manner or method of motion, e.g. 'crawl', 'walk', 'run', 'swim', 'fly', Dani factors similar components in every case into two 'bundles', one including only the component 'motion' and a component of deictic direction 'toward' or 'away from' the speaker and/or addressee, with or without a component of topographic direction like 'up', 'down', 'in', 'out' or 'across', and the other a 'bundle' including the other components and the specification 'simultaneous motion of the subject presupposed'. In the case of many elements referring to the manner of motion, the manner-specifying element is realised as a potential stem of a verb preposed to a unidirectional motion verb. Some other elements are realised in other ways, all separately from the verb of unidirectional motion, and it remains an unsolved problem how to specify which elements are realised in which way in all cases.²

If the preposed potential stem does not presuppose simultaneous motion of the subject, the event referred to in the preposed stem occurs upon completion of the movement specified in the motion verb:

pa*li pi aka.* 'to-sever descend he-came, i.e. He came down to cut it off.'

wa*ni lvphe.* 'to-get he-exited, i.e. He went out to get it.'

Again, this analysis views what underlies these two verb constructions as two events but not as two sentences which might be glossed, in the case of the first example above, as 'He came down,' and 'He severed it.' Two such sentences are of course possible in Dani:

pa *aka.* 'descend he-came, i.e. He came down.'

pa*lhe.* 'he-severed-it, i.e. He cut it off.'

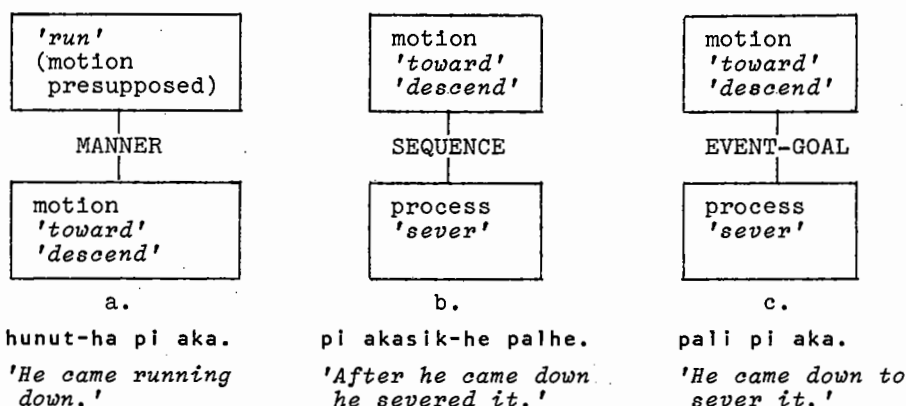
These may be joined by a device to be described later in this chapter to form a single sentence:

pa *akasik-he palhe.* 'descend he-came-prior(same subject)--topic he-severed-it, i.e. After he came down he severed it.'

But this last example is clearly distinct in meaning from the similar example above with a potential stem, where the potential stem specifies the event referred to to be the purpose of the motion. Neglecting for the moment the personal participants in the events, these relationships may be tentatively graphically represented by including components of 'bundled' semantic components and specifications within a single box and labelling semantic relationships between these 'bundles' with terms in upper case letters, as in Figure 9. The realisation rules must then specify that configurations like those labelled a. and c. in Figure 8

are realised by verb phrases consisting of a preposed potential stem and a unidirectional motion verb, with the motion verb realised as the last constituent, while a configuration like b. is realised as indicated with the constituents in logical order. If configurations a. and c. were diagrammed to include the participants, the agent role with each of the events would be occupied by the same participants. Realisation rules would further specify that person and number categories appropriate for this participant, and the modal category for the events, be specified once, on the verb of motion, for configurations a. and c., but twice, once on each verb, for configuration b.³

FIGURE 9
PARTIAL DIAGRAMS OF SOME TWO-EVENT CONSTRUCTIONS



Verbs and verb phrases as described above constitute very close knit surface constructions. All of them include only one event mode category and one marker of person and/or number of the subject categories for the whole phrase.⁴ These phrases may not be interrupted by another lexical item nor by the topic-marking clitic -he to be described in the following chapter. Further, the potential stem may not occur alone without the remainder of the phrase, even in replies. These facts and restrictions motivate the treatment of verbs and constructions of potential stems with motion verbs as nuclear verb phrases, closer knit constructions than any to be considered hereunder.

5.2. THE VERB-NUCLEAR CLAUSE

5.2.1. Close-Knit Constructions with Participles

Outside the nuclear verb phrase, as described above, there are several usefully distinguishable sorts of constructions, from those which are relatively close-knit to those which are maximally loose-knit in terms of syntactic cohesion and dependence. Constructions which

include only one finite verb or verb phrase comprise verb-nuclear clauses, and these may include close-knit constructions with participles and loose-knit constructions with non-finite forms marking coincident events. The closest knit of these constructions are those which include the participles described in Chapter 2. These include the iterative participle (marked with =h= factive plus =yk in major class verbs), the basic participle (marked with =yk after consonants, =lyk after vowels), the perfect participle (marked with =luk), the manner participle (commonly marked with =oko) and the past participle (commonly marked with =ek). None of these labels is entirely felicitous, and the most typical marker is retained as a mnemonic aid for purposes of citation and identification.

All of these participles, like the potential stem constructions with motion verbs described in the preceding section, occur in multiple senses in the constructions to be described, and these senses are largely determined by the semantic composition of the events realised in the verbs involved. Contrastive elements include whether or not the event is an event of motion; whether a motion event is an event of unidirectional motion; whether the event presupposes a component of motion elsewhere in the construction; whether an event presupposing motion presupposes simultaneous or sequential motion; whether the event is considered a preliminary or terminal part of a larger event; and whether the events involved are related as member and class. Each of these participles occurs in a sense referring to an event simultaneous with the event specified by the superordinate verb, and each also occurs in a sense referring to an event preceding the event specified by the superordinate verb, as summarised in Table 19.

The constructions charted in Table 19 are not all of the same degree of syntactic cohesiveness. The potential stem construction, included for purposes of comparison, has been described as significantly closer knit than any of the others and constituting what has been labelled the nuclear verb phrase. The constructions with the =yk basic participle are also of differing degrees of cohesiveness. The construction with the resultant sense of simultaneity, where a non-terminal non-motion event referred to in the basic =yk participle occurs during the motion event referred to in the superordinate verb, is markedly closer knit than the constructions with a resultant sense of sequence. The former are rarely interrupted by other lexical items or the topic-marking clitic -he, while the latter constructions, with the sense of sequential relationship, are most commonly observed with the clitic -he postposed to the participle. All of the charted constructions, however, share the property of signalling distinct, multiple senses or semantic relationships of the constituents, including relationships of sequence and

TABLE 19			
CONSTRUCTIONS OF PARTICIPLES WITH SUPERORDINATE VERBS			
Form of Participle	Specification of Participle; Refers to (A):	Events, Verbs Superord. Verb; Refers to (B):	Resultant Sense of Relation of Events (A), (B)
=oko	event specifying manner of motion (intransitive verb or phrase)	motion verb, 'continue'	simultaneity; motion or continuing (B) occurs in (A) manner
	event which is a member of class (B)	class of events including (A)	simultaneity or identity; (B) performed in (A) manner or by means of (A)
this sense also =ek	limited list of secondary verbs of perception, directionality	'continue', some other verbs	simultaneity; (A) is performed during (B)
	process	xx[(A) is attributive to noun or is substantive]	(A) is performed on noun, or noun referent has had (A) performed on it
	process, preliminary stage preceding (B)	later or terminal stage of same process as (A); or 'put'	sequence, (A) performed before (B)
=hoko	secondary verb of incurred process	any class of event	identity; (B) occurs in (A) manner
=luk	terminal stage of process, no portable product; or 'put'	motion	sequence; subject does (A) then moves as specified in (B)
	process with portable product	motion	sequence and simultaneity; subject does (A), carries product while moving as in (B)
	process, presupposes simultaneous motion, e.g. 'carry' 'track'	motion	simultaneity; subject does (A) while moving as in (B)
(=luk) ylvk	'say'	speaking	identity; subject speaks as specified in (B)
		any event other than speaking	sequence; subject speaks as in (A), then does (B)

(TABLE 19 cont.)			
Form of Participle	Specification of Events, Verbs Participle; Refers to (A):	Superord. Verb; Refers to (B):	Resultant Sense of Relation of Events (A), (B)
=hyk	preliminary repeated stage of process	later or terminal stage of same process as (A)	sequence or repeated sequence, i.e. AAB or ABAB
	included stage or process of larger event (B); repeated	larger event, including (A)	simultaneity or identity; subject does (B) by doing (A) repeatedly
	non-motion repeated	motion	simultaneity; sub- ject repeatedly does (A) while moving as in (B)
	any category of event repeated	'say', 'do' or 'continue' as quasi-auxiliary	identity; subject does (A) repeatedly
=yk	non-motion; verb does not include aux- iliary -hei= 'completive'	motion of subject	simultaneity; sub- ject does (A) while moving as in (B)
	non-motion; verb does not include aux- iliary -hei= 'completive'	motion of event (A)	event (A) moves like wave as specified in (B)
	non-motion, includes -hei= 'completive'	motion	sequence; subject does (A) then moves as in (B)
	motion	motion	sequence; subject moves as in (A) then as in (B)
	non-motion	non-motion	sequence; subject does (A) then (B)
=i potential stem	non-motion, simultaneous motion not presupposed	unidirectional motion	sequence; subject moves as in (B) to do (A) at completion of motion
	simultaneous motion pre- supposed	unidirectional motion	identity; subject moves in (B) direc- tion, (A) manner

simultaneity, determined by the semantic composition of those constituents. All other constructions involving the contrastive relationship of sequence or simultaneity include unambiguous overt markers signalling the contrast. Further, all of the charted constructions share the property of requiring that the subject of the verbs involved be the same and the event mode category be the same; this requirement is shared by some other constructions. These constructions may be surveyed one by one, from the relatively closest knit within the group to the loosest knit within the group, which as a group of constructions is close-knit relative to other constructions to be described.

5.2.1.1. *The =oko Manner Participle Constructions*

The =oko manner participle described in Chapter 2 occurs in several senses. It bears formal and sometimes semantic resemblance to adjective and other forms occurring in construction with the post-clitic -hoko (-soko after diphthongs ending in i; -toko after other vowels; -hoko elsewhere) to specify in some sense the manner of an action or event referred to in a following verb:

kok-hoko wo'-nethe. (kok 'big') '*big--manner move--he-transferred-to-me, i.e. He gave it to me generously.*'

hynaken-hoko pete-toko wo'-nesikin.... '*three--manner two--manner move--singular-subject-will-transfer-to-me, i.e. (He) will give it to me in triple or double measure....*'

(1) A similar sense of =oko manner participles of verbs occurs with intransitive verb stems (and some verbs with noun objects comprising idiomatic units equivalent to intransitive verb stems) preceding verbs of motion or the verb *wela=, lokoi=* 'continue' to specify the manner of motion or of remaining in a place:

vkkvl-oak palek lypyloko waka.... '*his-head--its-bone severed rolling it-came, i.e. The severed head came rolling.*'

...eilvken watoko lokoilepma-te.... '*knot tying(striking) 2p/3-subject-continue-hypothetical-setting--topic, i.e. If they had kept 'tying knots' (going around in circles)....*'

o hvlmo a watoko kisikhesik-he.... '*house floor-area-setting coil striking it-entered-long-ago-prior--topic, i.e. After it (the snake) entered the room coiling as it entered....*'

This sense, specifying 'manner of action' also occurs in constructions where the participle refers to an event which is a member of a larger class of events referred to in the following superordinate verb:

posije-pa lipilogo wathe.... 'axe--with tearing he-hit-him, i.e.
He lacerated her with an axe.'

Here 'tearing', as with teeth or claws, is conceived of as a kind of wounding, and this must be specified in the lexicon, along with the specification of this sense of wat= 'hit, kill'.

seke akeikhe watoko akeikhe watoko akeikhe watoko hakatha....
'spear one-of-group wounding one-of-group wounding one-of-group
wounding they-did-it, i.e. They wounded one, then another, then
another with spears.'

Here 'wounding' is a kind of 'doing', and this relationship must be specified in the lexicon.

(2) What may be interpreted as a related sense of the =oko manner participle occurs with a group of secondary verb stems, some of which (but not all) relate to 'looking', and with the primary verb hol= 'hear (or, sometimes, smell).' The secondary verb stems involved are:

hyt- 'examine, watch from close up';
set- 'wait for, guard';
lak- '(look or send) over a distance';
hak- 'grasp';
lek- 'lift';
sepet- 'push down';
lit- 'pull';
hokkot- 'shove'.

All of these secondary verb stems occur with the auxiliary verb -ha=, and also occur with suffixed participle endings. The =oko manner participles of these verbs are closely related to the =ek past participle forms; indeed the two endings alternate in the same construction as determined by the particular stem involved and the number category of the marked personal object. Further sample paradigms may be viewed in section D of Appendix A:

hy'-natek 'examining me';
hyt-hatek 'examining you(sg)';
hytoko 'examining him, her, it';
hy'-nisek 'examining us';
hyt-hisek 'examining you(pl)';
hit-isek 'examining them'.⁵

These forms commonly occur with the superordinate verb wela=, lokoi= 'continue' and have been observed occasionally occurring with other verbs, where the time reference of the participle and the superordinate verb are the same, and the participle may be interpreted as specifying an activity of the subject while he remains, or, in a loose sense, the 'manner' of his remaining:⁶

sve setoko wetek.... 'bird watching-it subject-continues, i.e. He is watching the birds.'

heil-ekken hytoko welaken. 'your(sg)-eye watching-it you(sg)-continue, i.e. You are staring at it.'

...henay setoko wein japhy-lokokun.... 'men's-house watching-it battle fighting--plural-subject-will-continue, i.e. They will keep fighting battles in guarding the men's house.'

(3) There are a few cases where the =oko manner participle is equivalent to an =ek past participle as an attributive. In Chapter 2 it was noted that some verbs, particularly those with roots in final ak, form the past participle in this way:

isako 'steam-cooked' (isak=).

But some other verbs which are inflected in an =ek past participle form also are observed to occur inflected in an =oko manner participle form in this sense:

...apput a'noko watoko svmvkka-pa isako wete'ma.... 'his-son that-we-know killed sweet-potato-leaves--on steamed subject-continued-setting, i.e. (there) where his son was, killed and steam cooked on the sweet potato greens.'

Here isako is the normal past participle form of isak= 'steam cook', but watek is the normal past participle form of wat= 'hit, kill'.⁷

(4) The commonest sense of the =oko manner participle is reference to a preliminary stage of a process a later or terminal stage of which is referred to in the superordinate verb. A common marker of terminality or completion of the whole larger event is the verb hei= 'put' either as an independent verb or as an auxiliary. In this sense, the event referred to in the participle precedes the event referred to in the presupposed verb:

sekkeloko nasuku. 'cutting-up-raw(cannibalistically) we-ate-long-ago, i.e. We cut (them) up raw and ate them (cannibalistically).'

...heiseloko nekkasik.... 'opening-(cooking-pit) they-ate-prior, i.e. They opened the pit and ate the food, then....'

su jo laloko ythatek. 'net cord spinning they-normally-make-nets, i.e. They spin cord and make nets of it.'

...tepek kapeloko, ouke paloko-nen hele paloko hokosik-en.... 'pegs sharpening cross-pieces severing--source tying-vine severing we-put-prior--source, i.e. After we sharpened the pegs and cut the cross pieces and then cut the tying vine and stockpiled these things, then we (made the raft).'

5.2.1.1.1. Semantic Relationships in =oko Manner Participle Constructions

It is important to note that one cannot interpret the relative time of occurrence of events referred to in constructions with =oko manner participles without knowing the semantic composition and relationship of the events. Specifically, one must know whether the event referred to in the participle is a stage within a larger process, all of which is referred to in the superordinate verb, or is a stage preceding a later or terminal stage referred to in that superordinate verb:

su jo laloko ythatek. 'nets cord spinning they-normally-make-nets,

i.e. They spin cord and (then) make nets of it.'

...wam watoko ithiki. 'pig killing I-"netted"-her-long-ago, i.e.

I gave her in marriage (or married her) by killing pigs.'

...posije-pa lipilogo wathe. 'axe--with lacerating he-wounded-him,

i.e. He wounded her by lacerating her with an axe.'

In the last example, as already noted, 'lacerating' is a kind of 'wounding', and the events referred to in the two verbs are identical; in other words, the two verbs refer to the same event. In next to the last example, killing pigs is one stage in the marriage rites, so that the second verb refers to a larger whole of which the first verb specifies a part. But in the first example the spinning of cord is an early stage in a process which is completed in making the net, so that the events referred to are sequential parts of the same unnamed larger process. The information needed for correct interpretation of these constructions can perhaps best be included in a thesaurus with entries in the lexicon keyed to the thesaurus. Only the most tentative approaches have been made to this task, and they are not included in this study.

5.2.1.1.2. Manner Participle Constructions as Close-Knit

It may be observed that =oko manner participle constructions are relatively more close-knit than constructions with =hyk iterative participles, =yk basic participles or =luk perfect participles. First, it may be noted that =oko manner participles are less frequently separated from their superordinate verbs than are the other participles; only infrequently are =oko manner participles set off by the topic-marking clitic -he. Second, =oko manner participles and =ek past participles occur as forms of major class process verbs only, except for forms of some secondary verbs occurring in special senses as described in section (2) above. Minor class verbs and auxiliary verbs are not inflected for this category. Since in the great majority of cases personal objects are marked in prefixes to auxiliary verbs, and

these have no =oko participles, =oko manner participles cannot be independently marked for personal object categories. Like other participles, =oko manner participles imply the event mode and subject categories marked in the superordinate verb, but unlike other participles, these forms thus also imply the personal object categories, if any, which are marked in the superordinate verb.⁸ Iterative, basic and perfect participles all occur as forms of inner layer auxiliary verbs to mark personal object categories independently of the superordinate verb.

5.2.1.1.3. *Forms of Secondary Verbs and Other Stems with -hoko*

Many secondary verb stems of incurred process and some other stems occur in constructions similar to those described for the first sense of =oko manner participles. Since such stems, unlike most of the major class process verbs, have no implicit transitivity, these forms occur in the sense of manner-specifying terms both with intransitive superordinate verbs like unidirectional motion verbs and also with transitive superordinate verbs:

sapok-hoko-at lak-alvk isiki.... 'secret--manner--predicate-marker
let-me-go--having-said I-said-long-ago, i.e. I said I was planning
to go secretly, or I planned to go secretly.'

Oteke akwe a'noko tauk-hoko-te Welesi lakeikhe.... 'Orege his-wife
that-we-know separating--manner--topic Welesi she-went-long-ago,
i.e. That wife of Orege's left him and went to Welesi.'

nettay-kken kakouk-hoko ikin. 'my-heart--seed(=heart) splitting--
manner singular-subject-will-say, i.e. I will speak extempor-
aneously.'⁹

Examples of these -hoko forms with transitive verbs include:

aik lipik-lapak-hoko nasikhe. 'his-tooth tearing-(intensive stem,
reduplicated)--manner he-ate-it-long-ago, i.e. It (a wild pig)
ripped him all up with its teeth as it ate him.'

te'mek-hoko hak-hasikhe. 'tight--manner grab--it-did-on-him-long-
ago, i.e. It seized him tightly.'

...heleng-hoko muk-isasuku. 'exhaustive--manner chase-out--we-did-
toward-them-long-ago, i.e. We drove them all out.'

In these constructions, as in constructions with =oko manner participles of major class verbs, a patient noun may occur with the participle, the noun plus participle then functioning as a phrase specifying 'manner':

japu apel-ekken tikki-tekke-toko wany'-lako. 'garden side-seeds(ribs)
protruding(intensive reduplicated stem)--manner digging--he-is,
i.e. He is digging garden so hard he is getting skinny (in a rib-
protruding manner).'

5.2.1.2. Constructions with the =luk Perfect Participle

The =luk perfect participle as introduced in Chapter 2 occurs in three related basic senses, besides specialised sense with particular verbs.

(1) In sentences which may be glossed, '*He did it and went,*' the non-motion event may be realised as a =luk perfect participle of the appropriate verb. If no result or product of the non-motion event accompanies the subject as he moves, the non-motion event is complete before the motion event begins:

wa'lekka saloko helvk-en hvpakko mottok ki aky. '*thatch covering having-put--source night altogether enter I-came, i.e. After we finished the thatching, when it was completely dark, I came in here.*'

(2) If, however, any product of the non-motion event may accompany the subject as he moves, such accompaniment is implicit, and the event thus both precedes and is simultaneous with the motion event:

...hvppvtv weta'luk we'no. '*sweet-potatoes having-roasted (you)-come-later, i.e. Roast sweet potatoes and bring them.*'

...haly wu'luk lakoukwha. '*firewood having-chopped they-went-long-ago, i.e. They chopped firewood and took it.*'

an melaik a'ly i'luk nykhy-laktyk.... '*I bailer-shell-that-in-context having-put-on move-around--I-continued-prior, i.e. I used to put that bailer shell ornament on and wear it around.*'

(3) Similarly, some non-motion events presuppose simultaneous or partially simultaneous movement of the subject, and in this case the non-motion event usually begins immediately before the motion event and continues throughout it. Verbs of carrying and escorting are the commonest examples:

jetalok lakoukwha. '*him-slung-on-a-pole they-went-long-ago, i.e. They carried him (a corpse) off slung on a pole.*'

an Poni ytvkv'lvk-he...lakaku. '*I Bernie carrying-him-on-shoulders we-went-long-ago, i.e. We went with me carrying Bernie on my shoulders.*'

seke lit-halok kukun.... '*spear pull-having done plural-subject-will-enter, i.e. They will pull their spears along as they go in.*'

The first two examples under this sense might also be interpreted as examples of sense (2); the first example might be glossed, '*Having slung him on a pole they went carrying him.*' But this last example is clearly of events that are coterminous both at the beginning and end.

The specialised form wolok '*carrying, escorting*', derived from the verb stem wok-, which is in turn a bound pre-clitic allomorph of wan=,

wakan= 'take', is special only in form. Its sense and distribution are like the =luk participles presupposing simultaneous motion of the subject as described above. This form implies a third person singular personal or non-personal object. If other person or number categories of a personal object are marked, the following forms occur:

- wok'-natek 'carrying, escorting me';
- wok-hatek 'carrying, escorting you(sg)';
- wok'-nisek 'carrying, escorting us';
- wok-hisek 'carrying, escorting you(pl)';
- wok-eisek 'carrying, escorting them'.

These forms are exactly parallel to forms described above for certain secondary verbs occurring with =oko manner participle inflection.

- nina'luk-he, sve-atek wolok-he, Hvpy-kkijak ete'ma lakoukwha.
'having-killed-us--topic bird-killed carrying--topic Hubi-kiak subject-continues-setting they-went-long-ago, i.e. After they killed some of our people, they took the 'dead birds' (weapons symbolising the victims) and went to the Hubi-kiak area.'

In this example the first =luk form refers to an event preceding the motion, but the symbolic product of that event is carried as specified in the construction with wolok 'carrying'.

The =luk perfect participle of the verb i= 'say' occurs in the forms iluk and ylvk as free variants, with the latter more common in this dialect. This form occurs mainly in quotative constructions, which will be separately treated. If it precedes a superordinate verb of saying or speaking, the participle and superordinate verb refer to the same speech event. If it is subordinate to any other kind of verb, the speech event precedes the non-speech event:

- ...we'nek ylvk usa'-mekke... *'let-third-person-come-now having-said subject-should-say--adversative, i.e. One ought to say, "Let them come," but....'*
- ...isakhan ylvk wok-othatek. *'(you-sg)-steam-cook-it-now-reflexive having-said take--they-normally-transfer-it-to-him, i.e. They say, "Cook this for yourself," and give it to him.'*

The special function of ylvk in intentional constructions, already introduced in Chapter 2, will be treated separately, as will the function of halok in the sense 'if', although in form halok is the =luk perfect participle of the verb ha= 'perceive'.

5.2.1.3. Constructions with the =hyk Iterative Participle

The iterative participle, as introduced in Chapter 2, occurs in two major kinds of constructions: one, with the negative particle lek in the commonest negative construction in the language; and the other with a superordinate verb. It is the latter use which is of concern in this section. Like other participles, the iterative participle implies the mode and person and/or number of the subject of the superordinate verb. However, more frequently than with other participles, the relationship of the implicit subject of the participle to the subject of the superordinate verb is one of membership in a larger group, or common membership in the same larger group. As will be noted, two =hyk iterative participles of related but contrastive meaning are often subordinate to the same verb but have different subjects, both included in the subject of the superordinate verb. This participle occurs in three main senses in construction with superordinate verbs:

(1) Iterative participles of one or more major class process verbs referring to repeated or intercalated prior stages of a larger event may occur subordinate to a verb referring to the terminal stage or a later stage of what is viewed as the same larger event. The later stage may occur after the completion of all the earlier stage events, or recurrently after each of them. The superordinate verb in this construction is either a process verb or the verb hei= 'put' or a verb form including the depositional auxiliary -hei=:

...jokolhy' nano. *'weeding (you)-eat-it-later, i.e. After the repeated weedings, eat (the sweet potatoes).'*

an-he jokko hykyk, jokko hykyk, jokko hykyk wok-hesikisik-he....

'I--topic summons putting, summons putting, summons putting move (dig)--I-put-it-long-ago-prior--topic, i.e. As for me, with repeated requests for help (after each of which some of the garden was dug) I finished digging it and then....'

(2) Related to sense (1) is the sense signalled when the events referred to in the participle are stages included in a larger event and the superordinate verb refers to the larger event. The last example above is a borderline case that might be interpreted either way. If interpreted in the sense suggested here, the events referred to in the participles are included in the event referred to in the superordinate verb:

...lakyyk pyyk-he ylve somaty'-lay. *'ascending descending--topic salt stockpiling--they-are, i.e. By making repeated trips up and down they are stockpiling salt.'*

The senses of the iterative participle discussed in sections (1)

and (2) above are parallel to senses discussed for =oko manner participles. The manner participles signal events considered as single units, while the iterative participles signal events considered as repeated or intercalated:

sal-hyyk-he, epe epe'na-kke tak-hyyk nokkotesik-he, epe'na-kke vkkvl
 saloko hokotesik-en, ke lapethusek. *'cover--putting--topic, real-thing some--direction dig--putting we-normally-eat-it-prior--topic, some--direction its-head covering we-normally-put-it--source trail we-normally-close-it, i.e. After covering some and digging others of the tubers, we eat the dug ones and then, covering up the rest and leaving them, we close off the trail.'*

In this example the early covering and digging is repeated and is referred to in iterative participles, but then there is a final covering reported as a single event in the =oko manner participle saloko 'covering'.

(3) When the superordinate verb is a verb of motion, the iterative participle refers to repeated events during the movement of the subject. This meaning resembles one sense of the =yk basic participle to be described. The iterative participle is preferred where two verbs occur to refer to intercalated or alternating events, or elsewhere where the distinctness of the repeated events is emphasised:¹⁰

mvl a'noko ekki ja hak-hyyk ta hak-hyyk-he, inopa lakasikhe.
'rotan that-we-know his-hand here grasp--doing-it-on-it there grasp--doing-it-on-it--topic, to-them he-went-up-long-ago, i.e. He climbed up to them grasping the rotan rope hand over hand.'

esa lokolhyk, Kupan-ttappo, Aso-ttappo, Aso-ttippo, Aso-lokkopal
 lokolhyk kikhetek. *'fighting-company mustering (four sub-confederacy names) mustering he-normally-enters, i.e. The fighting companies muster in turn, the Kuban-tapo, Aso-tapo, Aso-tipo and Aso-lokopal mustering in turn, as the (whole group) goes in.'*

(4) The =hyk iterative participle also occurs preceding and in construction with the verbs i= 'say', wela=, loko i= 'continue' or hakat= 'do, treat, make', where the second verb then functions essentially like an auxiliary. However, since the particular second verb used in these constructions is not predictable, it is difficult to describe them as single verbs, even though in each of these cases the second verb is in essence a 'carrier' for the mode and subject categories relevant to the events referred to in the participles:

at-en seke tumut-nyyk, an-en seke tumut-hyyk-at isuku. *'him-by spear thrusting--doing-toward-me, me-by spear thrust--doing-toward him--also we-said-long-ago, i.e. He thrust his spear at me and I thrust my spear at him (back and forth).'*

eleke an wanhyk Nonakkalyk wanhyk ukun. *'lads I taking Nonakalyk taking plural-subject-will-say, i.e. Nonakalyk and I will take turns escorting the boys.'*

wam kok wathyk, hamvlyk wathyk, kok wathyk hopuk wathyk alep wathyk hakathikhomo.... *'pig big killing small killing big killing later killing earlier killing he-did-long-ago-setting, i.e. He kept killing pigs, some big, some little, some at one time, some at another....'*

ninom layk wayk layk wayk wete'ma.... *'we-together going coming going coming subject-continues-setting, i.e. When we were travelling back and forth on good terms with each other....'*

5.2.1.4. Constructions with the =yk Basic Participle

The =yk basic participle occurs in the widest variety of environments of any of the participles, and the constructions in which it occurs in different senses range from relatively close-knit to the loosest knit of the participle constructions. In all the senses of simultaneity and sequence to be described, this participle frequently occurs repeated to signal an added aspectual sense referring to an extended event or series of events (compare van der Stap's label 'durative aspect' for this category as marked by these forms 1966:70).

(1) When the basic participle is of any non-motion verb which does not include the auxiliary -hei= in a completive sense, and occurs with a superordinate verb referring to motion of the subject, the event referred to in the basic participle occurs during the motion of the subject. This construction is relatively close-knit; the constituents are seldom separated by other lexical items or the topic-marking clitic -he:

...o haly hylyk, ap-hvny inatyk ki akeikhesik.... *'village firewood putting people killing-them enter he-came-long-ago-prior, i.e. After (the enemy) invaded this area, setting fire to villages and killing people as he came....'*

hetatyk esake kyok neikhoko weikhoko.... *'searching torch kindled we-moved-about(intensive event marked by syntactically reduplicated stem), i.e. We went all over hunting her by torch light.'*

ninatyk ninatyk-he joma-at wakoukwha. *'killing-us killing-us--topic here--predicate-marker they-came-long-ago, i.e. They came right here, killing people of our side as they came.'*

(2) There is an extended sense related to what has been described under sense (1); in this extended sense the subject does not move through space, but the event referred to in the =yk basic participle moves like a wave:

it a'loma puwalyk wakv-kkolek.... 'they off-there confessing plural-subject-come--while-others, i.e. While those folks off there are confessing the matter (one after another, so that the confession moves through the group)....'

...inepe hv'-latyk lylyk-en.... 'their-persons sit--doing going--source, i.e. After they sit down, one after the other....'

In this example the subjects do not sit down as they go, but the 'sitting' moves along the row of men lined up for a ceremony.

...svppvtv isatyk lakei akoukwha.... 'sweet-potatoes steaming ascend they-came-long-ago, i.e. They (prepared) the steam cooking (pit) (filling it) from bottom to top.'

Here it is not the women filling the pits who climbed, but the preparation of the meal involves placement of food and hot stones in pits, and this activity 'climbs' from the bottom of the pit to the top.

(3) When an =yk basic participle of a verb of any non-motion category marked for terminality (by the occurrence of the depositional auxiliary -hei=) occurs with a superordinate verb of motion, the event referred to in the participle precedes the motion event:

hoil sal-hylyk wvlvphy-lokolyk.... 'ambush cover--having-put (completive) exiting--as-same-subject-continued, i.e. After we had set the ambush and come out....'

(4) When an =yk basic participle of a verb of unidirectional motion occurs with a superordinate verb, which may be another verb of unidirectional motion, the events are in sequence:

lylyk we'no. 'going (you)-come-later, i.e. Go and then come back.'
wytyk-he, joko-isekatek. 'coming--topic tell--they-normally-transfer-it-to-them, i.e. After they arrive they tell them' (where the two 'they's' are co-referential).

...nopa lylyk-he, it japu seke tumut-hykyhy-lakoukwha-at. 'to-me going--topic they garden spear/spade thrust--putting--they-continued-long-ago--also, i.e. They went to my place and after they arrived they used to dig with garden-digging-sticks also.'

(5) Similarly, when an =yk basic participle of a non-motion verb is subordinate to another non-motion verb, the events are in sequence:

kvt-esi wanyk-he, hopuk-he sail-ekken wanhatek. 'white-heron--its-feathers taking--topic, later--topic cowry--seeds(shells) they-normally-take, i.e. After they get white heron feathers, then later they get cowry shells.'

nakko jy tak nylyk-en, Jesu ane wanikin.... 'my-pig this first eating--source Jesus his-talk singular-subject-will-take, i.e. After I first eat my pigs (at the feast) I will receive Jesus' words.'

The sequence in such case may be of successive time spans of the same event:

kok-atyk hamlvk kok-atyk kok-atyk kok-atyk-he kok-akeikhe. *'big--becoming little big--becoming big--becoming big--becoming--topic-marker big--he-became long-ago, i.e. Growing a little at a time, he grew and grew until he had grown up.'*

5.2.1.5. The Loose-Knit Quality of Some Basic Participle Constructions

It was pointed out above that some =yk basic participle constructions are relatively loose-knit. One piece of evidence for this is the occurrence of =yk basic participles with other relators postposed in patterns not observed with other participles functioning as participles:

With halok 'if':

an kyno joko-nytyk halok, Apsalek nakeijak.... *'me request tell--transferring-to-me if, Apsalek, my-friend, i.e. If they are asking me for it, (they would say) "Apsalek, my friend...."'*

In this example, the construction of the =yk participle of a verb of speech plus the relator halok before a direct quotation results in a sense of simultaneity or identity of events; the direct quotation is the request referred to in the participle.

Constructions with hesik 'because of':

ap atyk hesik heka. *'man killing-him (+watyk) because-of they-put-it, i.e. They placed it because they had killed a man.'*

inopa hakatyk hesik hokotek-at. *'on-them treating because-of we-normally-place-it--also, i.e. We also place it because we have treated people.'*

In these last two examples, the event referred to in the =yk basic participle precedes the event referred to in the superordinate verb.

Constructions with =mo 'setting':

There are no examples in the filed corpus, but =yk basic participles with the setting marker =mo are not uncommon in constructions marking sequence of events with change of grammatical subject:

an lyly'mo, at wesikin. *'I going-setting he singular-subject will-come, i.e. After I have gone, he will come.'*

Further, =yk basic participles signalling sequence of events occasionally occur with a different grammatical subject from the superordinate verb, provided that the speaker views the sequence of events as if it were the activity of a single participant:

at ki ytyk-he, weim lek-akhekein atty. *'he enter coming--topic-marker, battle not--singular-subject-will-become-reflexive that-abstract, i.e. After he (the government officer) comes in, the warfare is going to disappear, that's it.'*

inal-ele-kke lakalyk-he, wa'-lakeikhatek. *'their-intestines--orifice--direction ascending--topic die--they-normally-incur, i.e. After it (a magical lizard) goes up their anuses, they die.'*

In both of these last examples, the grammatical subject of the superordinate verb is different from the subject implicit in the participle, but in each case the events referred to in the two verbs are regarded as, in a sense, single larger events.

5.2.2. Loose-Knit Constructions with Markers of Coincidence

As well as close-knit constructions with participles, verb-nuclear clauses also include looser knit constructions with non-finite verb forms marking coincident action. It was noted for each of the participles discussed in the preceding section that it occurs in a sense signalling sequence of events, with the event referred to in the participle preceding the event referred to in the superordinate verb, and also in a sense signalling simultaneity or identity of events. There is another set of three non-finite verb forms which signal only events regarded as coincident: the -lokolyk forms marking progressive coincident events and anticipating a superordinate verb with the same subject; the =nem forms marking non-progressive coincident action or events and anticipating a superordinate verb with a different subject; and the -kkolek forms marking progressive coincident action or events and anticipating a superordinate verb with a different subject. There are other features of meaning to be considered for these forms as they are treated individually. These forms differ from the participles in significant ways. The two 'different subject' forms, while including no markers of person or number of the subject, signal that the implicit subject of the form is neither identical with nor included in the range of reference of the subject of the superordinate verb. These 'different subject' forms are also based on factive mode stems, and unlike the potential mode of the potential stem, for example, the factive mode category in these constructions may be interpreted as 'factive from the standpoint of the superordinate verb.' Thus they are more loose-knit in terms of independent marking of mode, person and number categories than are the participles. The -lokolyk forms, while not more loose-knit in these terms, are more loose-knit than the participles in that they mark simultaneity independently of the semantic composition of the superordinate verb.

5.2.2.1. *Progressive Coincident Events, Same Subject: -lokolyk*

The form -lokolyk is in fact the =yk basic participle of the verb wela=, lokoï= 'continue', and occurs both as a participle of that verb as an independent primary verb and as an auxiliary with the progressive stem of other verbs marking progressive aspect. Unlike =yk participles of other verbs, this form does not occur in any construction to signal an event preceding the event referred to in the superordinate verb; it always signals an event simultaneous with the event referred to in the superordinate verb.

(1) The participle lokolyk as a form of the primary verb wela=, lokoï= 'continue' occurs with preposed location terms or adjectives or =hyk iterative participle forms, e.g., to specify the location or condition of the subject during the event referred to in the superordinate verb:

ninom layk wayk...lokolyk-he, ap Wvkkahvpy Meake-nen ta' muk-isa ki akeikhe. *'we-together going coming continuing--topic man Wuka--hubi Meage--by first chase-out--to-do-toward-them enter he-came-long-ago, i.e. While we were going back and forth (on good terms), the Meage first invaded and drove out the Wuka-hubi.'*

o attoma opa lokolyk...le aka-lakeikhesik... *'tree there on-it while-subject-continued weeping doing--he-continued-long-ago-prior, i.e. While he was there in the tree, after he wept for a while....'*

(2) The participle -lokolyk as a form of the auxiliary verb marking progressive aspect occurs with the progressive stem of other verbs, as described in Chapter 2, to refer to an event which continues at least throughout the time span of the event referred to in the superordinate verb, where the subjects of both verbs are the same. It thus serves as a marker of progressive coincident or simultaneous action by the same subject. There are semantic restrictions on this construction such that the verb occurring with -lokolyk may not normally be a non-motion verb if the superordinate verb is a motion verb. Motion is normally conceived of as an implicitly durative category that can serve as a setting during which other events can occur, but motion is not normally regarded as set in the context of non-motion events as a background or setting. The -lokolyk form may, however, refer to a non-motion event during which the same subject performs some other non-motion event:

...wvlvphy-lokolyk-he hynaken wathuku. *'exiting-continuing--topic three we-killed-him-long-ago, i.e. As we went out (of ambush) we killed three.'*

le aka-lokolyk-he, wakkun mottok nasuku. *'weeping doing (literally becoming)--continuing--topic funeral-pig altogether we-ate-it-long-ago, i.e. As we wept, we ate the funeral pigs up.'*

The -lokolyk forms described above are potentially looser knit constructions than most participle constructions. Like certain other constructions with =yk basic participles, -lokolyk constructions have been observed with such postposed relators as halok *'if'*:

o mesalhy-lokolyk halok-he, hopuk wusuwok-olvk-he. *'house razing--continuing if--topic later let's-build-it-later--having-said--topic, i.e. In case they are tearing the house down in order to re-build it.'*

5.2.2.2. Progressive coincident events, different subjects: -kkolek

Part of the motivation for treatment of -lokolyk forms and constructions separately from other =yk basic participle constructions is the existence of the distinctive -kkolek forms and constructions specifying the setting for simultaneous action by a different subject. The event referred to in the subordinate -kkolek forms extends throughout a time span at least co-extensive with the time span of the event referred to in the superordinate verb. Further, the event referred to in the subordinate -kkolek form is backgrounded in the sense that this is the form of choice for referring to an event which was disregarded or neglected, although the superordinate verb refers to an event that took place during the disregarded event. Formally, as described in Chapter 2, most subordinate -kkolek forms are composed of the factive subordinate stem plus the clitic -kkolek. Other observed -kkolek forms are composed of the abnormal continuative aspect form, the past participle, the form wetek of the verb wela=, loko= *'continue'*, and some stems of other classes than verbs, plus the clitic -kkolek:

...wesa ikho-kkolek nykky-laken.... *'taboo saying--while eating--you(sg)-are, i.e. While folks are saying, "It's taboo," you're eating it.'*

Here it is not one speech of warning that is in view in the subordinate verb, but the continuing normal warnings against which the eating of the taboo item is set.

ap-hvny watek wetek-kkolek-he, pvna a'noko...wvlvphetek. *'people killed subject-continues--while--topic, lizard that-we-know it-normally-exits, i.e. After (literally while) the person is dead, that lizard goes out.'*

it a'loma puwalyk wakv-kkolek, at-he lapely'-lako. *'they off-there confessing plural-subjects-come--while he--topic concealing-it--he-is, i.e. While those folks off there are confessing the matter, with the confession passing through their group, he is concealing it.'*

5.2.2.3. Non-Progressive Coincident Events, Different Subjects: =nem

In contrast with the -kkolek forms described above are other coincident action forms constructed with the factive subordinate stem but with the suffix =nem, as described in Chapter 2. These forms contrast with the -kkolek forms in that they are not marked for progressive action; the action or event referred to in the subordinate =nem form may but usually does not extend throughout the time span occupied by the event referred to in the superordinate verb. The verb wela=, loko=i 'continue', which has an implicit component 'progressive' does not occur in this form in this sense. Further, the event referred to in the =nem form is not backgrounded in the sense of being neglected or disregarded, but rather is the event of reference or the basis for reaction for the event referred to in the superordinate verb.

'Coincident' here is not quite the same as simultaneous; frequently the event specified in the subordinate =nem form occurs just preceding the event specified in the superordinate verb, but this form does not specify the relationship of the events as sequential. Further, there are some, although not many, instances of =nem forms with the same implicit subject as the superordinate verb, while -kkolek forms have been observed only with different subjects from the superordinate verb. These =nem forms also occur not infrequently subordinate not to a single superordinate verb but rather to a whole discourse section or discourse for which the =nem form gives the time setting:

jykkvtvky hylmy-kkytvky hoina wani kvkvnem yly'-lay. *boys girls crayfish to-get when-plural-subject-enter saying--they-are, i.e. They say (it happened) when some boys and girls went in (to the water) to get crayfish.'*

In this example, which is the initial sentence in the discourse, the =nem form provides the time setting for the whole discourse.

he akeikhe sokopelan al wathenem tum-hoko wathukwaha. *woman one-of-group pandanus-air-root refuse when-singular-subject-strikes thrust--manner they-killed-her-long-ago, i.e. They killed a woman with a spear thrust when she was beating pandanus air-roots.'*

In this example the woman's action actually lasted much longer than the killing, but the point is that it was the relevant context for the attack.

...hela kin vkvnem-he ki aka-lakaki. *'take-yourself enter-now when-plural-subject-said--topic enter coming--I-continued-long-ago, i.e. When they said, "Get yourself in there!" I used to come in.'*

Here the event referred to in the =nem form precedes each event referred to in the progressive action superordinate verb. The mode category of the =nem form is relative to and interpreted from the standpoint of the

superordinate verb.

svppv tv ta'luk wakv nem-he...wateka. 'sweet-potatoes having-dug when-plural-subject-comes--topic they-injured-themselves, i.e. When they were coming bringing the sweet potatoes they had dug, they fell.'

This is one of the rare examples of a =nem form with the same implicit subject as the subject of the superordinate verb. Apparently the speaker does not set the accident in the context of the homeward trip and say, 'As they came they fell', using a -lokolyk form, but makes the trip an event of time reference, as if the subject were different.

The relationships of non-finite verb constructions marking coincident events are summarised in Table 20.

TABLE 20 COMMON CONSTRUCTIONS MARKING COINCIDENT EVENTS		
	SAME SUBJECT	DIFFERENT SUBJECTS
SUBORDINATE VERB: Non-progressive, foreground event	=yk basic participle of non-motion verb	=nem form of any verb except 'continue'
SUPERORDINATE	motion verb	any verb
SUBORDINATE VERB: progressive, background event	-lokolyk form of any verb (not a non- motion verb if super- ordinate verb is of motion)	-kkolek form of any verb
SUPERORDINATE	see above	any verb

Note that while Table 20 includes the commonest of the close-knit participle constructions marking simultaneous events, the =yk basic participle of a non-motion verb occurring with a superordinate motion verb, it does not include the other participle constructions referring to simultaneous events.

The constructions with participles and with other non-finite verb forms referring to coincident events are usefully considered to be within the same clause as the superordinate verbs, although in most cases separate events are referred to in the subordinate and superordinate verbs. In all cases, the event mode category and the subject category of person of the non-finite verb form are relative to the categories of the superordinate verb; i.e. the non-finite forms treated in this section are not independently marked for person of the subject, and the

mode category marked in these forms must be interpreted relative to the category of the superordinate verb. The verb-nuclear clause in Dani may be defined to include one and only one finite verb form; it thus also includes any non-finite verb forms subordinate to a finite verb.

It is currently common to derive such non-finite verbals from clauses or sentences (e.g. Chomsky 1965:185; Longacre 1970). The interplay of categories of reference to participants and semantic components of meaning which characterises these constructions makes it more attractive to derive them not from sequences of sentences which become conjoined or embedded but directly from the semological structures realised in these surface constructions. The present study is only a first step toward describing these structures and their realisations.

5.3. SUBORDINATE CLAUSES

The constructions described thus far in this chapter have all included non-finite verb forms, which are not independently marked for mode and subject person categories. They are thus verbals, which are dependent on superordinate verbs within the same clause in the usual cases. There are also constructions employing finite forms of verbs which are marked for mode categories and, when contrastive, for subject person categories, yet are also marked as dependent upon a superordinate verb or clause. It is useful to consider these constructions to be subordinate clauses, constructions more loosely related to the superordinate clause than non-finite verb forms are related to finite verbs within the clause, but also more dependent on and tightly knit with the superordinate clause than other clause types to be described. Since mode categories are often specified in these constructions they will be presented in terms of the mode category specified.

5.3.1. Subordinate Clauses with Specified Potential Mode

5.3.1.1. *Clauses of Interrupted Events, Marked with ha'ma*

There are two commonly occurring constructions with a relator and a future form of the verb in the subordinate clause to refer to interrupted events. The superordinate clause normally has a verb in simple factive or remote past factive mode. The relator *ha'ma* (sometimes *a'ma*) is used in such constructions to refer to an event that was begun or was about to begin but was interrupted either by the agent of the original event or by someone else:¹¹

...pete-toko wo'nesikin ha'ma, makke-at wo'-nethe. 'two--manner
 move--singular-subject-will-transfer-to-me interrupted one move--
 he-transferred-to-me, i.e. As he was about to give me two he gave
 me one.'

In this example the verbs in the subordinate and superordinate clauses have the same subject.

paik wasikin ha'ma, wam helo-nen-he...epe mottok nasikhe. *'forest-animal singular-subject-will-kill-it interrupted pig wild--source--topic his-person altogether he-ate-it-long-ago, i.e. As he was about to kill a forest animal, a wild pig ate him up.'*

In this example the verbs in the subordinate and superordinate clauses have different subjects.

5.3.1.2. Clauses of Interrupted Events Marked with akka=

The verb akka= 'understand' in factive forms is also used as a relator following future forms of other verbs. This subordinate clause occurs with a superordinate clause including a verb of the same mode category as the akka= form and, normally, with a different subject from the subordinate future form; the akka= form and the subordinate future form share the same subject. The resultant subordinate clause refers to the frustration of the subject's purpose or plan:¹²

alokkop palik-ylvk ikin akkasikhe...hemeloko hesikhe. *'her-throat let-me-cut--having-said singular-subject-will-say he-understood-long-ago... vomiting she-put-him, i.e. As he was about to cut her throat, she vomited him (another participant) up.'*

hang asukun akkeka-te...heleng-hoko watha... *with-arms-readied plural-subject-will-become they-understood--topic exhaustive--manner they-killed-him, i.e. As they were about to bring their weapons to the ready position, (the enemies) killed them all.'*

5.3.1.3. Clauses of Mistaken Supposition, Marked with salek

The relator salek occurs following future forms of verbs in subordinate clauses referring to an event which the subject of the superordinate clause wrongly supposes will happen or has happened and on that basis acts as specified in the verb of the superordinate clause. The superordinate clause normally has a verb in a factive form, either simple factive or remote past, specifying that the event referred to in that verb has already occurred. It should be noted that the person who wrongly supposed that the event would happen was, at the time of his action based on that supposition, predicting a still future event. The speaker now reporting the event knows that the supposition was false and the predicted event did not happen, but that the event reported in the superordinate clause did happen. Neither event is appropriately referred to in the hypothetical mode:

anewu wesikin salek laken. 'airplane singular-subject-will-come supposing you(sg)-went, i.e. You went on the mistaken supposition that the airplane was coming (and it wasn't).'

5.3.1.4. Clauses of Confident Prediction, Future with =mo

The event-setting suffix =mo occurs with future forms to refer to an event confidently predicted, on the basis of which the event specified in the superordinate clause occurs. The subordinate clause and the superordinate clause have verbs with different subjects, as with other constructions including the relator =mo:

...wesa wetek-kkolek...jokolikinmo atty-re, at hopuk-at jokolusak-o.
'taboo subject-continues--while singular-subject-will-weed-setting that--topic, he later--predicate subject-ought-to-weed--decisive, i.e. Since it is the case that he is going to weed (his garden) while he has taboo objects, he (another participant) ought to weed his later.'

5.3.1.5. Clauses of Intention, Marked with =ylvk

In Chapter 2 verb forms occurring in two types of purpose construction were described. In each case the subordinate clause has a verb in deferred hortative form, a potential mode category. The first of these clause types has a deferred hortative verb form plus a cliticised form derived from ylvk 'having said', the =luk perfect participle of the verb i= 'say'. The pattern of the paradigm was described in Chapter 2 and is further displayed in the appendix. This construction refers to a planned event in the subordinate clause, in preparation for which the planner acts in the superordinate clause. If the subject of both verbs is the same, first person forms are used in the subordinate verb. If the subject of the subordinate verb is different from the subject of the superordinate verb and is the addressee or addressees, second person forms are used in the subordinate verb. If the subject of the subordinate verb is different from the subject of the superordinate verb and is not the addressee or addressees, third person forms are used in the subordinate verb. This relative person reference is summarised in Table 21.

TABLE 21
RELATIVE PERSON REFERENCE IN INTENTIONAL CLAUSES

SUBORDINATE INTENTIONAL VERB FORM	REFERENCE	SAME (=)* OR DIFFERENT (≠) SUBJECTS	SUPERORDINATE VERB (FORM AND REFERENCE)
1s	(1,2,3)s**	=	(1,2,3)s**
1p	(1,2,3)p**	=	(1,2,3)(s,P)**
2s	2s	≠	(1,3) (s,p)
2p	2p	≠	(1,3) (s,p)
3	(1,3)(s,p)	≠	(1,2,3)(s,p)

* 'Same' subject here refers to identical or included reference, i.e. the subject of the subordinate verb is the same as or includes the subject of the superordinate verb.

** Person reference is the same in the two verbs.

Thus in effect, where the subjects of the subordinate and superordinate verbs are coreferential, or the subject of the superordinate verb is included in the reference of the subject of the subordinate verb, the person category of the subject of the subordinate verb is interpreted as if the subject of the superordinate verb were the speaker or speakers. But where the subjects of the two verbs are different, then second person forms of the subordinate verb are interpreted from the standpoint of the actual speaker, and third person forms are used in all other cases.¹³ Because of this pattern of relative person reference, first person forms are very much the most common in subordinate intentional clauses. In the following examples, note is made of the form and reference of the verb in the subordinate intentional clause and whether or not the verb in that clause has the same subject as the verb in the superordinate clause:

Same subject, first person singular form and reference:

...wanik-ylvk lakaki.... 'let-me-get--having-said I-went-long-ago,
i.e. I went to get it.'

Same subject, first person singular form, third person singular reference:

paik wasik-ylvk wakama.... 'forest-animal let-me-kill-it--having-said he-came-setting, i.e. He has come to kill forest animals.'

Same subject, first person plural form, third person plural reference:

sppvtv nvok-olvk wakoukwha.... 'sweet-potatoes let-us-heat--having-said they-came-long-ago, i.e. They came to eat sweet potatoes.'

Same subject, first person singular form, second person singular reference:

wasik-ylvk eken? *'let-me-kill-him--having-said you(sg)- said query, i.e. Were you planning to kill him?'*

Different subjects, second person singular form and reference:

wo'-ne'nok-olvk waky.... *'move--you(sg)-transfer-to-me-later-hortative--having said I-came, i.e. I have come for you to give it to me.'*

Different subjects, third person form and reference:

wesuwak-alkv-he, sail-ekken...wok-eisokotek. *'let-third-person-come--having-said--topic cowry--seed(shells) move--we-normally-transfer-it-to-them, i.e. We give cowry shells to the (mediums) so that (the spirit) will come.'*

Different subjects, third person form, first person singular reference (example from a neighbouring dialect in lieu of an example in the filed corpus):

neil-ekken hoak-alkv wo'-natek lasak. *'my-eye--seed(eye) let-third-person-see-it--having-said take--doing-on-me(escorting-me) subject-ought-to-go, i.e. (You) ought to take me so that I can see it.'*

In the last example, note that 'see' is construed as having persons as subjects, and 'eye' is in effect an instrument. Compare an example with this construction where the verbs in the two clauses have the same subject:

neil-ekken hak-alkv waky. *'my-eye--seed(eye) let-me-see-it--having-said I-came, i.e. I came to see it.'*

The following constructed example is not paralleled in the filed corpus but is common conversational Dani:

keppv asuwak-alkv joko-niseken? *'unimportant let-third-person-become-later--having-said tell--you-transferred-to-us query, i.e. Did you tell us that so that we would become nobodies?'*

In this last example, also, the subordinate intentional clause has third person form but first person plural reference.

In these same forms, the person reference of any personal object-marking prefixes is interpreted from the standpoint of the speaker in all cases, so that in this construction, and only here, there occur verb forms which have first person object markers, referring to the speaker or the speaker with others, and also first person subject markers, where these refer to the addressee or any other non-speaker, since the marked subject person category is not interpreted from the standpoint of the speaker but of the subject of the superordinate verb:

nasuwok-olvk-at ykhy-lakoukwha. *'let-us-kill-me--having-said--predicate saying--they-were-long-ago, i.e. They used to make plans to kill me.'*

In this example, the planners are the referents of the first person

plural subject marker on the verb in the subordinate intentional clause, and the speaker is the referent of the first person singular object marker.

wo'nesik-ylvk eken? *'move--let-me-transfer-it-to-me--having-said did-you(sg)-say, i.e. Did you say that you were planning to give it to me?'*

In this example the first person singular subject marker on the verb in the subordinate intentional clause refers to the addressee, who is subject of the superordinate verb, and the first person singular object marker refers to the speaker.

These intentional clauses may occur sentence and even utterance finally, where they presuppose not a superordinate clause in the linguistic context but an event in the situational context:

an lak-alkv. *'I let-me-go--having-said, i.e. I'm getting ready to go, or I have decided to go.'*

hat-he Pasema lvok-olvk eka.... *'you(sg)--topic Pasema let-us-go-later--having said they-said, i.e. They said that you and others were planning to go to Pasema.'*

5.3.1.6. Facilitative Clauses, Marked with -nen

Subordinate clauses with verbs in the deferred hortative form plus the post-cliticised relator -nen 'source' occur in construction with superordinate clauses with verbs in any modal category appropriate to the discourse. The subordinate clause then refers to an action performed by a participant considered to be the principal or proper actor, who is often also the planner; the superordinate clause refers to an action or event which facilitates the action in the subordinate clause:

svppvtvk na esuwak-en wa-isa lani. *'sweet-potatoes to-eat let-third-person-come-later--source call--to-transfer-to-them you(pl)-go-now, i.e. Go call them so that they can come and eat the sweet potatoes.'*

In this example the men who are called to the meal are those who requested it to be prepared; they are the 'principals' in the event.

Vkkvmheatyk watoak-en-he, sve-atek at wok-osi lvok. *'Ukumhearik(name) let-third-person-strike-it-(celebrate)-reflexive--source--topic bird-killed him move--to-transfer-to-him let's-go-later, i.e. Let's go give the 'dead bird' (symbol of battle victim) to Ukumhearik so that he can celebrate (the victory dance) for himself.'*

Here Ukumhearik is regarded as the leader with primary rights against

the enemies of whom one was killed by the speaker's group; they give him the symbol of the victory, and while they are the planners, he is the 'principal'.

Note the contrast between facilitative clauses and intentional clauses; in the -ylvk intentional clause, the subject of the superordinate verb is the planner, whereas in the facilitative clause, the subject of the superordinate verb is the principal participant and often the planner:

wolo' loak-en wok-eisan. *'carrying-it let-third-person-go-later--source move--you(sg)-transfer-it-to-them-now, i.e. Give (their spears) to them so that they can carry them off.'*

In this example the subject of the superordinate clause had seized weapons from a group of his enemies. These enemies, under escort of a government officer, receive them back when the officer, in this example, orders the leader who had seized them to return them to their owners. He was reluctant but complied. The subject of the facilitative subordinate clause is the group who owned the weapons, the 'principals' in relation to those objects, and the speaker, who was the government officer, is the planner but not overtly referred to in the example.

namelaik a'noko wo'-ne'nok-olvk waky. *'my-bailer-shell that-we-know move--you(sg)-transfer-it-to-me-later--having-said I-came, i.e. I came for you to give me back that bailer shell of mine.'*

In this example the subject of the verb in the superordinate clause made a trip to recover a stolen shell, which had been given by the thief to the addressee, who only reluctantly surrendered the goods. The subject of the superordinate clause is the planner and the principal participant in the event.

5.3.1.7. Portentive Clauses of Negative Purpose: =i-noko-ivk

The potential portentive forms, consisting of the potential stem plus the post-clitic -noko, occur with a further post-cliticised contracted form of ylvk 'having said', the perfect participle of =i 'say', in a clause of negative purpose. The portentive form with -noko, while based on the potential stem, can be considered finite as a verb form even though it does not mark contrast of person categories of the subject, since it does not require or presuppose a following verb with those categories marked. In this construction, which is here included among subordinate clause types, the resultant meaning is related to the meaning of the intentional clauses treated above, but the distinctive pattern of relative person reference associated with the intentional clauses is not observed in these portentive clauses.¹⁴ There

are no examples of this clause in the filed corpus, but it occurs not infrequently:

weak asi-noko-lvk hakathi. *'bad to-become--liable-to--having-said I-did-it, i.e. I did it to keep it from spoiling.'*

5.3.1.8. Generalised Conditional Clauses with Potential Gerund plus =mo

The potential gerund as described in Chapter 2 occurs with the event setting marker =mo (regardless of the phonological shape of the gerund) in the protasis of what may be called generalised conditional clauses. These clauses are not marked to refer to the condition as contrary to fact nor as anticipated fact but represent the sense of potential event mode described in Chapter 4 in which the opposition of hypothetical mode to potential mode in its narrowest sense is neutralised. Only one example of this kind of clause occurs in the filed corpus:

inom appy-toko hakasumo-te, y. an nane yky a'noko-nen.... *'they-together simultaneous--manner if--subject-does--topic, yes. I my-voice I-said that-we-know--source, i.e. If (you) should do it at the same time (he might say), "So there. It was from that pronouncement of mine (that they did it)."*'

5.3.2. Subordinate Clauses with Specified Hypothetical Mode

5.3.2.1. Contrary-to-fact Conditional Clauses

Hypothetical mode forms with the suffixed event setting marker =ma occur in the protasis of contrary-to-fact conditions, and either other hypothetical forms or potential mode forms occur in the superordinate clause which is the apodosis:

pelal ta' lylyk, napvlal-hapvlal ilepma-te... ap-hvny inapvlal wanhy-lokoilep. *'snake first having-gone my-epidermis--your(sg)-epidermis-(idiom for changing skin and thereby renewing life like snakes, in the local view) if-2p/3-subject-say-hypothetical--topic people their-epidermis taking--2p/3-subject-continue-hypothetical, i.e. If the snake had arrived first and said, "Change skins," people would have kept changing their skins (and not died).'*'

In this example the verbs in both the subordinate protasis and the superordinate apodosis are in hypothetical event mode.

...eluk akeikhe ma'-ne'lepma wok-osi esu-mekke. *'its-live-condition one-of-group share--2p/3-subject-transfer-it-to-me-hypothetical-setting move--to-transfer-to-him subject-come--adversative, i.e. If they had given me a live (pig), I could have brought it and given it to him (but he didn't give me enough shells to make that possible).'*'

In this example the verb in the subordinate clause which is the protasis is in hypothetical mode, and the verb in the superordinate apodosis is in potential mode, in the wider sense of that mode in which the contrast between hypothetical mode and the narrower sense of potential mode is neutralised.

5.3.3. Subordinate Clauses with Specified Factive Mode

5.3.3.1. Factive Conditional Clauses, Marked with -halok

Conditional sentences which refer to what is regarded as a real possibility in the future or to normally recurring relationships of contingency are commonly constructed with a subordinate protasis including a verb form consisting of the factive subordinate stem or the abnormal continuative aspect form plus the relator halok. With the factive subordinate stem this relator is postcliticised, and occurs in the form -salok after stems marked for plural subject, as described in Chapter 2. The verb in the apodosis is commonly a future or other potential form of the verb, or a normal aspect form. This same type of subordinate clause also occurs preceding factive forms in what would not traditionally be considered to be conditional sentences but could be glossed, '*Since A did X, B did Y.*' In both kinds of case, however, the first clause refers to the determining event upon which the event referred to in the superordinate clause is or was contingent. If the second clause employs a factive form with past reference, the contingent event has occurred; if it employs a normal aspect form, the contingent event normally occurs when the condition specified in the protasis is fulfilled. If the apodosis employs a potential form, the contingency is still open. It will be recalled that -halok is in form the =luk perfect participle of ha= '*perceive*', and that in many examples it is possible to gloss the form, '*When the subject of the verb in the apodosis sees that the subject of the verb in the protasis has done what that latter verb specifies, he acted, acts or will act as specified in the verb in the apodosis.*' However, this sense is now often lost, and conditional sentences in this form occur with verbs with the same subject in both the protasis and apodosis, where the literal kind of gloss suggested above seems inappropriate.

These constructions with the factive subordinate stem are non-finite verb constructions, but the clauses in which they occur are best treated with other subordinate clauses rather than as intra-clause verbals like the forms referring to coincident events.

weim japhy-lokoni ikhe-halok-he, hano-at japhy-lokokun. 'battle fighting--you (pl)-continue-now he-said--if--topic, good--predicate fighting--plural subject will continue, i.e. If he says, "Keep on fighting," then we will keep on fighting - that will be good.'

ap-hvny inathv-salok-he, ap kvt-esi wanhatek. 'people plural-subject-kill-them--if--topic men white-heron--its-feathers they-normally-take, i.e. If they kill people, the men procure white heron feathers.'

uwan nvkkv-salok-he, hep-isoko. 'stolen-pig plural-subject-eat--if--topic discard--we-did-to-"them", i.e. Since they had stolen the pig and eaten it, we forgot about it.'

The same conditional relator halok with no alternate form marked for plural subject also occurs following a number of other verb categories in looser constructions but all with meanings similar to those described above. In these cases also, this relator must sometimes be glossed 'if', and sometimes be glossed 'since', but the logical relationship of clauses seems to have a common feature in all cases:¹⁵

yly'-lako halok-he, atty wesahē eka atty. 'saying--he-is if--topic that medium-woman they-said that, i.e. Since (the familiar spirit) speaks, that's why they said that woman is a medium.'

weak-akama halok, inepe wa'-lasikin halok eka. 'bad--it-became-setting if, their-persons singular-subject-will-die if they-said, i.e. Since it (the divining rite) had gone bad (had given a bad prognosis), and the patient (referred to as plural, but literally one person) will die, they said that.'

5.3.3.2. Factive Negative Clauses, with the Iterative Participle

It was earlier noted that the iterative participle occurs in two major senses, one of which occurs preceding a superordinate verb in a close-knit intra-clause participle construction, and the other of which occurs in construction with the negative particle lek 'not'. It is useful to interpret this negative particle as a non-verb predicate, usually with implicit factive mode, as will be discussed again in Chapter 6. The negative clause is then usefully treated as subordinate to that non-verb predicate, constituting a non-verb clause. When lek occurs sentence finally following such a negative clause, the factive mode category implicit in non-verb predicates is understood. When a verb-nuclear superordinate clause follows, the negative clause implies the same event mode and the same subject as the verb in the superordinate clause. The negative particle also occurs followed by a form of wela=, lokoī= 'continue' as a carrier of inflection to signal other

modal categories than the simple factive category implicit in the form:

i...nykky' lek lakeikhatek.... *'water consuming not they-normally-go, i.e. They travel without drinking (on the way).'*

This example includes a sense of the iterative participle that bridges the two major senses; or includes them, in that the non-motion event referred to in the subordinate clause occurs during the motion referred to in the superordinate verb-nuclear clause, even though there is, in the interpretation adopted here, an intervening non-verb clause to which the negative clause is subordinate and which is in turn subordinate to the superordinate clause.

i nykky' lek lokokin. *'water consuming not singular-subject-will-continue, i.e. '(Singular subject) will continue to refrain from drinking water.'*

Here the modal category 'future', a potential mode category, is marked in the verb 'continue' as a carrier of inflection, and the modal meaning of the negative clause is understood relative to that mode.

These negative clauses also occur with the relator =ma 'setting' suffixed to the negative particle lek; in such cases a superordinate verb-nuclear clause occurs with a verb with a subject different from that of the subordinate clause:

...wenak-eisyky' le'ma-at inapusak-at lakeikha. *'rebuke--transfer-to-them not-setting--predicate their-volition--predicate they-went, i.e. They went off of their own accord when they hadn't been reprimanded at all.'*

Here the relator =ma signals sequence of events as well as change of subject.

Negative clauses of this form also occur with the relator halok 'if':

...isasin yky' lek halok-he.... *'you (sg) -cook-it-now saying not if--topic, i.e. If they don't say, "Steam cook it,"....'*

5.3.4. Subordinate Clauses with Specified Factive or Potential Mode

5.3.4.1. Clauses of Place, Marked with =ma, =mo

The locative role with its sub-senses 'target' and 'locus', and the meaning 'place from which' may be filled not only by place names or locational phrases with appropriate relators, but also by clauses specifying place. The most common relator marking clauses specifying place is the suffix =ma, =mo 'setting', in a locative rather than a temporal sense:

ma-ma Minimo Molamelaik o'lilu pi akasi'mo-nen, o wuthikhem o pi akasi'mo-nen.... 'down--setting Minimo(place) Bromley yard descend he-came-prior-setting--source, house he-built-long-ago-setting descend he-came-prior-setting--source, i.e. After he(the enemy, referred to in third person singular) had come down to Minimo, to Bromley's yard, after he (the enemy) had come down where he (Bromley) had built his house....'

In this example, the repeated verb pi akasi'mo-nen 'after he had come down, then...' includes the relator =mo 'setting' as a marker of change of subject and of sequence, as will be further described. The clause o wuthikhemo 'house where he built it long ago,' or 'where he built the house long ago' serves only to specify the location or 'place to which' the subject came down, although the relator =mo is the same morpheme as that which occurs in another sense in the other verbs. One overt clue that the event of building referred to in this verb is not part of this sequence of events is the fact that this verb is the only remote past form in the discourse. While it is not uncommon for the speaker to shift from remote past to factive here and there through a discourse, the reverse shift is significant. The remote past factive form specifies that the house had been built before the other narrated events, but the clause functions in the same way as the non-verb locational expressions occurring before the first motion verb.

5.3.4.2. Clauses of Place Marked with -opa

No example occurs in the filed corpus, nor is it a common construction, but the relator -opa (after consonant-final stems), -pa (after vowel-final stems) 'on, to' also occurs with clauses of place like the following constructed example:

at welakeikhe-pa lokokin. 'he he-continued-long-ago--on singular-subject-will-continue, i.e. (I) will stay where he stayed.'

5.3.4.3. Clauses of Basis with -opa

In an extended, figurative sense, the relator -opa, -pa 'on, to' occurs post-cliticised to verbs in clauses referring to an event which is considered to be the basis for the event referred to in a following superordinate clause. There is only one example in the filed corpus:

ninathukwha-pa-nen-he...sikhe kakal-hylyk-he Wvka-hvpy inathu inathu inathu welako.... 'they-killed-us-long-ago--on--source--topic...bow split--depositing--topic Wuka-Hubi we-killed-him-(three times) we-continue, i.e. Because (on the basis that) they killed some of us back then, we made bows and have kept killing them and are still (killing them).'

5.3.4.4. *Clauses of Prolonged Events, with Repeated Verbs*

There are in the filed corpus a number of examples of verbs and verb phrases repeated to refer to single prolonged events or a prolonged series of events. Often the sequence is so tight-knit, admitting no other lexical items or clitics into the series, that it is tempting to consider these constructions as within the verb-phrase, equivalent to an inflectional category of verbs.¹⁶ But the repeated forms are very frequently finite verbs with each form marked for person and event mode in a way otherwise quite foreign to the nuclear verb phrase. Further and more importantly, the repeated forms do not normally occur sentence finally but rather occur subordinate to a following verb. They therefore constitute the predicate of a kind of subordinate clause which is internally quite tight-knit. Repeated verb forms observed include simple factive forms, remote past factive forms, normal aspect factive forms, progressive aspect forms, =nem coincident punctiliar forms, and a variety of participles, including the =yk basic participle, the =oko manner participle and the parallel -hoko forms of secondary verbs of incurred process, the =luk perfect participle, the =ek past participle and the =hyk iterative participle, as introduced in Chapter 2 and discussed as single forms earlier in this chapter. Semantically, these constructions usually emphasise the duration of an event and thus overlap in meaning with the progressive action forms. The forms consisting of repeated verbs appear to emphasise the duration of the event more than progressive aspect forms do. Distributionally, the progressive aspect forms may occur freely as the final verb in a sentence, while the repeated verb constructions normally occur preceding a following superordinate verb:

lakakusik-he,	<i>'we-went-long-ago-prior--topic</i>
ikhe-pa lakaku lakaku	<i>plateau--on we-went-long-ago</i>
lakaku lakaku lakaku	<i>(repeated six times)</i>
lakaku-te, Hvehenema	<i>--topic, Heuhenema</i>
noko isukusik-he....	<i>sleep we-said-long-ago-prior--topic....</i>

i.e. *'After we started out we travelled on and on and on and on and on and on and on the plateau, then after we slept in Heuhenema....'*

Note that in this example the subordinate clause with repeated verb forms is connected by no overt relator (except the topic marker -te) with the superordinate clause.

...pv a'loma-nen-at 'up off-there--from-predicate
 hinok, wanyak wanyak inquiry taking (repeated seven
 wanyak wanyak wanyak times)
 wanyak wanyak wakeikhe he-came-long-ago (repeated
 wakeikhe wakeikhe seven times)
 wakeikhe wakeikhe
 wakeikhe wakeikhe,
 lek-at ikhe, lek-at no--predicate he-said, no--
 yyk, lek-at yyk predicate saying (repeated)
 wakeikhe wakeikhe, he-came-long-ago (repeated),
 joko. Kut appvtmo- so! Kut-(stream) mouth-setting--
 at pisukwha. predicate they-went-down-long-ago,'
 i.e. '...From away off up there he came inquiring, repeatedly
 inquiring as he came on and on, and (the person asked) said, "Not
 (here) either," (and they kept saying), "Not (here) either," as he
 came on and on, and so that was it. Finally they arrived down at
 the mouth of the Kut stream.'

This last example includes =yk basic participles, =hyk iterative
 participles and remote past factive forms in subordinate clauses with
 repeated verbs. Further, the example includes repeated quotative
 clauses, indicating that larger constructions than just the verb may
 be repeated. It is possible to interpret the constructions with
 repeated participles as at a lower level of subordination than the
 constructions with repeated finite verbs. The main point about these
 constructions is that those with repeated finite verbs are marked as
 subordinate clauses by that repetition.

japu epe mottok 'garden-being-dug itself altogether
 wanhusek wanhusek we-normally-dig-it(repeated three
 wanhusek, at-at times) finished move(dig)--depositing--
 wok-hylyk-he, topic plants women cut-for-distribution--
 ay hymy kut-isokotek. we-normally-transfer-to-them,'
 i.e. 'We keep digging the garden until we have finished digging
 it, and then we cut (sweet potato) plants and give them to the
 women.'

The reader will note that very frequently the clauses with repeated
 verbs refer to the middle portion of a long-lasting event, the begin-
 ning of which and the end of which may be referred to in a separate
 verb set off from the repeated series.

5.4. OTHER CLAUSE TYPES

The buildup of Dani sentences may be compared to the making up of a railroad train, except that the 'engine' or most presupposed element comes last rather than first. Like a multi-unit engine, the verb which is this most presupposed unit may itself, as noted earlier, consist of a stem plus one or two auxiliary verbs. Preceding motion verbs the potential stem of a non-motion verb may be preposed within the nuclear verb phrase, like the tender of steam trains of another era. Still tightly attached, but more loosely-knit than these, can come non-finite verb constructions, including participles and non-finite forms marking coincident events, with varying degrees of 'tightness' as measured in terms of freedom of position of occurrence, and independently marked categories. It is perhaps forcing the figure to liken these to the mail and baggage cars of passenger trains. In any case, a further degree of looseness was described for the constructions with finite verbs which have been treated as subordinate clauses in the preceding section. These clauses are relatively more independent than the non-finite participles and forms marking coincident events, but they are still clearly subordinate. In many cases this subordination is indicated by the specification of event mode categories which are not those of the main or final finite verbs in the discourse but are specifically determined by types of subordinate clause relationship.

There is one further degree of looseness observed in constructions which might be termed quasi-co-ordinate clauses. These clauses potentially include within their construction all the layers of dependency already described. They are, in the figure introduced above, like trains coupled together as whole units. Yet these clauses appear to be more clearly marked as presupposing a following final clause than are co-ordinate clauses in most languages; for this reason, which will become clear as the discussion proceeds, the term 'co-ordinate' has been modified by the prefix 'quasi-'. This kind of construction is the characteristic pattern of Dani sentences in narrative discourse. There are also clauses which do not fit this scheme neatly; these include quotative clauses and some noun clauses, which will be treated later in this chapter. There are also some sentence relators and sentence-related elements which characteristically occur in distribution related to sentences as wholes; some of these will be treated in Chapter 6. It proves useful to discuss the quasi-co-ordinate clauses, which are primarily temporally ordered, separately from the other clauses, which are non-temporally ordered.

5.4.1. Temporally Ordered Loose-knit or Quasi-co-ordinate Clauses

Any finite verb form in the simple factive, remote past or normal aspect category, occurring as the final verb in a sentence, may be preceded by another finite verb in the same modal category occurring as the superordinate verb in a preceding loose-knit or quasi-co-ordinate clause, where the events referred to by the two verbs are sequential. The verbs in such quasi-co-ordinate clauses are normally marked to indicate that they anticipate a following final finite verb.

5.4.1.1. 'Same Subject' Quasi-co-ordinate Clauses with =tik

If the two finite verbs in factive mode referring to events in sequence have the same subject, the preceding verb may be overtly linked to the following clause by the suffix =tik in its various allomorphs as the prior action marker. This suffix is semantically complex, as already noted in Chapter 2, including the components: (1) 'same subject', but note the qualifications below, and (2) loose-knit sequence, implying that the preceding event is considered as distinct from, and completed before, the following event. No span of time need separate the events. The component 'same subject' in most cases marks co-referentiality or included reference as the relationship between the subjects of the verbs, but there are cases when the subjects of the verbs linked with this suffix are different and neither is included in the other. In many such cases, the speaker has shifted mental gears in mid-sentence after production of the marked verb form and proceeds with a verb having a different subject. There are a number of examples in the filed corpus, and many observed in daily conversation, where the speaker explicitly changes forms from an already enunciated prior action form to a form marked for a different subject, both referring to the same event. This kind of correction and editing has frequently been observed when informants assist in the transcription of recorded texts. However, there are other cases where it appears highhanded to treat the data in this way.

At least two other approaches are possible. One is to describe the relationship in the problem cases as a sequence which the speaker treats as if it were a 'same subject' sequence because the subjects are in some way closely related. Another approach may reflect Dani categories more closely. It will be noted that in these loose-knit clauses, as in several other constructions already described, the setting marker =ma, =mo usually marks 'change of subject'. Elsewhere this marker also occurs to refer to the place where an event occurs or to which motion is directed. If there is any common feature in these senses, a feature

that might be glossed 'setting', it indicates that to change the subject is to move that participant into the 'setting' for the next event. This could then be contrasted with the prior action marker =tik, which might be understood to mark 'continuing attention on the participant functioning as subject'. Examples of occurrence of prior action forms preceding verbs with different subjects might in a number of cases be understood, on this hypothesis, to refer to a continuing attention on the subject of the preceding verb while also turning attention to the subject of the following verb. A new actor is introduced without moving the participant who has played his momentary bit into the setting or background. It is to be noted that some sequences of clauses linked by the verb suffix =tik are semantically closely tied. The label 'loose-knit' as applied to these clauses refers to: (1) independent marking of person and mode categories appropriate to the discourse in which the clause occurs, so that the verb marked with =tik might, minus this relator, stand as an utterance-final verb; and (2) potential expansion of the clause to include all the layers of dependency described earlier in this chapter.

lakakusik-he, lakaku lakaku.... *'we-went-long-ago-prior--topic-marker we-went-long-ago (repeated), i.e. We started out and went on and on....'*

Appe a'noko neppeta' lakakusik-he pyte wolok wakaku. *'Appe(name) that-we-know one-together-with-me we-went-long-ago-prior--topic two carrying-it we-came-long-ago, i.e. Ape and I went together and brought two (pigs) back.'*

wolok wakatesik nekkatek. *'carrying-it he-normally-comes-prior they-normally-eat, i.e. After she brings (the sweet potatoes), they (including her) eat them.'*

In this example the reference of the subject of the final superordinate verb includes the subject of the preceding quasi-co-ordinate verb.

hano akosik-he, layk way' layk wayk welakeikhasik-en.... *'good we-became-prior--topic going coming going coming they-continued-prior --source, i.e. After we had come on good terms with each other, and they had been travelling back and forth....'*

In this last example the reference of the subject of the first verb includes the subject of the final verb.

ay jathatesik-he, hopuk-he wusa jokolhatek. *'plants they-normally-plant-prior--topic later--topic weeding they-normally-weed, i.e. After they plant the plants they later weed the garden.'*

wathukwhasik-he wathukwhama-te seke watek wolohe...lakoukwha.

*'they-hit-him-long-ago-prior--topic they-hit-him-long-ago-setting--
topic spear wounded carrying-him--topic...they-went-long-ago, i.e.
After they₁ had killed him, then they₁--after they₁ had killed
him, then they₂ carried the man with the spear wound off.'*

In this last example the subscript numbers index reference; identical subscripts indicate coreferentiality. This is an example of explicit revision or self-correction in the course of the utterance, where a verb marked for anticipation of a verb with the same subject is followed by a revised version of the same verb marked for anticipation of a verb with a different subject.

It should be noted that the marking of 'same' or 'different' subjects is not in terms of the subjects of successive verbs necessarily, but in terms of subject of verbs at the same or higher level of dependency. Separating two verbs marked for 'same subject' in relation to each other may be a verb with a different subject which is subordinate to the second in a construction specifying or permitting different subjects, and vice versa:

japu jokko	<i>'garden summons</i>
hesikhesik-he,	<i>he-put-long-ago-prior--topic</i>
hymy-nen-he	<i>women--source--topic</i>
haly wusi lan.	<i>firewood to-chop you(sg)-go-now</i>
haly wusi me	<i>firewood to-chop you(sg)-come-now</i>
isukwha-mekke	<i>they-said-long-ago--adversative</i>
haly wukhyyk	<i>firewood chopping-reflexive</i>
isa'ni ylvk isikhe.	<i>you (pl)-steam-cook-now having-said he-said-long-ago,'</i>

i.e. 'After he called for help in the garden digging, the women said, "Go chop the firewood." "Come chop the firewood," but he said, "Chop the firewood yourselves and cook the meal."

In this example the first verb includes the prior action suffix =sik anticipating a verb with the same subject. However the next two verbs are imperative forms which are included in the quotative clauses occurring with the next verb 'they said'. This verb however has a different subject from the first verb, and it is not until the final verb of the example that a verb of the same or higher level of dependency as the first verb occurs with the same subject as that first verb. It is useful to consider the quotative clause with 'they said' as marked by -mekke to be a kind of nominalised clause, included in the final clause. An alternative treatment of this example is to consider that attention remains upon the man who is subject of the first verb throughout the example.

an-hoko ma-kke jy *'I--contrastive down--direction this*
 ki akakisik-he, *enter I-came-long-ago-prior--topic*
 Hesakkeineak-en *Hesakineak--source*
 japu wo'nethikhomo, *garden move--he-transferred-to-me-*
 an-he *long-ago-setting I--topic*
 jokko hykyk jokko *summons putting (three instances)*
 hykyk jokko hykyk *(hykyk rare alternate here for hyyk)*
 wok-hesikisik-he.... *move(dig)--I-put-long-ago-prior--topic,'*
 i.e. *'As for me, after I came down into this area, when Hesakineak*
gave me a garden area, I kept asking for help and with it finished
digging the garden, and then I....'

In this last example the clause *'Hesakineak gave me a garden area'* is a clause with a different subject from that of the preceding verb, which was marked for anticipation of a verb with the 'same subject'. Again, it is possible to treat this clause as subordinated by the speaker to the following, final clause of the example, which does have the same subject as the first clause, or alternatively, to consider the attention of the speaker to remain on the subject of the first clause, himself, throughout the example, but attention to be moved away from Hesakineak after the clause in which he is subject.

wat-esikhesik-he nasikhesik-he, ... lakeni-o...isikhe. *'kill--he-*
transferred-to-him-long-ago-prior--topic (alternate form for
regular local wat-ethikhesik-he) he-ate-long-ago-prior--topic
you (pl) -go-up-now--decisive he-said-long-ago, i.e. After she₁
killed (the pig) for her₂ and she₂ ate it, she₁ said, "Climb up
there."

In this last example subscript numbers index reference to participants. The two verbs at the beginning of the example are marked to anticipate a verb with the same subject, but in fact, as the translation indicates, the subject of the second verb is different from that of the first and final verbs. This example appears to be best interpreted in terms of continuing attention on the participants functioning as subjects, without moving them into the setting or background as is normal preceding a verb with a different subject.

lakosik-he, svppv tv kela'-niseka. *'we-went-prior--topic sweet-*
potatoes inward--they-transferred-to-us, i.e. After we arrived,
they sent sweet potatoes into the house for us.'

This example may be treated in the same way as the preceding example.
 papy lakekatesik-he, o weak akatek attoma-o. *'pabi-tree they-*
normally-climb-prior--topic (idiom for committing moiety incest)
weather bad it-normally becomes-there--decisive, i.e. After
people commit moiety incest, the weather goes bad.'

It should be noted that with 'same subject' quasi-co-ordinate clauses as described above, there are only very limited possibilities for the occurrence of an independent noun phrase or pronoun subject of the following clause, whether the subjects are coreferential or only in the same 'focus of attention'. Sometimes as in the example on page 258 above, an independent pronoun occurs after a clause with a different subject, and sometimes, as in the last example on page 258 an independent noun occurs as the distinct subject of the second verb. Where the subjects of the two verbs are coreferential or one includes the other, and there is no interrupting clause with a different subject, independent noun or pronoun references to the subject do not occur in the second clause.

Further, it should be emphasised that this section of the discussion has been mainly concerned with exceptional cases, and that in the great majority of cases, quasi-co-ordinate clauses marked with the prior action morpheme occur with a subject which is coreferential with the subject of the following verb of the same or higher level of dependency.

5.4.1.2. 'Different Subject' Quasi-Co-ordinate Clauses with =ma, =mo

The examples given in the preceding section have included some in which the 'different subject' quasi-co-ordinate clause, analogous to the 'same subject' quasi-co-ordinate clause marked with =tik, is marked by the verb suffix =ma, =mo, which has been loosely glossed 'setting' or 'event setting'; clauses with this marker anticipate a following verb at the same or higher level of dependency with a subject which is neither the same as the subject of the quasi-co-ordinate clause, nor does either subject include the other. The event referred to in the quasi-co-ordinate clause may in the case of a motion event be only begun before the event in the following clause, although normally with non-motion events the first event is complete before the second event; there need be no interval between the events:

isakhan ekate'ma a'noko isakheikhetek. 'you (sg) -steam-cook-it-now-reflexive they-normally-say-setting that-we-know he-normally-steam-cooks-it-reflexive, i.e. When they say, "Steam it for yourself (as they give him a pig)", that man then steams it for himself.'

kaka-ne'no ykyma-te kaka-nethama akeikhe wuthi. 'split-(kaka=)--(you)-transfer-it-to-me-later I-said-setting--topic split--they-transferred-it-to-me-setting one-of-group I-built-it, i.e. When I said, "Split some (boards) for me", they split them for me, and I built another (house).'

Welesi lakeikhomo-te, Oteke, akotomy pyte inom-hoko lakoukwhasik
 -he.... *'Welesi he-went-long-ago-setting--topic, Orege his-
 younger-siblings two they-together--manner they-went-long-ago-
 prior--topic, i.e. After she went to Welesi, Orege with two of
 his young men went....'*

5.4.1.3. 'Different Subject' Quasi-Co-ordinate Clauses with =ti'mo

The setting marker =mo may occur suffixed to verb forms which already include the prior action marker =tik, and in such cases the component 'same subject' is cancelled from the meaning of the prior action marker, which then simply marks the completion of the preceding event before the second event begins. The setting marker =mo normally implies sequence also, but the inclusion of the prior action marker removes the residual ambiguity resultant from the occurrence of =mo in clauses of place, as described earlier in this chapter. This construction with a verb marked with both the prior action and setting markers also more readily allows for a time gap between the events referred to in the quasi-co-ordinate clause and the following clause, although it does not require it:

lakasikhesi'mo-nen, o a'noko hele tattak-hoko o lak-sasikhomo...
*'he-ascended-long-ago-prior-setting--source, wood that-we-know
 tying-vine severing--manner wood over-distance--he-put-"them"-
 long-ago-setting, i.e. After he₁ had climbed up the tree, then
 he₂ cut the vines that held the climbing ladder and pushed it
 away...'*

In this example, the boy who is subject of the first verb reaches the top of the tree before the jealous older brother cuts away the ladder, and completion of the climbing before the cutting is unambiguously marked by the inclusion of =sik.

...ouma wuluphukusi'mo-nen...hopuk humusi akoukwha. *'home we-exited-
 long-ago-prior-setting--source later run they-came-long-ago, i.e.
 After we had gone out (of the forest) to the villages, later they
 came running back.'*

In this example again the first motion event is specified unambiguously as completed before the beginning of the second event by the inclusion of the prior action marker as well as the setting marker in the verb of the first clause. In contrast, in an example like the first one on this page, the first motion event, linked only by the setting marker =mo, need only be begun before the initiation of the second event.

Just as some occurrences of verbs marked as anticipating a verb with the 'same subject' are observed actually preceding verbs with different subjects, there are verbs, although many fewer, which are

marked with the suffix =ma, =mo but actually occur preceding verbs of the same subject:

weim-at wakytyk ylvk ikhomo-te epekkalem hule heikhe. 'battle--predicate I-came-prior having-said he-said-setting--topic main-trail signal-smoke he-put, i.e. "I've come just for battle", he said, and set a signal fire on the main trail.'

Examples of this sort in the filed corpus and other available texts are too few for significant analysis.

5.4.1.4. Clauses Marked as Quasi-Co-ordinate Sentence Finally

Verbs marked with =tik 'prior action' and/or =ma, =mo 'setting' most frequently presuppose another clause, as noted in the examples above. But clauses including verbs with these markers may also occur sentence-finally, presupposing an event in the situational context. The examples that occur, particularly in conversation, indicate that the presupposed but not verbally expressed event is an event which, if verbally expressed, would occur with the appropriate 'same' or 'different' subject from the verb including the marker:

- ...a'ma atoma noko-kosik. 'inside there sleep--we-said-prior, i.e. We slept in that area (and I have now come here).'
- ...inepe jy lol-hisokosik ylvk eka. 'their-bodies this burn--we-put-them-prior saying they-said, i.e. They said, "We burned their bodies here (and have come to tell you)."
- ...hat nekkenma-o isikhe. 'you(sg) you(sg)-ate-him-setting--decisive he-said-long-ago, i.e. "You did eat him! (and I can't find him)," he said.'
- at-at lek-akama ik-inaphama hyky. 'finished not--it-became-setting give-in-marriage(make net)--they-did-to-them-as-persons-setting I-perceive, i.e. I see the supply (of marriageable girls) has run out; they have given them in marriage (and there are no more).'
- an epe nokko'ma ykhy-lakyma. 'I its-self my-ignorance-setting saying--I-was-setting, i.e. I was speaking out of my ignorance (and you corrected me).'

Note also these common conversational expressions about travel:

- at lakasik. 'he he-went-prior, i.e. He has gone (and returned).'
- at lakama. 'he he-went-setting, i.e. He has left (and we report that).'

In the first of these last two examples, attention is still on the subject of the verb, and implicit reference is made to his further activity. In the second example, attention turns from the subject and his deeds; he has left the scene of attention.

5.4.1.5. Restrictions on Negative Constructions in Clause Sequence

It was suggested above that the temporally ordered loose-knit clauses discussed here might be labelled quasi-co-ordinate, and there are limitations that motivate the inclusion of the prefix 'quasi-'. Quasi-co-ordinate clauses come under a general constraint on negative constructions whereby any finite sentence-final verb form may be constructed with the particle lek 'no, not', but negative verb constructions sentence internally (apart from quotative constructions) are in all cases in the field corpus cast into the subordinate clause construction with the =hyk iterative participle and lek 'no, not'. In the case of some kinds of clauses, this constraint needs to be studied further, but it appears clear that clauses with verbs suffixed with the prior action marker and/or the setting marker may not include the negative particle in construction with those verbs.¹⁷

5.4.2. Non-temporally Ordered Loose-knit Clauses

There are several types of clauses including finite verbs which are loosely knit in relation to a following verb, and where that relationship is not temporally ordered. Because the verbs in these clauses are finite and are not restricted to a specific modal category other than the category of the discourse matrix, they may be called 'loose-knit clauses'. These non-temporally ordered sequences of clauses do not mark the contrast 'same subject' versus 'different subject' consistently and pervasively, as do the very great majority of temporally ordered clause sequences.

5.4.2.1. Clauses with the Relator -mekke

The relator -mekke occurs, like a number of other Dani relators, both as a link between words and phrases and as a link between clauses. The senses and uses of this relator with words and phrases have already been surveyed in Chapter 3. At the clause level, -mekke functions in two major senses, both of which are related to its functions at lower levels:

(1) *Attributive clauses with -mekke.* Clauses identifying or characterising nouns, pronouns and other kinds of noun phrases occur following the noun or pronoun and marked as related to that substantive by the post-clitic -mekke following the verb of the clause:

wam ap wathuku-mekke, Tipe wathuku-mekke, ap watek sepelhuku-mekke....

'pork/pig man we-killed-him-long-ago--sort at-Tibe we-killed-him-long-ago--sort man killed we-covered-him-long-ago--sort, i.e.

pork related to a man we killed, one we killed at Tibe, and to our ceremonial "covering up" of the "dead man" (symbol of the killed enemy).'

In this example the first and last -mekke clauses identify the pork in the story as pork involved with rites conducted after killing an enemy and the ceremonial "covering" of the symbol of that victim; the middle -mekke clause identifies the killed man as one killed at Tibe.

he akeikhe palhi-mekke-te.... *'woman one-of-group I-severed-her--sort--topic, i.e. a woman I took (from her family)....'*

There are constructions with past participles of verbs and -mekke occurring attributive to nouns in similar fashion:

melaik an uku-mekke-te.... *'bailer-shell I donned--sort--topic...., i.e. a bailer shell I had worn.'*

Similar clauses with -mekke may occur without a preceding substantive to which they are attributive; these -mekke clauses thus function as substantive clauses:

ouk wany'lay-mekke inopa hakathatek-at. *'sickness carrying--they-are--sort on-them they-normally-treat-him also, i.e. They also treat those who are sick.'*

wam inopa hakathate'-mekke jy hesi wani lakeikhatek. *'pork on-them they-normally-treat-him--sort this mud to-get they-normally-go, i.e. These (literally this) who treat them with (rites involving) pigs (or pork) go and get mud.'*

je wanhete'-mekke a'noko tak isakhan ylvk wok-othatek. *'ceremonial-wealth-stone he-normally-takes--sort that-we-know first you(sg)-steam-cook-it-now-reflexive having-said move--they-normally-transfer-it-to-him, i.e. They give (a pig) to that fellow who furnishes the wealth stone, saying, "You cook this for yourself first."'*

The -mekke attributive and substantive clauses described above are loose-knit clauses including finite verbs, independently marked for mode and person, and are included at this point along with the other major kind of -mekke clauses. These attributive and substantive clauses are, however, clearly not co-ordinate or quasi-co-ordinate clauses.

(2) Adversative clauses with -mekke. In very many cases, clauses related by -mekke have an adversative or 'but' sense of several varieties:

(a) Clauses with -mekke attributive to noun expressions referring to participants (so that they might also be included with the examples in section (1) above) may be used to contrast the participants, even when the attributive clauses are identical:

at Vkkvmheatyk *'he Ukumhearik*
 kikhe-mekke ... *he-entered--contrast*
 Henayppv posije-pa *Henaipu axe--with*
 lipiloko wathenem-he... *lacerating when-he-struck-her*
 Jameke *--topic Jamekke*
 kikhe-mekke *he-entered--contrast*
 seke watoko po-isikhe. *spear wounding toss-down--he-did-on-"them"-*
 long-ago.'

i.e. 'Ukumhearik entering the scene lacerated Henaipu with an axe, and then Jameke entering the scene wounded her with a spear and left her there.'

(b) A clause with -mekke may refer to an event with the same participants as a following event, where the events contrast. This is particularly common with =sak predictive forms of the verb in the -mekke clause, contrasting what ought to have been done or could have been done with what was in fact done:

joma nasusa'-mekke-te, hep-anhy-lakoukwha. *'here subject-should-(or could)-kill-me--adversative--topic spare--depositing-me--they-were, i.e. They might have killed me here, but they used to spare me.'*

Jvkheakeima noko usa'-mekke-te...it a'noko wo'-lakhasukwha. *'Jukeagima sleep subject-ought-to-say--adversative--topic... they that-we-know move--they-became-long-ago-reflexive, i.e. Those folks ought to have slept at Jukeagima, but they cleared out.'*

pilo-mekke atykynhuku. *'we-descend-hypothetical--adversative we-did-that-long-ago, i.e. We ought to have gone down there (safely) but we did (what I've just told you).'*

(c) A clause with -mekke may refer to an event with a different patient and/or a different action from a following event, where both events have the same agent:

nasikhe-mekke, an helep-opa hikit ja noko eik ylyk ylyk.... *'he-ate-it-long-ago--adversative I stone--on direction here sleep let-me-say saying saying.... i.e. He ate it and then kept saying, "I'll go to sleep here on this stone in this direction."*

(d) A clause with -mekke may refer to an event with a different agent from the event referred to in the following clause, where both events have the same patient:

helekketek akeikhe asili kem paloko...hak-hasikhe-mekke wolo' lakeikhe. *'girl one-of-group her-grass-skirt (of)-kem-(grass) doffing(severing) grasp--she-did-it-long-ago--adversative carrying-it he-went-long-ago, i.e. A girl had taken off her skirt made of kem grass and deposited it (to save it) for herself, but he (a dog) carried it off.'*

an sail-ekken wolok wakaki-mekke-te, at helasikhe. '*I cowry-seed (shell) carrying-it I-came-long-ago--adversative--topic, he he-took-it-long-ago-reflexive, i.e. I brought the cowries, but he took them for himself.*'

(e) A clause with -mekke may refer to an event with a beneficiary or patient who is agent of the event referred to in the following clause. In such cases, this is the clause type of choice:

ninathukwha-mekke welakosik-en.... '*they-killed-us-long-ago--adversative we-continued-prior--source, i.e. They killed some of our side, and then after we had waited for some time....*'

...Tvan-lak wena'-nesusa'-mekke an lekein. '*the-European-and-associates rebuke--would-transfer-to-me--adversative I singular-subject-will-go, i.e. The Europeans are liable to bawl me out, so I'll go.*'

wathikhe-mekke svap huttik-at pu-toko lakeikhesik.... '*he-hit-it-long-ago--adversative bird-arrow penetrating--predicate flying--manner it-went-long-ago-prior...., i.e. He hit it, but it flew off with the bird-arrow stuck into it....*'

(f) A clause with -mekke may refer to an event with different participants and different action from the following clause:

okko heik-ylvk yky-mekke, Mepakasom wene palhesik-he.... '*payment let-me-put-it--having-said I-said--adversative Mebagasom talk he-severed-prior--topic, i.e. I was planning to make a payment, but Mebagasom forbade it and then....*'

(g) A clause with -mekke may occur sentence or even utterance finally, presupposing an event which is contrastive in one of the senses listed above:

su, jo-te ukumo-at wanhy-lokousa'-mekke. '*net, cord--topic netted-setting--predicate taking--subject-would-continue--adversative, i.e. We should keep getting nets with the cord already netted (but we won't, because the insect who wanted to keep spinning got his way).*'

In all the above adversative senses of -mekke, temporal sequence is not of primary importance, but rather the adversative relationship. All possible temporal relationships occur. The event in the -mekke clause may follow the event in the succeeding clause, or it may precede it, or it may be simultaneous with it.

5.4.2.2. Substantive Clauses with Final Demonstratives

Any clause which does not have a demonstrative pronoun or adverb for its predicate may occur with such a pronoun as a final element which is

in appositional relation to the whole clause. The demonstratives which may so occur are:

jy 'this';	joma 'here';
aty 'that (closeby)';	atoma 'there (close)';
atty 'that' (abstract)';	attoma 'there (non-spatial)';
yly 'that (distant)';	eloma 'there (distant)';
a'ly 'that (in context)';	a'loma 'there (in context)';
a'noko 'that (known to speaker and addressee)';	
a'naka 'that (known to speaker or addressee at first hand)';	
ama-noko 'those (known to speaker and addressee)';	
ama-naka 'those (known to speaker or addressee)';	

Such substantive clauses may occur as utterance final clauses with reference to something outside the sentence in the verbal or situational context, or as dependent clauses presupposing other constituents within the sentence:

na'yt ikho-kkolek a'noko-te. 'my-dislike say(singular-subject)--
while that-we-know--topic, i.e. While she was saying, "I don't
want to (be your wife)," (like) that, huh?'

...heil-ekken hytoko hytoko welaken ama-ty! 'your(sg)-eye--seed(eye)
watching watching you(sg)-continue these--exclamation, i.e. You
are staring and staring there!'

wathu atty. 'we-killed-him that, i.e. That's the story of our killing
them (the enemy referred to as third person singular).'

...alep akoukwha a'noko inoppolik wakaku. 'earlier they-became-long-
ago that-we-know behind-them we-came-long-ago, i.e. They came
ahead like that and we came behind them.'

wvlphe atty-te, ninepe wa'-lasukun atty. 'he-exited that--topic
our-persons plural-subject-will-die-that, i.e. That's it, he's
gone, and that's it, we're going to die.'

5.4.2.3. The Generalised Relator -nen 'source'

The clitic -nen has already been introduced as a marker of a number of intra-clause relations, including 'place from which' and 'agent' of transitive verbs with distinct patients. It was also noted earlier in this chapter as an obligatory relator occurring with the deferred hortative forms of verbs in the facilitative construction, where the event referred to in the hortative form is facilitated by the event referred to in the superordinate verb. All these uses share some sense of 'source' as a common feature. But this relator also occurs with a large number of other verb forms within sentences not as an obligatory relator but as an optional relator often occurring following

other relators already treated in this chapter. It is commonly observed with finite factive verbs, with =yk basic and =luk perfect participles when they signal sequential events, with =nem coincident non-progressive forms, and following -halok in conditional clauses. It occurs relating verbs and clauses with both the same subjects and different subjects. It has not been observed with the potential stem construction preceding motion verbs, nor with =yk basic, =luk perfect or =oko manner participles when they signal an event identical to or simultaneous with the event referred to in the superordinate verb, nor with -kkolek forms marking simultaneous progressive action with different subjects, nor with intentional verbs or clauses, nor forms of interrupted action marked with ha'ma or akka=, nor with clauses of mistaken supposition with salek, nor with imperative (as contrasted with hortative) forms of verbs.

In many of the observed cases there is a relationship either of sequence or 'reason' involved, so that the sense glossed 'source' may be considered to be present. This does not appear to be the case when -nen occurs with =nem coincident progressive forms, however:

muk-isikhe-nen... o muk-hoko-te Okkylyk lyak-sasukwha. *'chase--he-did-toward-them--source village chase--manner--topic Okilik upward--they-put-them-long-ago, i.e. Since he drove them out, driving them out of the villages they chased them up to Okylyk.'*

Here -nen follows a simple factive verb, in a remote past discourse matrix, and may be understood either to refer to sequence, treating the initial act of eviction separately from the follow-through, or to refer to reason, as glossed here, describing the initial eviction by the enemy as a group, referred to in third person singular, as the basis or reason for the further chasing by members of the group, referred to in the third person plural.

hettouk amulok hvkvnem-en,...nikkete' nikkete' nikketek-en nokoil-aka-halok-en, jyttoko hyt-hvkvnem-he... *'fire its-flame when-plural-subject-put--source it-normally-eats-(repeated)--source extinguished--it-becomes--if--source, this-way examine--when-plural-subjects-see-it--topic, i.e. After they put the flaming fire there and it has been burning for a while, when it goes out and they examine it like this....'*

Here -nen occurs following a =nem form, a normal aspect construction of repeated verbs and a conditional clause with -halok; it is apparently a loose link inserted at what the speaker considers to be breaks between stages of the event, and it thus signals sequence in a loose sense.

welakeikhasik-en, it-en hopuk nit pyte ninathukwha. *'they-continued-prior--source they--source later us two they-killed-us-long-ago, i.e. After they had waited, they later killed two from our side.'*

Here -nen follows a factive form with the prior marker, and again appears to signal sequence and a transition between stages of the event.

...ki akeikhesi'mo-nen...hynaken wathuku. *'enter he-came-long-ago-prior-setting--source... three we-killed-him-long-ago, i.e. After he invaded, we killed three of his side.'*

...homakosoko-nen wolok pi ako. *'tying-manner--source carrying-it descend we-came, i.e. We tied them up and brought them down here.'*

In the next to the last example, -nen follows prior and setting markers, again marking a loose link and a shift of stages in the event. In the last example, -nen follows an =oko manner participle and again appears to signal sequence of stages.

...aty-ttoko heluk-en wena'-nethin-a? *'that--manner having-put--source rebuke--you(sg)-transferred-to-me--invitation query, i.e. Had you laid out a display like that before you rebuked me?'*

Here -nen follows a =luk perfect participle, again signalling sequence and looser linkage than the participle alone. Every one of these examples can be paralleled by others without the relator -nen. When this clitic occurs, the linkage is both phonologically and grammatically looser. This clitic may be followed by the topic marker -he (see also Chapter 6):

wakeikhe-nen-he, it ap a'noko japu wanhy-lakoukwha.... *'he-came-long-ago--source--topic they men that-we-know garden digging--they-were-long-ago, i.e. After she came then those men were digging garden....'*

There are several examples in the corpus of a construction consisting of a verb form plus -nen plus the relator -mekke plus another -nen; these forms require further study to specify the exact sense signalled:

...ki akeikhesik-en-mekke-nen, hopuk-he...Wvka-hvpy hotok jy-mekke muk-isisikhe-at. *'enter he-came-long-ago--source--adversative--source later--topic... Wuka-hubi close this--sort chase--he-did-toward-them-long-ago--also, i.e. After he had invaded then later he also drove out the Wuka-hubi close by here.'*

In general, then, -nen occurs as a relator between verbs and clauses as, in these cases, an optional marker of sequence or change of event stages or, occasionally, of 'reason'.

5.4.2.4. Clauses Juxtaposed without Specialised Relators

Most intra-sentence relationships between clauses are overtly marked by suffixes or post-clitics attached to the subordinate or preposed quasi-co-ordinate or loose-knit verb and specify the kind of relation-

ship involved. There are numbers of examples, however, of clauses that are simply juxtaposed with no overt link except intonation and, optionally a generalised clitic like *-nen* 'source' or the topic marker *-he*; such relators do not mark specific grammatical relationships of the sorts discussed in this chapter but, particularly so far as the topic marker *-he* goes, serve rather in the information structure of the discourse in ways to be suggested in the next chapter. Such juxtaposed clauses frequently mark events in sequence and occur both with the same subject and with different subjects in the two clauses. Repeated verb constructions as subordinate clauses are frequently related by simple juxtaposition to the superordinate clause:

...poko poko-te,	<i>'we-descended</i> (repeated)--topic
hopuk ylyyk lakoko	<i>later upward we-ascended</i>
lakoko hopuk kelakeik	(repeated) <i>later inward</i>
koko koko hopuk nvkkvlyk	<i>we-entered</i> (repeated) <i>later</i>
a'mma koko koko koko	<i>level inside-there we-entered</i>
koko-te, o-te lel	(four instances)--topic <i>village</i>
pelatoko pv loma wusi	<i>steps framed up there to-build</i>
lakasukwhama.	<i>they-ascended-long-ago-setting.'</i>

i.e. *'We went down and down, then up and up, then in and on in, then we went along the level farther and farther and farther and farther in there to where they had made steps and gone way up there to build their village.'*

...a'la hyt-hvkv-lakeikhatek, lek halok-he,... *'inside examine--plural-subject-seeing--they-normally-are, not if--topic....,*
 i.e. *They examine the insides, and if there is nothing (to see)....'*
 ...konyk neikhyky weikhyky mottok -- hymakane-kkokke hei kykyty'mo-
 nen.... *'caring-for I-travelled I-travelled (intensive) altogether*
-- afternoon to-put-her I-entered-prior-setting--source, i.e. I
went all over watching over her and in the afternoon, after I had
put her in (the village)....'

5.4.2.5. Quotative Clauses

Quotative clauses are in a sense a category apart from other clauses (cf. Longacre 1970:796), since they allow for embedding of any utterance, even including extensive discourse units, within what becomes a kind of hyper-sentence unit. Discourse unit markers, which will be briefly treated in the next chapter, may thus also be included within quotative clauses, although they occur in no other medial clauses.

5.4.2.6. *Direct Quotation*

Any utterance may be quoted directly. A common order of constituents in direct quotation is: (1) identification of the speaker or speakers, often with the source-marker *-nen*; (2) the quoted utterance; (3) the participle *ylvk* 'having said', which is the =luk perfect participle of *i* = 'say'; (4) a verb or expression of speaking:

it-en-he, them--source--topic,
Keppalyk, o-kkama Kepalik(name), forest-setting
paik wasik-ylvk animal let-me-kill-it--saying
wakama ylvk-he he-came-setting saying--topic
Welesi-nen jokko Welesi--source message-bearing
wakoukwha. they-came-long-ago,'

i.e. 'They came from Welesi with a message, saying, "Kepalik has come into the forest to hunt."'

No one of the constituents marginal to the quotation is obligatory:

y y. wo'-lakha lvphe ukun ha'ma-te.... 'oh oh, move--to-incur-
reflexive he-exited plural-subject-will-say interrupted--topic,
i.e. As they were about to say, "Oh Oh. She's gone!"....'

monethu-mekke-te nokkot-at yly'-lako. 'we-decontaminated-him--
adversative--topic my-ignorance--predicate saying--he-is, i.e.
We ceremonially treated him (to protect from the effects of his
act of incest), but he keeps saying, "I don't know (anything about
it)."'

je wanhete'-mekke a'noko tak isakhan ylvk wok-othatek. 'wealth-
stones he-normally-takes--nominaliser that-we-know first you(sg)-
steam-cook-it-reflexive saying move--they-normally-transfer-it-to-
him, i.e. They give the fellow who furnishes the wealth-stones
(a pig) saying, "Cook this for yourself first."'

In these examples the speaker or speakers are identifiable from the context and so are not specified in the actual quotation margin. In the first two examples on this page, the participle *ylvk*, a kind of closing quotation mark, is omitted, and in the last example only *ylvk* remains as a verb of speaking, subordinated to the following verb.

it he a'noko 'they woman that-we-know
ap a'noko wesikin-a? man that-we-know singular-subject-will-come--
invitation-query
wesikin-a? wesikin-a? (repeated four times)
wesikin-a? epe lek-at- his-person not--predicate--
en-he, hopuk source--topic later
inane hak-hasukwha. their-voice grab--they-did-on-him,'

i.e. 'They, that woman (and her child) (were saying), "Is that man coming back? Is he coming? Is he coming? Is he coming?" And because he didn't appear, they called him.'

In this last example there is neither a participle *ylvk* nor a verb of speaking but only the directly quoted words, in a mode contrastive with the discourse matrix, to mark the quotative clauses.

The quoted material may include several sentences, and the speaker may then choose either to use a closing quotation margin with each sentence or to use one such margin with the whole unit. In the former case, frequently the verb of speaking occurs without the participle *ylvk*:

nit-he ninokkot-at eka.	<i>'we--topic our-ignorance--predicate they-said</i>
hinakasoko-at	<i>hidden--predicate</i>
wathama eka.	<i>they-killed-it-setting they-said</i>
nineil-ekken	<i>our-eye--seed(eyes)</i>
lak-eisoko lek eka.	<i>over-distance--we-saw-them not they-said, 'i.e. "As for us, we don't know either", they said. "They killed it secretly", they said. "We didn't see them", they said.'</i>
hak-hasikhomo-te,	<i>grab--he-did-on-him-setting--topic</i>
eik-o. nakeijak-o.	<i>pity--decisive my-friend--decisive</i>
hat-he joma-at lokon-o.	<i>you--topic here--predicate you(sg)-continue-now--decisive</i>
paik vkkvl-oak wesa	<i>forest-animal its-head--bone</i>
ikho-kkolek	<i>taboo saying--while</i>
nykky-laken a'noko-te	<i>eating--you-are that-we-know--</i>
aty.	<i>topic that</i>
joma lokon-o,	<i>here you(sg)-continue-now--</i>
ylvk joko'-lvk-he....	<i>decisive saying tell--having transferred-to-him--topic....'</i>

i.e. 'When (the stone) held him, (his father said), "What a pity, son. You stay here. While folks are saying that the heads of forest animals are taboo, you are eating them, and there (you see the result). Stay here," he told him....'

Such quotations can be very much longer still. There is one fairy tale with more than two pages of text concluding with a single quotative type margin, *'they say'*.¹⁸

5.4.2.7. Indirect Quotation

Besides direct quotation, where the words spoken are quoted as the speaker wishes to report them to have been spoken, there are also indirect quotation constructions.¹⁹ Speech may be indirectly quoted, but Dani speakers show a distinct preference for direct quotation. Indirect quotations may be detected by such characteristics as shifts of person reference to fit the utterance situation of the discourse

rather than the utterance situation of the quoted matter:

alep a'noko-te, hat hinea'-mekke eka. *'first that-we-know--topic you(sg) your(pl)-woman's-child--identifying they-said, i.e.*

That first one was your (and your relatives') niece they said.'

In this example the second person reference is appropriate to the utterance situation of this example, but not to the utterance situation of the quotation.

hat-he Pasema lvok-olvk eka a'noko.... *'you(sg)--topic Pasema let's-go-later--having-said they-said that-we-know, i.e.*

They said that you (and your associates) were planning to go to Pasema, and there (you are going).'

Frequently indirect quotations are employed with no final verb of speaking to report not an actual utterance but rather the subject's inner reaction. Indirect questions often mark mystification:

inane ka-kke-nen-he jy ane yly'-lako jyttoko-at.

'their-voice where--direction--source--topic this its-voice saying--it-is this-way--predicate, i.e. Their voices--where do they come from ever?--are like the way this (tape recorder) speaks, this same way.'

nykkyttoko ki esikin-he, wokkul mottok lapuk lapak-hoko hakathy-lakeikhe. *'how enter singular-subject-will-come--topic mud altogether smearing-(intensive)--manner doing--he-was-long-ago, i.e. How in the world was he going to come in. He was wallowing in the mud. or (Trying to find) how in the world he could come in he was wallowing in the mud.'*

There are no examples in the filed corpus, but there are numerous examples in everyday conversation of indirect quotation constructions reporting the thought or supposition of the subject rather than his speech:

weak ylvk hep-isyky. *'bad saying discard--I-did-on-"them", i.e.*

I discarded it because I thought it was bad.'

napyt ylvk kamo-ikhe. *'my-dislike saying refrain-from-travel--he-said, i.e. He didn't go because he didn't want to.'*

In this last example the speaker may not imply or intend to quote the words of the person referred to in the first person singular prefix on the first word, but only to report his attitude. It is of course also possible to treat these last examples as direct quotations, but the treatment here is preferable in that direct quotations may always include a verb of speaking following the participle ylvk *'having said'*, but this is inappropriate in these examples.

5.4.3. The Limits of Grammatical Dependency Chains

This chapter has been a survey of verbs and verb-nuclear clauses in sequence, with attention implicitly limited, except in the case of quotative constructions, to constructions within sentences. Indeed, the kind of marked dependency relationships treated in this chapter are characteristically intra-sentence phenomena, and one definition of the Dani sentence may usefully be based on these phenomena. Meillet's dictum, as quoted by Bloomfield, that the sentence is the maximum form or construction in any utterance is true of the kinds of constructions presented in this chapter (1926-1957:28). Among the pervasive characteristics of narrative and procedural discourse, one of the most pervasive is the ending at sentence terminal of verb and clause chains with marked dependency relations of these kinds, and the initiation of new chains by the repetition of a verb from the preceding sentence, not in the form it had in that sentence but marked for dependency relationship in the new sentence. Very commonly the final verb of the preceding sentence, which is characteristically not marked for any dependency relationship of these kinds, is repeated in the next sentence, but is now marked as anticipating a following verb:

...lyak-sasukwha.	<i>'upward--they-put-them-long-ago</i>
lyak-sylyk-he,	<i>upward--putting-them--topic</i>
Hvpy-kkijak ninom hano	<i>Hubi-kiak we-together good</i>
ako. hano akosik-he....	<i>we-became good we-became-prior--topic'</i>

i.e. *'...they drove them up there. Having driven them up there, the Hubi-kiak came on good terms with us. After we came on good terms....'*

Neither the choice of this type of recapitulatory linkage nor the choice of what is repeated is automatic; the speaker has an array of options. But whatever option he employs, the sentence as a unit of marked internal grammatical dependency of the kinds discussed in this chapter is characteristically well defined. There are extremely important kinds of linguistically structured links across sentence boundaries. These include reference to participants, discourse introductory and concluding elements, sentence-linking constructions, and many other kinds of phenomena, some of which will be treated in Chapter 6. But verb and clause chains marked for dependency in the ways described in this chapter end at the terminal of the sentence as defined by these criteria. In a very large percentage of cases the sentence as defined by these criteria of grammatical dependency coincides with the sentence as defined by phonological criteria. Some significant exceptions will be discussed in the next chapter.

Within the sentence as defined by the possibility of overt marking

TABLE 22

VERB AND CLAUSE SEQUENCES

LOOSE-KNIT CLAUSES	SUBORDINATE CLAUSES	DOMAIN OF THE SUPERORDINATE CLAUSE			FINITE ENDING	CLAUSE MARGIN
		INTRA-CLAUSE	NUCLEAR VERB PHRASE	THE FINITE VERB		
Finite verbs, mode and person independently marked	Finite verbs, mode specified for each construction, person independently marked.	(NON-FINITE VERB FORMS)	TIGHT-KNIT (VARYING DEGREES) PARTICLES	MOTION VERBS AND AUXILIARY STEMS	+	±
Quasi-co-ordinate clauses (temporally ordered)	Potential mode clauses	MARKERS OF COINCIDENCE	Mode, person relative to superordinate verb categories	INNER		D E M O N S T R A T I V E
=tik same subject, sequence (first event complete before second starts)	ha'ma interrupted event	MODE OF COINCIDENCE	Mode, person relative to superordinate verb categories	XX		N E G A T I V E
=no different subject, sequence, may overlap	akka= interrupted event	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			A T T R A T I V E
=ti'no different subject, sequence, no overlap	salek mistaken supposition	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			E
Other loose-knit clauses (Not temporally ordered)	future +no, confident prediction +hortative + -vlyk intention	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			
-mekke clauses attributive* substantive* adversative	hortative +hortative +hortative potential generalised condition	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			
Noun clauses with demonstratives*	potential generalised condition	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			
Quotative clauses	hypothetical mode clauses hypothetical + =ma, contrary to fact condition	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			
	Factive mode clauses -halok factive condition -hyk negative (Fact. or Pot.)	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			
	-no place* -opa basis*	MARKERS OF COINCIDENCE	same subject progressive simultaneous (background)			

* These clause types are commonly embedded in other clauses but share other features with the other clauses in the same column.

of these sorts of dependency relations, the general kinds of verb and clause sequences described in this chapter are schematically summarised in Table 22. In this chart, only the nuclear verb phrase, together with the final clause margin, if any, is tightly fixed in order and rigidly limited to a maximum of one constituent in each position. Preceding the nuclear verb phrase there is much more flexibility. Finite loose-knit clauses, including both quasi-co-ordinate clauses particularly and also the other types described in this chapter, may include by recursion any of the kinds of constructions described for the sentence as a whole, except for the restrictions on negative constructions noted briefly above. Further, any of the other dependent constructions, i.e. what are listed in the chart as subordinate clauses and as non-finite forms within the clause, may function as superordinate verbs in included constructions, within limits.

The limitations on recursive subordination to subordinate forms and constructions need further study, but the following general patterns are clear in the filed corpus.

(1) In most cases the secondary subordinate form or construction is of a more dependent or tighter-knit type than the first-layer subordinate form on which it is dependent; in Table 22, a secondary subordinate form is normally of a sort farther to the right than the form on which it depends. In the corpus filed for this study, =oko manner participles, and the similar -hoko forms of secondary verbs of incurred process, occur with only other =oko or -hoko forms clearly directly subordinate to them; as noted in the table, these are considered to be the tightest-knit of the subordinate forms outside the nuclear verb phrase.

As exceptions to the general pattern outlined above, there are a very few examples in the corpus of a loose-knit clause subordinate to a non-finite verb form:

Wamatve nit-etekke akasik wathenem-he.... 'Wamarue our--side he-
became-prior when-he-kills-him--topic, i.e. When Wamarue joined
our side and killed (a man)....'

In this example the loose-knit clause glossed '*when Wamarue joined our side*' anticipates and is in construction with the non-finite verb form *wathenem* '*when he killed him*', so that the non-finite construction includes the loose-knit clause, as is indicated by translating '*when*' at the beginning of the example. In the very large majority of cases, however, subordinate and included constructions are of a more dependent or tighter-knit type than the superordinate constructions on which they depend.

(2) There is only shallow layering of this kind of included or embedded subordinate construction. Commonly one form or clause may be

subordinated to a subordinate form or clause, and there are a few examples in the filed corpus of one further layer, not counting quotative constructions.²⁰

5.5. CONCLUSION

There is a great deal about syntax both in terms of surface constructions and of underlying semological constructions and their interrelations which has not been touched upon in this chapter, and a very great deal which has not been adequately described. Attention has been focused on person and mode categories as they are marked in verbs in sequence. It is precisely these categories, deictic categories with domain reaching beyond the limits of the sentence, which are employed to link verbs and clauses in sequence within sentences. One fundamentally deictic pair of categories has been pointed out as basic in the construction of Dani sentences: the pair 'same' versus 'different' subject. As has been suggested, forms marked for what is in most instances anticipation of a following verb with the 'same' subject sometimes in fact anticipate a verb with a different subject, and sometimes, although less commonly, verbs marked for what in most instances is anticipation of a verb with a 'different' subject in fact precede a verb with the 'same' subject. It has been suggested that many such cases are merely 'unedited mistakes' which the informant would wish to revise if given the opportunity, as evidenced by many parallel examples in the texts in which the informant backs up and revises his construction in midsentence. There are other examples, however, which appear to indicate that underlying the opposition 'same' versus 'different' subject is a more fundamental opposition of categories that might be glossed 'participants under continuing attention' versus 'participants moved out of attention'.

Further, it has been noted that in certain tight-knit constructions of verbals with superordinate verb forms, categories like 'sequence' and 'simultaneity' are not signalled by the construction or elements marking the construction; the constructions are ambiguous and these categories are signalled by the product of semantic components of the included verbs. This is, in a loose sense, analogous to the ambiguity of surface constructions in many languages, including English constructions with non-finite verbals like 'the shooting of the hunters'. In those cases, disambiguation is possible by describing what underlies the surface constructions as clause-like constructions in some deeper structure, with a subject-verb relationship in one sense of the ambiguous construction, and a verb-object relationship in the other (as in Chomsky 1957-1965:88-9).

In the Dani case, however, what underlies the verb sequences comes out in those terms as verb-verb, with need for specification of simultaneity or sequence. Here at least the underlying structure is most usefully treated not in terms of clause constructions but in terms of semological constructions including semantic components that occur in 'bundles', and the relationships among these 'bundles' of components. Functioning in these same structures are also referential elements.

Although this chapter has not been organised in terms of theoretical dialogue or discussion, the material surveyed is highly relevant to the ongoing discussion of pronominalisation and deletion (for references see e.g. Lakoff 1968a, 1968b, Hankamer 1971). Most of that discussion, including a perceptive paper by Gleason within the framework of stratificational grammar, has treated the problem exclusively in terms of independent noun phrases and independent pronouns, even when the verb forms cited obviously include pronominal affixes (e.g. Gleason 1968:53). But as the discussion in Chapter 4 pointed out, whatever mechanism or model is proposed to treat pronominalisation must treat noun phrases, independent pronouns and pronominal affixes. Further, pronouns and pronominal affixes, where the latter have been treated, have been treated in terms of substitutes for noun phrases (e.g. Bloomfield 1933:257; Fillmore 1968a:55). The inadequacy of that position was discussed in Chapter 4. The present chapter has described levels of constructions in Dani syntax including tight-knit constructions with non-finite verb forms where neither independent noun phrases nor pronouns nor pronominal affixes occur to mark the subject of the subordinate verb, and other loose-knit constructions where pronominal affixes must occur but independent pronouns or noun phrases do not normally occur.

There are a number of unsolved problems here, but it seems highly uneconomical and arbitrary to attempt to treat these phenomena in terms of a base structure in which only 'noun phrases' occur to refer to participants and these are deleted in most instances. The discussions which make this proposal treat reference to the speaker and addressee differently in terms of deep-structure pronouns (e.g. Hankamer 1971:165; Ross 1970:222). Surely there is more promise in the stratificational proposal to treat reference to participants, whether speaker, addressee or others, in terms of referential nodes which are relevant through whole utterances, and realisation of those nodes by pronominal affixes, independent pronouns or noun phrases or combinations of these. The present chapter has not spelled out these realisations in terms of rules but has provided a description of the constructions which must be accounted for and some elements which must be included in that account.

Further, much of the current discussion is focused on co-ordinate constructions (e.g. Koutsoudas 1970, Hankamer 1971). The Dani data described in this chapter include no construction of verbs or clauses in sequence which can be simply and without qualification labelled co-ordinate. The addition of the prefix 'quasi-' in the term quasi-co-ordinate as used here was deliberate. Dani constructions of verbs and clauses which are analogous to co-ordinate constructions in many other languages all involve other components in the relationship, particularly semantic components like 'sequence' and referential components like 'same subject', so that the co-ordinate construction of English verbs and clauses corresponds to a number of distinctly marked relationships and constructions in Dani. A model which treats 'deletion' only in terms of co-ordinate constructions will not get us very far. Again, a model which treats the underlying structures as composed of referential nodes, including semantic components, with these nodes linked by semantically specified relations holds more promise for Dani. This chapter has not attempted to provide a model for the semological structures suggested. Brief, illustrative treatment of a suggested representation of such a model will be included in Chapter 6. This chapter in particular, and the dissertation in general, are primarily descriptive, but included in the description are requirements and suggestions for any adequate model.

N O T E S

1. Note that this construction is distinct from the expanded forms of unidirectional motion verbs including a contracted form of 'come' to specify motion toward the speaker and/or addressee. Any unidirectional motion verb, including the most expanded forms described above, may occur with a further preposed potential stem of an appropriate verb to form a verb phrase, whereas such a verb phrase is not further expandable by this device, i.e. recursion is not permitted.

2. Some of the different realisations possible for such elements may be listed.

Realisation as a potential stem: see the examples in the text.

Realisation as an =ek or =oko participle:

humusek waka. '*running he-came, i.e. He came running.*'

lyppyloko waka. '*rolling it-came, i.e. It came rolling.*'

pu-toko laka. '*flying--manner it-went, i.e. It flew off.*'

Realisation as a manner term which is not a verb:

heise laka. '*fleeing he-went, i.e. He fled away.*'

wamlappuk laka. '*creeping he-went, i.e. He crept off.*'

3. Although the potential stem was introduced in Chapter 2 as a potential mode form, it will be recalled that potential mode is the unmarked mode. In the verb phrase, where one modal category is relevant for the whole unit, the mode marked in the final element is the relevant category.

4. See note 3 above.

5. Some secondary verb stems occur with =ek past participle forms with implicit third person singular object reference; although forms in =oko also occur in the observed cases. These include directional stems:

- kelapek, kelakasoko 'looking inward (at him)';
 wulapek, wulakasoko 'looking outward (at him)';
 lyapek, lyakasoko 'looking upward (at him)';
 sepetek, sepetoko 'pushing (him) down'.

This list is merely illustrative. Two stems which differ in several important ways from those discussed here but which do occur with =ek past participles with marked personal object reference are muk- 'chase out, pursue' and wok- 'take, move':

- musok 'chasing him, her, it';
 mu'-natek 'chasing me';
 wolok 'carrying, taking him, her, it';
 wo'-natek 'taking me'.

For a full list of the observed forms see Appendix A, section D.

6. These examples may also be interpreted as single-verb constructions, the participle functioning as a kind of stem and the verb wela=, loko= 'continue' functioning as an auxiliary verb. In favour of this interpretation are the facts that most of the stems treated in this section are secondary verb stems, requiring an auxiliary verb when in verb function, and that the verb 'continue', as described in Chapter 3, very commonly realises not an event but the aspectual category 'progressive'. However, the fact that some primary verbs, e.g. hol= 'hear', occur in this construction with this sense, and that 'continue' sometimes realises an event that may be glossed 'to remain in a place' have prompted treating these constructions in this section.

7. It is also possible to interpret watoko in this sentence as a manner participle in the commoner sense referring to a stage of the process preliminary to the steam cooking, so that it is subordinate to the manner participle isako.

8. The only possibility for marking personal object categories on =oko participles is, rarely, with the verb wat= 'hit, kill', which occurs with directly prefixed personal object markers. The =oko manner participle form ninootoko 'killing us' has been recorded, but is rare; in the recorded instance, the presupposed verb also had the same personal object. It is to be noted that =oko participles frequently occur with a non-personal object distinct from the object of the superordinate verb.

9. This construction differs from the =oko constructions in that the =oko participles, if 'transformed' into independent clauses, would have the same subject as the superordinate verb in each case:

vkkvl-oak lypylloko waka. *'his-head--bone rolling it-came, i.e. His skull came rolling this way.'*

Compare:

lypylthe. *'It rolled, or He rolled it.'*

But the -hoko forms in the examples would have different subjects if transformed into independent clauses:

nettay-kken kakouk-hoko ik. *'my-heart--seed splitting--manner let-me-speak, i.e. Let me speak extemporaneously.'*

Compare:

...nettay-kken kakouk-ikhe. *'my-heart split--it-said, i.e. I got an inspiration.'*

There are at least two possible interpretations of these facts. One may consider that these -hoko forms are not fundamentally verbs but constructions with stems which, when they occur with auxiliary verbs, are verbalised but which with -hoko are adverbs of manner which retain the verb-like property of occurring with patient nouns but which may not be said to have a subject, either implicit or explicit. Another possible interpretation is to note that the patient nouns would have been subjects were no agent nouns present, but in the example above, the agent noun with the verb 'say' becomes subject of the construction. This is then only an instance of application of the general subject realisation rules.

10. There is one example in the filed corpus in which the implicit subject of the =hyk participle is different from the subject of what appears to be the superordinate verb:

lek-at yyk lek-at yyk, wakeikhe wakeikhe.... *'no--predicate saying no--predicate saying he-came-long-ago (repeated), i.e. "(She's) not (here) either", (they said as) he came; they kept saying this as he came (i.e. in a number of villages and areas).'*

This example is taken from a story of a man looking for an attractive woman who had fled from him. On his searching journey he receives repeated negative replies from various areas. Apparently the speaker here views the events of interrogation and reply and the journey during which they occurred as a single larger event even though in fact involving different subjects. This kind of phenomenon also occurs in looser-knit constructions, although it is not common. Normally one participant, having acted his bit at that point, is moved into the background for the next participant's action, as it were; sometimes two or more participants are treated as one and both or all kept in the foreground of attention.

11. The derivation of this relator is not clear. Some speakers employ the form -a'ma, which is identical to or homophonous with a post-clitic used in a spatial sense meaning 'under' or 'down inside'. This sense might be extended to the temporal sense here. However the form -ha'ma is more common as a clause relator, and it would be possible to derive this from -hak 'sort, resembling' plus =ma 'setting', but I know of no evidence that significantly supports that suggestion. It is probably better just to consider this relator as a unit which refers to interruption of activity already begun or about to begin.

12. This construction is unique among those described in this study, in that a finite verb functions as a relator. This same verb in first person singular forms functions in discourse as a marker of the speaker's confidence in the narrated material, and that construction, to be introduced in Chapter 6, may be labelled 'quasi-quotative'. The construction discussed in the text above is quite different in that it refers not to the speech participants but the participants in the narrated events and that it is preceded not by a verb or verbs in the dominant modal category of the discourse but by a verb marked as subordinate by its contrastive mode. Further, here, but not in the 'quasi-quotative' construction, the akkan form itself is not in a different modal category from the discourse matrix, but rather is in the predominant modal category of the discourse in which it occurs. Nor does it seem useful to treat this use of akkan simply as a type of regular quotative construction, for such constructions normally have quotative verbs marked to indicate linkage to a following verb in the chain of verbs in the sentence. The forms of akkan under discussion here are not suffixed to indicate sequence or dependence nor do marked subordinate forms of akkan occur in this sense. Although these forms are dependent on and presuppose a following verb, they are not overtly marked to indicate that dependence or anticipation in any of the ways commonly observed with other verbs. The simplest treatment appears to be to treat akkan here as itself a relator, or verb in conjunctive function. Other examples of verb forms as relators occur, e.g. ylvk 'saying' used in quotative clauses and intentional clauses, and halok 'if' or 'since', derived from the verb ha= 'see', but these other examples are only non-finite verb forms. Only these factive forms of akkan occur as finite verbs functioning as relators, but they are parallel in function and distribution to such relational particles as ha'ma, described above.

13. For these forms Greenberg's generalisations about the markedness of person categories are in part valid and in part invalid (1966:85). Second person forms appear indeed, as he postulated, to be the most marked forms in this construction, with reference only to addressees. However, first person forms, contrary to his postulation, are in this construction the least marked, with reference to the speaker, the addressee or any other participant. Third person forms are here the intermediate category, with reference to the speaker or to a third person referent. This hierarchy of markedness of person categories is not valid, however, for the language in general, but only for these forms, which are unique in their relative person categories. Elsewhere, as discussed in the preceding chapter, it appears valid to see the fundamental person contrast to be 'speaker' versus all 'non-speaker' categories, so that first person singular is the most marked category.

14. At least in the neighbouring sub-dialect spoken at Tangma, where we are now resident, younger speakers increasingly use constructions of other verb forms and non-verb phrases with *noko-lvk* not in a portentive sense but to express the background or reason for the event referred to in the superordinate verb:

kweang hamlvk atma noko-lvk he, hakeat hulelhikhe. 'earth little predicate-setting since--saying topic early-predicate it-sprouted-long-ago, i.e. Because there was only a little dirt, it sprouted quickly (long ago).'

15. The relator *halok*, like many other Dani relators, functions not only to relate verbs and clauses, like a conjunction, but also to relate nouns and phrases to other words and phrases, like a preposition. These cases are not in the focus of this study, but note may be made of examples:

makke-at halok wo'-nom. 'one-predicate just move--you(sg)-transfer-it-to-me-now, i.e. Give me just one.'

In this example other cases are excluded and the case is limited to that specified by the preceding element, as in conditional sentences the case is limited to the situation specified in the protasis.

...jykktyvky halok, inopa hakathatek-at. 'children if-on-them they-normally-do-it-also, i.e. In the case of children, they treat them also.'

wene halok-en eloma wulupi aka-lokousak. 'talk if--source off-there to-exit coming--would-continue, i.e. Only if there is some major business (or trouble) am I liable to keep coming out here.'

...halok-he nit-he okko halok-he Esese-nen wo'-nisoak. 'if--topic we--topic price if--topic Esese--source move--let-third-person-transfer-it-to-us, i.e. In that case, so far as we are concerned, if there is to be a payment, let Esese pay us.'

There appear to be different senses of *halok* in these examples, one where it means something like '*only if*' or '*just*', and another where it means something like '*also if*' as in the first of the last three examples, and perhaps still another where it means something like '*in that matter*' or '*in that case*', as in the last example.

16. Father van der Stap treats repeated (his term is "reduplicated") verbs as a kind of inflectional category, with a note that they might be described as a matter of syntax (1966:75).

17. Both the filed corpus and a larger corpus of texts including about two hundred more pages were surveyed with regard to these constructions, and the constraint suggested in the text is valid for the dialect under study and two neighbouring dialects also. My non-native 'intuition' based on speaking experience in the language for thirteen years suggests that there are possible constructions of verbs with *lek* sentence medially which are not paralleled in the corpus, but that non-finite verb forms and finite forms suffixed with =*tik*, =*mo* or =*ti'mo* (i.e. with the prior action or setting marker or both) do not occur with the particle *lek*.

18. In the following chapter the use of quasi-quotative constructions in discourse will be treated as contrastive in several ways as compared with regular quotative constructions treated here, although both kinds of construction share many features. The fairy tale text mentioned in the text above may in fact be better treated as a quasi-quotative construction. Such constructions, like normal quotative constructions, may include multiple sentences and mark them with quotative margins either at the end of each sentence or at the end of the whole unit.

19. Constructions of intention with deferred hortative forms plus a form derived from *ylvk* '*saying*' have been described above under subordinate clauses with finite verb forms. Because of this tight-knit subordinate construction, with specified modal category and marked relative person category, intentional constructions were included there rather than under indirect quotative constructions here, although they include the participle *ylvk* '*saying*'. Negative purpose constructions with portentive forms of the verb have also been included under subordinate clauses, since this construction also occurs only with a specified modal category, although it, too, includes *ylvk*.

20. Further study of these problems needs to be made with a very much larger corpus and access to informants, but clearly the limitations involved here are related to the sorts treated by Reich (1969) in his debate with the transformationalists about the finiteness of natural language. The term 'finite', it seems to me, is misleading here, but the Dani data manifest the kinds of limitation Reich discusses and attributes rightly, it would appear, to the limitations on human short term memory.

CHAPTER 6
UTTERANCES AND UTTERANCE PARTICIPANTS:
SOME DISCOURSE CATEGORIES

6.1. INTRODUCTION

The preceding chapters have highlighted the ways in which the speaker and addressee are related to the events and participants in discourse, particularly by means of the categories of event mode, referring to the speaker's report of events as factual, potential or hypothetical, and the category of person and related phenomena of participant identification. But the involvement of the speaker and addressee in discourse only begins here. Linguists of the Prague school have developed a model of language structure involving multiple levels, particularly three levels of syntactic structure: the grammatical structure of the sentence, involving elements like subject and predicate; the semantic structure of the sentence, involving elements like actor and event; and the 'organisation of utterance' involving elements like topic and comment, or in their terms, theme and rheme (Daneš 1964:225). Grammatical structure appears to be roughly equivalent to the grammar of tagmemics, the lexemic stratum of stratificational theory, and, with less isomorphism, the surface structure of transformationalists. Semantic structure in this model seems to include phenomena deeper and more universal than deep structure in a transformational model or the lexicon of tagmemics, and indeed appears in some ways to resemble what Lamb currently calls gnostemics, the extra-linguistic organisation of knowledge and experience, as well as what he calls sememics (1971:30). Daneš says that his semantic categories are extra-linguistic and seem to be universal or nearly so (1964:227). The third level in the Prague school model, the organisation of utterance, "makes it possible to

understand how the semantic and grammatical structure function in the very act of communication" (Daneš 1964:227). This involves the organisation of sentences, for example, into 'theme' and 'rheme', usually roughly equivalent to 'topic' and 'comment' or 'old information' and 'new information'. Prague school interest in these matters dates back to Mathesius, the founder of the school, and a 1924 paper on theme and rheme in English; more recently the awkward label "functional sentence perspective" has been used in their writings for this "third level" of syntactic structure (see Firbas 1966:239). Whatever the name applied, this "third plan of syntax" involves "all that is connected with the processual aspects of utterance" (Daneš 1964:227). This is to take parole and find structure in it, to bring it within the field of linguistics (cf. de Saussure 1959:19; Greenberg 1971:63; Taber 1966:136). It is also to recognise the deictic element in discourse as of fundamental interest.

M.A.K. Halliday in his system-structure grammar has adapted and elaborated these Prague school contributions. He views language as having multiple functions, including the textual function, which includes the thematic structure of texts and the information structure of texts. These are separable structures in his view. For him, in contrast with the Prague school writers like Firbas, English sentences begin with a theme and conclude with a rheme, but given and new information may be distributed differently. Halliday gives as an example:

"this gazebo can't have been built by Wren"

In this example, he calls "this gazebo" the theme, and the remainder of the sentence the rheme. He divides the sentence into two information units similarly, with "this gazebo" consisting of new information; in the second unit, "can't" is said to be new information, and the remainder of the sentence old information (1970:160-164). Firbas does not distinguish these parameters, treating both in the theme-rheme structure and subsuming the matter of old and new information under his concept of degrees of "communicative dynamism" (1964:269); this appears to be equivalent to the concepts of redundancy and information in information theory.

Wallace Chafe has also devoted an interesting chapter in his most recent book to the subject of new and old information; he makes the point, as others have also said, that English passive serves primarily as a device to put a participant into the 'old information' position in the sentence (1970b:210-233, esp. 219). Chafe, however, unlike either Halliday or the Prague school writers, incorporates his treatment of new and old information into the semantic structures he postulates.

Within the framework of stratificational grammar, Cromack has

treated some of these problems in terms of what he terms "functional cohesion systems" which regulate focus and modality by means of semolexic realisation rules (1968:14-21). Stennes, building on the earlier work of Taber and Cromack within the framework of Gleason's version of stratificational grammar, has handled matters of focus and secondary focus by positing semological units on which the semolexic realisation rules operate (1969:84-90).

There are two related problems in these various approaches. The first is the recognition and description of the organisation of discourse in terms of the flow of information as a separable parameter of language. The second is the fitting of this parameter into an overall model of language organisation. It is not a novelty to propose that the same linguistic string exhibits simultaneously distinct constituent structures. Kenneth and Eunice Pike more than twenty years ago proposed that there are immediate constituents in phonology as well as grammar (1947), and Smalley's dissertation on Khmu' was based on immediate constituent analysis of both phonology and morphology (1961). Perhaps the most significant tenet of Lamb's stratificational grammar is that each stratum of language (the number posited has varied from time to time) has its own tactics; in other words there are constituents and constructions to be identified in each stratum. In the sentence '*It's raining*', this is clearly so. Phonologically '*it's*' is structured as a syllable of which /s/ is a constituent. Grammatically in the clause structure, '*s*' is part of the predicate '*s raining*', in construction with '*it*' as subject. But the constituent '*it*' is a dummy inserted to fit the clause structure tactic rules and is not present in the semology, where one set of constituents may be identified as the element realised as '*rain*' in construction with an element like 'present progressive'; there are other constituents as well.

What the Prague school linguists and Halliday have done is to say that in many sentences and utterances there is a distinct further set of constituents observable. Halliday gives as an example:

"next year this gazebo will be restored by the Borough Council". In this sentence he suggests that "next year" is the theme, the remainder the rheme; "this gazebo" is modal subject, the remainder might be termed predicate; and "the Borough Council" is, in Halliday's terms actor, in construction with the process realised as "will be restored" in the same semantic structure as the element 'goal', a role occupied by what is realised as "gazebo" (1970:165). There are alternative treatments of this example possible. One alternative is to treat "next year" as indeed a constituent in construction with the rest of the sentence, but proceed from there in further constituent cuts into

subject and predicate and the constituents within each. This in effect conflates what might be called thematic structure or information structure with the grammatical structure of the clause and sentence. Another possibility is to tag the circumstantial element realised as "next year" as focal in the semological structure, and state in a realisation rule that such focal items are realised sentence initially. This in effect conflates what might be called thematic structure with the semantic structure or semology.

Each of these possible treatments of the phenomena in question has been advocated, as we have noted: The Prague school linguists and Halliday make the informational organisation a separate "level" (Daneš 1964) or "component" (Halliday 1970:160). Cromack, with attention to the dynamic character of the phenomena of information structure, treats them in semo-lexic realisation rules. Chafe and Stennes incorporate the phenomena in the semantic or semological structure (Chafe 1970b:210-233; Stennes 1969:84-90). Longacre and his colleagues in the Summer Institute of Linguistics have been, in effect, adopting the other possibility of handling the structure of discourse in the same hierarchy as other grammatical structures (Longacre 1968, 1970). All of these models allow for focusing attention on an area that has been largely neglected outside the Prague school. The model suggested by Firbas and that suggested by Halliday view these textual/informational phenomena as relatively autonomous from semantics and grammar in the narrower sense, thus giving the maximum possibility of treating them as important in their own right. Yet such an autonomous component needs to be related meaningfully to the other components of language in a way discouraged by emphasis on autonomy, although that criticism is not as valid for Halliday as for the Prague school linguists. Cromack attempts to account for a number of these phenomena by semolexic realisation rules and thus emphasises the fact that these are phenomena intimately related to the production of actual utterances. However, realisation rules need an input of semological elements that trigger their operation. The same logic is relevant that motivated transformational grammarians to eliminate optional transformations and replace them by obligatory transformations keyed to markers already in the string in the base component (Chomsky 1965:132). In many ways the most attractive of these models is Stennes' version of Gleason's reticular model. That model, by incorporating referential nodes in its reticula is already a model of the semology of particular utterances. When modified as suggested in the last chapter to incorporate the speaker and addressee explicitly in every reticulum, that model appears to provide a framework for treating the deictic phenomena involved in information structure. Some further

modifications of the model will be suggested as the Dani data are presented.

But the focus of this study is not on models nor on graphic representations of models. What attention is given to these devices is largely programmatic, with suggestions of improvements for future application. The present chapter is rather a beginning venture into the structure of Dani discourse, with a survey of some of the devices employed. The discussion of theory and models has been included to indicate the route along which the writer's thinking has moved in approaching these problems, and along which it now appears further study can most usefully advance.

6.1.1. The Dani Case

The proof of any theoretical pudding must ultimately be in the eating, the application of theory to data, and the study of data in the light of theory. What contribution is made in this chapter is in terms of a survey and initial analysis of data with a few suggestions for modification of the model which underlies but is not the focus of attention of this study. There is still much in Dani discourse that remains to be analysed and described; but a beginning, however small, is worth the attempt. In Chapter 4 the categories of event mode and person were described as they relate the speaker and addressee to other participants and single events realised in single verbs. Chapter 5 was an extension of that description to multiple events realised within single sentences. The systems to be examined in this chapter relate the speaker and addressee to the discourse itself as a communicative event.

6.2. DISCOURSE MARGINS

6.2.1. The Arrangement of Information in Discourse

Of all units of speech, discourse has, by definition, the most recognisable beginning and ending. These end points are not only marked in terms of silence, or complete shift of speaker-addressee sets, or other observable real-world phenomena, but also usually by distinctive introductory and concluding linguistic material. It is useful to speak of margins of discourse consisting partially of these introductory and concluding materials. Within these margins it is also useful to distinguish 'outer' utterance-setting or deictic margins and 'inner' context margins.

6.2.1.1. *Introductory Outer Margins*

The outer margin is typically occupied at discourse introduction by such items as calls or greetings or other items establishing the speaker-addressee setting; the inner margin is typically occupied by such items as topic specification.¹ Many of the texts in the filed corpus lack some typical outer margin elements since they were recorded, often several in fairly close sequence, in a speaker-addressee situation already established when the recording began. Some of the corpus texts retain this margin however, and there are a number of quoted or embedded discourses in the texts with these features. In conversation or any discourse it is clearly necessary to establish the speaker-addressee context. Since in oral discourse in face-to-face societies the speaker is usually self-identifying, the margin of discourse needs, where there is any ambiguity, only to identify the addressee:

Asukwate'lek. paly lek-akama. 'Asugwareklek. tobacco not--it-became-setting, i.e. Asugwareklek. (I've) run out of tobacco.'

In this example the name serves both to identify the addressee among the several persons present and to get his attention.

(quoted discourse) he Hymyneke. heak le-aka. 'woman Hymyneke your(sg)-woman's-child crying-he-became, i.e. Hymyneke, your baby is crying.'

In this example the name serves as an attention getting device, for only the speaker and addressee and the baby are present in the scene.

'Outer margin' is not always a manner of linear order. Other items, most frequently inner margin items, may occur preceding these elements:

hit hyamakane hinel-lapok wene ama-noko nykky-ttoko ekep. 'you(pl) yesterday your(pl)-faeces(greeting) news those--known-to-us how--manner you(pl)-said, i.e. You fellows yesterday--good morning--about that conversation, what did you say?'

Here hinel-lapok is a greeting and an 'outer margin' element preceded by the inner margin topic element hyamakane 'yesterday'.

In the texts in the corpus there is an additional and sometimes lengthy kind of outer margin element relating to the recording situation. This is not a totally foreign kind of element, however, for often in local discussions, particularly deliberations of leaders, a speaker may request permission to speak. Typical examples in the corpus are:

ik-a? ty Meake-te.... 'let-me-speak--invitation-query that Meage--topic-marker, i.e. Shall I speak now? As for that (story), about the Meage....'

kakouk-hoko-at ik-a? 'splitting--manner--just let-me-speak--invitation, i.e. Shall I speak extemporaneously?'

One further element may be assigned to the outer margin of many of the corpus texts, and that is hypostatized reference to the discourse as a whole by use of a demonstrative or other element. In the examples in the corpus this commonly refers back to a query or cue that prompted the discourse, and forward to the whole discourse to follow:

a'ly-te, Oteke akwe a'noko tauk-hoko-te Welesi lakeikhe akkyky.

*'that(in-immediate-context)--topic-marker, Orege his-wife that-we-know separating--manner--topic-marker Welesi(place) she-went-long-ago I-believe, i.e. As for that story, Orege's wife (you know about her) left him and went to Welesi you know (literally, I believe).'*²

Here a'ly refers back to an immediately preceding request for a clarification of a story previously heard from another informant and thus forward to this retold version.

epe hoto-at hakke. *'its-presence short--predicator sort, i.e.*

It's a rather short (story).'

Here again epe refers to a prior comment by the speaker about the subject of his proposed discourse, and thus forward also to the discourse as a whole.

6.2.1.2. *Introductory Inner Margins*

The introductory inner margin of discourse typically includes elements specifying the topic of the discourse; this may occupy a sentence or only a part of a sentence. The topic often is a multi-position element, including most frequently: (1) specification of the key participants, and (2) some further specification of setting, major non-personal element or event:

aty an kouk-he, mottok kouk motto' lek-en-he, Lappuluwok ajokko hykytyk-he, pv jy-mekke pali lakeko. *'that I raft--topic-marker, altogether raft altogether not--source--topic-marker, Lappuluwok summons-to-him I-put-prior--topic-marker, up here--sort to-cut we-went-up, i.e. About that, about me and the raft, because I had no raft at all, I asked Lappuluwok to help me and we went up and cut one of those up here.'*

Here the initial word aty is a demonstrative referring to a previous mention of this incident as a topic of interest; it is an outer margin element. The pronoun an refers to the speaker as the main participant, and the noun kouk 'raft' specifically mentions the major non-personal element in the discourse. This much of the sentence is usefully considered discourse margin.

In the genre which can be called folk tales, the topic of discourse is very commonly, although not always, an initial sentence identifying

the main participants as resembling some known local persons of known kinship relationship. A story about a father and his son begins in one version:

Nenapu hakke-non-he, Appale'ma hakke-non yly'-lay. 'Nenabu sort--and--topic-marker, Appale'ma sort--and saying-they-are, i.e. (There once were a father) like Nenabu and (a son) like Appale'ma they say.'

Frequently the discourse topic is included in a sentence of which it is not an appropriate topic:

joma-te tvky ay, ap-hvny inathv-salok-he, ap kvtesi wanhatek. 'here--topic-marker cudgel(kind of sacred object) its-house, people plural-subject-kill-them--if--topic-marker, men white heron--feathers they-normally-take, i.e. Here, so far as the houses for sacred war objects go, if they (of the enemy group) have killed them (locals), the men get white kut feathers.'

In this example, the text goes on to talk about the house where the sacred objects connected with warfare are kept, but nothing of that is included in this sentence except for the topic. There are a number of similar examples.

A discourse may begin with no isolable topic simply by starting with an initial episode which sufficiently introduces the major participants or initial participants. One folk tale was recorded with this kind of introduction:

ap-mekke akeikhe japu jokko hesikhe yly'-lay. 'man-sort one-of-group garden summons he-put-long-ago saying-they-are, i.e. (There once was) a man who called for help in digging garden they say.'

6.2.1.3. Closing Margins of Discourse

There are recognisable elements at the close of discourse as at its beginning. Here as at the beginning of discourse it is useful to distinguish inner margin elements, like the summary and/or application, from outer margin elements, like greetings and reference to the recording situation. Often all of these occur in sequence:

makkum-he Wvka-hvpy ta' muk-hasikhe. aty nakeijak. at-at. hal-la-ok. 'beginning--topic-marker Wuka-huby (olans) first he-chased-him-out-long-ago. that my-friend. finished. your-faeces(greeting), i.e. In the beginning they drove the Wuka-huby out first. That's the story, friend. That's the end. Thank you.'

This example concludes a text which begins with the eviction of the Wvka-hvby and goes on to describe the resultant eviction of part of

another confederacy. At the conclusion, attention is turned back to the starting event, the key to the series. Such reference back to the 'source' event is very frequent. After a whole text on the course of a battle the speaker concludes:

wein-he, it-en wanhama, epekkalem huwalhomo. esok eto lemeloko.

'battle--topic-marker them-source they-took-setting main-trail he-opened-setting. his-foot its-source turned(?) i.e. As for the battle, they started it, they (literally he) opened it up on the main trail. They turned their legs upside down (lost men in the battle they started).'

In one kind of explanatory folk tale the conclusion includes an explicit statement of what the tale explains:

hesi jvvk hesi jvvk isikhemo-te, hesi jukulhatek atty. wa'-lakeikhatek atty. nen pelal ta' lylyk, napvlal hapvlal ilepma-te, ap-hvny jamanvky-mekke-mel-ekke inapvlal wanhy-lokoilep. *'mud smeared mud smeared he-said-long-ago-setting--topic-marker, mud they-normally-smear that. they-normally-die that. then snake first having-gone my-epidermis your-epidermis he-said-hypothetical-setting--topic-marker, people oldsters--sort--also their-epidermis taking--they remain-hypothetical, i.e. He said, "Smear on mud, smear on mud", and that's (why) they smear on mud. That's (why) they die. But if the snake had got there first and had said "Change skins", people, even the elderly, would have kept on changing their skins (and not dying).'*

The explicit mention of an alternative conclusion, of what might have happened if events had taken another turn, also occurs in one long personal travel narrative about a trip on which two members of the party got lost and were cannibalised by enemies:

...pykkyt pvlan-hoko ... pilo. pilo-mekke atykynhuku akkyky.

'directly slipping-manner we-descend-hypothetical. we-descend-hypothetical--adversative we-did-that-long-ago I-believe, i.e. (If we had done it differently) we might have slipped right through and gone down there. We might have gone down (safely), but in fact we did what I've just told you you know.'

Discourses may of course simply conclude with the last event in a chain in narrative or some kinds of expository discourse:

eik-wo ylvk-he, le-akeikhatek. watek a'noko lol-hisekatek.

'pity having-said--topic-marker, weeping--they normally-become. corpse that-we-know they-normally-burn-it(literally them), i.e. They say, "What a pity", and weep. They cremate him.'

Examples of hortatory discourse are few in the corpus, but the best example concludes like very many observed hortatory discourses, with

a command:

hep-isani-o. *'discard--you (pl)-do-to-them--decisive, i.e. Throw them away!'*

This last example concludes a speech of a major leader to enemies being escorted by the government officer through his territory. Moralising that warfare is finished and carrying weapons is bad, he called on his audience to throw the spears away but in fact dispatched some of his own younger followers to do the job for them.

Outer marginal elements in the conclusion of discourse may refer back to the text as a whole, a hypo-statised unit:

...joko-thi a'noko. nakeijak atty. *'tell--I transferred-to-him that-we-know. my-friend that(abstract), i.e. (That's what) I told him, as you know. Thank you. That's (the story).'*

One example includes reference to the discourse genre:

pi-akeikhe atty. atty-pa akkyky. ekatek a'naka. wenesvajo. *'he-came-down-long-ago that. that--to I-believe. they-normally-say that-known-to-one-of-us folk-tale, i.e. He came down and there he was. (The story goes) to that point, you know (literally, I believe). They tell it that way (although you wouldn't have known it). It's a folk tale.'*

One example above included a greeting, and these are very common in concluding outer margins in comparison with introductory margins, although still only a sixth of the texts in the corpus include them.

The term *at-at* 'finished' occurs both in inner and outer concluding margins of discourse. In inner margins it refers to the conclusion of the events or content of the discourse, and in outer margins to the discourse about them:

wuthusik-he *at-at* wuthu. *'we-built-prior--topic-marker finished we-built, i.e. And so after working on the building we finished it.'*

In this example *at-at* is an inner marginal element.

at-at yky sa. *'finished I-said of-course, i.e. I've finished telling it of course.'*

In this example *at-at* is an outer marginal element.

There are also a number of references to the recording situation in the texts in the corpus, and these are considered to be outer margin elements:

jokko heikhe. nakeijak. te. *'summons he-put. my-friend. here-take-it, i.e. he called for the men. Thank you. Here take it (the microphone).'*

The marginal elements in the texts in this corpus may be summarised as follows:

TABLE 23
MARGINAL ELEMENTS IN DISCOURSE

I N I T I A L	M A R G I N	F I N A L	M A R G I N
OUTER	INNER	INNER	OUTER
Call, greeting	Discourse topic:	Flashback to 'source' or key element	Greeting
Reference to utterance situation	Identification of key participants	Summary	Reference to utterance situation
Hypostatised reference to discourse	Further specification (May be fused with body of discourse as initial episode)	Application Appeal (May be fused with body of discourse as final episode)	Hypostatised reference to discourse

6.3. UTTERANCE MARGINS

The internal structuring of the body of discourse involves first of all segmentation into utterances, and discourse-medial utterances are characteristically different from discourse-initial or discourse-final utterances or one-utterance discourses. Multi-utterance discourses are dialogues or conversations, and utterances in such discourses occur with margins which are distinctive from discourse margins. Perhaps the most important of these margins are the clitics marking what may be called dialogue mode.

6.3.1. Dialogue Modes

6.3.1.1. *Invitational Dialogue Mode*

The very first sentence of the first text filed in the corpus used as the narrower basis for this study is marked in multiple ways for involvement of the speaker and addressee:

ik-a? 'Shall I speak?'

The suffix =k in this example was described in Chapter 2 as a portmanteau marker of potential event mode, hortative category and first person singular of 'speaker as subject', these categories all directly presupposing the speaker and the addressee. The example also includes the clitic -a which is a marker of another kind of modal category. While event mode is an obligatory category marked by the desinences in finite verbs and referring to the speaker's evaluation to the addressee of the factual status of an event, dialogue mode is an optional category marked by clitics attached to words of all classes occurring as predicates, and it marks the speaker's stance toward the addressee's further

participation in the dialogue. The clitic -a invites the addressee to respond, whether verbally or in non-verbal action. It normally carries intonation contours or contour terminals which further specify the invitation. In the following examples particularly relevant intonation contours are transcribed using the numbers one through four, from highest to lowest intonational levels, in slant lines above the segmental text.³

/2-3/

akeikhe sekke-nom-a. *'one-of-group cut-up-raw--you(sg)-transfer-to-me-now--invitation, i.e. Please cut some for me (entreatingly).'*

Here the /2-3/ downgliding intonation specifies the invitation as a plea. The verb is in the potential event mode, immediate imperative category, indicating that the sentence is a directive to the addressee, but the clitic -a with this intonation contour marks the stance of the speaker as inviting or entreating rather than commanding.

/2-3/

wein-at wakytyk-a. *'battle--just I-came-prior--invitation, i.e. I've come just to fight - come on!'* (a shouted challenge to battle).

Here the /2-3/ downgliding intonation and the clitic -a specify that the event referred to in factive mode in the verb is indeed an invitation to respond, a plea or challenge to fight.

/2-4/

amy'myt-he lek-a. *'shouting--topic-marker not--invitation, i.e. There is no shouting (but I stand to be corrected).'*

In this example the downgliding intonation with no question word would, with no dialogue clitic present, indicate a report or statement; the presence of this invitation-marking clitic invites correction from the hearer.

The commonest use of this clitic is however in yes-no questions. Commonly, although not obligatorily, such questions explicitly include both alternatives:⁴

/3-2/ /2-4/

hekep-a? lek-a. *'you(pl)-saw--invitation not--invitation, i.e. Have you seen it?' (Literally, add 'or not', but the Dani explicit alternative does not carry the connotation of impatience frequently associated with the explicit alternative in English questions of this type).*

/3-2/

hineil-ekken hekep aty-a? *'you(pl) eyes you(pl)-perceived that--invitation, i.e. That was it, did you see it?'*

/3-2/ /2-4/

heak-he eleke-a? hele-a. *'your(sg)-woman's-child--topic-marker boy--invitation? girl--invitation, i.e. Is your child a boy or a girl?'*

/3-2/ /2-4/
 hvppvtv isasukun-a? hekvn-a. 'sweet-potatoes plural-subject will-
 steam--invitation raw--invitation, i.e. Are (we) going to cook
 the sweet potatoes or (eat them) raw?'

There is a less common clitic -ha which in questions seems nearly synonymous with -a, but which has not been observed to occur in all the non-question invitational contexts where -a is found. It appears to mark invitational dialogue mode plus a further component of probability:

...mvkkat-ekke a'la kolo akama ha.... 'ghost--ones his-insides
 crooked it-became-setting probably, i.e. (It looks as if maybe)
 the ancestral spirits are displeased.'

6.3.1.2. Decisive Dialogue Mode

In contrast with the invitational dialogue mode marker are two other major markers. One of these marks a decisive statement by the speaker to the addressee, not inviting his comment but rather finalising the statement of issue.

/3-2/ /2-4/ /2-4/
 hekep-a? lek-a....lek-o. 'you(pl)-perceived--invitation not--
 invitation. not--decisive, i.e. Have you seen it (literally,
 add or not)? No.'

This dialogue mode is however not analogous with declarative mode as traditionally described e.g. for English. The Dani dialogue mode is optional and rarely occurs in monologue except, of course, in quoted dialogue embedded within the monologue.

hoppa ettake aty-o. 'your-grandfather his-name that--decisive,
 i.e. That is your grandfather's name (a statement in the ritual
 of initiation).'

Frequently this clitic occurs with imperative and hortative forms adding a further element of decisiveness:

joma-at lokon-o. 'here--predicator you (sg)- stay--decisive, i.e.
 Stay right here.'

This last example is a father's farewell to his son who has become permanently fastened to or incorporated in a rock as a punishment for misdeeds.

The relatively few examples in monologue are instructive. In one text about gardening, the whole process is recounted step by step, then the speaker goes back to the beginning in a briefer summary:

...makkum ay jakw-hylyk-he, makkum wusa jokolhusek-o. 'beginning
 plant plant--having-put--topic-marker, beginning weeds we-normally-
 weed--decisive, i.e. In the beginning, after we plant the cuttings,
 as the first step, then, we weed.'

There are no other occurrences of this clitic preceding or following this example in this discourse. Here the speaker begins his summary section with a statement to the effect, "This is indeed the way we do it."

In only one monologue in the corpus are there repeated occurrences of this clitic. The text was a report by the informant of an exposition by an elderly, respected local man about the sun and moon. The informant had repeated to the old man my answers to queries about what we believed the sun and moon to be like. The old man was upset and strongly rejected these heresies, according to the report of the informant:

mo atty, mo, he-o. nen tuki aty ap-o. 'sun that, sun, woman--
decisive. then moon that man--decisive, i.e. As for the sun,
that is a woman, and the moon, that is a man.'

This clitic occurs a number of other times in this discourse as the speaker strongly defends his position. Clearly it is a category related to the utterance and says in effect, "I am telling you that this is so."

There is another clitic -v which appears to be very closely related in meaning to -o, and indeed no clear contrast has been established, although in some cases it appears that -v is more emphatic than -o. However, the phonological shape of the preceding word is also involved in the distribution. All words occurring followed by -v also occur followed by -o, but only words with a limited variety of phonemic shapes occur followed by -v; these include words with final ek and ok and o:

lek-v. 'certainly not.' Compare lek-o 'no' or 'surely not'.
hano-v. 'That's indeed good.' Compare hano-o 'That's good.'

6.3.1.3. Deferential Dialogue Mode

In contrast with both invitational and decisive dialogue modes is a category typically marked by a less common clitic -e, which defines the stance of the speaker toward the addressee as deferential or ingratiating. This clitic has not been observed in monologue (except in quoted dialogue, of course), but is very commonly observed with greetings in dialogue:

nakeijak-e. 'my-friend (literally my-sibling)--deferential, i.e.
"Hello", (said in an ingratiating manner).

In one folk-tale a sneering bird finds himself in the village of the butt of his ridicule and discovers him to be a wealthy and influential man. Trying quickly to shift his stance appropriately, he repeatedly

includes this clitic in his speech:

wam jy wathen najvk-e. 'pig this you-killed my-fear--deferential,
i.e. *My, I'm impressed with this pig you've killed!*'

In some contexts a complaint is softened in tone by this marker:

nopa-ai-ekke napyt-e. 'my-surface--cold my-dislike--deferential,
i.e. *I'm rather chilly, and find it unpleasant.*'

There is another clitic -y which is very closely related in meaning to -e; its occurrence is most common with the highest intonation level as contour terminal. The combination of clitic and intonation appear to mark a more emphatic or excited deferential stance than is signalled by -e:

/3-1/
eik-y! 'Wow!'

This clitic has also been recorded with other intonation contours.⁵

6.3.1.4. Contrast of Dialogue Modes

All of the dialogue-mode marking clitics occur with some stems, particularly the interjection eik-, which requires one of these mode-marking clitics. In the folk tale about the sneering bird confronted by the real wealth and influence of one of the butts of his jibes, the bird exclaims in amazement:

/2-1/
eik-y! 'Wow!' (deferential amazement).

Then the former object of his derision shoots and wounds him superficially and seizes him as the bird appeals:

/4-3/
eik-e! 'Oh oh!' (deferential, appealing, surprised).

In the same line he shifts to invitational dialogue mode:

/4-3/ /4-3/ /4-3/
eik-e. noe hal-lapok-a. eik-a. 'oh-oh my-elder sibling greetings--
invitation exclamation--invitation, i.e. *'Oh Oh, Please, sir!
Please!'*

In another folk-tale concerning a boy who has become petrified or at least permanently fastened to a rock in punishment for his transgressions of taboos, the father comments:

/3-4/ /3-4/
eik-o. nakeijak-o. 'exclamation--decisive my-sibling--decisive,
i.e. *What a pity, lad!*'

This expression of pity implies, by the addition of the clitic -o, that the speaker considers that nothing can be done about it.

Similarly contrasting examples are recorded of napyt, na'yt 'my dislike':

he atty na'yt-o. 'woman that my-dislike--decisive, i.e. *'I don't like (or don't want) that woman.'*

Here the comment is decisive, reporting a decision.

ai-ekke napyt-e. '*cold my-dislike--deferential, i.e. I dislike the cold, am unpleasantly cold.*'

Here the comment is deferential. The comment was made in a host's house in the host's hearing, but is normal, and may simply indicate that the chilly person is at the mercy of the cold.

lekein-a? napyt-a. '*singular-subject-will-go--invitation my-dislike--invitation, i.e. Shall (I) go or don't I want to?*'

6.3.1.5. *The Relationship of Dialogue Mode and Intonation*

The examples cited above do not provide sufficient evidence for isolating dialogue mode categories from categories signalled by the intonation contour, but do offer evidence of their independence:

/2-4/
lek-o. '*No,*' (decisively).

/2-4/
lek-a. '*No.*' (allowing for correction).

No new study of intonation has been made as part of this investigation, but it is clear that intonation alone can distinguish question from statement:

/2-4/
lek. '*No.*' (statement).

/3-2/
lek? '*No?*' (question).

It is also clear that the distinction between question and statement is partially independent of the contrast between invitational dialogue mode and decisive dialogue mode:

lek-a.
/3-2/
lek-a? '*No?*' (question).

/2-4/
lek-a. '*No.*' (statement, open for correction).

Further it is clear that the distinction between question and statement is signalled not only by intonation but also by question words, the analogs of English wh- words:

/3-2/
hat-a? '*Is it you?*'

/2-4/
hat sa. '*Who are you?*'

Note that the last example carries the intonation contour which, when no question word occurs, marks a statement.

A further detailed study of the grammar and semantics of Dani intonation-marked contrasts is needed but not possible here. However these conclusions may be drawn:

(1) Invitational dialogue mode contrasts with decisive dialogue mode with the same intonation contours, and refers to the stance of the speaker toward the addressee with regard to his further participation.

(2) Rising intonation contours /3-2/, /3-1/ and others may be employed to signal yes-no questions, or the first alternative of yes-no questions. This contrasts with unmarked falling contours including /2-4/, /3-4/, which occur with question-word questions and the second alternative of yes-no questions, as well as with statements and commands.

(3) Questions signalled by rising intonation contours in the absence of a question word frequently but not obligatorily co-occur with invitational dialogue mode. Statements may - but in monologue only rarely do - co-occur with decisive dialogue mode.

6.3.2. Logical Mode

The discussion above has indicated that some questions are signalled by intonation contours, with or without accompanying invitational dialogue mode, while others are signalled by question words. However, it is clear that for Dani speakers as for us, both kinds of question are subsumed under the same category, referred to in the Dani term *hinok* 'inquiry'. Of either sort of question an observer may state:

hinok wany'-lako. 'inquiry taking--he-is, i.e. He is asking a question, or questions.'

This category appears to contrast with what might best be labelled 'non-inquiry', referring both to statements and commands. Of both these kinds of utterances one may say:

wene joko-ty' lako. 'news telling--transferring-to-him he-is, i.e. He is telling him something.'

Yet there is recognizable ambiguity in such sentences as:

weim lek. 'battle not' i.e. either, 'There is no fighting (we got rained out, or the enemies didn't show up), or Let there be no fighting.'

Such ambiguity can be resolved by paraphrases:

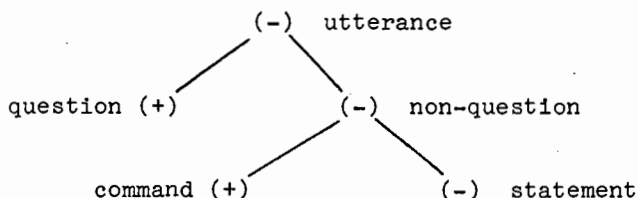
weim japy'-lay lek. 'battle fighting--they-are not, i.e. They aren't fighting' (a statement of fact).

weim lek a'nek. 'battle not let-it-become-now, i.e. Let fighting cease' (an exhortation or command).

There are at least two possible analyses of this second ambiguity. One might posit distinct covert logical modes of 'statement' and 'command'. If this alternative were chosen, the covert logical modes posited would be related as indicated in Figure 10, with 'question' as a marked category opposed to an unmarked category 'non-question', and that unmarked category including a subordinate opposition between the

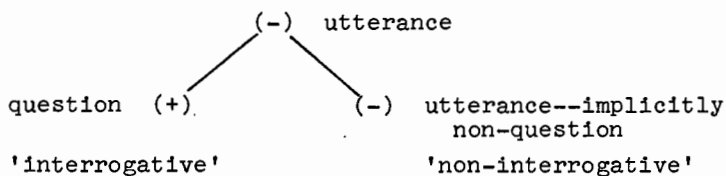
marked category 'command' and the unmarked category 'statement'.

FIGURE 10
REJECTED ALTERNATE RELATIONSHIPS OF
COVERT LOGICAL MODE CATEGORIES



Another solution is suggested when it is noted that the paraphrases resolving the ambiguity are marked with factive and potential-hortative event mode categories. It is thus possible and attractive to posit these categories as covertly implicit in sentences where there are no verbs with desinences marked to contrast event modes. There are no event mode categories, however, to contrast 'interrogative' with 'non-interrogative' categories, and it is proposed to posit these two and only these two covert categories of 'logical' mode. This solution reduces by two the number of new categories posited and utilises instead categories required elsewhere. The logical mode categories are then related simply as in Figure 11:

FIGURE 11
RELATIONSHIPS OF COVERT LOGICAL MODE CATEGORIES



6.3.3. Mode and Modes

For English, Halliday has described mood as "the grammar of speech function" representing the "organization of participants in speech situations, providing options in the form of speaker roles: the speaker may inform, question or command...." (1967:199). It appears clear that modal functions are separated in Dani into two overtly marked contrastive sets of categories and one covert set, as described in Chapters 2, 4 and above. **Event mode** is a set of evaluative categories relating the speaker and addressee to the extra-linguistic events referred to in discourse, and in Dani the notion of command is

a function subsumed under potential event mode. **Event mode** is an obligatory category in finite verbs, and in the interpretation adopted above, is also covertly present category in predications without verbs. **Dialogue mode** is indeed a mode of "speech functions in speech situations" but marks the stance of the speaker toward the addressee, so that the opposition 'invitational' versus 'decisive' proposed in the analysis here is related to but not identical with the familiar opposition 'interrogative' versus 'declarative'. **Logical mode** can be defended as a covert category in Dani distinguishing questions from statements and commands, but in the analysis adopted here, the opposition in logical mode is between question and non-question or interrogative and non-interrogative, and the distinction between command and statement is treated in terms of event mode categories. Note that exhortations as a kind of command can be either questions or statements; i.e. non-questions:

/2-4/
hat lanok. '*Go (later)*', (stated exhortation).

/3-2/
hat lanok? '*Will you consent to go?*' (questioned exhortation).⁶

This then parallels propositions of fact:

/2-4/
hat laken. '*You went*', (factive mode, statement of fact).

/3-2/
hat laken? '*Did you go? or Are you going?*' (factive mode, question of fact).

Statements about the future are also parallel:

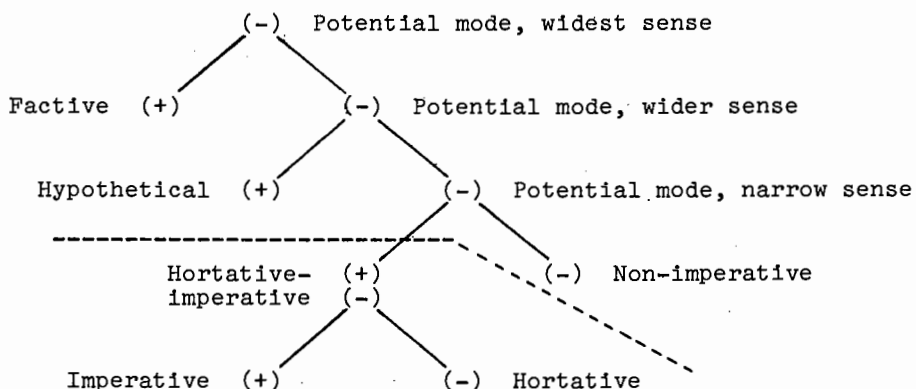
/2-4/
hat lekein. '*You are going to go*,' (potential mode, future, not a question).

/3-2/
hat lekein? '*Are you going to go?*' (potential mode, future, question).

Commonly, English grammar treats 'declarative', 'interrogative' and 'imperative' as members of the same set of mode categories, and Halliday has adopted this view. However, Dani handles the contrast between command and statement in the system of event mode categories diagrammed in Figure 12, below. This elaborates the diagram earlier presented in Figure 6, p.188. The dotted line represents the contrast between 'hortative-imperative', a potential mode category, and other event mode categories, corresponding to the contrast 'command' versus 'statement' and 'question' together. It will be noted that 'hortative-imperative' is a marked category, as indicated by the plus sign adjacent to that label, in opposition to non-imperative potential categories; but that it is an unmarked category, as indicated by the

minus sign below the plus sign, in relation to the subordinate hortative and imperative categories. Of these, hortative appears to be the

FIGURE 12
SEMANTIC RELATIONSHIPS OF EVENT MODE CATEGORIES



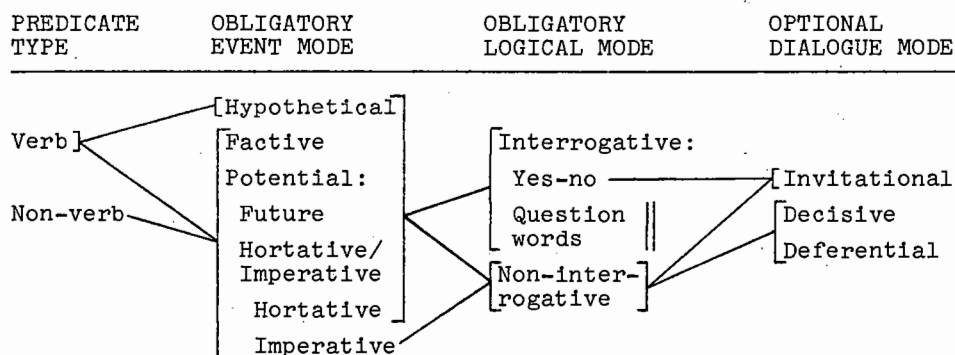
semantically unmarked category and imperative the marked category, despite the fact that some hortative forms consist of imperative forms plus an affix. Dani treats the contrast 'interrogative' versus 'non-interrogative', however, in terms of covert categories of logical mode, almost completely independently of the contrastive event modes.

'Question' versus 'non-question' is a contrast related to utterances as such; 'command' versus 'non-command' is a contrast relating utterance participants to events. The Dani distinction of event modes, as categories referring to events, and logical modes together with dialogue modes as categories referring to utterances, perhaps illuminates a contrast that is relevant for general grammar.

The inter-relationships of these modal categories are partially diagrammed in Figure 13. Lines and brackets indicate selectional possibilities and restrictions. Thus a predicate verb may be marked for any possible event mode, but a non-verb predicate may include only an implicit factive or potential event mode category. If the imperative category occurs only non-interrogative logical mode is possible. The vertical lines following the label 'Question words' under logical mode categories indicate that dialogue mode markers are not commonly observed following question words. There are several problems not handled in this diagram. Real questions are not distinguished from rhetorical questions, although they are obviously in almost all cases distinguished in the intent of the speaker and the understanding of the addressee. Further, the diagram does not specify the domains of these modal categories. Clearly event mode is a category relevant to events

and other predications, while both logical mode and dialogue mode are in some sense utterance categories, even though a single utterance may indeed include more than one marker of these categories.

FIGURE 13
INTERRELATIONSHIPS OF DANI MODES



6.3.4. Attention Signals

Another set of elements marginal to utterances comprises the short utterances which Fries referred to as "signals of attention" (1952:49). During or immediately following an utterance by one speaker there may occur short utterances by his addressee to indicate agreement, surprise, and similar reactions, or simply to assure the speaker that he is listening. These might be treated as discourse margins but appear to be better considered as utterances by one speaker which are marginal to the utterance of another speaker. In the following example, speakers are identified by capital letters:

K eloma kume i laka. *'there-far swimming to-say he-went, i.e. He went off for a swim.'*

A y? *'Yes? i.e. Is that so?'*

K i lakama-te.... *'to-say he-went-setting--topic-marker, i.e. And after he left for (the swim)....'*

In this and many other examples, these attention signals are clearly marginal to the content-carrying utterance, which continues uninterrupted or takes up again as if uninterrupted. Greetings also frequently serve as attention signals, but these require a response from the other speaker; in this case both greetings are marginal to the content-carrying utterance:

B attykynhuku akkyky. *'we-did-that-long-ago I-believe, i.e. That's what we did, you know.'*

J hal-la-ok. *'Greetings.'*

B hal-la-ok. pisukusik welakaku welakaku lakei-akaku.

'Greetings. we-went-down-long-ago-prior we-continued-long-ago we-continued-long-ago ascend--we-came-long-ago, i.e. We went down and stayed and stayed then came back up.'

6.3.5. Internal Margins - Quasi-quotatives

If attention signals by the addressee are marginal to the utterance of the speaker, certain elements in the speaker's own utterance are primarily concerned with the utterance as such. One such element is the stylised kind of quotation, together with some similarly used devices, employed to refer to the authority appealed to in some kinds of discourse. The most common occurrence of such a device is the use of a quotative formula which might be glossed *'they say'* when telling a folk tale. There are good indications that this kind of device is an utterance-related phenomenon. First, the continuity of the narrative content is unaffected by the quotative elements, and there is no marked continuity relating the quotative elements to each other. Quotative verbs functioning primarily to mark quotations in narrative, however, are often affixed for relationships of sequence, simultaneity, etc. as part of the narrative continuum. Contrast these kinds of elements in the following example:⁷

...sijakkvp-o ykhy-lakoukwha yly'-lay. ykhy lakouk-whasik-he....
'charcoal--decisive saying--they-were-long-ago saying--they-are saying--they-were-long-ago-prior--topic-marker, i.e. They were saying, "It's charcoal", they say. And then (after they were saying that)....'

Here the first verb, ykhy-lakoukwha *'they were saying long ago'* is a quotation verb in the narrative, and the narrative continues by a recapitulatory repetition of that verb. But the following verb, yly'-lay *'they say'* is inserted in the sequence without interrupting the continuity. In this version of this folk tale, nearly every sentence concludes with this stylised quasi-quotative element. In effect it serves to signal to the addressee that he is hearing a folk tale. A second evidence that these quasi-quotative elements are basically marginal to the utterance rather than the sentence is that other versions of these folk tales, recorded from other informants, may utilise a single quotative verb at the end of the whole tale. One alternative version of the folk tale from which the last example was taken is very much longer but includes no quasi-quotative device until the end:

ekatek a'naka. wenesvajo. *'they-normally-say that-known-to-one-of-us. folk-tale, i.e. That's the way they tell it (you wouldn't have known about it). It's a folk-tale.'*

In other kinds of discourse the verb akkyky 'I believe' is very frequently encountered in a similar function. This is not used as a disclaimer, as one might suspect from the gloss, to say 'I believe but am not sure' but rather as an assertion to say 'I am confident'. Of more than ninety occurrences of this form in this kind of function in the corpus, more than sixty refer to events of which the speaker had first-hand knowledge:

...wolok wuliphiki akkyky. *'carrying I-went-out-long-ago I-believe, i.e. I eloped (with) her you know (literally I believe).'*

In some cases both speaker and addressee had first-hand knowledge of the event involved:

...joko-hethi akkyky. *'tell--I-transferred-to-you(sg) I-believe, i.e. I told you that you know.'*

In these examples the freer translation has included 'you know' rather than 'I believe', for this English device serves a similar discourse function to the Dani device and like the Dani device represents a positive assertion rather than a disclaimer.

There are cases where this form is used for events of which neither speaker nor addressee had first-hand knowledge. One folk tale was recorded with six occurrences of this verb in this function, as well as three occurrences of yly'-lay 'they say':

sve lappv aty ane pvkweak akkyky. welakeikhe yly'-lay. *'bird lapu that his-voice very-dry I-believe. it-continued-long-ago saying--they-are, i.e. That bird the lapu is very harsh in what he says you know. He was that way they say.'*

...lol-isasukwha akkyky. lol-isasukwhama-te, ane pvk lek akeikhe yly'-laky. *'burn-up--they-did-on-them-long-ago I-believe burn-up--they-did-on-them-long-ago-setting--topic-marker, his-voice dry not it-became-long-ago saying--they are, i.e. They burned him up (like trash) you know. And after they burned him up, they say his harsh talk disappeared.'*

It is to be noted that akkyky 'I believe' in this quasi-quotative function occurs only in the simple factive first person singular form. Any other form of the verb signals another sense of the verb.⁸ The forms of 'say' used in quasi-quotative function are less restricted, although quite limited; past progressive, remote past progressive and normal action forms have been recorded. In the case of 'I believe' the speaker's relation to the function of the element is explicit; it is in Austin's terms a kind of 'performative verb'. In the case of

'they say', the speaker's relationship to the formula is implicit and might be paraphrased as, 'I am telling you that others say this'.⁹

There are also other elements which do not include verbs but which appear to function very similarly to the quasi-quotatives akkyky 'I believe' and yly'-lay 'they say'. Commonest among these is a series of elements usually including the postposition -hakke 'sort, resembling', plus, usually, a demonstrative jy 'this', joma 'here', or eloma 'there-far-away', plus either the interjection sa 'of course' or the topic-marking clitic -he. Combinations observed in the corpus are:

...-hakke joma-te; ...-hakke joma sa; -hakke loma-te; -hakke jy-te; -hakke atty-te; -hakke joma; -hakke joma-ty! and perhaps to be included here also: -ama-ty!; a'noko-ty! and a'ly-ty!

All of these combinations occur in contexts where the speaker is trying to make a point or persuade the addressee of the matter in question. Because of this, they do not normally occur sprinkled through whole texts as do akkyky 'I believe' and yly'lay 'they say'. These combinations are in no sense disclaimers that could be glossed 'It looks like' or 'It's sort of ...' but rather are persuasive elements that might be glossed 'Here (or there, etc.) it is plain that....' and the final clitic or interjection invites the addressee to be persuaded by the evidence. Several examples of these forms come in a long travel narrative about a trip on which two of the party were lost and cannibalised in enemy territory. The speaker, a leader of the party, is addressing a fellow villager of the victims and trying to establish his own innocence in the tragedy:

it eloma Wenakasvky oppolik lakoukwha-hakke loma-te. 'they there-far-away Wenagasugy (man's name) behind-him they-went-long-ago--sort there-distant--topic-marker, i.e. They followed Wenagasugy, don't you see!'

That no disclaimer is involved is clear from references to the speaker's own activities:

...wete'ma joko. nit-he wakaku-hakke joma-te. 'subject-continues (there)-setting so-then. we--topic-marker we-came-long-ago sort here--topic-marker, i.e. While they were there, well now. We arrived, don't you see?'

Other examples occur in a text in which the speaker recounts an argument he had had:

hajapu-mekke hakke loma-te, helan-he. 'your(sg)-garden--nominaliser sort there-far-off--topic-marker take-(dig)-it-for-yourself--topic-marker, i.e. It's your garden, don't you see; well go ahead and dig it yourself!'

It appears thus that there are three contrastive kinds of what may be termed 'utterance quotes' or quasi-quotatives, specifying the speaker's appraisal of his authority for the content. (1) Most folk-tales are recited by most speakers with the quotative formula '*they say*' repeated after many, sometimes nearly all, the sentences in the narrative. This element served to say, in effect, '*I am telling you a folk-tale*'. (2) In several kinds of discourse, including some first person narratives, the formula akkyky '*I believe*' is employed to report confidence in the preceding sentence or utterance. (3) In discourse involving persuasion or argument by the speaker one of a number of possible formulas may occur, formulas which might be woodenly glossed as '*(it's) like that here*', but which function to report an event to the addressee with added persuasiveness. Although the surface realizations of these three kinds of 'utterance quote' are quite disparate, it is to be noted that implicit in each of these formulae are the structurally relevant categories 'speaker' and 'addressee'. It is as if in each case the speaker said, "I am telling you a folk tale," or "I am telling you this confidently" or "I am telling you this for you to appraise and concur in my judgment." But there is no verb in first person singular except in the 'confident utterance quote' with akkyky '*I believe*'. When it is suggested here that the other formulas also imply something like, '*I am telling you*', it should be made clear that it is not necessary to handle these cases by actually positing a 'performative verb' and then deleting it (cf. Ross 1970), but rather by including the elements 'speaker' and 'addressee' explicitly in the semological structure posited for such sentences.

Of course there are many utterances with none of these marked 'utterance quote' categories; these are not obligatory. When the markers do occur, they are marginal elements to the utterances of which they are a part and refer to the speaker's report to the addressee of his authority for or confidence in the events reported.

6.4. THE BODY OF THE UTTERANCE

Attention to utterances has thus far been directed to marginal elements like dialogue mode, logical mode and utterance quote categories. All of these elements are directly involved with the categories 'speaker' and 'addressee' implicit in every utterance. It is useful to turn attention back to the 'main line' of events in the discourse, those referred to as 'narrated events' in the description of event mode categories in Chapter 4. It is the semological relationships among these events that Gleason's 'event line' was designed to portray (1968:

48-52). It is useful to examine the surface signals of relationships in one short segment of Dani narrative text to see how one utterance is tied together. A narrative is chosen to begin with because the connective devices employed are more explicit and isolable than in some other kinds of discourse. A part of a text from the filed corpus follows, broken up into small units as indicated by intonation contours and overt clitics marking units; the full text may be seen in Appendix B:

1	A'ly-te,	<i>that-in-immediate-context--topic</i>
2	Oteke akwe 'noko,	<i>Orege his-wife that-known</i>
3	tauk-hoko-te	<i>separating-manner--topic-marker</i>
4	Welesi lakeikhe akkyky.	<i>Welesi(place) she-went-long-ago I-believe</i>
5	Welesi lakeikhomo-te,	<i>Welesi she-went-long-ago-setting--topic-marker</i>
6	Oteke,	<i>Orege</i>
7	akotymy pyte inom-hoko	<i>his-younger-siblings two they-together-manner</i>
8	lakoukwhasik-he,	<i>they-went-long-ago-prior--topic-marker</i>
9	wam	<i>pig</i>
10	mel-mekke	<i>filler--possessive</i>
11	Pililo-mekke	<i>Pililo--possessive</i>
12	wolok wakoukwha akkyky.	<i>carrying they-came-long-ago I-believe</i>
13	wolok wakvnem-he	<i>carrying when-plural subject-come--topic</i>
14	it inoppolik	<i>them behind-them</i>
15	inesok hylyng ylyng	<i>their-feet tracking tracking</i>
	wakoukwha-te,	<i>they-came-long-ago--topic-marker</i>
16	Lv-pa waka-lakoukwha.	<i>Lu--on(hill) coming--they-were-long-ago</i>
17	wolok wakoukwhasi'mo-	<i>carrying they-came-long-ago-prior-</i>
	nen-he,	<i>setting--source--topic-marker</i>
18	it wakoukwha-mekke	<i>they they-came-long-ago--adversative</i>
19	Pililo lak-en-he,	<i>Pililo and-associates--by--topic-marker</i>
20	wam hakw-hylyk-he,	<i>pig grab--having-done--topic</i>
21	Oteke seke tum-hoko	<i>Orege spear thrust--manner</i>
	wathukwha akkyky.	<i>they-struck-him-long-ago I-believe</i>

It is immediately observable that periods, representing recognisable phonological sentence terminals, have been written following items 4, 12, 16 and 21. These phonological terminals have been treated elsewhere (Bromley 1961:57-58), but it is to be noted that in this segment and very commonly in narrative discourse there are other signals of sentence breaks in utterances. At three of the four breaks an 'utterance quote' element, akkyky, occurs, and at each of the breaks a recapitulatory verb

occurs to begin the new sentence and tie it in with what has preceded. This piece of text can be re-charted in terms of these units and the verbs and events referred to, numbering the sentence units with Roman numerals, the real-world events with letters, and the verbs referring to those events with Arabic numerals:

UTTERANCE-EVENT VERBS	NARRATIVE-EVENT VERBS
I akkyky 'I believe'	a. 1. lakeikhe '(Orege's wife) went'
II	a. 2. lakeikhomo-te 'after she went'
	b. 3. lakoukwhasik-he '(Orege and two followers) went and then'
akkyky 'I believe'	c. 4. wolok wakoukwha '(Orege and followers) brought (a pig)'
III	c. 5. wolok wakvnm-he 'when (Orege and followers) brought it'
	d ₁ . 6. wakoukwha-te '(Pililo and followers) came'
	d ₂ . 7. waka-lakoukwha '(Pililo and followers) were coming'
IV	c. 8. wolok wakoukwhasi'mo-nen-he 'after (Orege and followers) had-brought-it'
	d. 9. wakoukwha-mekke 'they (Orege and followers) came-but'
	e. 10. hakw-hylyk-he '(Pililo and followers) having grabbed (the pig)'
akkyky 'I believe'	f. 11. wathukwha '(Pililo and followers) struck (Orege)'

There are thus eleven main verbs (wolok has been counted with the following motion verbs for this purpose, but could as well be counted separately) referring to six real-world events, organised in four sentences. The disparity in number between verbs and events is the result of the same events being referred to at the end of one sentence and at the beginning of another, to tie the following sentence into the discourse.

The initial sentence links the whole discourse (of which what has been represented above is only the first segment) into the situational context with the demonstrative a'ly, referring to a query about this incident. This demonstrative is thus in the outer margin of the discourse, although included in the first sentence. From this beginning, the content of the utterance (which in this monologue is coterminous with the discourse) is organised into sentences, as noted, with recapitulatory verbs linking sentence to sentence. Note that the

relationships within sentences are handled by quite different mechanisms, not by recapitulation. Such recapitulatory links have been reported for a number of languages (e.g. recently Tonga of East Africa by Jones and Carter 1967:114, 118; Sarangani Bilaan of the Philippines by Longacre 1970:791). This is by far the most common sentence connective device in any Dani discourse where the content is basically oriented in time sequence. The recapitulatory verbs function thus like conjunctions in many languages where sentences have overt linking conjunctions, e.g. *kai* in Koiné Greek.

It was earlier suggested that these linking verbs might be considered as duplicate realisations in the 'surface' structure of single elements in the underlying semological structure, the repetition being automatically inserted by the grammatical specifications of clause and sentence construction. There are serious problems when one tries to apply this suggestion to real data however. The speaker in narrative discourse does not always opt for a recapitulatory verb as a sentence link, although he often does. Further, if he does opt for a recapitulatory verb as a sentence link, he does not automatically insert the last preceding verb. Note in the segment above that both sentences III and IV are linked back to sentence II by recapitulation of the last verb phrase in that sentence. It appears that this linking device must be specified in terms of a semological element calling for a recapitulatory link and further specifying the event to be recapitulated.

Other options for sentence linking are available. A frequent device is the pairing of terms or larger constructions by means of shared and contrasted components of meaning:

hoil pv-kke-mekke...jukkuk-isikhe. *'ambush up--direction--sort come-out-of-ambush--he-said-long-ago.'*

ma-kke-mekke wulu'luk lakei akeikhe.... *'down--direction--sort going-out ascend he-came-long-ago, i.e. The ambush that was set up the hill came out. The one down the hill (came) out and came up.'*

ap aty etouk-o. akwe hvk-o. *'man that opposite-sex-sibling--decisive his-wife wrong--decisive i.e. That (woman) is that man's sister. She is not his wife.'*

Sometimes the linkage of sentences is not in terms of semantic components of the words in the discourse, but in terms of common membership in what Pike would call a 'behavioreme':

tem hakateka? ninathy' le'ma hvk-o. *'courtship-sing they-did-reflexive query kill-us not-setting wrong--decisive, i.e. Did they have a courtship sing for themselves? But it's not as if we hadn't had a man killed.'*

In this example the speaker and hearer both understand that courtship sings are held only after battle victories, i.e. after a man has been killed by the local group since a local person was killed by the enemies. Therefore the speaker answers his own question by noting that it would be wrong to think a courtship sing possible.

hesi jukulhatek atty. wa'-lakeikhatek atty. *'mud they-normally-change-colour that. die--they-normally-incur that, i.e. So it is they smear on mud. So it is they die.'*

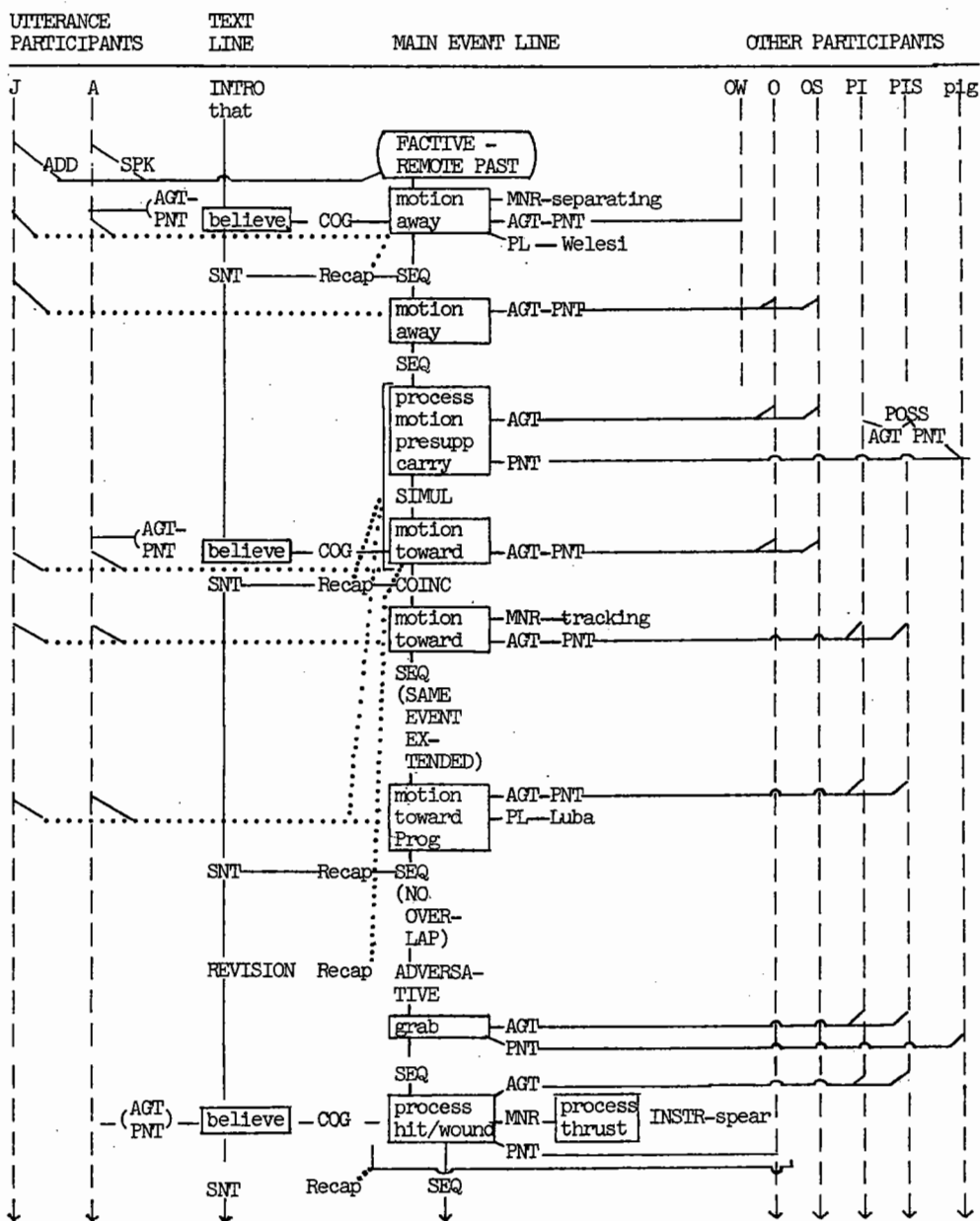
In this last example both speaker and addressee understand that *'smearing on mud'* is a symbol of mourning for the dead. These examples indicate that the relationship of vocabulary elements in culturally defined assemblages as well as in linguistically defined pairings and groupings is employed as a linguistic device.

In any text which is primarily sequence oriented, such as narrative or procedural discourse, by far the commonest sentence linking device is, however, the use of recapitulatory verbs, and there must be, as we have noted, a semological element selecting this kind of linkage where it occurs and further specifying the event to be recapitulated.

If this is the case, this is further evidence that the sentence as a unit is not only a surface unit but also represents or realises a sentence analog in the underlying semological structure, for linking by recapitulation is in Dani clearly a phenomenon describable in terms of sentences, not clauses or events or utterances as wholes. This conclusion is contrary to my own earlier judgment and to the conclusion of Taber, (with which Gleason agrees) that there is no such unit as the sentence in the semological network (Taber 1966:90-91; Gleason, personal communication). Cromack modified this position to define sentences as lexemic units including one independent clause, defined as a clause with a clitic realising a sememic modal (1968:145-146), but he comes out in monologue with many sentences which are coterminous with the monologue. It seems unlikely that such sentences are at all isomorphic with the phonologically recognisable units that have been called sentences here. The units recognisable by phonological criteria as sentences seem to be simply shorter units of the same kind as the "major text blocks" that Taber and Cromack recognised as semologically relevant units by marking them on their 'story line' in their reticular model of semological structure. And this 'story line' seems to be a representation of what Halliday calls "the textual organization of language" (1970:162).

Figure 14, p.316, is a simplified and schematised diagram of what is here suggested to be the semological structure underlying the segment of text used as illustrative in the discussion of recapitulatory verbs

FIGURE 14
PARTIAL DIAGRAM OF A NARRATIVE TEXT SEGMENT
For the full text, see Appendix B



KEY TO ABBREVIATIONS

ADD	Addressee	PNT	Patient	A	Apsalek
AGT	Agent	POSS	Possession	J	Jameke
COG	Cognate role	Presupp	Presupposed	O	Orege
COINC	Coincident	Prog	Progressive aspect	OS	Orege's younger siblings
INSTR	Instrument	Recap	Recapitulatory link	OW	Orege's wife
INTRO	Introduction	SEQ	Sequence	PI	Pililo
MNR	Manner	SIMUL	Simultaneous	PIS	Pililo's younger siblings
PL	Place	SNT	Sentence terminal	pig	pig of Pililo
		SPK	Speaker		

as sentence links. The diagram is slightly modified from the reticular diagrams developed by Gleason, Taber, Cromack and Stennes. Most importantly, the utterance participants are here explicitly included in the diagram, and sentences are recognised as textual units, with termini and linkages specified on what has been re-christened the 'text line'. This study has not included extensive diagrams of this sort but, for a programmatic beginning, includes this diagram as a suggestion of some small but perhaps important ways in which the 'reticulum' developed by Gleason and his students may be modified to be an even more useful device for representing the semological structure underlying texts.

The major part of the work in analysis and description of Dani discourse structure remains to be done. The specific patterns employed in sentence linkage could alone occupy a sizable monograph (compare Williams' work on English 1966). Time and space permit only this brief introduction and evidence to indicate that sentences are linked by linguistically relevant devices which must be realisations of elements in the underlying semological structure.

6.4.1. Utterance Links

The same mechanisms that link sentences together in strings in utterances are also used to link utterances and even discourses. A lad who had been talking about his father's supernatural 'servants' had first discussed a lizard which could track and kill thieves. The second story, recorded a few minutes later, was about the night bird called sijo, and began:

akeikhe-te sijo. Healylyk atekke-te. *'one-of-group--topic-marker sijo. Healylyk-(name) his-possessions--topic, i.e. Another one is the sijo, of Healylyk's 'possessions'.'*

Indeed all the mechanisms which can be employed to link sentences (and only a few have been introduced here) within utterances can also be employed to link utterances of different speakers in discourse. There do not happen to be any examples of recapitulatory verbs linking utterances in the corpus, but this mechanism surely occurs in sentences like:

A an lekein. *'I singular-subject-will-go i.e. I'm going.'*

B lylyk-he, wesikin-a? *'having-gone--topic singular-subject-will-come--invitation-query, i.e. After you go, will you come back?'*

Of course there are special utterance links, particularly questions followed by answers, exhortations or commands followed by comments of assent or refusal, statements followed by comments, corrections, challenges or exclamations. While all examples of such linkages in the corpus have been filed in the course of this study, there is very little that is distinctive. Most such patterns resemble patterns

familiar from English:¹⁰

J Sokeik-opa ele mel-a, Wajasom-a? 'Sogeigoba boy filler--invitation, Wajasom--invitation, i.e. Is Sogeigoba that fellow, what's-his-name, Wajasom?'

B lek. 'No.'

H ...lanok-en.... 'you(sg)-go-later--source, i.e. ...so that you can go.'

B y-o. ninom Ivok. 'yes--decisive. we-together let's-go-later, i.e. All right. Let's go together.'

6.4.2. Utterance Segmentation into Sentences

The above extremely sketchy survey of sentence and utterance linkage, showing some of the ways in which sentences are tied together in discourse, may be complemented by a brief survey of some devices employed to segment discourse into sentences. There are clear indications that the length of sentences is deliberately manipulated and that the system involved has to do with the flow of information in discourse. As a background comment, it may be noted that the Dani patterns of intra-sentence strings with cumulative build-ups of events in sequence, or simultaneous events, allows for rather long sentences, particularly in narrative text. Counting clitics as parts of the words to which they are cliticised, so that the count is lower than for English, sentences of forty to fifty words are not uncommon in narrative, and one of over eighty words occurs in the filed corpus. Hortatory discourse and dialogue are characterised by shorter sentences.¹¹ However, as a text becomes exciting to the speaker or he wishes to convey a sense of excitement or importance to the addressee, the speaker very frequently employs devices to interrupt the flow of the sentence and produce shorter sentences. Those devices include *nakeijak* 'my sibling', *hal-la-ok* 'greetings', and other greetings; *wulak* 'man!' used in this dialect only in this function as a kind of interjection; *joko* 'that's it' or 'there, now' used elsewhere as the cue for united effort when in English we would say 'one, two, three, push' etc.; *hinok* 'inquiry'; *we*, *y* and other interjections. In this way sentences get interrupted into units which are incomplete in terms of grammatical structure but are phonologically marked as sentences. The following example comes from a travel narrative near the dramatic denouement:

	/4-3/	
tom-en laak haa' neken,		mountain source this-way that-way sort
	/4-3/	
walyng alyng oheaksek-he,		circling, circling morning--topic
/3-4/		
joko.		that's-it

Wekkisa ma atem hak joko. /3-4/ *Wekisa(place) down there like that's-it*
 pi akoukwhasik wete'ma *descend they-came-long-ago-prior subject*
continues-setting

/3-4/
 joko. *that's-it*
 nit-he *we--topic-marker*

wakaku hakke joma-te. /4/ *we-came-long-ago sort here--topic-marker*

Free translation: 'Because of the mountain it was back and forth, round and round, and in the morning,--well now. It was like right down here (literally there-close) at Wekisa--well now. They had come down and were there and then--well now. As for us, we arrived, don't you see?' This translation fails to communicate the sense of excitement intended in the Dani interrupted sentences. But note that if the interrupting words joko are eliminated, the first point at which the sentence could be stopped and be a grammatically complete unit in terms of marked dependence and independence is after wakaku in the last line. There are clearly grammatical constraints upon the placement of the interrupting elements; none has been observed, e.g., within the verb phrase consisting of a potential stem of a non-motion verb followed by any form, including periphrastic forms, of motion verbs, or any verb phrase consisting of a main verb plus auxiliary. On the other hand, interruptive elements have been observed following only a conjunctive particle plus the clitic -he:

...jy-nen-he *this--source--topic*
 neil-ekken hakhykhy-lakaki-te *my-eye seeing-for-myself--I-was-long-ago--topic-marker*
 joko. *well-now or that's-it*
 ap tathikhomo. *man she-bore-long-ago-setting*
 nen-he, *then--topic-marker*
 joko. *well-now*
 napput ap tathikhomo *my-man's-son man she-bore-long-ago-setting*
 wok-hasiki *take--I-did-on-him-long-ago*
 lek-en-he *not--source--topic-marker*
 joko. *well-now*
 svppvtv isakosoko nalok-he *sweet-potato steamed-manner having-eaten--topic-marker*
 wo'-lakha-lvphatek. *move--inner-reflexive--they exit.*

Free translation: 'On this day (counted on fingers) I had a good look for myself, and--well. She had given birth to a boy. And so,--well.

Since she had given birth to a boy, my son, I received him (killing a pig for him). When there is no (pig)--well. They eat steamed sweet potatoes and just go out themselves (the mothers with their babies).'

There are a number of other examples in the texts in the corpus which further demonstrate that the length of phonologically recognisable sentences is deliberately reduced in certain contexts by the insertion of sentence interrupters to achieve an effect of involvement and heightened interest. There are thus, in effect, two kinds of sentences which in most cases are isomorphic: one is a unit defined by marked dependency relationships within and between clauses; the other is a phonologically defined unit recognised by intonation contours, and/or pause or potential pause, often accompanied by interjections.

It appears clear that both kinds of sentences are units determined by the structure of discourse. Sentences defined in terms of chains of marked grammatical dependence are, as noted above, typically much longer in narrative than in hortatory discourse, in contrast to the pattern in some other languages.

But sentences as phonologically recognisable units are sometimes non-isomorphic with the grammatically defined units, and in these cases sentence segmentation appears to be imposed by a governing mechanism signalling the speaker's involvement and excitement and stance toward the addressee. These are also discourse-related phenomena. Both kinds of sentence are thus units in the organisation of texts that must be represented in the semological structure underlying surface utterances. Neither is determined automatically by rules of clause structure. The markers of sentence beginning and ending are, in both kinds of sentence units, recognisable unit boundary markers in the structure of texts just as much as major text block boundary markers.

6.4.3. The Organisation of Information in Sentences

The discussion above suggests that the sentence is, from one point of view at least, a unit of text determined in the structured organisation of texts as communication or information bearing elements. Traditionally sentences have been defined in terms of grammatical structures of dependency; Bloomfield, for example, said that "...each sentence is an independent linguistic form not included by virtue of any grammatical construction in any larger linguistic form" (1933:170). This kind of definition is implicit in the concept of sentence in transformational grammar as the unit to which structural descriptions are assigned (Chomsky 1965:4-5). As a matter of fact, Bloomfield noted that features of modulation or intonation mark off sentences, and these

are of course not immediately definable as features of "grammatical constructions" (Bloomfield 1933:114, 170-171). Even Lyons' recent treatment of the problem does not advance beyond an *ad hoc* mixture of two kinds of criteria for defining sentences (1968:176, 180). Longacre's recent work has been pioneering in describing the grammatical and logical structures of sentences as distinct from clauses, but he has professed to downgrade intonation as a guide to sentence boundaries (1967:23; cf. 1970). As noted in the discussion earlier, Taber, working within the framework of Gleason's version of stratificational grammar, confined the relevance of the unit labelled sentence to the lexemic or grammatical stratum and explicitly stated that no such unit as the sentence exists on the semological stratum (1966:90-91). Cromack, in the same framework, defined sentences in Cashinawa as lexemic units which are the domain for realising semological modal elements, but came out with some monologue-long sentences (1968:145-146). Working with Dani data has shown that there are recognisable phonological criteria for terminals of units which may usefully be called phonological sentences (see Bromley 1961: 57-58). Halliday's recent work has emphasised how very closely units of information are related to intonation bearing units (1970:162-3) and it is a useful working hypothesis that the phonological sentence is one kind of unit in the system of textual organisation or information distribution.

This exploratory sketch recognises the phonological sentence as a useful and relevant unit of discourse, and further recognises that this unit is not always isomorphic with grammatically defined sentences. However, as a starting point, attention may be turned to cases where the two kinds of criteria coincide to define the same units as sentences. In such cases, we may observe several things about positions within the sentence:

(1) The final position of the sentence is the most fixed. In a sentence including a finite verb, this comes last, except that it may be followed by a negative particle like *lek* 'not' or *hvk* 'wrong', a demonstrative referring back to the clause in which it occurs or to the sentence as a whole, or one of a few discourse-related interjections or utterance or discourse marginal items already discussed:

an hopuk ki aka-lokokin lek. 'I later enter coming--will-continue not, i.e. I'm not going to keep on coming in here any longer.'
lakoukwha a'noko. 'they-went-long-ago that-we-know, i.e. They went a long time ago as you know, or That trip they took a long time ago.'

tok enek-he, ninopa wakasik aty. 'arrow only--topic-marker to-us it-came-prior that, i.e. Only the arrow got to us, and there it is, or That's the arrow; that is all that got as far as us.'

ke ylvkvn appyma sa. *'trail end at-one of-course, i.e. The trails come together there of course.'*

(2) The initial position in the sentence is much less fixed and may be occupied by almost any other element in the sentence, including any one of the major role-occupying participants in the event. But initial position is also related to the sentence as a unit, and not just to the event referred to in one clause. Not infrequently the term which occurs in initial position is repeated later in the sentence in normal position for its clause function:

inappeliak-at, at-en inasikin ikhemo ylvk Wettippo-heselo
 inappeliak-at yly'-lay.... *'their-lying--predicator him--by singular-subject-will-kill-them he-said-setting having-said the-Wetipo-Helelo their-lying--predicator saying--they-are, i.e. They are lying, the Wetipo-Heselo are just lying and saying, "He said he was going to kill us (literally them)."*

We have noted already that in narrative text, sentence initial position in sentences that are not initial in utterances is commonly occupied by a recapitulatory verb linking the sentence to what precedes. Initial position thus serves to link the sentence with the context and to specify topic elements in the sentence:

Agent initial: an jokotta'ne, Heseke a'ma atty, wasikin.

'I today Hesege inside that singular-subject-will-kill-him, i.e. I'm going to attack the Hesege in there today.'

Patient initial: Tipe a'noko ohealek wasikin. *'Tibe that-known tomorrow singular-subject-will-kill-him, i.e. Those Tibe folks I'm going to kill tomorrow.'*

sve an akeikhe sekke-nom-a. *'bird me one-of-group cut-raw--(you) transfer-it-to-me--invitation, i.e. Please cut me some of the bird, or (That) bird--please cut me some.'*

Beneficiary initial: heak eilak wok-osi me. *'your(sg)-woman's-child it's-breast move--to-transfer-to-him come, i.e. Come give your baby the breast, or Your baby--come give him the breast.'*

Place initial: lypaken-he at-at hokot walha-o. *'across-river--topic-marker finished truce they-made--decisive, i.e. Across the river they have finished making peace.'*

Time initial: ohealek-kolek attoko-at nykky-lakeikhe.... *'next-day--simultaneous that-way--predicator eating--he-was-long-ago, i.e. The next day he kept eating just the same way....'*

Manner initial: lo-toko mvkkat-ekke a'la hano akama ha.

'outstandingly ancestral-spirits inside-him good it-has-become-setting maybe, i.e. (It worked) nicely the ancestral spirits have become well-disposed, maybe.'

Clearly the clause elements subject, object, indirect object, verb occur in that order as the unmarked order, but seldom are all these elements realised in independent words or phrases in one sentence; there are only three examples in the corpus. Time and place specifications have not been in the central focus of attention in this study, but it is clear that both are complex. Place specifications include 'place toward or at which' an event is oriented. Time specifications include at least 'time when' and 'relative time, or order of events'. The unmarked order for time specifications appears to be following the subject for 'time when' but preceding the verb for 'order'. Place specifications most commonly follow the subject and any time specification, but occur in various orders with relation to objects and verbs, depending on meaningful constituent relationships. Manner terms occur in unmarked order immediately preceding the verb. The point here, however, is that any one of these elements may occur initially.

It should be noted that the term in initial position is not necessarily 'old information' recoverable from the linguistic context or known from the non-linguistic context, although it frequently is. In general the sentence moves from the most known element to the least known element, with the 'least known element' not necessarily or even normally the final verb, because of its fixed position, but often the element preceding the final verb or verb phrase.¹² Note the effect of shifting elements in the third example on page 322:

jokotta'ne an Hesekem a'ma atty wasikin. *'Today I'm going to attack the Hesegem in there (as over against some other group of enemies, who may be attacked some other day).'*

Hesekem a'ma atty an jokotta'ne wasikin. *'Those Hesegem in there I'm going to attack today (as over against some other day).'*

The example as originally given in the text is a statement about the speaker; the first perturbation above is a statement about today and its plans; the second perturbation is a statement about the Hesegem.

The 'initial position' in sentences, as in utterances and discourses, is not restricted to one term or element. Often several distinct elements are observable, including: (1) a linking element tying the sentence to the preceding discourse or the 'context of situation'; (2) a topic participant; and (3) often some other topic element relating to the topic participant; one example begins:

nen an Wya elesimo aty ekka muli akanem wusa jokolyk-he,....

'then I Wya headwaters-at that leaf dark when-it-becomes weeds having-weeded--topic-marker, i.e. And as for me, when the Wya headwaters garden leaves get dark and I have weeded it,....'

Here *nen* is a generalised conjunctive particle serving as a link, an '*I*' is the topic participant, and *Wya elesimo aty* '*that one at the Wya headwaters*' is a location term functioning as topical.

6.4.3.1. Sentence Appendages

The 'final position' of the sentence is fixed in terms of the grammatical structure, as noted above. But not infrequently the speaker recalls some item omitted from the sentence and after closing the sentence grammatically and intonationally adds the omitted item with lowered intonational pitch:

/3/ /4/ /4/

Wamatve-nen akeikhe wathe. Meake-mekke. *'Wamarue--by one-of-group he-killed-him. Meage--sort, i.e. Wamarue killed another, a Meage fellow.'*

Such appendages were considered separate phonological sentences in my earlier description of phonology (1961:61). This is analogous to Waterhouse's later and much more detailed description of similar elements as "dependent sentences", although she entertained and then rejected the alternative description of the appended units as parts of the preceding sentences (1963:53). If sentences are at least in one sense definable in terms of the arrangement of information, these appended elements, which are in Dani normally marked as appended by the intonation contours, are better treated as parts of the preceding sentences.

6.4.3.2. The Clitic -he

Lineal order is not the only device employed in organising information in the sentence. Lower Grand Valley Dani texts are sprinkled with multiplied occurrences of the clitic *-he* (realised as *-he* after consonants, *-te* after vowels). This clitic may occur at intonation contour terminal and marks a point for possible pause. Very frequently this clitic occurs with items which are also in sentence initial position:

eik-o. nakeijak-o. hat-he joma-at lokon-o.... *'exclamation--decisive my-sibling--decisive you--topic-marker here--predicator you-stay--decisive, i.e. What a pity, son. As for you, just stay right here!'*

an-he atoma. hat-he aty-ttoko helvk-en wena'- nethin-a? mel-a. *I--topic-marker there. you--topic-marker that--way having-put--source you-rebuked-me--invitation? filler--invitation, i.e. As for me, (my possessions are) there. As for you, had you made a display like that when you rebuked me?'*

tok, ninopa wakasik aty. nen sve-te, joma way' lek. 'arrow to-us it-came-prior that. then bird--topic-marker here come-not, i.e. The arrow did come to us; that is it there. But as for the bird, it didn't come here.'

In the examples above, the clitic -he occurs on sentence initial topic items. But this device also allows items which are not sentence initial to be marked as foci of special attention or as links to the preceding context or as topics. In an account of a ceremonial wealth prestation in memory of the speaker's dead relative, the speaker recounts his reciprocation of this prestation by killing a pig for the payment-makers:

...al wanhy-lakoukwha-te, an kisiki-mekke, oaly houkko ama wam it-he wat-isasiki. 'his-intestines taking--they-were-long-ago--topic-marker, I entered-long-ago--adversative, gelding big those pig them--topic-marker kill--I-transferred-it-to-them-long-ago, i.e. ...they had been making the post-funeral prestation; I went in and killed a big gelding for them.'

In this example, the first -te is attached to the recapitulatory link with the preceding context, but the -he attached to it 'them' in it-he allows this pronoun 'them' to occur in the normal unmarked position for an indirect object, immediately preceding the verb, but still be tagged as topical for this part of the sentence. It is as if the sentence were glossed, "They made a prestation to me, so for them I killed a big pig." It may be useful to consider that the item tagged with -he and all that precedes it in the same sentence is to be taken as thematic or topical, a constituent in construction with what follows.

This overt clitic is also very common as a marker of the appended status of sentence appendages; it indicates that the appended item is part of the preceding unit in terms of its content or information and is a topical or thematic appendage. Note that such appendages do not normally add new information but supply what was presupposed or not mentioned:

/3-4/ /4/
...yly'-lay. inane-te. 'they-are-saying. their-talk--topic-marker, i.e. ...they say, with their voices.

/3-2/ /3-4/ /4/
akeikhe-te sijo. Healylyk atekikke-te. 'one-of-group--topic-marker sijo. Healylyk his-possession--topic-marker, i.e. Another is the sijo (bird), of Healylyk's possessions.'

inepe lokolek-at nekka. wam epe-te. 'their-persons many they-ate-it. pig its-presence--topic-marker, i.e. Many of them ate it, the main part of the pork.'

6.4.3.2.1. *Other Sentence-Final Uses of -he*

The function of -he at the ends of sentence appendages indicates clearly that this clitic is not merely a pause point, but does indeed mark relationships. This is even clearer in those cases where -he occurs sentence finally with no intonational or other indications of the presence of a sentence appendage. Such sentences occur as topics to which the addressee is invited to add the comment:

/2-4/
...helan-he. *'Dig it yourself--go on!'*

/2/
...hineil-ekken hopakeik-en-he. *'your(pl)-eyes you(pl)may-see-deferred--source--topic-marker, i.e. Please have a look at it.'*

/2-4/
it a'noko-te. *'they that-known--topic-marker, i.e. What about them (where are they)?'*

This last example is the first comment when members were missed from a party of travellers. Similarly in everyday contacts, a person who meets another on the trail and greets him may ask about his plans or destination simply by tagging the second person pronoun with the clitic -he:

/2-4/
hat-he. *'you(sg)--topic-marker, i.e. What about you?'*

These examples are clearly understood as inviting comment, as a kind of implicit question. The examples of one kind of 'utterance quote' introduced earlier in the discussion of utterance margins also include this kind of use of -he:

o likke hakke joma-te. *'day midday sort here--topic-marker, i.e. It's midday, don't you see.'*

This example was a comment to persuade the addressee to push on on the trail. As was noted in the discussion of these formulae, they typically occur when the speaker is attempting to make a point or get the addressee to accept his evidence. Frequently in discourse the addressee utters an 'attention signal' at these points.

B nit-he wakaku hakke joma-te. *'we--topic-marker we-came-long-ago sort here--topic-marker, i.e. As for us, we arrived, don't you see?'* (where the speaker comes to the critical point in a narrative and wants to persuade the addressee of his innocence in the events recounted).

A hal lapok. *'Greetings'*, (where the addressee signals attention, and a sympathetic stance).

B hal-la-ok. *'Greetings'*.

6.4.3.2.2. *Successive Occurrences of -he*

The examples so far in this discussion of sentences have included, for the most part, only one sentence-medial occurrence of *-he*. There is certainly no 'one-sentence one-occurrence' rule however. Even with simple sentences with single verbs there may be multiple occurrences of this marker:

nen hat-he hamelaik-he helan.... 'then you(sg)--topic-marker
your(sg)-bailer-shell--topic-marker take-it-yourself.'

This example occurs in a text about a stolen bailer shell. The victim of the theft visits the receivers of the stolen goods and asks for return of the shell, whereupon he is told that the thief should pay them compensation, but (in the example sentence) that he, the victim, may take his own shell. Similar multiple occurrences are observed discourse initially:

nen at sve okolaik aty-te ay-te Jalymo-mekke yly'-laky.

'then he bird ogolaik that--topic-marker his-house--topic-marker
Jalymo-sort saying--they-are, i.e. Then as for that bird the
ogolaik, so far as his (original) home is concerned, (he was) a
Jalymo (bird) they say.'

Since the use of this clitic is also connected with intonation contours and potential pause, frequently a hesitant speaker inserts this clitic along with repetitions and speech-filler dummies like *mel*:

/2/ /2/ /3/ /2-4/
an-he, mel an-he, nvkkvl-oak-he, sykkyapit-at. 'I--topic-marker
hesitation(repeated) my-head--topic-marker pointy-shaped-predicator,
i.e. 'As for me, well, as for me, as for my head, it is pointy-
shaped (meaning uncertain).'

In such hesitant speech, this clitic has been observed even after the generalised conjunctive particle *nen* 'and, then':

nen-he,	and--topic-marker
hat-he,	you(sg)--topic-marker
hettake kypy aty-te,	your(sg)-name <i>Amaranthus</i> that--topic
hay-pa-te	your(sg)-home-at--topic-marker
kypy-te	spinach--topic-marker
lek joma-te,	not here--topic-marker
an-he,	I--topic-marker,
an nay-pa eloma-te	I my-home--at there-far--topic-marker
mottok,	altogether
kypy wvttat,	<i>Amaranthus, Physalis</i>
nen at,	then it(third singular)
weinaly, helekken,	wing-beans (<i>Psophocarpus tetragonolobus</i>) 'lima' beans (<i>Dolichos lablab</i>)
jy-mekke ty-mekke,	this--sort that--sort
mottok appik.	altogether much.

Free translation: *'Then, you, your name is spinach, but in your home, so far as spinach goes there isn't any you see, while as for me, in my home far away, (there is) everything, spinach and Physalis-greens, then there are also wing beans and 'lima' beans, all kinds of things in abundance.'*

Although the proliferation of *-he* in this example indeed marks hesitant speech, note that this is in the introductory, topical segment of the sentence.

The most common situation for the occurrence of multiply repeated examples of the clitic *-he* is in the buildup of Dani sentences with successive verbs and clauses cumulatively dependent on a final verb. A typical narrative sentence follows, with segments numbered for reference:

1	lakakusik-he,	<i>we-went-up-long-ago-prior--topic-marker</i>
2	ikke-pa lakaku lakaku lakaku lakaku lakaku lakaku-te,	<i>plateau--on we-went-long-ago (6 repetitions) --topic-marker</i>
3	Hvehenema noko-isu- kusik-he	<i>Huehenema(place) we-slept-long-ago-prior-- topic-marker</i>
4	moso sit appik-en-he,	<i>rain drizzle much--source--topic-marker</i>
5	we sit appik-en-he	<i>idle drizzle much--source--topic-marker</i>
6	we welakaku welakaku welakaku-te	<i>idle we-were-long-ago (repeated 3 times)-- topic-marker</i>
7	likke pvlem-at kisukusik-he,	<i>midday middle--predicator we-entered-long- ago--topic-marker</i>
8	Jvkheakeima noko- usa'-mekke-te	<i>at-Jukeagima sleep--ought-to-- adversative--topic</i>
9	it, mel lak,	<i>they dummy and-associates</i>
10	Waesom mel,	<i>Waesom too,</i>
11	Wenakaskvy mel,	<i>Wenagasugi too</i>
12	it pykkyt-at lakoukwhe.	<i>they directly they-went-long-ago.</i>

Free translation: *'After we climbed up, we kept going on and on along the plateau, and after we slept at Huehenema, because of the heavy drizzle, we just waited idly, waited and waited; we had gone in at midday and should have slept at Jukeagima, but they, what's-their-names, Waesom and Wenagasugi, they went straight on.'*

In this sentence each occurrence of *-he* ties the preceding part of the sentence to what follows, not in terms of grammatical dependence as signalled by suffixes marking sequence, simultaneity and the like, but rather in terms of the organisation of the utterance as an utterance into manageable units of material so strung together that all that precedes at any point is in a loose, cumulative sense of the word

'topic' for what follows. Some of these units include finite verbs not marked by any affix for dependence on a following verb; these include the verbs in segments 2 and 6. Others include finite verbs affixed to indicate that a following verb is presupposed; these include segments 1, 3, and 7. Segment 8 has a nominalised verbal which may occur independently. Segments 4 and 5 are marked for grammatical dependency on and inclusion in the clause ending with segment 6. Segments 2 and 6 include repeated verbs signalling prolonged action continuing over an appreciable period of time or distance. Grammatically, thus, the units marked with *-he* are disparate, but the occurrence of this clitic has the effect of levelling them as units of information or text.

It has already been noted in passing that written materials including multiplied occurrences of *-he* in the same sentence frequently prompt negative reactions from local readers. This kind of reaction has been received from readers asked to correct or improve translated portions of the Christian Scriptures, but it has also been observed when readers are confronted with exactly transcribed local texts. The editorial reaction is not, however, to eliminate all instances of *-he* but rather to limit them frequently to one per sentence, where the clitic occurs attached to an element that may be considered as topical for the sentence.

The clitic *-he* as a topic marker and linking device has in effect a function which is the converse of the function of *joko* and related sentence interrupters. Grammatical restraints on the placement of these elements are similar. The verb phrase which may not be interrupted by *joko* is the same unit within which *-he* does not occur. Either may occur after any major clause or sentence constituent, including an introductory conjunction. One serves to tie cumulative strings of text into longer units, for which all that precedes is in some sense topical for the concluding segment. The other serves to segment sentences into short units, interrupting grammatically marked dependency relationships. The one serves in narrative to keep the story moving along in large sweeps; the other breaks it up as interest and excitement increase in the narrative.

6.5. CONCLUSION

At the beginning of this chapter attention was called to the work of the Prague school linguists, Halliday, Chafe and Gleason's students on the problem of the structure of texts and sentences in terms of their information content and textual function. The remainder of the chapter has presented an initial survey of some Dani data related to

the organisation of discourse, utterance and sentence in parameters which cannot be described in terms of the structure of individual clauses. Some features of Dani discourse which may prove of interest for general grammar include the distinction between modal categories which are features of utterances and include the contrast between questions and non-questions, and modal categories which are features of verbs and include the contrast between commands and non-commands. The traditional set of declarative, interrogative and imperative modes, among others, proves to be a conflation of what, in Dani, are treated in three distinct systems of modes.

The Dani contrasts serve to illumine the apparently universal fact that 'interrogative' is a category relating the speaker and addressee to an utterance which anticipates another utterance, while 'imperative' is a category relating them to an event, which, although referred to in an utterance, is not required to be a speech event.

It has further been suggested that Dani sentences are units which are not ultimates but are rather segments of discourses, and that the segmentation of discourses and utterances into sentences, whether defined by criteria of marked grammatical dependency or by phonological criteria, is a function of discourse construction. The length of phonological sentences is sometimes deliberately manipulated in a fashion which is partially independent of grammatical dependency structures to gain special effect in discourse. Sentences as defined by chains of grammatical dependency are linked together in discourse by structured devices, particularly, in narrative and procedural discourse, the device of recapitulatory verbs at the beginnings of discourse medial sentences. The choice of linking devices is not automatic, and it has been suggested that the sentence is a unit of discourse not only on the surface but also in the underlying semology. This conclusion is at variance with the conclusion of Taber that no such unit as the sentence exists in semological structure (1966:90-91).

Finally attention was turned to the organisation of information within sentences, and it was shown that the distribution of the clitic -he in Dani indicates the relevance of units which are partially independent of such grammatical units as clauses. These units appear to be 'information units', manageable chunks of utterance which may be set off by intonation or overt markers, and which, within Dani sentences with their sequences of chained clauses, tend to build a cumulative 'topic' before a concluding 'comment'. This organisation extends beyond sentence boundaries and appears to be an integral part of the organisation of information in discourse as a whole.

The organisation of sentences as well as the organisation of discourse as a whole into units connected from introductory margins to concluding margins is fundamentally a deictic phenomenon. Case and roles within clauses reflect real world relationships fairly closely. The structure of clauses reflects those semologically structured real world relationships and the grammatical structure of the language. But the organisation of discourse reflects the speaker's evaluation of the events, his selection of topic elements, his organisation of the discourse into units from large text blocks down to sentences and information units within sentences, all in terms of his intention, the addressee and his knowledge, and the situation.

This chapter has been an exploratory study, beginning work the bulk of which remains to be done. Nothing has been said about units intermediate in length between full utterances and sentences, although such units as paragraphs and chapters will certainly prove relevant. A larger corpus including more long texts needs to be studied for really meaningful conclusions at that level.¹³ A study of sentence linkages has only been foreshadowed here; a detailed study, which promises to entail semantic analysis of large segments of the lexicon, needs to be made. While the stratificational model of language, as developed by Lamb and particularly as modified and applied by Gleason and his students to discourse structure, has been found a useful model, this study has not been primarily model-oriented. Some suggestions for improvements in that model have been made, particularly to incorporate the speaker and addressee as structurally relevant to every utterance, and also to indicate sentences as units in the semological structure. However, there are still problems, the solution to which is not now apparent to me. Particularly it is difficult to see how the information units which appear to be part and parcel of discourse organisation can be incorporated into the model, since they are linear surface units presupposing clause structure. And finally, the problem of reference to participants through discourse, although anticipated in Chapter 4 and recently made the focus of attention in work by Wise (1968), Stennes (1969), Pike and Lowe (1969) and others, has been left without further treatment in this chapter. Much insight has been gained into this problem in the course of this study, but a satisfactory description will require further work with informants available.

The present description is offered as one step forward in our knowledge and understanding of Dani grammar. Phenomena related to chained sequences of verbs and clauses have prompted treatment of morphological and syntactic structures as realisations of more fundamental semological structures including elements of both meaning and reference. Reference

to participants as the 'same' or 'different' or by person categories, and reference to events by mode and tense categories are deictic phenomena which are most economically treated not in terms of clauses or sentences but utterances in the situational context. Dani grammar requires discourse perspective for adequate description of even the smallest units and illustrates the fundamental correctness of Malinowski's position: "The real linguistic fact is the full utterance in its context of situation." (1935-1965:11).

NOTES

1. Compare Longacre (1970:784) for a similar treatment of sentence constituents, with a proposal that the model is relevant for discourse also. In the Dani materials vocatives, which Longacre includes in his 'outer periphery' of sentences, are clearly not sentence constituents but utterance and discourse constituents.
2. The tag or clitic *-he* glossed as 'topic-marker' above, will be further discussed under treatment of the arrangement of information in sentences. It may be noted here that it is a cliticised element inserted at some intonation contour terminals as a kind of segmental comma, a point to pause. Sometimes it is only that, apparently, when the speaker, thinking as he speaks, attaches this clitic to a number of constituents in sequence. However, reader reaction to written material with proliferated use of this clitic is often explicitly negative to excessive use but positive toward the use of this clitic at certain points, usually no more than one or two in a sentence. These few spots that local 'editors' would leave occupied by this clitic appear to be at points where the preceding element or segment of the sentence is the topic of the sentence, the element about which the rest of the sentence makes some comment. Thus this clitic serves as a carrier of contour final intonation, as a pause point or potential point for pause and frequently as a marker of topic.
3. The skeptical reader may well wonder whether this is just the analyst's familiarity with Pike's analysis of English intonation imposed on Dani. It is not, although I gladly acknowledge my debt to Pike here as in many other areas. For further phonetic details on this system of pitches used in Dani intonation and similarities and differences from English intonation, see the brief treatment by Bromley (1961:49-61).

4. It should be noted that Dani questions including question words occur with sentence final falling intonation, usually to level /4/ and do not occur with the clitic -a. Such question words include: nena 'what'; ky 'which'; sa 'who'; koma, ka 'where'; meta 'when'; na-halok 'why'; nykkyn interrogative verb root 'to do what'; ekkano 'what kin, or what body part, of his, hers'.

5. One revealing example occurs in a major leader's account of his disagreement with the government officer. A group of enemies were being escorted through the leader's area by the government; the weapons of the enemy group were being carried in large tied bundles under government approval. The local leader made a derogatory speech to the enemies and told them to throw their weapons away:

hep-isani-o. 'discard--you(pl)-do-to-them--decisive. *Throw them away!*'
Then the leader ordered his own men to throw the enemies' weapons away; the government officer strongly protested this move and ordered the weapons returned to their owners. The local leader quotes the government officer's order as:

/2-3/
wok-isani-y. 'move--transfer-to-them--deferential, i.e. *Now please give them to them.*'

Thus the leader pictures himself as firm and final in his orders to the enemies, but pictures the government officer as deferential to him, even though in fact he obviously lost face by having to obey the officer's order.

6. It does appear to be true that imperative verbs (as contrasted with hortatives) are not normally used in questions. No example occurs in the corpus, and my impression is that such a use would be regarded as anomalous, although my data (other than the data of my own speaking knowledge of the language) are not adequate to establish this. This point needs to be checked carefully. However it is also true that the hortative/imperative contrast is for Dani in some sense secondary and that hortative and imperative forms are parts of single paradigms, as described in Chapter 2.

7. It should be admitted that some quotations in narrative get handled similarly, with continuity marked between the quoted elements but not between the quotative verbs. But there are still important differences. Quotations which are part of the narrative are optionally followed by ylvk 'having said' preceding the quotative verb. This form has not been recorded occurring in the quasi-quotative formulas described here.

8. J.L. Austin observed similar asymmetry between the first person singular present indicative active forms and other forms of what he termed 'performative verbs' in English, including such forms as '*I promise*', '*I declare*', etc. (1962:63).

9. There are a few examples where *yly'-lay* (or *yly'-laky*, a sub-dialectic difference) '*they say*' and *akkyky* '*I believe*' occur in that order in sequence in the same construction, but it appears that in these examples '*they say*' is a normal quotation marker.

...wok-oisekatek-o. *yly'lay akkyky. 'move--they-normally-transfer-it-to-them--decisive. saying--they-are I-believe, i.e. ...They give them to them, they say (as they sing--the quoted matter is from a funeral dirge) you know.'*

10. There is a pattern of answers both to questions of a 'yes-no' variety with both alternatives explicitly included and to question-word questions, which employs *lek 'no'* in ways quite different from English question and answer usage:

...heak-he eleke-a? hele-a. *hyt-han. isikhemo, lek. neak-he eleke tak-halok waky isikhe.... 'your(sg)-woman's-child--topic-marker boy--invitation girl--invitation show-it she-said-long-ago-setting no my-woman's-child boy having-borne I-came she-said-long-ago. i.e. "Is your child a boy or a girl? Show me," she said, and (the mother) said, "No. I bore a boy and have brought him."'*

...na-halok isiki. *lek....isa aty lyak-hein.... 'Why I-said-long-ago no sow that upward--(2s)-put-now, i.e. "Why is that?" I said (in protest to being narrowly missed by a stone). "No, send that sow (back up)", (he said).'*

This pattern requires further investigation in the field.

11. The relative length of sentences in narrative and hortatory discourse is exactly the reverse of the pattern of New Testament Koiné Greek, where narrative is typically in shorter sentences, while some hortatory discourse, e.g. the Pauline epistles, contains quite lengthy sentences. (Ellis Deibler has made the same observation, comparing sentence length in Gahuku, a language of highlands Australian New Guinea, with New Testament Greek.)

12. During the original typing of this dissertation in 1971 I was able to peruse Hankamer's excellent dissertation on deletion and note that he specifies the pre-verb position as the position of focus in the unmarked case (1971:176).

13. I have been aware of and stimulated by the work of others in this area, e.g. Bridgeman (1966), Wise (1968), Longacre and others (1968). Some major 'chapter' breaks are clear in several narrative texts and some other texts in the corpus, and some paragraph divisions seem clear. However, I am not satisfied with my current analysis based on the present corpus, and have omitted discussion of these problems until further study makes the analysis more convincing.

APPENDIX A
VERB PARADIGMS

The paradigms in this appendix represent the usage of informants from the Aso-Lokobal confederacy of the lower Grand Valley of the Balim. Although some, but certainly not all, alternate forms used by other informants in that area are included, the principal informant was Apsalek Aso, of the village of Hepuba.

The model verbs for conjugation classes are not the same throughout the paradigms. In particular, the verb *nei* = 'travel' is cited in only a few places, partly because of its limited pattern of inflection, but partly also because of omissions in the checked data from the field. Also, the verb *lakei* = 'ascend' is included in most categories in the first section of this appendix, although it was not included as a model verb in the data sheets especially checked in the field. Where other documentation is missing, some forms of that verb reflect my own learned dialect. Model verbs with vowel-final roots in some categories and consonant-final roots in others are displayed with verbs with vowel-final roots in all cases.

Glosses are omitted from the paradigms except for identifying glosses of verb roots and for labels of inflectional categories. For meanings of the forms, the reader is referred to the text. Forms in these paradigms are not underlined.

VERB PARADIGMS

A. PRIMARY VERBS WITHOUT AUXILIARIES

1. Factive Mode

Simple factive: non-reflexive voice, consonant final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
I	japhi	wathi	jathi	palhi
WE	japhu	wathu	jathu	palhu
YOU(SG)	japhin	wathin	jathin	palhin
YOU(PL)	japhip	wathip	jathip	palhip
HE/SHE/IT	japhe	wathe	jathe	palhe
THEY	japha	watha	jatha	palha
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	ithi	wuthi	kelhi	(Minor class)
WE	ithu	wuthu	kelhu	wuluphi
YOU(SG)	ithin	wuthin	kelhin	wuluphu
YOU(PL)	ithip	wuthip	kelhip	wuluphin
HE/SHE/IT	ythe	wvthe	keilhe	wuluphip
THEY	ytha	wvtha	keilha	wvlvphe
				wvlvpha

OTHER COMMON MEMBERS OF THESE CONJUGATION CLASSES:

jap= 'fight'; the generalised personal objective auxiliary -ap=.
 wat= 'hit, kill': hakat= 'treat'; hot= 'wipe, cleanse'; tot= 'wipe off'; lat= 'close'; kat= 'mend';
 temet= 'place under'; kot= 'take off (net)'.
 jak= 'plant': mak= 'dip in water'; 'sharpen'; 'share food'; tak= 'dig (sweet potatoes)'; 'procreate';
 isak= 'steam cook'; wetak= 'roast'; hetak= 'seek, find'; jak= 'make trail'; 'make arm bands'.
 pal= 'sever': len= 'strip off (fat)'; kon= 'care for (pigs, children)'; wan= 'get'; tal= 'put
 under'; kakal= 'split'; hatel= 'cross-cut'; hol= 'hear'; setel= 'tear'; sal= 'cover'; lapel= 'hide';
 lal= 'spin'; 'play'; mokkal= 'kindle'; and many others.
 yk= 'make net'; 'don'; wvk= 'chop'; 'eliminate'; mvk= 'fell(tree)'; kvt= 'cut for distribution';
 hvt= 'open (door)'.
 keil= 'hang up'; teil= 'save'; hoil= 'sprinkle'; loil= 'burn up'; kokoil= 'skin'.

Simple factive: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	Jak= 'plant'	pal= 'sever'
SUBJECT				
I	jakhyky	watyky	jakhyky	palyky
WE	jakhoko	watoko	jakhoko	paloko
YOU(SG)	jakheken	wateken	jakheken	paleken
YOU(PL)	jakekep	watekep	jakekep	palekep
HE/SHE/IT	jakheikhe	watikhe	jakheikhe	palikhe
THEY	jakheka	wateka	jakheka	paleka
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	*
I	ikhyky	wukhyky	keilyky	
WE	ikhoko	wukhoko	keiloko	
YOU(SG)	ikheken	wukheken	keileken	
YOU(PL)	ikhekep	wukhekep	keilekep	
HE/SHE/IT	ikhikhe	wukhikhe	keilikhe	
THEY	ikheka	wukheka	keilleka	

Simple factive: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
I	nykky	laky	waky	aky
WE	nokko	lako	wako	ako
YOU(SG)	nekken	laken	waken	aken
YOU(PL)	nekkep	lakep	wakep	akep
HE/SHE/IT	nikke	laka	waka	aka
THEY	nekka	lakeika	wakeika	akeika

*The verb wvlvp= 'exit' does not occur in reflexive voice.

Simple factive: non-reflexive voice, vowel-final roots (cont.)

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	lakei= 'ascend'	i= 'say'
SUBJECT				
I	hyky	nyky*	lakeky	yky
WE	hoko	noko	lakeko	oko
YOU(SG)	heken	neken	lakeken	eken
YOU(PL)	hekep	nekep	lakekep	ekep
HE/SHE/IT	heikhe	neikhe	lakeikhe	ikhe
THEY	heka	neka	lakeka	eka

Simple factive: reflexive voice, vowel-final roots**

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	i= 'say'	a=, at= 'acquire'
I	hakhyky	neikhyky*	ikhkyky	akhyky
WE	hakhoko	neikhoko	ikhoko	akhoko
YOU(SG)	hakheken	neikheken	ikhheken	akheken
YOU(PL)	hakhekep	neikhekep	ikhhekep	akhekep
HE/SHE/IT	hakheikhe	neikheikhe	ikhheikhe	akheikhe
THEY	hakheka	neikheka	ikhheka	akheka

* This verb does not occur in simple factive as a single verb, only in constructions in which it is paired with itself or an echo form: nyky nyky or nyky wyky 'I travelled all over'.

** Most minor class verbs are not inflected for the contrast reflexive voice versus non-reflexive voice.

OTHER MEMBERS OF THESE CONJUGATION CLASSES:

ha= 'see': hela= reflexive stem of wan=, wakan= 'take'***; akka= 'believe'***; wutta= 'cross (stream)',***
 i= 'say': pi= 'descend'***; ki= 'enter',***

*** These verbs (or the stem hela= of wan=, wakan=) do not occur with marked reflexive forms like the pattern verbs listed for the same conjugation classes.

Remote past: non-reflexive voice, consonant-final roots

VERB: SUBJECT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	japhiki	wathiki	jathiki	pathiki
WE	japhuku	wathuku	jathuku	pathuku
YOU(SG)	japhikin	wathikin	jathikin	pathikin
YOU(PL)	japhikip	wathikip	jathikip	pathikip
HE/SHE/IT	japhikhe	wathikhe	jathikhe	pathikhe
THEY	japhukwaha	wathukwaha	jathukwaha	pathukwaha
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlp= 'exit'
I	ithiki	wuthiki	keilhiki	wuluphiki
WE	ithuku	wuthuku	keilhuku	wuluphuku
YOU(SG)	ithigin	wuthikin	keilhikin	wuluphikin
YOU(PL)	ithikip	wuthikip	keilhikip	wuluphikip
HE/SHE/IT	ithikhe	wuthikhe	keilhikhe	wuluphikhe
THEY	ithukwaha	wuthukwaha	keilhukwaha	wuluphukwaha

Remote past: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jakhasiki	watasiki	jakhasiki	palasiki
WE	jakhasuku	watasuku	jakhasuku	palasuku
YOU(SG)	jakhasikin	watasikin	jakhasikin	palasikin
YOU(PL)	jakhasikip	watasikip	jakhasikip	palasikip
HE/SHE/IT	jakhasikhe	watasikhe	jakhasikhe	palasikhe
THEY	jakhasukwaha	watasukwaha	jakhasukwaha	palasukwaha
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhasiki	wukhasiki	keilasiki	
WE	ikhasuku	wukhasuku	keilasuku	
YOU(SG)	ikhasikin	wukhasikin	keilasikin	
YOU(PL)	ikhasikip	wukhasikip	keilasikip	
HE/SHE/IT	ikhasikhe	wukhasikhe	keilasikhe	
THEY	ikhasukwaha	wukhasukwaha	keilasukwaha	

Remote past: non-reflexive voice, vowel-final roots

VERB: SUBJECT	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
I	nasiki	lakaki	wakaki	akaki
WE	nasuku	lakaku	wakaku	akaku
YOU(SG)	nasikin	lakakin	wakakin	akakin
YOU(PL)	nasikip	lakakip	wakakip	akakip
HE/SHE/IT	nasikhe	lakeikhe	wakeikhe	akeikhe
THEY	nasukwaha	lakoukwaha	wakoukwaha	akoukwaha
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
I	hasiki	hesiki	lakasiki	isiki
WE	hasuku	hesuku	lakasuku	isuku
YOU(SG)	hasikin	hesikin	lakasikin	isikin
YOU(PL)	hasikip	hesikip	lakasikip	isikip
HE/SHE/IT	hasikhe	hesikhe	lakasikhe	isikhe
THEY	hasukwaha	hesukwaha	lakasukwaha	isukwaha

Remote past: reflexive voice, vowel-final roots

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	i= 'say'	a=, at= 'acquire'
I	hakhasiki	neikhasiki**	ikhasiki	akhasiki
WE	hakhasuku	neikhasuku	ikhasuku	akhasuku
YOU(SG)	hakhasikin	neikhasikin	ikhasikin	akhasikin
YOU(PL)	hakhasikip	neikhasikip	ikhasikip	akhasikip
HE/SHE/IT	hakhasikhe	neikhasikhe	ikhasikhe	akhasikhe
THEY	hakhasukwaha	neikhasukwaha	ikhasukwaha	akhasukwaha

*The verb nei= 'travel' is inflected like hei= 'put' in this category, but does not occur as a single verb, only in paired constructions.

**This verb does not occur as a single verb in this category, only in paired constructions.

Normal aspect: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
I	japhytek	wathytek	jathytek	palhytek
WE	japhusek	wathusek	jathusek	palhusek
YOU(SG)	japhittek	wathittek	jathittek	palhuttek
YOU(PL)	japhisep	wathisep	jathisep	palhisep
HE/SHE/IT	japhetek	wathetek	jathetek	palhetek
THEY	japhatek	wathatek	jathatek	palhatek
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	ythytek	wvthytek	keilhytek	wvlvphytek
WE	ithusek	wuthusek	keilhusek	wvlvphusek
YOU(SG)	ithittek	wuthittek	keilhuttek	wuluphittek
YOU(PL)	ithisep	wuthisep	keilhisep	wuluphisep
HE/SHE/IT	ythetek	wvthetek	keilhetek	wvlvphetek
THEY	ythatek	wvthatek	keilhatek	wvlvphatek

Normal aspect: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jakhkytek	watykytek	jakhkytek	palykytek
WE	jakhokotek	watokotek	jakhokotek	palokotek
YOU(SG)	jakhekettek	watekettek	jakhekettek	palekettek
YOU(PL)	jakhekesep	watekesep	jakhekesep	palakesep
HE/SHE/IT	jakheikhetek	watikhetek	jakheikhetek	palikhetek
THEY	jakhekatek	watekatek	jakhekatek	palekatek
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhkytek	wukhkytek	keilykytek	
WE	ikhokotek	wukhokotek	keilokotek	
YOU(SG)	ikhekettek	wukhekettek	keilekettek	
YOU(PL)	ikhekesep	wukhekesepp	keilekesep	
HE/SHE/IT	ikhikhetek	wukhikhetek	keilikhetek	
THEY	ikhekatek	wukhekatek	keilekatek	

Normal aspect: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
SUBJECT				
I	nykytek	lakytek	wakytek	akytek
WE	nokotek	lakotek	wakotek	akotek
YOU(SG)	nekkettek	lakattetek	wakattetek	akattetek
YOU(PL)	nekkesep	lakasesp	wakasesp	akasesp
HE/SHE/IT	nikketek	lakaketek	wakaketek	akaketek
THEY	nekkatek	lakeikhatek	wakeikhatek	akeikhatek
VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	lakei- 'ascend'	i= 'say'
I	hykytek	nykytek	lakekytek	ykytek
WE	hokotek	nokotek	lakekotek	okotek
YOU(SG)	hekettek	nekettek	lakekettek	ekettek
YOU(PL)	hekesepp	nekesepp	lakekesepp	ekesepp
HE/SHE/IT	heikhetek	nikhetek	lakeikhetek	ikhetek
THEY	hekatek	nekatek	lakekatek	ekatek

Normal aspect: reflexive voice, vowel-final roots

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	i= 'say'	a=, at= 'acquire'
I	hakhykytek	neikhykytek	ikhkykytek	akhykytek
WE	hakhokotek	neikhokotek	ikhokotek	akhokotek
YOU(SG)	hakhekettek	neikhekettek	ikhhekettek	akhekettek
YOU(PL)	hakhekesepp	neikhekesepp	ikhhekesepp	akhhekesepp
HE/SHE/IT	hakheikhetek	neikheikhetek	ikhheikhetek	akheikhetek
THEY	hakhekatek	neikhekatek	ikhhekatek	akhhekatek

Prior action: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
I	japhytyk	wathytyk	jathytyk	palhytyk
WE	japhosik	wathosik	jathosik	palhosik
YOU(SG)	japhettik	wathettik	jathettik	palhettik
YOU(PL)	japhesip	wathesip	jathesip	palhesip
HE/SHE/IT	japhesik	wathesik	jathesik	palhesik
THEY	japhasik	wathasik	jathasik	palhasik
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	ythytyk	wvthytyk	keilhytyk	wvlvphytyk
WE	ythosik	wvthosik	keilhosit	wvlvphosik
YOU(SG)	ythettik	wvthettik	keilhettik	wvlvphettik
YOU(PL)	ythesip	wvthesip	keilhesip	wvlvphesip
HE/SHE/IT	ythesik	wvthesik	keilhesik	wvlvphesik
THEY	ythasik	wvthasik	keilhasik	wvlvphasik

Prior action: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'cut'
SUBJECT				
I	jakhkytyk	watykytyk	jakhkytyk	palykytyk
WE	jakhokosik	watokosik	jakhokosik	palokosik
YOU(SG)	jakhettik	wakekettik	jakhettik	palekettik
YOU(PL)	jakhesip	watekesip	jakhesip	palekesip
HE/SHE/IT	jakhesik	watikhesik	jakhesik	patikhesik
THEY	jakhkasik	watekasik	jakhkasik	palekasik
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhkytyk	wukhykytyk	keilykytyk	
WE	ikhokosik	wukhokosik	keilokosik	
YOU(SG)	ikhettik	wukhettik	keilekettik	
YOU(PL)	ikhesip	wukhesesip	keilekesip	
HE/SHE/IT	ikhesik	wukhikhesik	keilikhesik	
THEY	ikhkasik	wukhekaskik	keilekaskik	

Prior action: non-reflexive voice, vowel-final roots

VERB: SUBJECT	nek=, na= 'eat'	la= 'go'	wa-, wet= 'come'	a=, at= 'acquire'
I	nykkytyk	lakytyk	wakytyk	akytyk
WE	nokkosik	lakosik	wakosik	akosik
YOU(SG)	nekkettik	lakattik	wakattik	akattik
YOU(PL)	nekkesip	lakasip	wakasip	akasip
HE/SHE/IT	nikkesik	lakasik	wakasik	akasik
THEY	nekkasik	lakeikhasik	wakeikhasik	akeikhasik
VERB:	ha= 'see';	nei= 'travel'	lakei= 'ascend'	i= 'say'
I	hei= 'put'	nykytyk*	lakekytyk	ykytyk
WE	hokosik	nokosik	lakekosik	okosik
YOU(SG)	hekettik	nekettik	lakekettik	ekettik
YOU(PL)	hekesip	nekkesip	lakekesip	ekesip
HE/SHE/IT	heikhesik	nikhesik	lakeikhesik	ikhesik
THEY	hekasik	nekasik	lakekasik	ekasik

Prior action: reflexive voice, vowel-final roots

VERB:	ha= 'see';	nei= 'travel'	i= 'say'	a=, at= 'acquire'
I	hei= 'put'	neikhykytyk*	ikhykytyk	akhykytyk
WE	hakhokosik	neikhokosik	ikhokosik	akhokosik
YOU(SG)	hakhekettik	neikhekettik	ikhekettik	akhekettik
YOU(PL)	hakhekesip	neikhekesip	ikhekesip	akhekesip
HE/SHE/IT	hakheikhesik	neikhiikhesik	ikhiikhesik	akheikhesik
THEY	hakhekasik	neikhekasik	ikhekasik	akhekasik

* This verb occurs only in paired constructions in this category.

Normal aspect with prior action: non-reflexive voice, consonant-final roots

VERB: SUBJECT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	japhytesik	wathytesik	jathytesik	palhytesik
WE	japhotesik	wathotesik	jathotesik	palhotesik
YOU(SG)	japhetettik	wathetettik	jathetettik	palhetettik
YOU(PL)	japhetesip	wathetesip	jathetesip	palhetesip
HE/SHE/IT	japhetesik	wathetesik	jathetesik	palhetesik
THEY	japhatesik	wathatesik	jathatesik	palhatesik
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	ythytesik	wvthytesik	keilhytesik	wvlvphytesik
WE	ythotesik	wvthotesik	keilhotesik	wvlvphotesik
YOU(SG)	ythetettik	wvthetettik	keilhettetik	wvlvphetettik
YOU(PL)	ythetesip	wvthetesip	keilhetesip	wvlvphetesip
HE/SHE/IT	ythetesik	wvthetesik	keilhetesik	wvlvphetesik
THEY	ythatesik	wvthatesik	keilhatesik	wvlvphatesik

Normal aspect with prior action: reflexive voice, consonant-final roots

VERB: SUBJECT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jakhyktesik	watyktesik	jakhyktesik	palyktesik
WE	jakhokotesik	watokotesik	jakhokotesik	palokotesik
YOU(SG)	jakhekettetik	wateketettik	jakhekettetik	paleketettik
YOU(PL)	jakheketesip	wateketesip	jakheketesip	paleketesip
HE/SHE/IT	jakheketesik	watikhetesik	jakhekhetesik	palikhhetesik
THEY	jakhekatesik	watekatesik	jakhekatesik	palekatesik
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhyktesik	wukhyktesik	keilyktesik	
WE	ikhokotesik	wukhokotesik	keilokotesik	
YOU(SG)	ikhekettetik	wukhekettetik	keileketettik	
YOU(PL)	ikheketesip	wukheketesip	keileketesip	
HE/SHE/IT	ikheketesik	wukikhhetesik	keilikhetesik	
THEY	ikhekatesik	wukhekatesik	keilekatesik	

Normal aspect with prior action: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
SUBJECT				
I	nykkytesik	lakytesik	wakytesik	akytesik
WE	nokkotesik	lakotesik	wakotesik	akotesik
YOU (SG)	nekketettik	lakatettik	wakatettik	akatettik
YOU (PL)	nekketesip	lakatesip	wakatesip	akatesip
HE/SHE/IT	nikketesik	lakatesik	wakatesik	akatesik
THEY	nekkatesik	lakeikhatesik	wakeikhatesik	akeikhatesik
VERB:	ha= 'see';	nei= 'travel'	lakei= 'ascend'	i= 'say'
	hei= 'put'			
I	hykkytesik	nykkytesik	lakekytesik	ykytesik
WE	hokotesik	nokotesik	lakekotesik	okotesik
YOU (SG)	heketettik	neketettik	lakeketettik	eketettik
YOU (PL)	heketesip	neketesip	lakeketesip	eketesip
HE/SHE/IT	heikhetesik	nikhetesik	lakeikhetesik	ikhetesik
THEY	hekatesik	nekatesik	lakekatesik	ekatesik

Normal aspect with prior action: reflexive voice, vowel-final roots

VERB:	ha= 'see';	nei= 'travel'	i= 'say'	a=, at= 'acquire'
	hei= 'put'			
I	hakhkytesik	neikhkytesik	ikhkytesik	akhykkytesik
WE	hakhokotesik	neikhokotesik	ikhokotesik	akhokotesik
YOU (SG)	hahketettik	neikhketettik	ikhketettik	akhketettik
YOU (PL)	hahketesip	neikhketesip	ikhketesip	akhketesip
HE/SHE/IT	hahkeikhetesik	neikhkeikhetesik	ikhkeikhetesik	akhkeikhetesik
THEY	hahkatesik	neikhkatesik	ikhkatesik	akhkatesik

Remote past with prior action: sample conjugations, non-reflexive voice

VERB:	wat= 'hit, kill'	yk= 'make net'	nek=, na= 'eat'	wa=, wet= 'come'
SUBJECT				
I	wathikisik	ithikisik	nasikisik	wakakisik
WE	wathukusik	ithukusik	nasukusik	wakakusik
YOU(SG)	wathikittik	ithikittik	nasikittik	wakakittik
YOU(PL)	wathikisip	ithikisip	nasikisip	wakakisip
HE/SHE/IT	wathikhesik	ithikhesik	nasikhesik	wakeikhesik
THEY	wathukwhasik	ithukwhasik	nasukwhasik	wakoukwhasik

Remote past with prior action: sample conjugations, reflexive voice

VERB:	wat= 'hit, kill'	yk= 'make net'	ha= 'see'; hei= 'put'	i= 'say'
I	watasikisik	ikhasikisik	hakhasikisik	ikhasikisik
WE	watasukusik	ikhasukusik	hakhasukusik	ikhasukusik
YOU(SG)	watasikittik	ikhasikittik	hakhasikittik	ikhasikittik
YOU(PL)	watasikisip	ikhasikisip	hakhasikisip	ikhasikisip
HE/SHE/IT	watasikhesik	ikhasikhesik	hakhasikhesik	ikhasikhesik
THEY	watasukwhasik	ikhasukwhasik	hakhasukwhasik	ikhasukwhasik

Remote past with normal aspect and prior action: samples, non-reflexive voice

VERB:	wat= 'hit, kill'	yk= 'make net'	nek= 'eat'	wa=, wet= 'come'
I	wathikitesik	ithikitesik	nasikitesik	wakakitesik*
WE	wathukutesik	ithukutesik	nasukutesik	wakakutesik
YOU(SG)	wathikittetik	ithikittetik	nasikittetik	wakakittetik*
YOU(PL)	wathikitesip	ithikitesip	nasikitesip	wakakitesip*
HE/SHE/IT	wathikhetesik	ithikhetesik	nasikhetesik	wakeikhetesik
THEY	wathukwhatesik	ithukwhatesik	nasukwhatesik	wakoukwhatesik

Remote past with normal aspect and prior action: samples, reflexive voice

VERB:	wat= 'hit, kill'	yk= 'make net'	ha= 'see'; hei= 'put'	i= 'say'
I	watasikitesik	ikhasikitesik	hakhasikitesik	ikhasikitesik
WE	watasukutesik	ikhasukutesik	hakhasukutesik	ikhasukutesik
YOU(SG)	watasikittetik	ikhasikittetik	hakhasikittetik	ikhasikittetik
YOU(PL)	watasikitesip	ikhasikitesip	hakhasikitesip	ikhasikitesip
HE/SHE/IT	watasikhetesik	ikhasikhetesik	hakhasikhetesik	ikhasikhetesik
THEY	watasukwhatesik	ikhasukwhatesik	hakhasukwhatesik	ikhasukwhatesik

* In the starred forms y is often heard replacing i in the middle syllable.

Setting: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'cut off'
SUBJECT				
I	japhimo	wathimo	jathimo	palhimo
WE	japhumo	wathumo	jathumo	palhumo
YOU(SG)	japhinmo	wathinmo	jathinmo	palhinmo
YOU(PL)	japhipmo	wathipmo	jathipmo	palhipmo
HE/SHE/IT	japhomo	wathomo	jathomo	palhomo
THEY	japhama	wathama	jathama	palhama
VERB:	vk- 'make net'	wk- 'chop'	keil= 'hang up'	wvlp= 'ertt'
I	ithimo	wuthimo	kelhimo	wulphimo
WE	ithumo	wuthumo	kelhumo	wulphumo
YOU(SG)	ithinmo	wuthinmo	kelhinmo	wulphinmo
YOU(PL)	ithipmo	wuthipmo	kelhipmo	wulphipmo
HE/SHE/IT	ythomo	wythomo	keilhomo	wvlphomo
THEY	ythama	wythama	keilhama	wvlphama

Setting: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'cut off'
I	jakhykyma	watykyma	jakhykyma	palykyma
WE	jakhokoma	watokoma	jakhokoma	palokoma
YOU(SG)	jakhekenma	watekenma	jakhekenma	palekenma
YOU(PL)	jakhekepma	watekepma	jakhekepma	palekepma
HE/SHE/IT	jakheikhomo	watikhomo	jakheikhomo	palikhomo
THEY	jakhekama	watekama	jakhekama	palekama
VERB:	vk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhykyma	wukhykyma	keilykyma	
WE	ikhokoma	wukhokoma	keilokoma	
YOU(SG)	ikhekenma	wukhekenma	keilekenma	
YOU(PL)	ikhekepma	wukhekepma	keilekepma	
HE/SHE/IT	ikhikhomo	wukhikhomo	keilikhomo	
THEY	ikhekama	wukhekama	keilekama	

Setting: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'ascend'
SUBJECT				
I	nykykyma	lakyma	wakyma	akyma
WE	nokkoma	lakoma	wakoma	akoma
YOU(SG)	nekenma	lakenma	wakenma	akenma
YOU(PL)	nekepma	lakepma	wakepma	akepma
HE/SHE/IT	nikkoma	lakama	wakama	akama
THEY	nekkama	lakeikhama	wakeikhama	akeikhama
VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	lakei= 'ascend'	i= 'say'
I	hykykyma	nykykyma*	lakekyma	ykyma
WE	hokoma	nokoma	lakekoma	okoma
YOU(SG)	hekenma	nekenma	lakekenma	ekenma
YOU(PL)	hekepma	nekepma	lakekepma	ekepma
HE/SHE/IT	heikhomo	neikhomo	lakeikhomo	ikhomo
THEY	hekama	nekama	lakekama	ekama

Setting: reflexive voice, vowel-final roots

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	i= 'say'	a=, at= 'acquire'
I	hakhykyma	neikhykyma*	ikhkykyma	akhykyma
WE	hakhokoma	neikhokoma	ikhokoma	akhokoma
YOU(SG)	hakhekenma	neikhekenma	ikhekenma	akhekenma
YOU(PL)	hakhekepma	neikhekepma	ikhekepma	akhekepma
HE/SHE/IT	hakheikhomo	neikheikhomo	ikheikhomo	akheikhomo
THEY	hakhekama	neikhekama	ikhekama	akhekama

*This verb occurs only in paired constructions in this category.

Remote past with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
SUBJECT	non-reflexive	non-reflexive	(non-reflexive)*	reflexive
I	wathikimo	ithikimo	wakakimo	hakhasikimo
WE	wathukumo	ithukumo	wakakumo	hakhasukumo
YOU (SG)	wathikinmo	ithikinmo	wakakinmo	hakhasikinmo
YOU (PL)	wathikipmo	ithikipmo	wakakipmo	hakhasikipmo
HE/SHE/IT	wathikhomo	ithikhomo	wakeikhomo	hakhasikhomo
THEY	wathukwhama	ithukwhama	wakouwhama	hakhasukwhama

Normal aspect with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
I	non-reflexive	non-reflexive	(non-reflexive)*	reflexive
WE	wathyte'ma	yhyte'ma	wakyte'ma	hakhykyte'ma
YOU (SG)	wathuse'ma	ithuse'ma	wakote'ma	hakhokote'ma
YOU (PL)	wathitte'ma	ithitte'ma	wakatte'ma	hakhekette'ma
HE/SHE/IT	wathisepma	ithisepma	wakasepma	hakhekesepma
THEY	wathete'ma	ythete'ma	wakate'ma	hakheikhete'ma
	wathate'ma	ythate'ma	wakeikhate'ma	hakhekate'ma

Prior action with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
I	non-reflexive	non-reflexive	(non-reflexive)*	reflexive
WE	wathyty'mo	yhyty'mo	wakoty'mo	hakhykyty'mo
YOU (SG)	wathosi'mo	ythosi'mo	wakosi'mo	hakhokosi'mo
YOU (PL)	wathetti'mo	ythetti'mo	wakatti'mo	hakheketti'mo
HE/SHE/IT	wathesipmo	ythesipmo	wakasipmo	hakhekesipmo
THEY	wathesi'mo	ythesi'mo	wakasi'mo	hakheikhesi'mo
	wathasi'mo	ythasi'mo	wakeikhasi'mo	hakhekasi'mo

* This verb does not occur with marked reflexive voice forms. Although 'come', like almost all other minor class verbs, is interpreted in the text to be implicitly reflexive, it is included with non-reflexive forms, as are other minor class verbs with no marked reflexive forms.

Normal aspect, prior action with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
	non-reflexive	non-reflexive	(non-reflexive)	reflexive
SUBJECT				
I	wathytesi'mo	ythytesi'mo	wakytesi'mo	hakhykytesi'mo
WE	wathotesi'mo	ythotesi'mo	wakotesi'mo	hakhokotesi'mo
YOU(SG)	wathetetti'mo	ythetetti'mo	wakatetti'mo	hakhekotetti'mo
YOU(PL)	wathetesipmo	ythetesipmo	wakatesipmo	hakheketesipmo
HE/SHE/IT	wathetesimo	ythetesimo	wakatesimo	hakheikhetesimo
THEY	wathatesimo	ythatesimo	wakeikhatesimo	hakhekatesimo

Remote past, prior action with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
	non-reflexive	non-reflexive	(non-reflexive)	reflexive
I	wathikisi'mo	ithikisi'mo	wakakisi'mo	hakhasikisi'mo
WE	wathukusi'mo	ithukusi'mo	wakakusi'mo	hakhasukusi'mo
YOU(SG)	wathikitti'mo	ithikitti'mo	wakakitti'mo	hakhasikitti'mo
YOU(PL)	wathikisipmo	ithikisipmo	wakakisipmo	hakhasikisipmo
HE/SHE/IT	wathikhesimo	ithikhesimo	wakeikhesimo	hakhasikhesimo
THEY	wathukwhasi'mo	ithukwhasi'mo	wakoukwhasi'mo	hakhasukwhasi'mo

Remote past, normal aspect, prior action with setting: sample conjugations

VERB:	wat= 'hit, kill'	yk= 'make net'	wa=, wet= 'come'	ha= 'see'; hei= 'put'
	non-reflexive	non-reflexive	(non-reflexive)	reflexive
I	wathikitesimo	ithikitesimo	wakakitesimo	hakhasikitesimo
WE	wathukutesimo	ithukutesimo	wakakutesimo	hakhasukutesimo
YOU(SG)	wathikiteti'mo	ithikiteti'mo	wakakiteti'mo	hakhasikiteti'mo
YOU(PL)	wathikitesipmo	ithikitesipmo	wakakitesipmo	hakhasikitesipmo
HE/SHE/IT	wathikhetesimo	ithikhetesimo	wakeikhetesimo	hakhasikhetesimo
THEY	wathukwhatesimo	ithukwhatesimo	wakoukwhatesimo	hakhasukwhatesimo

Prohibitive: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
YOU(SG)	japhvn	wathvn	jathvn	palhvn
YOU(PL)	japhvp	wathvp	jathvp	palhvp
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
YOU(SG)	ythvn	wvthvn	keilhvn	wvlvphvn
YOU(PL)	ythvp	wvthvp	keilhvp	wvlvphvp

Prohibitive: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
YOU(SG)	jakhakvn	watakvn	jakhakvn	palakvn
YOU(PL)	jakhakvp	watakvp	jakhakvp	palakvp
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
YOU(SG)	ikhakvn	wukhakvn	keilakvn	
YOU(PL)	ikhakvp	wukhakvp	keilakvp	

Prohibitive: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
YOU(SG)	nvkkvn	lakvn	wakvn	akvn
YOU(PL)	nvkkvp	lakvp	wakvp	akvp
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
YOU(SG)	hvkvn	hvkvn	lakekvn	vkvn
YOU(PL)	hvkvp	hvkvp	lakekvp	vkvp

Prohibitive: reflexive voice, vowel-final roots

VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
YOU(SG)	hakhvkvn	hakhvkvn	ikhakvn	akhvkvn
YOU(PL)	hakhvkvp	hakhvkvp	ikhakvp	akhvkvp

Prohibitive with normal aspect: sample conjugations, non-reflexive voice

VERB: wat= 'hit, kill' yk= 'make net' nek=, na= 'eat' wa=, wet= 'come'
SUBJECT
YOU(SG) wathvttek ythvttek nvkkvttek wakvttek
YOU(PL) wathvsep ythvsep nvkkvsep wakvsep

Prohibitive with normal aspect: sample conjugations, reflexive voice

VERB: wat= 'hit, kill' yk= 'make net' ha= 'see'; hei= 'put'
YOU(SG) watakvttek ikhakvttek hakhkvtttek
YOU(PL) watakvsep ikhakvsep hakhkvsep

Remonstrative: non-reflexive voice, consonant-final roots

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant' pal= 'sever'
 japhe hvk wathe hvk jathe hvk palhe hvk
VERB: yk= 'make net' wvk= 'chop' keil= 'hang up' wvlvp= 'exit'
 ythe hvk wvthe hvk keilhe hvk wvlvphe hvk

Remonstrative: reflexive voice, consonant-final roots

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant' pal= 'sever'
 jakheikhe hvk watikhe hvk jakheikhe hvk palikhe hvk
VERB: yk= 'make net' wvk= 'chop' keil= 'hang up' keilikhe hvk
 ikhikhe hvk wukhikhe hvk keilikhe hvk

Remonstrative: non-reflexive voice, vowel-final roots

VERB: nek=, na= 'eat' la= 'go' wa=, wet= 'come' a=, at= 'acquire'
 nikke hvk laka hvk waka hvk aka hvk
VERB: ha= 'see' hei= 'put' lakei= 'ascend' i= 'say'
 heikhe hvk heikhe hvk lakeikhe hvk ikhe hvk

Remonstrative: reflexive voice, vowel-final roots

VERB: ha= 'see' hei= 'put' i= 'say' a=, at= 'acquire'
 hakheikhe hvk hakheikhe hvk ikhikhe hvk akheikhe hvk

Abnormal continuative aspect: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
	japho	watho	jatho	palho
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
	ytho	wvtho	keilho	wvlvpho

Abnormal continuative aspect: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	jakheikho	watikho	jakheikho	palikho
Plural(ALT)*	jakheikho, jakhvky	watikho, watvky	jakheikho, jakhvky	palikho, palvky
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
Singular	ikhikho	wukhikho	keilikho	
Plural(ALT)	ikhikho, ikhvky	wukhikho, wukhvky	keilikho, ketilvky	

Abnormal continuative aspect: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
Singular	nikko	lako	wako	ako
Plural(ALT)	nikko, nvkky	lako	wako	ako
VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	lakei= 'ascend'	i= 'say'
Singular	heikho	nikho	lakeikho	ikho
Plural(ALT)	heikho, hvky	nikho, nvky	lakeikho, lakvky	ikho, vky

Abnormal continuative aspect: reflexive voice, vowel-final roots

VERB:	ha= 'see'; hei= 'put'	nei= 'travel'	i= 'say'	a=, at= 'acquire'
Singular	hakheikho	neikhikho	ikhikho	akheikho
Plural(ALT)	hakheikho, hakhvky**	neikhikho, nelkhvky**	ikhikho, ikhvky**	akheikho, akhvky**

*The plural forms are special marked forms. The 'singular' forms are unmarked forms which occur with both singular and plural subjects.

**These forms are not documented in the data sheets, by accidental omission.

Factive subordinate: conditional, non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	japhe-halok	wathe-halok	jathe-halok	palhe-halok
Plural	japhv-salok	wathv-salok	jathv-salok	palhv-salok
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Singular	ythe-halok	wvthe-halok	keilhe-halok	wvlvphe-halok
Plural	ythv-salok	wvthv-salok	keilhv-salok*	wvlvphev-salok

Factive subordinate: conditional, reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	jakheikhe-halok	watikhe-halok	jakheikhe-halok	palikhe-halok
Plural	jakhvkv-salok	watkv-salok	jakhvkv-salok	palvkv-salok
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
Singular	ikhikhe-halok	wukhikhe-halok	keilikhe-halok*	
Plural	ikhkv-salok	wukhkv-salok	keilvkv-salok	

Factive subordinate: conditional, non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
Singular	nikke-halok	laka-halok	waka-halok	aka-halok
Plural	nvkkv-salok	lakv-salok	wakv-salok	akv-salok
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
Singular	heikke-halok	heikke-halok	lakeikke-halok	ikke-halok
Plural	hkv-salok	hkv-salok	lakekvsalok	vkvsalok

Factive subordinate: conditional, reflexive voice, vowel-final roots

VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Singular	hakheikhe-halok	hakheikke-halok	ikhikke-halok	akheikke-halok
Plural	hakhvkv-salok	hakhvkv-salok	ikhkv-salok	akhkv-salok

* These forms were thus recorded. They appear irregular and may be alternate forms.

Factive subordinate: coincident punctiliar, non-reflexive, consonant final

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	japhenem	wathenem	jathenem	palhenem
Plural	japhvnm	wathvnm	jathvnm	palhvnem
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Singular	ythenem	wvthenem	keilhenem	wvlvphenem
Plural	ythvnm	wvthvnm	keilhvnem	wvlvphvnm

Factive subordinate: coincident punctiliar, reflexive, consonant final

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	jakheikhenem	watikhenem	jakheikhenem	palikhenem
Plural	jakhvkvnm	watvkvnm	jakhvkvnm	palvkvnm
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
Singular	ikhikhenem	wukhikhenem	keilikhenem*	
Plural	ikhvkvnm	wukhvkvnm	keilvkvnm*	

Factive subordinate: coincident punctiliar, non-reflexive, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
Singular	nikkenem	lakanem	wakanem	akanem
Plural	nvkkvnm	lakvnm	wakvnm	akvnm
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
Singular	heikhenem	heikhenem	lakeikhenem	ikhenem
Plural	hvkvnem	hvkvnem	lakekvnm	vkvnem

Factive subordinate: coincident punctiliar, reflexive, vowel-final roots

VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Singular	hakheikhenem	hakheikhenem	ikhikhenem	akheikhenem
Plural	hakhvkvnm	hakhvkvnm	ikhvkvnm	akhvkvnm

* These forms were thus recorded. They appear irregular and may be alternate forms.

Factive subordinate: coincident progressive, non-reflexive, consonant-final

VERB: jap= 'fight', jak= 'plant', pal= 'sever',
 Singular japhe-kkolek* wathe-kkolek* jathe-kkolek* palhe-kkolek*
 Plural japhv-kkolek wathv-kkolek jathv-kkolek palhv-kkolek

VERB: yk= 'make net', wvk= 'chop', keil= 'hang up',
 Singular ythe-kkolek* wvthe-kkolek* keilhe-kkolek* wlvphv-kkolek*
 Plural ythv-kkolek wvthv-kkolek kelhv-kkolek** wlvphv-kkolek

Factive subordinate: coincident progressive, reflexive, consonant-final roots

VERB: jap= 'fight', jak= 'plant', pal= 'sever',
 Singular jakheikhe-kkolek* watikhe-kkolek* jakheikhe-kkolek* palikhe-kkolek*
 Plural jakhvkv-kkolek watvkv-kkolek jakhvkv-kkolek palvkv-kkolek

VERB: yk= 'make net', wvk= 'chop', keil= 'hang up',
 Singular ikhikhe-kkolek* wukhikhe-kkolek* keilikhe-kkolek* **
 Plural ikhvkv-kkolek wukhvkv-kkolek kellvkv-kkolek**

Factive subordinate: coincident progressive, non-reflexive, vowel-final roots

VERB: nek=, na= 'eat', la= 'go', wa-, wet= 'come', a=, at= 'acquire',
 Singular nikke-kkolek* laa-/laka-kkolek+ waa-/waka-kkolek+ aa-/aka-kkolek+
 Plural nvkkv-kkolek lav-/lakv-kkolek+ wav-/wakv-kkolek+ av-/akv-kkolek+

VERB: ha= 'see', hei= 'put', lakei= 'ascend', i= 'say',
 Singular heikhe-kkolek* heikhe-kkolek* lakeikhe-kkolek* ikhe-kkolek*
 Plural hvkv-kkolek hvkv-kkolek lakekv-kkolek vkv-kkolek

Factive subordinate: coincident progressive, reflexive, vowel-final roots

VERB: ha= 'see', hei= 'put', i= 'say', a=, at= 'acquire',
 Singular hakheikhe-kkolek* hakheikhe-kkolek* ikhikhe-kkolek* akheikhe-kkolek*
 Plural hakhvkv-kkolek hakhvkv-kkolek ikhvkv-kkolek akhvkv-kkolek

* These forms also occur with a final o in the stem, e.g. japho-kkolek.

** These forms were thus recorded. They appear irregular and may be alternate forms.

+ The stem forms separated by slant lines are alternate forms.

Factive gerund: non-reflexive voice, consonant-final roots

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant' pal= 'sever'
 japhv wathv jathv palhv

VERB: yk= 'make net' wvk= 'chop' keil= 'hang up' wvlvp= 'exit'
 ythv wvthv keihv* wvlvphv

Factive gerund: reflexive voice, consonant-final roots**

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant' pal= 'sever'
 jakhvk, jakhvk(-) watvkv, watvkv(-) jakhvkv, jakhvkv(-) palvkv, palvkv(-)

VERB: yk= 'make net' wvk= 'chop' keil= 'hang up' wvlvp= 'exit'
 ikhvk, ikhvk(-) wukhvkv, wukhvkv(-) keilvkv, keilvkv(-) wvlvphv

Factive gerund: non-reflexive voice, vowel-final roots**

VERB: nek, na= 'eat' la= 'go' wa, wet= 'comq' a=, at= 'acquire'
 nikko, nvkky, nvkky- lakv(-), lakwy + wakv(-), wakwy akv(-), akwy

VERB: ha= 'see' hei= 'put' lakei= 'ascend' i= 'say'
 hvky, hakv, hvkv- hvky, hvkv(-) lakvkv++ vky, vkv(-)

Factive gerund: reflexive voice, vowel-final roots**

VERB: ha= 'see' hei= 'put' i= 'say' a=, at= 'acquire'
 hakhvkv hakhvkv ikhvky akhakv

* Recorded thus. This may be an alternate form.

** There is much variation in these rather rare forms, and the best informant often hesitated and was uncertain about the reflexive voice and vowel-final root forms. He did not make any singular/plural contrast, although the resemblance of these forms to abnormal continuative forms suggests this. Forms with hyphens or optional hyphens (parenthesised) occur with -kkwe. See text.

+ There was particular hesitation here.

++ Missing from the data sheets.

Iterative participle: non-reflexive, consonant-final roots

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant'
 japhyk wathyk jathyk
 yk= 'make net' wvk= 'chop' keil= 'hang up'
 ythyk wvthyk kelhyk*

wvlvp= 'exit'
 wvlvphyk

Iterative participle: reflexive voice, consonant-final roots

VERB: jap= 'fight' wat= 'hit, kill' jak= 'plant'
 jakhyk watykyk jakhyk
 yk= 'make net' wvk= 'chop' keil= 'hang up'
 ikhyk wukhyk keilyyk*

pal= 'sever'
 palhyk

Iterative participle: non-reflexive, vowel-final roots

VERB: nek=, na= 'eat' la= 'go' wa=, wet= 'come'
 nykkyk layk
 ha= 'see' hei= 'put' lakei= 'ascend'
 hyk hyyk lakyk

a=, at= 'acquire'
 ayk

i= 'say'
 yyk

Iterative participle: reflexive voice, vowel-final roots

VERB: ha= 'see'; hei= 'put' nei= 'travel' i= 'say'
 hakhyk neikhyk ikhyk

a=, at= 'acquire'
 akhayk

* Recorded thus; this may be an alternate form.

2. Hypothetical Mode

Simple hypothetical: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
I	japle, japile	wa'le	ja'le	palile
WE	japlo, japilo	wa'lo	ja'lo	palilo
YOU(SG)	japlen, japilen	wa'len	ja'len	palilen
YOU(PL)/				
HE/SHE/IT/				
THEY	japlep, japilep	wa'lep	ja'lep	palilep
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	y'le	wv'le	kelile	wvlvpile
WE	y'lo	wv'lo	kelilo	wvlvpilo
YOU(SG)	y'len	wv'len	kelilen	wvlvpilen
YOU(PL)/				
HE/SHE/IT/				
THEY	y'lep	wv'lep	kelilep	wvlvpilep, wvlvpililep

Simple hypothetical: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jakhale	watele	jakhale	palele
WE	jakhalo	watelo	jakhalo	palelo
YOU(SG)	jakhalen	watalen	jakhalen	palelen
YOU(PL)/				
HE/SHE/IT/				
THEY	jakhalep	watelep	jakhalep	palelep
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhele	wukhele	keilele	
WE	ikhelo	wukhelo	keilelo	
YOU(SG)	ikhelen	wukhelen	keilelen	
YOU(PL)/				
HE/SHE/IT/				
THEY	ikhelep	wukhelep	keilelep	

Simple hypothetical: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
SUBJECT				
I	nele	lele	we'le	a'le
WE	nelo	lelo	we'lo	a'lo
YOU(SG)	nelen	lelen	we'len	a'len
YOU(PL)/				
HE/SHE/IT/				
THEY	nelep	lelep	we'lep	a'lep
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
I	hele	heile	lakeile	ile
WE	helo	heilo	lakeilo	ilo
YOU(SG)	helen	heilen	lakeilen	ilen
YOU(PL)/				
HE/SHE/IT/				
THEY	helep	heilep	lakeilep	ilep

Simple hypothetical: reflexive voice, vowel-final roots

VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
I	hakhale	hakhale	ikhhele	akhale
WE	hakhalo	hakhalo	ikhhele	akhale
YOU(SG)	hakhalen	hakhalen	ikhelen	akhalen
YOU(PL)/				
HE/SHE/IT/				
THEY	hakhalep	hakhalep	ikhhelep	akhalep

Hypothetical with setting: sample conjugation

VERB:	wat= 'hit, kill'
I	wa'lema
WE	wa'loma
YOU(SG)	wa'lenma
YOU(PL)/	
HE/SHE/IT/	
THEY	wa'lepma

3. Potential Mode

Hortative/imperative: non-reflexive voice, consonant-final roots

VERB: SUBJECT-MODAL CATEGORY*	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I				
WE-NOW-HORT	japik	wasik	jasik	palik
WE-DEF-HORT	japu	wasu	jasu	palu
YOU(SG)NOW-IMP	japuwok	wasuwok	jasuwok	paluwok
YOU(SG)DEF-HORT	japin	wasin	jasin	palin
YOU(PL)NOW-IMP	japnok, japinok	wa'nok	ja'nok	palinok
YOU(PL)DEF-HORT	japni, japini	wa'ni	ja'ni	palini
YOU-DEF-IMP	japupakeik	wasupakeik	jasupakeik	palupakeik
HE/SHE/IT/ THEY-NOW-HORT	japno, japino	wa'no	ja'no	palino
HE/SHE/IT/ THEY-NOW-HORT	japnek, japinek	wa'nek	ja'nek	palinek
HE/SHE/IT/ THEY-DEF-HORT	japuwak	wasuwak	jasuwak	paluwak
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
I	isik	wusik	keik	wulupik
WE-NOW-HORT	isu	wusu	kelu	wulupu
WE-DEF-HORT	isuwok	wusuwok	keluwok	wulupuwok
YOU(SG)NOW-IMP	isin	wusin	kelin	wulupin
YOU(SG)DEF-HORT	y'nok	w'nok	kelinok	wvlvpnok
YOU(PL)NOW-IMP	i'ni	wu'ni	kelini	wulupni, wulupini
YOU(PL)DEF-HORT	isupakeik	wusupakeik	kelupakeik	wulupupakeik
YOU-DEF-IMP	y'no	wv'no	kelino	wvlvpno
HE/SHE/IT/ THEY-NOW-HORT	y'nek	wv'nek	kelinek	wvlvpnek
HE/SHE/IT/ THEY-DEF-HORT	isuwak	wusuwak	keluwak	wulupuwak

* Abbreviations: DEF - deferred; HORT - hortative; IMP - imperative; NOW - immediate.

Hortative/imperative: reflexive voice, consonant-final roots

VERB: SUBJECT-MODAL CATEGORY*	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jakhak	watak	jakhak	palak
WE-NOW-HORT	jakhv	watv	jakhv	paly
WE-DEF-HORT	jakhvok	watvok	jakhvok	palvok
YOU(SG)NOW-IMP	jakhan	watan	jakhan	palan
YOU(SG)DEF-HORT	jakhanok	watanok	jakhanok	palanok
YOU(PL)NOW-IMP	jakhani	watani	jakhani	palani
YOU(PL)DEF-HORT	jakhopakeik	watopakeik	jakhopakeik	palopakeik
YOU-DEF-IMP	jakhano	watano	jakhano	palano
HE/SHE/IT/				
THEY-NOW-HORT	jakhaneik	wataneik	jakhaneik	palaneik
HE/SHE/IT/				
THEY-DEF-HORT	jakhoak	watoak	jakhoak	paloak
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
I	ikhak	wukhak	keilak	
WE-NOW-HORT	ikhv	wukhv	keilv	
WE-DEF-HORT	ikhvok	wukhvok	keilvok	
YOU(SG)NOW-IMP	ikhkan	wukhan	keilan	
YOU(SG)DEF-HORT	ikhkanok	wukhanok	keilanok	
YOU(PL)NOW-IMP	ikhhani	wukhani	keilani	
YOU(PL)DEF-HORT	ikhopakeik	wukhopakeik	keilopakeik	
YOU-DEF-IMP	ikhano	wukhano	keilano	
HE/SHE/IT/				
THEY-NOW-HORT	ikhaneik	wukhaneik	keilaneik	
HE/SHE/IT/				
THEY-DEF-HORT	ikhoak	wukhoak	keiloak	

* Abbreviations: see page 354.

Hortative/imperative: non-reflexive voice, vowel-final roots

VERB: SUBJECT-MODAL CATEGORY	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
I	nak	lak	wesik	asik
WE-NOW-HORT	nv	lv	wesu	asu
WE-DEF-HORT	nvok	lvok	wesuwok	asuwok
YOU(SG)NOW-IMP	nan	lan	eme	ame
YOU(SG)DEF-HORT	nanok	lanok	we'nok	a'nok
YOU(PL)NOW-IMP	nani	lani	we'ni	a'ni
YOU(PL)DEF-HORT	nopakeik	lopakeik	wesupakeik	asupakeik
YOU-DEF-IMP	nano	lano	we'no	a'no
HE/SHE/IT/				
THEY-NOW-HORT	naneK	laneK	we'nek	a'nek
HE/SHE/IT/				
THEY-DEF-HORT	noak	loak	wesuwak	asuwak
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
I	hak	heik	lakeik	ik
WE-NOW-HORT	hv	hv	lakou, lakouk	u
WE-DEF-HORT	hvok	hvok	lakouwok	uwok
YOU(SG)NOW-IMP	han	hein	lakein	in
YOU(SG)DEF-HORT	hanok	heinok	lakeinok	inok
YOU(PL)NOW-IMP	hani	heni	lakeini	ini
YOU(PL)DEF-HORT	hopakeik	hopakeik	lakoupakeik	upakeik
YOU-DEF-IMP	hano	heino	lakeino	ino
HE/SHE/IT/				
THEY-NOW-HORT	haneK	heineK	lakeineK	ineK
HE/SHE/IT/				
THEY-DEF-HORT	hoak	houwak	lakouwak	uwak

Hortative/imperative: reflexive voice, vowel-final roots

VERB: SUBJECT-MODAL CATEGORY	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
I	hakhak	hakhak	ikhak	akhak
WE-NOW-HORT	hakhv	hakhv	ikhv	akhv
WE-DEF-HORT	hakhvok	hakhvok	ikhvok	akhvok
YOU(SG)NOW-IMP	hakhhan	hakhhan	ikhhan	akhhan
YOU(SG)DEF-HORT	hakhhanok	hakhhanok	ikhhanok	akhhanok
YOU(PL)NOW-IMP	hakhhani	hakhhani	ikhhani	akhani
YOU(PL)DEF-HORT	hakhopakeik	hakhopakeik	ikhopakeik	akhopakeik
YOU-DEF-IMP	hakhano	hakhano	ikhano	akhano
HE/SHE/IT/ THEY-NOW-HORT	hakhaneke	hakhaneke	ikhaneke	akhaneke
HE/SHE/IT/ THEY-DEF-HORT	hakhhoak	hakhhoak	ikhhoak	akhoak

Hortative/imperative with intentional: sample conjugations

VERB:	wat= 'hit, kill'	wat= 'hit, kill'	hei= 'put'	hei= 'put'
Singular	non-reflexive	reflexive	non-reflexive	reflexive
Plural	wasik-ylvk	watak-alyvk	heik-ylvk	hakhak-alyvk
FOR YOU(SG) TO	wasuwok-olvk	watvok-olvk	hvok-olvk	hakhvok-olvk
FOR YOU(PL) TO	wa'nok-olvk	watanok-olvk	heinok-olvk	hakhhanok-olvk
FOR HIM/HER/IT THEM TO	wasupakeik-ylvk	watopakeik-ylvk	hopakeik-ylvk	hakhopakeik-ylvk
	wasuwak-alyvk	watoak-alyvk	hoak-alyvk	hakhhoak-alyvk

Hortative/imperative with facilitative: sample conjugations	wat= 'hit, kill'	hei= 'put'
I	non-reflexive	non-reflexive
WE	wasik-en	heik-en
YOU(SG)	wasuwok-en	hakhvok-en
YOU(PL)	wa'nok-en	hakhhanok-en
HE/SHE/IT/THEY	wasupakeik-en	hopakeik-en
	wasuwak-en	houwak-en

Future: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
SUBJECT				
Singular	japikin	wasikin	jasikin	palikin
Plural	japukun	wasukun	jasukun	palukun
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlp= 'exit'
Singular	isikin	wusikin	kelikin	wulupikin
Plural	isukun	wusukun	kelukun	wulupukun

Future: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Singular	jakhekein	watekein	jakhekein	palekein
Plural	jakhokoin	watokoin	jakhokoin	palokoin
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	
Singular	ikhekein	wukhekein	keilekein	
Plural	ikhokoin	wukhokoin	keilokoin	

Future: non-reflexive voice, vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	a=, at= 'acquire'
Singular	nekein	lekein	wesikin	asikin
Plural	nokoin	lokoin	wesukun	asukun
VERB:	ha= 'see'	hei= 'put'	lakei= 'ascend'	i= 'say'
Singular	hekein	hekein	lakekin	ikin
Plural	hokoin	hokoin	lakekun	ukun

Future: reflexive voice, vowel-final roots

VERB	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Singular	hakhekein	hakhekein	ikhekein	akhekein
Plural	hakhokoin	hakhokoin	ikhokoin	akhokoin

Future with setting: sample conjugations

VERB:	wat= 'hit, kill'	wat= 'hit, kill'	hei= 'put'
Singular	non-reflexive	reflexive	reflexive
Plural	wasikinmo	watekinmo	hakhekeinmo
	wasukunmo	watokoinmo	hakhokoinmo
	Remote future: consonant-final roots		
VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'
Non-reflex	japhvp	wathvp	jathvp
Reflexive	jakhvkvp	watvkvp	jakhvkvp
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'
Non-reflex	ythvp	wvthvp	kelhvp
Reflexive	ikhvkvp	wukhvkvp	keilvkvp
	Remote future: vowel-final roots		
VERB:	nek=, na= 'eat'	la= 'go'	lakei= 'ascend'
	nvkkvp	lakvp	lakekvp
VERB:	ha= 'see'	hei= 'put'	a=, at= 'acquire'
Non-reflex	hvkvp	hvkvp	akvp
Reflexive	hakhakvp, hakhvkvp	hakhakvp, hakhvkvp	akhakvp
	Potential gerund: consonant-final roots		
VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'
Non-reflex	japu	wasu	jasu
Reflexive	jakha	wata	jakha
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'
Non-reflex	isu	wusu	kelu
Reflexive	ikha	wukha	keila
			wulupu
			xx

Potential gerund: vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	lakei= 'ascend'
	na	la	wesu	lakou, lakouk
VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Non-reflex	ha	hou	u	asu
Reflexive	hakha	hakha	ikha	akha

Potential gerund with setting: sample conjugations

VERB:	wat= 'hit, kill'	wat= 'hit, kill'	hei= 'put'	hei= 'put'
Non-reflexive	non-reflexive	reflexive	non-reflexive	reflexive
	wasumo	watamo	houmo	hakhamo

Predictive (based on potential gerund): consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Non-reflex	japusak	wasusak	jasusak	palusak
Reflexive	jakhasak	watasak	jakhasak	palasak
VERB:	yk= 'make net'	wvk= 'chop'	'keil= 'hang up'	wvlvp= 'emit'
Non-reflex	isusak	wususak	kelusak, keilusak	wulupusak
Reflexive	ikhasak	wukhasak	keilasak	xx

Predictive: vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	lakei= 'ascend'
	nasak	lasak	wesusak	lakousak
VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Non-reflex	hasak	housak	usak	asusak
Reflexive	hakhasak	hakhasak	ikhasak	akhasak

Preclusive: consonant-final roots

VERB:
Non-reflex
Reflexive

jap= 'fight'
japvhvk, japhvhvk
jakhahvk

VERB:
Non-reflex
Reflexive

yk= 'make net'
ysvhvk, ythvhvk
ikhahvk

wat= 'hit, kill'
wasvhvk, wathvhvk
watahvk

wk= 'chop'
wsvvhvk, wvthvhvk
wukhahvk

jak= 'plant'
jasvhvk, jathvhvk
jakhahvk

keil= 'hang up'
kelvhvk
kellahvk

wlvp= 'exit'
wlvphvhvk, wlvphvhvk
xx

pal= 'sever'
palvhvk
palahvk

Preclusive: vowel-final roots

VERB:
Non-reflex
Reflexive

nek=, na= 'eat'
nahvk

ha= 'see'
hahvk
hakhahvk

wa=, wet= 'come'
wesvhvk

i= 'say'
vhvk
ikhahvk

lakei= 'ascend'
lakvhvk

a=, at= 'acquire'
asvhvk
akhahvk

Potential stem: consonant-final roots

VERB:
Non-reflex
Reflexive

jap= 'fight'
japi
jakha

VERB:
Non-reflex
Reflexive

yk= 'make net'
isi
ikha

wat= 'hit, kill'
wasi
wata

wk= 'chop'
wusi
wukha

jak= 'plant'
jasi
jakha

kell= 'hang up'
keli
kella

wlvp= 'exit'
wulupi
xx

pal= 'sever'
pali
pala

Potential stem: vowel-final roots

VERB:
Non-reflex
Reflexive

nek=, na= 'eat'
na

ha= 'see'
ha
hakha

wa=, wet= 'come'
xx

i= 'say'
i
ikha

lakei= 'ascend'
lakei

a=, at= 'acquire'
asi
akha

pal= 'sever'
pali
pala

Portentive (based on potential stem): consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Non-reflex	japi-noko	wasi-noko	jasi-noko	pali-noko
Reflexive	jakha-noko	wata-noko	jakha-noko	pala-noko
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Non-reflex	isi-noko	wusi-noko	keli-noko	wulupi-noko
Reflexive	ikha-noko	wukha-noko	keila-noko	xx

Portentive (based on potential stem): vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	lakei= 'ascend'
	na-noko	la-noko	wesi-noko	lakei-noko
VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Non-reflex	ha-noko	hei-noko	i-noko	asi-noko
Reflexive	hakha-noko	hakha-noko	ikha-noko	akha-noko

Basic participle (potential): consonant-final roots

VERB	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Non-reflex	japyk	watyk	jatyk	palyk
Reflexive	jakhalyk	watylyk	jakhalyk	palylyk
VERB:	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Non-reflex	ytyk	wtyk	kelyk	wvlvpyk
Reflexive	ikhlylyk	wukhylyk	keilylyk	xx

Basic participle (potential): vowel-final roots

VERB:	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'	lakei= 'ascend'
	nylyk	lylyk	wytyk	lakelyk
VERB:	ha= 'see'	hei= 'put'	i= 'say'	a=, at= 'acquire'
Non-reflex	hylyk	hylyk	ylyk	atyk
Reflexive	hakhalyk	hakhalyk	ikhlylyk	akhalyk

Perfect participle (potential): consonant-final roots

VERB:

Non-reflex
Reflexivejap= 'fight'
japluk, japiluk
jakhelokwat= 'hit, kill'
wa'luk
watalokjak= 'plant'
ja'luk
jakhelokpal= 'sever'
palluk
palalok

VERB:

Non-reflex
Reflexiveyk= 'make net'
i'luk
ikhelokwvk= 'chop'
wu'luk
wukhalokkeil= 'hang up'
keiluk
keitalokwvlvp= 'exit'
wulupluk
xx

Perfect participle (potential): vowel-final roots

VERB:

nek=, na= 'eat'
nalokla= 'go'
(lalok)*wa=, wet= 'come'
we'luk*lakei= 'ascend'
**

VERB:

Non-reflex
Reflexiveha= 'see'
halok
hakhelokhei= 'put'
heluk, helvk
hakheloki= 'say'
iluk, ylvk
ikheloka=, at= 'acquire'
a'luk
akhelok

Manner participle (potential): consonant-final roots***

VERB:

jap= 'fight'
japokowat= 'hit, kill'
watokojak= 'plant'
jakopal= 'sever'
paloko

VERB:

yk= 'make net'
ikhokowvk= 'chop'
wukhokokeil= 'hang up'
keiloko

Past participle (potential) consonant-final roots***

VERB:

jap= 'fight'
xxwat= 'hit, kill'
watekjak= 'plant'
jako***pal= 'sever'
palek

VERB:

yk= 'make net'
ukuwvk= 'chop'
wuku, wvtykkeil= 'hang up'
keilikkvt= 'cut up'
kvtyk

* Rarely used; the basic participle is commonly substituted.

** Not recorded.

These participles do not occur with contrastive reflexive voice forms, nor do they occur for minor class verbs, including the verbs with vowel-final roots.

**** The manner participle form is used instead of a distinctive past participle form for all verbs of this conjugation class: wetako 'roasted'; isako 'steamed'; tako 'born'; 'dug'.

B. FORMS OF *wela*= 'continue' AND CONSTRUCTIONS WITH THAT VERB AS THE AUXILIARY MARKING PROGRESSIVE ASPECT

1. Factive Mode

Present/past progressive: non-reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
I	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
YOU(SG)	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
WE	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
YOU(PL)	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Present only				
HE/SHE/IT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
THEY	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Past only				
HE/SHE/IT	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
THEY	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
VERB: yk= 'make net'				
I	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
YOU(SG)	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
WE	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
YOU(PL)	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Present/past				
HE/SHE/IT	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
THEY	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Present only				
HE/SHE/IT	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
THEY	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
Past only				
HE/SHE/IT	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'
THEY	yk= 'make net'	wvk= 'chop'	keil= 'hang up'	wvlvp= 'exit'

* Alternate forms with the auxiliary in the form -laky also occur.

Present/past progressive: reflexive voice, consonant-final roots

VERB:	jap= 'fight'	wat= 'hit, kill'	jak= 'plant'	pal= 'sever'
Present/past				
I	jakhykhy-laky	watykhy-laky	jakhykhy-laky	palykhy-laky
YOU(SG)	jakhykhy-laken	watykhy-laken	jakhykhy-laken	palykhy-laken
WE	jakhvkv-lako	watvkv-lako	jakhvkv-lako	palvkv-lako
YOU(PL)	jakhvkv-lakep	watvkv-lakep	jakhvkv-lakep	palvkv-lakep
Present only				
HE/SHE/IT	jakhaly'-lako	watyly'-lako	jakhaly'-lako	palyly'-lako
THEY	jakhaly'-lay*	watyly'-lay*	jakhaly'-lay*	palyly'-lay*
Past only				
HE/SHE/IT	jakhykhy-laka	watykhy-laka	jakhykhy-laka	palykhy-laka
THEY	jakhykhy-lakeikha	watykhy-lakeikha	jakhykhy-lakeikha	palykhy-lakeikha
VERB:	vk= 'make net'	wvk= 'chop'	keil= 'hang up'	
Present/past				
I	ikhykhy-laky	wukhykhy-laky	keilykhy-laky	
YOU(SG)	ikhykhy-laken	wukhykhy-laken	keilykhy-laken	
WE	ikhvkv-lako,	wukhvkv-lako,	keilvkv-lako	
YOU(PL)	ikhvkv-lakep,	wukhvkv-lakep,	keilvkv-lakep	
	ikhvkhy-lakep	wukhykhy-lakep		
Present only				
HE/SHE/IT	ikhlyly'lako	wukhyly'-lako	keilyly'-lako	
THEY	ikhlyly'-lay*	wukhyly'-lay*	keilyly'-lay*	
Past only				
HE/SHE/IT	ikhkhy-laka	wukhykhy-laka	keilykhy-laka	
THEY	ikhkhy-lakeikha	wukhykhy-lakeikha	keilykhy-lakeikha	

* Alternate forms with the auxiliary in the form -laky also occur.

Present/past progressive: non-reflexive voice, vowel-final roots

VERB:	wela=, lokoi= 'continue'	nek=, na= 'eat'	la= 'go'	wa=, wet= 'come'
	Present/past			
I	welaky	nykky-laky	laka-laky	waka-laky
YOU(SG)	welaken	nykky-laken	laka-laken	waka-laken
WE	welako	nykky-lako	laka-lako	waka-lako
YOU(PL)	welakep	nykky-lakep	laka-lakep	waka-lakep
	Present only			
HE/SHE/IT	wetek	nyly'-lako	lyly'-lako	wyty'-lako
THEY	wetek	nyly'-lay*	lyly'-lay*	wyty'-lay*
	Past only			
HE/SHE/IT	welaka	nykky-laka	laka-laka	waka-laka
THEY	welakeikha	nykky-lakeikha	laka-lakeikha	waka-lakeikha
VERB:	ha= 'see'; hei= 'put'	lakei= 'ascend'	i= 'say'	a=, at= 'acquire'
	Present/past			
I	hykhy-laky	lakekhy-laky	ykhy-laky	aka-laky
YOU(SG)	hykhy-laken	lakekhy-laken	ykhy-laken	aka-laken
WE	hvkvy-lako	lakekhy-lako**	vkvy-lako	aka-lako
YOU(PL)	hvkvy-lakep	lakekhy-lakep	vkvy-lakep	aka-lakep
	Present only			
HE/SHE/IT	hyly'-lako	lakely'-lako	lyly'-lako	aty'-lako
THEY	hyly'-lay*	lakely'-lay*	lyly'-lay*	aty'-lay*
	Past only			
HE/SHE/IT	hykhy-laka	lakekhy-laka	ykhy-laka	aka-laka
THEY	hykhy-lakeikha	lakekhy-lakeikha	ykhy-lakeikha	aka-lakeikha

* Alternate forms with the auxiliary in the form -laky also occur.

** Forms like lakvy-lako are not in the checked data sheets, but may indeed occur.

Present/past progressive: reflexive voice, vowel-final roots

VERB:	ha= 'see'; hei= 'put'	i= 'say'	a=, at= 'acquire'
	Present/past		
I	hakhykhy-laky	ikhykhy-laky	akhykhy-laky
YOU(SG)	hakhykhy-laken	ikhykhy-laken	akhykhy-laken
WE	hakvkv-lako,	ikhvkv-lako,	akhvkv-lako,
	hakhykhy-lako	ikhykhy-lako	akhykhy-lako
YOU(PL)	hakvkv-lakep,	ikhvkv-lakep,	akhvkv-lakep,
	hakhykhy-lakep	ikhykhy-lakep	akhykhy-lakep
	Present only		
HE/SHE/IT	hakhaly'-lako	ikhlyl'-lako	akhalyl'-lako
THEY	hakhaly'-lay*	ikhlyl'-lay*	akhalyl'-lay*
	Past only		
HE/SHE/IT	hakhykhy-laka	ikhykhy-laka	akhykhy-laka
THEY	hakhykhy-lakeikha	ikhykhy-lakeikha	akhykhy-lakeikha

Progressive with setting, sample conjugations

VERB:	wela=, lokoi=	wat= 'hit, kill'
	'continue'	
	Present/past (usually understood as past)	
I	welakyma	wathy-lakyma
WE	welakoma	wathy-lakoma
YOU(SG)	welakenma	wathy-lakenma
YOU(PL)	welakepma	wathy-lakepma
	Present (or with modal meaning determined by superordinate verb), most common in spatial sense. This is the only suffixation occurring with these.	
HE/SHE/IT	wete'ma	waty'-lakoma
THEY	wete'ma	waty'-layma
	Past only	
HE/SHE/IT	welakama	wathy-lakama
THEY	welakeikhama	wathy-lakeikhama

* Alternate forms with the auxiliary in the form -laky also occur.

Progressive aspect with other factive categories: sample conjugations

Progressive aspect forms occur for all finite factive categories except normal aspect. Normal aspect forms occur for the primary verb *wela=*, *lokoi=* 'continue', but for no periphrastic progressive aspect forms except prohibitives.

Progressive with prior action, sample conjugations

VERB:	wat= 'hit, kill'	wat= 'hit, kill'	hei= 'put'	hei= 'put'
I	non-reflexive	reflexive	non-reflexive	reflexive
WE	wathy-lakytyk	watykhy-lakytyk	hakhykhy-lakytyk	hakhykhy-lakytyk
YOU(SG)	wathy-lakosik	watykhy-lakosik	hakhykhy-lakosik	hakhykhy-lakosik
YOU(PL)	wathy-lakattik	watykhy-lakattik	hakhykhy-lakattik	hakhykhy-lakattik
HE/SHE/IT	wathy-lakasip	watykhy-lakasip	hakhykhy-lakasip	hakhykhy-lakasip
THEY	wathy-lakosik	watykhy-lakosik	hakhykhy-lakosik	hakhykhy-lakosik
	wathy-lakeikhasik	watykhy-lakeikhasik	hakhykhy-lakeikhasik	hakhykhy-lakeikhasik

Progressive, remote past

VERB:	wela=, lokoi=	wela=, lokoi=	wela=, lokoi=
I	'continue'	'continue'	'continue'
WE	welakaki	welakakisi	welakakusik
YOU(SG)	welakaku	welakakusik	welakakittik
YOU(PL)	welakakin	welakakittik	welakakisi
HE/SHE/IT	welakakip	welakakisi	welakeikhesik
THEY	welakeikhe	welakeikhesik	welakeikhesik
	welakoukwha	welakoukwhasik	welakoukwhasik

Progressive, remote past, setting

VERB:	wela=, lokoi=	wela=, lokoi=	wela=, lokoi=
I	'continue'	'continue'	'continue'
WE	welakakimo	welakakisi'mo	welakakusik'mo
YOU(SG)	welakakumo	welakakittik'mo	welakakisi'mo
YOU(PL)	welakakipmo	welakakisi'mo	welakeikhesik'mo
HE/SHE/IT	welakeikhomo	welakeikhesik'mo	welakeikhesik'mo
THEY	welakoukwhama	welakeikhasi'mo	welakeikhasi'mo

Progressive, prior, setting

VERB:	wela=, lokoi=	wela=, lokoi=	wela=, lokoi=
I	'continue'	'continue'	'continue'
WE	welakakimo	welakakisi'mo	welakakusik'mo
YOU(SG)	welakakumo	welakakittik'mo	welakakisi'mo
YOU(PL)	welakakipmo	welakakisi'mo	welakeikhesik'mo
HE/SHE/IT	welakeikhomo	welakeikhesik'mo	welakeikhesik'mo
THEY	welakoukwhama	welakeikhasi'mo	welakeikhasi'mo

Progressive, remote past, prior action with setting: sample conjugations

VERB:	wela=, lokoi= 'continue'	wat= 'hit, kill' (non-reflexive voice)
I	welakakisi'mo	wathy-lakakisi'mo
WE	welakakusi'mo	wathy-lakakusi'mo
YOU(SG)	welakakitti'mo	wathy-lakakitti'mo
YOU(PL)	welakakisipmo	wathy-lakakisipmo
HE/SHE/IT	welakeikhesi'mo	wathy-lakeikhesi'mo
THEY	welakoukwhasi'mo	wathy-lakoukwhasi'mo

Normal aspect forms of wela-, lokoi= 'continue'

	Normal aspect	Normal, prior	Remote past, normal, prior
I	welakytek	welakytesik	welakakytesik
WE	welakotek	welakotesik	welakakutesik
YOU(SG)	welakatttek	welakatttik	welakakytetik
YOU(PL)	welakasep	welakatesip	welakakytesip
HE/SHE/IT	welakatek	welakatesik	welakeikhetesik
THEY	welakeikhatek	welakeikhatesik	welakoukwhatesik

	Normal with setting	Normal with prior and setting	Remote past, normal, prior and setting
I	welakyte'ma (etc.)	welakytesi'mo (etc.)	welakakytesi'mo (etc.)

Progressive prohibitive: sample conjugations

VERB:	wela=, lokoi= 'continue'	wat= 'hit, kill'
YOU(SG)	lokokvn	non-reflexive
YOU(PL)	lokokvp	wathy-lokokvn
		wathy-lokokvp

Progressive prohibitive, normal aspect: sample conjugations

VERB:	wela=, lokoi= 'continue'	wat= 'hit, kill'
YOU(SG)	lokokvttek	non-reflexive
YOU(PL)	lokokvsep	wathy-lokokvttek
		wathy-lokokvsep

Other factive categories of *wela=*, *loko=* 'continue' not observed with periphrastic constructions marking progressive aspect of other verbs:

Remonstrative
welaka hvk
 Abnormal continuative
welako

Conditional
*wetek halok**
 Coincident progressive
*wetek-kkolek**

Singular
 Plural
 Coincident punctiliar**
*welakanem***
*welakvnm, lokokvnm***

Factive gerund
welakv, lokokv
 Iterative participle
welayk

2. Hypothetical Mode

Progressive, hypothetical

VERB:	<i>wela=, loko=</i>	<i>wat= 'hit, kill'</i>	Progressive, hypothetical with setting
<i>I</i>	'continue'	non-reflexive	<i>wela=, loko=</i>
<i>WE</i>	<i>lokoile</i>	<i>wathy-lokoile</i>	'continue'
<i>YOU(SG)</i>	<i>lokoilo</i>	<i>wathy-lokoilo</i>	<i>lokoilema</i>
<i>HE/SHE/IT/</i>	<i>lokoilen</i>	<i>wathy-lokoilen</i>	<i>lokoiloma</i>
<i>THEY</i>	<i>lokoilep</i>	<i>wathy-lokoilenma</i>	<i>lokoilenma</i>
			<i>lokoilepma</i>
			<i>wathy-lokoilepma</i>

* Note that these forms are irregular.

** These forms occur only in a prohibitive sense with this verb; *wete'ma* the present progressive form in third person is used with all person and number categories to refer to simultaneous events.

3. Potential Mode

Progressive hortative/imperative: sample conjugations

VERB:

I
 WE-NOW-HORT
 WE-DEF-HORT
 YOU(SG)NOW-IMP
 YOU(SG)DEF-HORT
 YOU(PL)NOW-IMP
 YOU(PL)DEF-HORT
 YOU-DEF-IMP
 HE/SHE/IT/THEY-NOW-HORT
 HE/SHE/IT/THEY-DEF-HORT

wela=, lokoi=
 'cont'nuu'
 lokeik
 lokouk, lokou
 lokouwok
 lokon
 lokoinok
 lokoni
 lokopakeik
 lokoino
 lokoinok
 lokouwak

wat= 'hit, kill'
 non-reflexive
 wathy-lokeik
 wathy-lokouk, wathy-lokou
 wathy-lokouwok
 wathy-lokon
 wathy-lokoinok
 wathy-lokoni
 wathy-lokopakeik
 wathy-lokoino
 wathy-lokoinok
 wathy-lokouwak

Progressive intentional: sample conjugations

VERB:

Singular
 Plural
 FOR YOU(SG) TO
 FOR YOU(PL) TO
 FOR HIM/HER/THEM TO

wela=, lokoi=
 'cont'nuu'
 lokeik-yivk
 lokouwok-olvk
 lokoinok-olvk
 lokopakeik-yivk
 lokouwak-olvk

wat= 'hit, kill'
 non-reflexive
 wathy-lokeik-yivk
 wathy-lokouwok-olvk
 wathy-lokoinok-olvk
 wathy-lokopakeik-yivk
 wathy-lokouwak-olvk

Progressive facilitative: sample conjugations

VERB:

I
 WE
 YOU(SG)
 YOU(PL)
 HE/SHE/IT/THEY

wela=, lokoi=
 'cont'nuu'
 lokeik-en
 lokouwok-en
 lokoinok-en
 lokopakeik-en
 lokouwak-en

wat= 'hit, kill'
 non-reflexive
 wathy-lokeik-en
 wathy-lokouwok-en
 wathy-lokoinok-en
 wathy-lokopakeik-en
 wathy-lokouwak-en

	Progressive future: sample conjugations	Progressive future with setting
VERB:	wela=, lokoi= 'continue', lokokin lokokun	wela-, lokoi= 'continue' lokokinmo lokokunmo
Singular	wat= 'hit, kill' non-reflexive wathy-lokokin	wat= 'hit, kill' non-reflexive wathy-lokokinmo
Plural	wathy-lokokun	wathy-lokokunmo
	Progressive remote future: sample conjugations	
VERB:	wela=, lokoi= 'continue', lokokvp	
	Progressive potential gerund	Progressive, potential gerund, setting
VERB:	wela=, lokoi= 'continue', lokouk, lokou	wela-, lokoi= 'continue', lokoumo
	Progressive predictive	Progressive preclusive
VERB:	wela=, lokoi= 'continue', lokousak	wela-, lokoi= 'continue', lokohvk, welahvk
	Progressive portentive	Progressive basic participle*
VERB:	wela=, lokoi= 'continue', lokoi-noko	wela-, lokoi= 'continue', lokolyk
	Progressive prior (occurs only with 'continue' and progressive forms)	
VERB:	wela=, lokoi= 'continue', lokoppik	wela-, lokoi= 'continue', lokolyk

*This form of wela=, lokoi= 'continue' and these periphrastic constructions with other verbs function importantly in expressions of action simultaneous with another action by the same subject. See Chapter 5.

C. INNER LAYER AUXILIARIES AND OTHER FORMS AND CONSTRUCTIONS MARKING PERSONAL OBJECTS

1. Personal object prefixes with the verb wat= 'hit, kill'

Simple factive: See Table 5, p.100.

	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
Remote past						
OBJECTS:						
SUBJECTS						
I	xx	xx	hathiki	hinathiki	wathiki	inathiki
WE	xx	xx	hathuku	hinathuku	wathuku	inathuku
YOU(SG)	nathikin	ninathikin	xx	xx	wathikin	inathikin
YOU(PL)	nathikip	ninathikip	xx	xx	wathikip	inathikip
HE/SHE/IT	nathikhe	ninathikhe	hathikhe	hinathikhe	wathikhe	inathikhe
THEY	nathukwaha	ninathukwaha	hathukwaha	hinathukwaha	wathukwaha	inathukwaha
Potential mode: hortative/imperative						
I	xx	xx	hasik	hinasik	wasik	inasik
WE-NOW-HORT	xx	xx	hasu	hinasu	wasu	inasu
WE-DEF-HORT	xx	xx	hasuwok	hinasuwok	wasuwok	inasuwok
YOU(SG)NOW-IMP	nasin	ninasin	xx	xx	wasin	inasin
YOU(SG)DEF-HORT	na'nok	nina'nok	xx	xx	wa'nok	ina'nok
YOU(PL)NOW-IMP	na'ni	nina'ni	xx	xx	wa'ni	ina'ni
YOU(PL)DEF-HORT	nasupakeik	ninasupakeik	xx	xx	wasupakeik	inasupakeik
YOU-DEF-IMP	na'no	nina'no	xx	xx	wa'no	ina'no
HE/SHE/IT/						
THEY-NOW-HORT	na'nek	nina'nek	ha'nek	hina'nek	wa'nek	ina'nek
HE/SHE/IT/						
THEY-DEF-HORT	nasuwak	ninasuwak	hasuwak	hinasuwak	wasuwak	inasuwak

All other categories of this verb in all event modes and in unmarked aspect as well as progressive aspect forms are similarly inflected, following the pattern displayed for this verb with unmarked third person singular object in sections A and B of this appendix, **except** that manner participles marked for personal objects have been only rarely observed, and past participles and reflexive voice forms do not occur marked for personal objects.

2. Personal Object Affixes with the Verb hei= 'put'

Simple factive: See Table 6, p.102.

Remote past						
OBJECTS: SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx	xx	hakesiki	hinakesiki	hesiki	hisasiki
WE	xx	xx	hakesuku	hinakesuku	hesuku	hisasuku
YOU(SG)	hanhikin, nakesikin	hinanhikin, ninakesikin	xx	xx	hesikin	hisasikin
(newer form)	hanhikip, nakesikip	hinanhikip, ninakesikip	xx	xx	hesikip	hisasikip
YOU(PL)	hanhikhe, nakesikhe	hinanhikhe, ninakesikhe	hakesikhe	hinakesikhe	hesikhe	hisasikhe
(newer form)	hanhukwha, nakesukwha	hinanhukwha, ninakesukwha	hakesukwha	hinakesukwha	hesukwha	hisasukwha
THEY						
(newer form)						

Normal aspect

I	xx	xx	hakakYTEK	hinakakYTEK	hykytek	hisykytek
WE	xx	xx	hakokOTEK	hinakokOTEK	hokotek	hisokotek
YOU(SG)	hanhittek, nakekettek	hinanhittek, ninakekettek	xx	xx	hekettek	hisekettek
(newer form)	hanhisep, nakekeseP	hinanhisep, ninakekeseP	xx	xx	hekeseP	hisekeseP
YOU(PL)	hanheteK, nakeikhetek	hinanheteK, ninakeikhetek	hakeikhetek	hinakeikhetek	heikhetek	hisikhetek
(newer form)	hanhatek, nakekatek	hinanhatek, ninakekatek	hakekatek	hinakekatek	hekatek	hisekatek
HE/SHE/IT						
(newer form)						
THEY						
(newer form)						

Forms of hei= 'put' marked for personal objects with stems ending in n (in the older first person object forms) are inflected regularly like verbs with continuant-final roots, like pal= 'sever' in the paradigms in sections A and B of this appendix. The third person plural object forms are inflected like ha= 'see'. The second person object forms and the newer first person object forms are inflected, in general, like hei= 'put' with implicit third person singular object.

Prior action forms of hei= 'put'

OBJECTS: SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx	xx	hakaktyyk	hinakaktyyk	hykytyk	hisvykytyk
WE	xx	xx	hakokosik	hinakokosik	hokosik	hisokosik
YOU(SG) (newer form)	hanhettik, nakekettik	hinanhettik, ninakekettik	xx	xx	hekettik	hisekettik
YOU(PL) (newer form)	hanhesip, nakesesip	hinanhesip, ninakesesip	xx	xx	hekesip	hisekesip
HE/SHE/IT (newer form)	hanhesik, nakeikhesik	hinanhesik, ninakeikhesik	hakeikhesik	hinakeikhesik	heikhesik	hisikhesik
THEY (newer form)	hanhasik, nakekasik	hinanhaskik, ninakekasik	hakekasik	hinakekasik	hekasik	hisekasik
Prohibitive forms of hei= 'put'						
YOU(SG) (newer form)	hanhvn, nakakvn	hinanhvn, ninakakvn	xx	xx	hvkvn	hisvkvn
YOU(PL) (newer form)	hanhvp, nakakvp	hinanhvp, ninakakvp	xx	xx	hvkvp	hisvkvp
Abnormal continuative forms of hei= 'put'						
Singular (newer form)	hanho, nakeikho	hinanho, ninakeikho	hakeikho	hinakeikho	heikho	hisikho
Plural (newer form)	hanho, nakvvy	hinanho, ninakvvy	hakvvy	hinakvvy	heikho, hvky	hisikho, hisvvy
Factive subordinate conditional forms of hei= 'put'						
Singular (newer form)	hanhe-halok, nakeikhe- halok	hinanhe-halok, ninakeikhe- halok	hakeikhe- halok	hinakeikhe- halok	heikhe- halok	hisikhe- halok
Plural (newer form)	hanhv-salok, nakvkv-salok	hinanhv-salok, ninakvkv-salok	hakvkv-salok	hinakvkv-salok	hvkv-salok	hisvkv-salok

Factive gerund forms of hei= 'put'

OBJECTS: ME US
 hanhv, hinanhv,
 nakakv ninakakv
 (newer form)

Iterative participle forms of hei= 'put'

(newer form) hanhyk, hinanhvk,
 nakayk ninakayk

Hypothetical mode forms of hei= 'put'

SUBJECTS
 I xx
 WE xx
 YOU(SG) hanilen,
 (newer form) nakeilen
 YOU(PL)/HE/SHE/ ninakeilen
 IT/THEY hanilep,
 nakeilep

Potential mode, hortative/imperative forms of hei= 'put'

I xx
 WE-NOW-HORT xx
 WE-DEF-HORT xx
 YOU(SG)NOW-IMP xx
 (newer form) hanin,
 YOU(SG)DEF-HORT nakein,
 (newer form) haninok,
 YOU(PL)NOW-IMP nakeinok
 (newer form) hanini,
 YOU(PL)DEF-HORT nakeini
 (newer form) hanupakeik,
 YOU-DEF-IMP nakopakeik
 (newer form) hanino,
 HE/SHE/IT/THEY- nakeino
 NOW-HORT haninek,
 HE/SHE/IT/THEY- nakeinek
 DEF-HORT hanuwak,
 nakouwak

YOU(SG)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
Iterative participle forms of hei= 'put'	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
Hypothetical mode forms of hei= 'put'	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
SUBJECTS	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
I	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
WE	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(SG)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(PL)/HE/SHE/	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
IT/THEY	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
Potential mode, hortative/imperative forms of hei= 'put'	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
I	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
WE-NOW-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
WE-DEF-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(SG)NOW-IMP	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(SG)DEF-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(PL)NOW-IMP	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU(PL)DEF-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
YOU-DEF-IMP	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
(newer form)	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
HE/SHE/IT/THEY-	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
NOW-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
HE/SHE/IT/THEY-	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv
DEF-HORT	hakov	YOU(PL)	hinakakv	HIM/HER/IT	hvkv	THEM	hisvkv

Potential mode, future forms of hei= 'put'

OBJECTS:	ME	US	YOU (SG)	YOU (PL)	HIM/HER/IT	THEM
Singular (newer form)	hanikin, nakekin	hinanikin, ninakakin	hakekin	hinakakin	hekein	hisekein
Plural (newer form)	hanukun, nakakun	hinanukun, ninakakun	hakakun	hinakakun	hokoin	hisokoin
Potential mode, remote future forms of hei= 'put'						
(newer form)	hanhvp, nakakvp	hinanhvp, ninakakvp	hakakvp	hinakakvp	hvkvp	hisakvp
Potential gerund forms of hei= 'put'						
(newer form)	hanu, nakou, nakou	hinanu, ninakou, ninakou	hakou, hakou	hinakou, hinakou	hou, houk	hisa
Potential predictive forms of hei= 'put'						
(newer form)	hanusak, nakousak	hinanusak, ninakousak	hakousak	hinakousak	housak	hisasak
Potential preclusive forms of hei= 'put'						
(newer form)	hanvhvk, nakvhvk	hinanhvhvk, ninakvhvk	hakvhvk	hinakvhvk	hvhvk	hisahvk
Potential stem forms of hei= 'put'						
(newer form)	hani, nakei	hinani, ninakei	hakei	hinakei	hei	hisa
Potential basic participle forms of hei= 'put'						
(newer form)	hanyk, nakelyk	hinanyk, ninakelyk	hakelyk	hinakelyk	hylyk	hisilyk

Potential perfect participle forms of hei= 'put' (Manner, past participles do not occur.)

OBJECTS: SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
(newer form)	haniluk nakeluk	hinaniluk ninakeluk	hakeluk	hinakeluk	heluk	hisalok
Present/past progressive forms of hei= 'put'						
Present/past						
I	xx	xx	hakekhy-laky	hinakekhy-laky	hykhy-laky	hisykhy-laky
YOU(SG)	hanhy-laken	hinanhy-laken	xx	xx	hykhy-laken	hisykhy-laken
(newer form)	nakekhy-laken	ninakekhy-laken				
WE	xx	xx	hakekhy-lako	hinakekhy-lako	hvkv-lako	hisvkv-lako
YOU(PL)	hanhy-lakep	hinanhy-lakep	xx	xx	hvkv-lakep	hisvkv-lakep
(newer form)	nakekhy-lakep	ninakekhy-lakep				
Present only						
HE/SHE/IT	hany'-lako	hinany'-lako	hakely'-lako	hinakely'-lako	hyly'-lako	hisyly'-lako
(newer form)	nakely'-lako	ninakely'-lako				
THEY	hany'-lay	hinany'-lay	hakely'-lay	hinakely'-lay	hyly'-lay	hisyly'-lay
(newer form)	nakely'-lay	ninakely'-lay				
Past only						
HE/SHE/IT	hanhy-laka	hinanhy-laka	hakekhy-laka	hinakekhy-laka	hykhy-laka	hisykhy-laka
(newer form)	nakekhy-laka	ninakekhy-laka				
THEY	hanhy-lakeikha	hinanhy-lakeikha	hakekhy-lakeikha	hinakekhy-lakeikha	hykhy-lakeikha	hisykhy-lakeikha
(newer form)	nakekhy-lakeikha	ninakekhy-lakeikha				

3. Personal Object Prefixes with the Verb *ha= 'see'*

Simple factive: See Table 7, p.108.

	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
Remote past						
OBJECTS:						
SUBJECTS						
I	xx	xx	heasiki	hisasiki	hasiki	isasiki
WE	xx	xx	heasuku	hisasuku	hasuku	isasuku
YOU(SG)	neasikin	nisasikin	xx	xx	hasikin	isasikin
YOU(PL)	neasikip	nisasikip	xx	xx	hasikip	isasikip
HE/SHE/IT	neasikhe	nisasikhe	heasikhe	hisasikhe	hasikhe	isasikhe
THEY	neasukwaha	nisasukwaha	heasukwaha	hisasukwaha	hasukwaha	isasukwaha
Normal aspect						
I	xx	xx	heykytek	hisykytek	hykytek	isykytek
WE	xx	xx	heokotek	hisokotek	hokotek	isokotek
YOU(SG)	neekettek	nisekettek	xx	xx	hekettek	isekettek
YOU(PL)	neekesep	nisekesep	xx	xx	hekese	isekesep
HE/SHE/IT	neekhetek	nisekhetek	heekhetek	hisikhetek	heikhetek	isikhetek
THEY	neekatek	nisekatek	heekatek	hisekatek	hekatek	isekatek
Prior action						
I	xx	xx	heykytyk	hisykytyk	hykytyk	isykytyk
WE	xx	xx	heokosik	hisokosik	hokosik	isokosik
YOU(SG)	neekettik	nisekettik	xx	xx	hekettik	isekettik
YOU(PL)	neekesip	nisekesip	xx	xx	hekeseip	isekesip
HE/SHE/IT	neekhesik	nisekhesik	heekhesik	hisikhesik	heikhesik	isikhesik
THEY	neekasik	nisekasik	heekasik	hisekasik	hekasik	isekasik
Prohibitive						
YOU(SG)	neakvn	nisakvn	xx	xx	hkvvn	isakvn
YOU(PL)	neakvp	nisakvp	xx	xx	hkvvp	isakvp

Abnormal continuative forms of ha= 'see'.

OBJECTS: SUBJECT	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
Singular	neeikho	nisikho	heeikho	hisikho	heikho	isikho
Plural	nevky	nivky	hevky	hisvky	hvky	isvky
Factive subordinate conditional						
Singular	neeikhe-halok	nisikhe-halok	heeikhe-halok	hisikhe-halok	heikhe-halok	isikhe-halok
Plural	nekv-salok	nivkv-salok	hevkv-salok	hisvkv-salok	hvk-salok	isvkv-salok
Factive gerund						
	nekv, neakv	nivkv, nisakv	hevkv, heakv	hisvkv, hisakv	hvk, hakv	isvkv, isakv
Iterative participle (factive)						
	nyyk	nivky	hyyk	hisyyk	hyk	isyyk
Hypothetical mode						
I	xx	xx	heele	hisele	hele	isele
ME	xx	xx	heelo	hiseelo	hele	isele
YOU(SG)	neelen	niselen	xx	xx	helen	iselen
YOU(PL)/HE/SHE/ IT/THEY	neelep	niselep	heelep	hiselep	helep	iselep
Potential mode, future (for hortative/imperative see next page)						
Singular	neekein	nisekein	heekain	hisekein	hekein	isekein
Plural	neokoin	nisokoin	heokoin	hisokoin	hokoin	isokoin
Potential mode, remote future						
	neakvp	nisakvp	heakvp	hisakvp	hvakvp	isakvp

Potential mode, hortative/imperative forms of ha= 'see'

OBJECTS: SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I						
WE-NOW-HORT	xx	xx	heak	hisak	hak	isak
WE-DEF-HORT	xx	xx	hev, hyv	hisv	hv	isv
YOU(SG)NOW-IMP	xx	xx	hevok	hisvok	hvok	isvok
YOU(SG)DEF-HORT	nean	nisan	xx	xx	han	isan
YOU(PL)NOW-IMP	neanok	nisanok	xx	xx	hanok	isanok
YOU(PL)DEF-HORT	neani	nisani	xx	xx	hani	isani
YOU-DEF-IMP	neopakeik	nisopakeik	xx	xx	hopakeik	isopakeik
HE/SHE/IT/THEY- NOW-HORT	neano	nisano	xx	xx	hano	isano
HE/SHE/IT/THEY- DEF-HORT	neanek	nisanek	heanek	hisanek	hanek	isanek
	neoak	nisoak	heoak	hisoak	hoak	isoak

Potential gerund, also Potential stem (identical in this verb)

nea	nisa	hea	hisa	ha	isa
-----	------	-----	------	----	-----

Potential gerund with setting

neamo	nisamo	heamo	hisamo	hamo	isamo
-------	--------	-------	--------	------	-------

Potential mode, predictive

neasak	nisasak	heasak	hisasak	hasak	isasak
--------	---------	--------	---------	-------	--------

Potential mode, preclusive

neahvk	hisahvk	heahvk	hisahvk	hahvk	isahvk
--------	---------	--------	---------	-------	--------

Potential mode, portentive

nea-noko	nisa-noko	hea-noko	hisa-noko	ha-noko	isa-noko
----------	-----------	----------	-----------	---------	----------

Potential mode, basic participle

nylyk	nisylyk	hylyk	hisylyk	hylyk	isylyk
-------	---------	-------	---------	-------	--------

Potential mode, perfect participle forms of ha= 'see'

OBJECTS:	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
	nealok	nisalok	healok	hisalok	halok	isalak

Manner participles do not occur. Past participle forms of the auxiliary -ha= occur with certain secondary verb stems with specialised meaning. They do not occur for the primary verb ha= 'see'.

(Potential mode, past participle forms of the auxiliary -ha=)

-natek	-nisek	-hatek	-hisek	xx	-isek
--------	--------	--------	--------	----	-------

Present/past progressive aspect forms of ha= 'see'

SUBJECTS

Present/past

I	xx	hyykhy-laky	hisykhy-laky	hykhy-laky	isykhy-laky
YOU(SG)	xx	nyykhy-laken	xx	hykhy-laken	isykhy-laken
WE	xx	hyykhy-lako	hyskv-lako*	hvkv-lako*	iskv-lako*
YOU(PL)	xx	nyykhy-lakep	xx	hvkv-lakep*	iskv-lakep*

Present only

HE/SHE/IT
THEY

nyly'-lako	nisyly'-lako	hyly'-lako	islyly'-lako
nylyly'-lay**	nisylyly'-lay**	hylyly'-lay**	islylyly'-lay**

Past only

HE/SHE/IT
THEY

nyykhy-laka	nisykhy-laka	hykhy-laka	isykhy-laka
nyykhy-lakeikha	nisykhy-lakeikha	hykhy-lakeikha	isykhy-lakeikha

* Alternate forms with progressive stems as shown for the first and second person singular subject forms also occur: hiskv-lako, hisykhy-lako 'we are seeing you(pl)'.
** Alternate forms with the auxiliary in the form -laky also occur.

4. Personal Object Prefixes with the Dative Auxiliary -et=

This auxiliary with prefixes marking singular objects is in almost (but not quite) all forms inflected regularly as a verb with a root ending in *t*, like *wat= 'hit, kill'* in the paradigms in sections A and B of this appendix, except that manner participles and past participles do not occur. With prefixes marking plural objects, the forms are homophonous with the analogous forms of *ha= 'see'* and the locative auxiliary *-ha=*. Since the dative auxiliary also occurs, although rather rarely, with reflexive voice forms with implicit third person singular personal (or animate) object reference, the paradigms include an extra column for these forms and identify subjects by person and number only, to save space, e.g. 1s for 'I', 3p for 'THEY'. Sample categories only are included.

ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	HIM/HER/IT Reflexive	THEM
		Simple factive (see also Table 8, p.113)				
1s xx	xx	-hethi	(-hisiky) (-hisoko)	-ethi	-etyky	(-isyky)
1p xx	xx	-hethu	xx	-ethu	-etoko	(-isoko)
2s -nethin	(-niseken)	xx	xx	-ethin	-eteken	(-iseken)
2p -nethip	(-nisekep)	xx	xx	-ethip	-etekep	(-isekep)
3s -nethe	(-nisikhe)	-hethe	(-hisikhe)	-ethe	-etikhe	(-isikhe)
3p -netha	(-niseka)	-hetha	(-hiseka)	-etha	-eteka	(-iseka)
Remote past						
1s xx	xx	-hethiki	(-hisasiki)	-ethiki	-etasiki	(-isasiki)
1p xx	xx	-hethuku	(-hisasuku)	-ethuku	-etasuku	(-isasuku)
2s -nethikin	(-nisasikin)	xx	xx	-ethikin	-etasikin	(-isasikin)
2p -nethikip	(-nisasikip)	xx	xx	-ethikip	-etasikip	(-isasikip)
3s -nethikhe	(-nisasikhe)	-hethikhe	(-hisasikhe)	-ethikhe	-etasikhe	(-isasikhe)
3p -nethukwaha	(-nisasukwaha)	-hethukwaha	(-hisasukwaha)	-ethukwaha	-etasukwaha	(-isasukwaha)
Potential mode, future (for hortative/imperative, see next page)						
s -nesikin	(-nisekekin)	-hesikin	(-hisekekin)	-esikin	-etekekin	(-isekekin)
p -nesukun	(-nisokoin)	-hesukun	(-hisokoin)	-esukun	-etokoin	(-isokoin)
Potential gerund						
-nesu	(-nisa)	-hesu	(-hisa)	-esu	-eta	(-isa)

Potential mode, hortative/imperative forms of the dative auxiliary -et=

To conserve space, subject categories and modal sub-categories are coded here as follows:

- 1s - I;
 1n - WE-NOW-HORTATIVE;
 1d - WE-DEFERRED-HORTATIVE;
 2s - YOU(SG)NOW-IMPERATIVE;
 2d - YOU(SG)DEFERRED-HORTATIVE;
 2p - YOU(PL)NOW-IMPERATIVE;
 2h - YOU(PL)DEFERRED-HORTATIVE;
 2i - YOU-DEFERRED-IMPERATIVE;
 3n - HE/SHE/IT/THEY-NOW-HORTATIVE;
 3d - HE/SHE/IT/THEY-DEFERRED-HORTATIVE.

ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	HIM/HER/IT Reflexive	THEM
1s xx	xx	-hesik	(-hisak)	-esik	-etak	(-isak)
1n xx	xx	-hesu	(-hisv)	-esu	-etv	(-isv)
1d xx	xx	-hesuwok	(-hisvok)	-esuwok	-etvok	(-isvok)
2s -nom, -nesin	(-nisan)	xx	xx	-om, -esin	-etan	(-isan)
2d -ne'nok	(-nisanok)	xx	xx	-e'nok	-etanok	(-isanok)
2p -ne'ni	(-nisan)	xx	xx	-e'ni	-etani	(-isan)
2h -nesupakeik	(-nisopakeik)	xx	xx	-esupakeik	-etopakeik	(-isopakeik)
2i -ne'no	(-nisano)	xx	xx	-e'no	-etano	(-isano)
3n -ne'nek	(-nisanek)	-he'nek	(-hisane)	-e'nek	-etane	(-isane)
3d -nesuwak	(-nisoak)	-hesuwak	(-hisoak)	-esuwak	-etoak	(-isoak)

Potential mode, basic participle

-netyk (-nisylyk) -hetyk (-hisilyk) -etyk (-isylyk)

Potential mode, perfect participle

-ne'luk (-nisa'ok) -he'luk (-hisalok) -etalok (-isalok)

Sample conjugations of verb roots with the dative auxiliary -et=

Following roots with final ak and ok the initial vowel of the second and third person singular object forms is assimilated to the final root vowel, and in the second and third person plural object forms, the initial vowel is frequently diphthongised to ei.

The dative auxiliary -et= with the verb wan=, wok- 'take, move', meaning 'give'

ME	Simple factive US	YOU(SG)	YOU(PL)	HIM/HER/IT	HIM/HER/IT Reflexive	THEM
1s xx	xx	wok-hothi	wok-heisyky	wok-othi	wok-otyky	wok-eisyky
1p xx	xx	wok-hothu	wok-heisoko	wok-othu	wok-otoko	wok-eisoko
2s wo'-nethin	wo'-niseken	xx	xx	wok-othin	wok-oteken	wok-eiseken
2p wo'-nethip	wo'-nisekep	xx	xx	wok-othip	wok-otekep	wok-eisekep
3s wo'-nethe	wo'-nisekhe	wok-hothe	wok-heisikhe	wok-otha	wok-otikhe	wok-eisekhe
3p wo'-netha	wo'-niseka	wok-hetha	wok-heiseka	wok-otha	wok-oteka	wok-eiseka

The dative auxiliary -et= with the verb mak= 'sharpen', meaning 'sharpen it for the personal object and give it to him'.

Simple factive

1s xx	xx	mak-hathi	mak-heisyky	mak-athi	mak-atyky	mak-eisyky
1p xx	xx	mak-hathu	mak-heisoko	mak-athu	mak-atoko	mak-eisoko
2s ma'-nethin	ma'-niseken	xx	xx	mak-athin	mak-ateken	mak-eiseken
2p ma'-nethip	ma'-nisekep	xx	xx	mak-athip	mak-atekep	mak-eisekep
3s ma'-nethe	ma'-nisekhe	mak-hathe	mak-heisikhe	mak-athe	mak-atikhe	mak-eisekhe
3p ma'-netha	ma'-niseka	mak-hatha	mak-heiseka	mak-atha	mak-ateka	mak-eiseka

5. Personal Object Prefixes with the Generalised Personal Objective Auxiliary -ap=

Simple factive: See Table 9, p.116.

Remote past:

OBJECTS: SUBJECTS	ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
I	xx	xx	-haphiki	-hinaphiki	xx	-inaphiki
WE	xx	xx	-haphuku	-hinaphuku	xx	-inaphuku
YOU(SG)	-naphikin	-naphikin	xx	xx	xx	-inaphikin
YOU(PL)	-naphikip	-naphikip	xx	xx	xx	-inaphikip
HE/SHE/IT	-naphikhe	-naphikhe	-haphikhe	-hinaphikhe	xx	-inaphikhe
THEY	-naphukwaha	-naphukwaha	-haphukwaha	-hinaphukwaha	xx	-inaphukwaha

(The generalised personal auxiliary -ap=, continued)

All other categories in all event modes are similarly inflected, following the pattern for a verb with a root ending in p, like jap= 'fight', in the paradigms in sections A and B of this appendix. This auxiliary does not occur with third person singular objects (see text, Chapter 3), and manner participles, past participles and reflexive voice forms do not occur.

Sample conjugations of wan=, wok- 'take' with -ap=, meaning 'receive the personal object' or 'help the personal object by carrying his load for him'

In some informants' speech, following roots with final ak and ok the initial vowel of the third person plural object forms is diphthongised. Non-diphthongised forms are cited here.

For subject and modal category code symbols, see the section on the dative auxiliary -et= two pages preceding.

ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT*	THEM
1s xx	xx	wok-hapik	wok-hinapik	(wanik)	wok-inapik
1n xx	xx	wok-hapu	wok-hinapu	(wanu)	wok-inapu
1d xx	xx	wok-hapuwok	wok-hinapuwok	(wanuwok)	wok-inapuwok
2s wo'-napin	wo'-ninapin	xx	xx	(wanin)	wok-inapin
2d wo'-napinok	wo'-ninapinok	xx	xx	(waninok)	wok-inapinok
2p wo'-napini	wo'-ninapini	xx	xx	(wanini)	wok-inapini
2h wo'-napupakeik	wo'-ninapupakeik	xx	xx	(wanupakeik)	wok-inapupakeik
2i wo'-napino	wo'-ninapino	xx	xx	(wanino)	wok-inapino
3n wo'-napinek	wo'-ninapinek	wok-hapinek	wok-hinapinek	(waninek)	wok-inapinek
3d wo'-napuwak	wo'-ninapuwak	wok-hapuwak	wok-hinapuwak	(wanuwak)	wok-inapuwak

Potential mode, hortative/imperative

*The verb wan= 'take' occurs with no auxiliary to refer to third person singular personal objects in the sense 'receive the personal object'. However, in the sense 'help the personal object by carrying his load for him', the third person plural object forms with the auxiliary -ap= occur with reference to third person singular objects also.

6. The Auxiliaries of Incurred Process and Resulting State: -la=, -lat=; -i=

The auxiliary -la=, -lat= 'incur a process and the resulting state' occurs with major class primary verb roots and stems and also a few secondary verb roots and stems; this auxiliary is inflected like a=, at= 'acquire', as displayed in the paradigms in sections A and B of this appendix. Following verb roots with final n or l, this auxiliary occurs without the initial l.

The auxiliary -i= 'incur a process and the resulting state' occurs with secondary verbs of incurred process and is inflected like i= 'say' in the paradigms in sections A and B of this appendix.

Some sample conjugations of verbs with auxiliaries of incurred process

Simple factive, non-reflexive voice

VERB:	With -la=, -lat=: wat= 'hit, kill', meaning 'die'	pal= 'sever',* 'become severed'	With -i=: lapo- 'hide'	tek- 'become severed',*
I	wa'-laky	xx	lapo-yky	xx
WE	wa'-lako	xx	lapo-oko	xx
YOU (SG)	wa'-laken	xx	lapo-eken	xx
YOU (PL)	wa'-lakep	xx	lapo-ekep	xx
HE/SHE/IT	wa'-laka**	pal-aka**	lapo-eikhe**	tek-ikhe**
THEY	wa'-lakeikha	xx	lapo-eka	xx

Simple factive, reflexive voice

I	wa'-lakhyky	xx	lapo-ikhyky	xx
WE	wa'-lakhoko	xx	lapo-ikhoko	xx
YOU (SG)	wa'-lakheken	xx	lapo-ikheken	xx
YOU (PL)	wa'-lakhekep	xx	lapo-ikhekep	xx
HE/SHE/IT	wa'-lakheikhe	xx	lapo-ikhikhe	xx
THEY	wa'-lakheka	xx	lapo-ikheka	xx

*The restriction of these verbs in this category to third person singular subjects is discussed in the text. Further checking is necessary, but the restrictions on occurrence of voice and subject categories shown above are genuine and general.

**The subjects of wat= and lapo- here may be personal; the other verbs have 'it' as subject.

D. SECONDARY VERB ROOTS

Secondary verb roots and constructions occurring inflected as participles*

OBJECTS: ME	US	YOU(SG)	YOU(PL)	HIM/HER/IT	THEM
From <i>hyt-ha= 'examine'</i> <i>hy'-natek</i>	<i>hy'-nisek</i>	<i>hyt-hatek</i>	<i>hyt-hisek</i>	<i>hytoko</i>	<i>hit-isek</i>
From <i>set-ha= 'wait for; guard'</i> <i>se'-natek</i>	<i>se'-nisek</i>	<i>set-hatek</i>	<i>set-hisek</i>	<i>setoko</i>	<i>set-isek</i>
From <i>lak-ha= 'look from a distance'</i> <i>la'-natek</i>	<i>la'-nisek</i>	<i>lak-hatek</i>	<i>lak-heisek</i>	<i>lakasoko</i>	<i>lak-eisek</i>
From <i>lyak-ha= 'look up at'</i> <i>lya'-natek</i>	<i>lya'-nisek</i>	<i>lyak-hatek</i>	<i>lyak-heisek</i>	<i>lyapek</i>	<i>lyak-eisek</i>
From <i>palek-ha= 'look down at'</i> <i>pale'-natek</i>	<i>pela'-nisek</i>	<i>palek-hatek</i>	<i>palek-heisek</i>	<i>pelapek</i>	<i>pelak-eisek</i>
From <i>wulak-ha= 'look out at'</i> <i>wula'-natek</i>	<i>wula'-nisek</i>	<i>wulak-hatek</i>	<i>wulak-heisek</i>	<i>wulapek</i>	<i>wulak-eisek</i>
From <i>kelak-ha= 'look in at'</i> <i>kela'-natek</i>	<i>kela'-nisek</i>	<i>kelak-hatek</i>	<i>kelak-heisek</i>	<i>kelapek</i>	<i>kelak-eisek</i>
From <i>hak-ha= 'grasp'</i> <i>ha'-natek</i>	<i>ha'-nisek</i>	<i>hak-hatek</i>	<i>hak-heisek</i>	<i>hako</i>	<i>hak-eisek</i>
From <i>muk-ha= 'chase out'</i> <i>mu'-natek</i>	<i>mu'-nisek</i>	<i>muk-hatek</i>	<i>muk-hisek</i>	<i>musok</i>	<i>muk-isek</i>
From <i>lek-ha= 'lift'</i> <i>le'-natek</i>	<i>le'-nisek</i>	<i>lek-hatek</i>	<i>lek-hisek</i>	<i>lekesoko</i>	<i>lek-isek</i>
From <i>sepet-ha= 'push down'</i> <i>sepe'-natek</i>	<i>sepe'-nisek</i>	<i>sepet-hatek</i>	<i>sepet-hisek</i>	<i>sepetek</i>	<i>sepet-isek</i>
From <i>lit-ha= 'pull'</i> <i>li'-natek</i>	<i>li'-nisek</i>	<i>lit-hatek</i>	<i>lit-hisek</i>	<i>lisoko</i>	<i>lit-isek</i>
From <i>hokkot-ha= 'shove'</i> <i>hokko'-natek</i>	<i>hokko'-nisek</i>	<i>hokkot-hatek</i>	<i>hokkot-hisek</i>	<i>xx</i>	<i>hokkot-isek</i>

From *wok-* in the sense elsewhere signalled by the construction including the generalised person auxiliary *-ap=* and not in the sense commonly signalled by the construction *wok-ha= 'take away'*; these forms mean *'escorting'*;

wo'-natek *wo'-nisek* *wok-hatek* *wok-heisek* *wolok* *wok-isek*

*These forms do not occur as attributives to nouns but in verb constructions.

APPENDIX B

A LOWER GRAND VALLEY DANI NARRATIVE TEXT

Speaker: Apsalek Aso

Addressee: Jameke Aso

Recorded at Hetigima in 1959

The Dani text as transcribed is displayed in the left column, a running gloss is given in the right column, and a free translation follows. Numbers on the text line identify sentences and key them to the free translation. Above the line are symbols identifying participants referred to in pronouns or pronominal affixes or affixes which imply but do not contrastively mark a personal referent, and also symbols indicating for each verb form whether that verb is marked to anticipate a following verb with the same subject or a different subject.

Below the line a parsing code is provided for each verb form, identifying it in terms of the categories described in Chapter 2 and 3.

Since the codes provide this information, the gloss does not include any equivalent for the remote past category or for the markers of anticipated same or different subjects except where this is commented on, as in the case of self-correction or revision by the speaker.

Keys to the codes are provided on the following page.

KEY TO PARTICIPANT CODE (Symbols above text)		KEY TO PARSING CODE (Symbols under verbs in text)	
A	Asu'lek	/2s/	Diagonals enclose
Aw	Asu'lek's wife	(1s-loc)	person, number of
AS	Apsalek, speaker		subject.
E	Esiset		Parents enclose person,
H	Hemusok		number of marked
Hs	Hemusok's son		object, and or an
I	Inekiamulin		inner layer auxiliary
Iw	Inekiamulin's wife		if any.
JA	Jameke, addressee		AUXILIARY CODE
K	Kepalik, a Welesi man	dat	Dative
Ks	Kepalik's son	dep	Depositional
L	Local group as unit	gen	Generalised personal
L2	Men of local group		objective
O	Orege	inc	Incurred process
Ow	Orege's wife	loc	Locative
O2	Orege's young men	Prog	Progressive aspect
P	Pililo, a Welesi man		GENERAL CATEGORIES
P2	Pililo's associates	2v	Secondary verb
St	A stone	2ipv	Secondary verb of
W2	Welesi people		incurred process
Wwa	A Welesi woman	F	Factive event mode
Wwb	Another Welesi woman	H	Hypothetical event mode
(A)	Parents enclose symbol	P	Potential event mode
	of participant referred	R	Reflexive voice; other-
	to in a pronoun		wise non-reflexive
	or prefix; without parents,		FACTIVE CATEGORIES
	participant is referred	F-r-n	Remote past, normal
	to in verb subject	F-p-s	Prior, setting
	marker or in other verb	F-abcon	Abnormal continuative
	suffix.	F-cond	Conditional
x	Different subject follows.		
=	Same subject follows.		
			FACTIVE CATEGORIES (cont.)
		F-copro	Coincident progressive
		F-copun	Coincident punctiliar
		F-grnd	Factive gerund
		F-itptc	Iterative participle
		F-prhb	Prohibitive
		F-remon	Remonstrative
		H-p-s	HYPOTHETICAL CATEGORIES
			Prior, setting
			POTENTIAL CATEGORIES
		P-h-i	Hortative, imperative
		P-d-m	Deferred, immediate
		P-f-s	Future, setting
		P-baspt	Basic participle
		P-facil	Facilitative
		P-grnd	Potential gerund
		P-intl	Intentional
		P-manpt	Manner participle
		P-port	Portentive
		P-precl	Preclusive
		P-pred	Predictive
		P-prfpt	Perfect participle
		P-prior	Progressive prior
		P-pstpt	Past participle
		P-remft	Remote future
		P-stem	Potential stem
			EXAMPLE: inathukwha 'they killed
			them': [(3p)F-r/3p/]. Third person
			plural personal object, factive
			mode, remote past, third person
			plural subject.

- (0) OW =
 1. A'ly-te, Oteke akwe 'noko tauk-hoko-te, [21pv-manpt]
 OW AS
 Welesi lakeikhe akkyky. [F-r-/3s/][F-/1s/]
2. Welesi lakeikhemo-te, Oteke, [F-r/3s/-s]
 (0,02) =
 akotymy pyte inom-hoko, lakoukwhasik-he, [F-r/3p/-p]
 0,02 =
 wam mel-mekke, Piliilo-mekke wolok [P-prfpt]
 0,02 AS 0,02= 0,02 x
 wakoukwha akkyky. 3. wolok wakynem-he, [F-r/3p/] [F-/1s/]
 (0,02)(0,02)(0,02) [P-prfpt][F/p/copun]
 it inoppolik inesok hilyng hilyng hilyng hilyng
 P,P2
 wakoukwha-te, Lv-pa waka-lakoukwha. [Prog-F-r/3p/]
 0,02 = 0,02 x
 4. wolok wakoukwhasi'mo-nen-he, [P-prfpt][F-r/3p/p-s]
 (0,02) 0,02
 it wakoukwha-mekke, Piliilo-lak-en-he, [F-r/3p/]
 P,P2 =
 wam hakw-hilyk-he, Oteke seke tum-hoko [21pv-manpt]
 [2v(3s-dep)P-baspt]
 (0) P,P2 AS P,P2 =
 wathukwha akkyky. 5. seke tum-hoko [21pv-manpt]
 [(3s)F-r/3p/][F/1s/]
- that-in-context--topic Orege his-wife that-we-know separating--manner--topic*
Welesi(place) she-went I-believe
Welesi after-she-went--topic, Orege
his-younger-siblings two they-together--manner, after-they-went--topic
pig what's-his-name--'s, Piliilo--'s carrying
they-came I-believe. carrying when-plural-subject-came--topic,
them behind-them their-feet tracking tracking tracking
they-came--topic, Lu--on coming--they-continued
carrying after-they-had-come--source--topic (verb marked for 'change subject' but next verb is revision, same event)
they they-came--but Piliilo--and-associates--source--topic
pig grab--having-done-it--topic, Orege spear thrust--manner
they-hit-him I-believe, spear thrust--manner

- (O) P, P2 = (O) P, P2 x
wathukwhasik-he, wathukwhama-te,
[(3s)F-r/3p/p] [(3s)F-r/3p/s]
- (O) (O) O2 =
seke watek wolok-he, ouma pi-akoukwha.
[P-pstpt][P-prfpt] [F-r/3p/]
6. pi-akoukwhasik-he, -- 7. Jamekke
[F-r/3p/p]
- JA (AS)
ty-mekke a'noko usa'mekke napyt-e.
[P-pred] def
- (AS)(AS) AS P, P2 =
8. an nane kolo hyky, 9. tum-hoko
[F/1s/] [2ipv-manpt]
- (O) P, P2x O
wathukwhama-te, ouma pi-akeikhesik-en,
[(3s)F-r/3p/s] [F-r/3s/p]
- wa'lakeikhe akkyky, 10. wa'lakeikhomo-te,
[(inc)F-r/3s/][F/1s/] [(inc)F-r/3s/s]
- (W2) O AS K =
it-en-he, Keppalyk o-kkama paik wasik-ylvk
[P-h-d/s/-intl]
- K x W2 =
wakama ylvk-he, Welesinen jokko
[F/3s/s][P-prfpt]
- W2 x L2 =
wakoukwhama-te, lakasukwhasik-he, Keppalyk
[F-r/3p/s] [F-r/3p/p]
- (K) (H) L2 =
akot Hemusok apput a'noko, seke tum-hoko
[2ipv-manpt]
- (Hs) L2 AS (Hs) L2 =
wathukwha akkyky, 11. a'noko tum-hoko
[(3s)F-r/3p/][F/1s/] [2ipv-manpt]
- after-they-hit-him*(same-subject)--topic, *after-they-hit-him*(different-subject)--topic (revised reference to same event)
spear wounded carrying--topic *home descend-they-came*.
- descend--after-they-came*--topic [Here tone and volume change.] *Jameke* (name)
- that-abstract--sort that-we-know* subject-*ought-to-say--sort my-dslike--deferential*.
- I my-talk crooked I-see*. [Here tone and volume change back.] *thrust--manner*
- after-they-hit-him*--topic, *home descend--after-he-came--source*
- die--he-became I-believe*. *die--after-he-became--topic*
- them--by--topic Keppalik*(man's name) *tree--leaves-setting*(i.e. *forest*) *forest-animal preparing-to-kill-it*
- he-has-come having-said*--topic *Welesi--from message*
- after-they-came*--topic, *after-they-went-up*--topic *Keppalik*(name)
- his-younger-sibling Hemusok*(name) *his-son that-we-know, spear thrust--manner*
- they-killed-him I-believe*. *that-we-know thrust--manner*

(Hs) L2 = [pause] (Hs)
 wathy-lokolyk-he, ...Keppalyk-noko hoe
 [Prog-P-baspt]

(K) K = K=
 neppetak ylyk ylyk pok wulipikin a'ma-te,
 [P-baspt] [P-f/s/]

seke pakky-at tum-hoko-te, pile wouk-hoko
 L2 = L2 =
 [2ipv-manpt] [2ipv-manpt]

(K) L2 L2 x
 lakw-sa-sukun akkasukwha-te, helep-en-he.
 [(3p-dep)P-f/p/][F-r/3p/]

(K) St = St = St
 vkkv1-oak pak-hoko-te, tek-hoko kisikhe.
 [2ipv-manpt] [F-r/3s/]

AS St =
 akkyky. 12. helep a'noko tek-hoko
 [F/1s/] [2ipv-manpt]

St = St AS St =
 wo'-lakha kisikhe akkyky. 13. wo'-lakha
 [(inc)RP-stem][F-r/3s/][F/1s/] [(inc)RP-stem]

St x (Hs,K)L2 = L2 x
 kikhnem-en-he, wap-salok pi-akoukwhama-te,
 [F-copun/s/] [(3p-dep)P-prft][F-r/3p/s]

(W2) (Hs,K)(Hs,K)W2= W2 AS
 it ohealek-hoko watek jeta akoukwha akkyky.
 [P-pstpt][RP-stem][F-r/3p/][F/1s/]

(Hs,K)W2= W2 (W2)
 14. jetalok lakoukwha. 15. it-en-he,
 [(3s)RPprft][F-r/3p/]

a'noko welakoukwhasik-he, it-en-he, Kuake
 W2 = (W2)
 [F-r/3p/p]

[pause](3s) [pause] (A)
 ... mel akwe ... Asu'lek akwe-non-he,

*killing-him--while-subject-continued--topic Keppalik--
 that-we-know your(sg)-older-sibling*

*with-me saying saying jumping singular-subject-will-
 go-out in(act)--topic*

*spear one thrust--manner--topic precipice heaving--
 manner*

*propel-over-distance--to-put-them--plural-subject-will-
 come they-believed--topic, stone--by--topic*

*his-head--bone split--manner--topic break-off--manner
 it-entered*

I-believe. stone that-we-know break-off--manner

*move--it-itself-to-incur it-entered I-believe. move--
 it-itself-to-incur*

*when-it-entered--source--topic defeat--having-put-
 them descend--after-they-came--topic*

*they tomorrow--manner killed-ones to-sling-on-pole-
 for-themselves they-came I-believe.*

*having-slung-him-on-a-pole they-went they--source--
 topic*

*that-we-know they-continued-prior--topic they--
 source--topic, Kuage(name)*

*what's-his-name his-wife Asuklek(name) his-wife--and
 --topic*

- (I) W2=
Inekiamvlyn akwe-non, tum wytyk-ytyk
[P-baspt]
(Iw, Aw) W2 AS
inathukwha akkyky. 16. hymy pyte.
[(3p)F-r/3p]/[F/1s/]
(Iw, Aw) W2x L2
17. pyte inathukwhama-te, it joma-nen-he,
[(3p)F-r/3p/s]
- Aso-ttappo Aso-lokkopal Aso-ttippo
L =
lokolhikhesik-he, esa hynaken
[F-r/3s/p]
L =
lokol-hylyk-he, apekkat-he, Esiset ouma-nen
[(dep)P-baspt] (E)
L2 =
matyk-ke atty apekkat hesukwhasik-he,
[F-r/3p/p]
- L2 AS
Ettakeisom lakasukwha akkyky.
[F-r/3p/] [F/1s/]
- L2 =
18. lakasukwhasik-he, o maik-ke
[F-r/3p/p]
- L2 =
la'llat-at hykhy-lokolyyk-he, hymy pyte,
[Prog-P-baspt]
Wwa x L2 =
he akeikhe sokopelan al wathenem, tum-hoko
[F-copun/s/][2ipv-manpt]
- (Wwa) L2
wathukwha. 19. he akeikhe svpytvkkama
[(3s)F-r/3p/]
- Inekiamulin(name) his-wife--and thrust coming--
coming(?)
they-killed-them I-believe. women two.
two after-they-killed-them--topic, they here--source--
topic
Aso-tapo Aso-Lokobal, Aso-tipo (confederacies)
after-he-marshalled--topic, military-company three
marshall--having-put--topic front-line--topic,
Esiset(name) his-home--from
up-valley--direction that-abstract frontline after-
they-put-it--topic
Etagei-streambed they-went-up I-believe
after-they-went-up--topic, village-eaves--direction
closing-closing--predicator putting--while-subject-
was--topic women two
woman one-of-set pandanus-air-roots refuse when-she-
struck thrust--manner
they-killed-her. woman one-of-set sweet-potato-
leaves-at (i.e. in the garden)

Wwb x (Wwb) L2 AS

svppvty tathenem wathukwaha-at hyky.
[F-copun/s/][[(3s)F-r/3p/][F/lS/]

(Wwb) L2 = Wwb
20. wat-hylyk-he at-at, at-at wa'-laka
[(3s-dep)P-baspt] [(inc)F-/3s/]

L2= (P) P
Ylvk-he, hat attoma Pililo atty je wanin
[F-prfpt] [P-i-m/2s/]

L2 x L2 x P
isukwaha. 21. isukwhama-te je wanhikhe-at.
[F-r/3p/] [F-r/3p/] [F-r/3p/]

L2 =
22. nen joma-nen je wanhukwasik-he,
[F-r/3p/p]

W2= W2 L2 x
at-at Ylvakeik na e'ni isukwhama-te,
[P-stem][P-i-m/2p/][F-r/3p/s]

W2 W2 W2
layk wayk Ylvakeik at-at na akoukwha.
[F-itptc][F-itptc] [P-stem][F-r/3p/]

(JA) JA x
23. Jamekke hane kolo isikinmo,
[F-r/2s/s]

(AS) AS
an hopuk yky atty.
[F/lS/]

sweet-potatoes when-she-dug they-killed-her--also
I-perceive

kill--having-put--topic finished finished die--she-
incurred

having-said--topic you(sg) there(abstract) Pililo(name)
that-abstract ceremonial-exchange-stones (you-sg)-take-it

they-said after-they-said--topic ceremonial-exchange-
stones he-took--also

then here--from ceremonial-exchange-stones after-they-
took-it--topic

finished Iluageik(salt pool name) to-drink (you-pl)-
come they-said-and-then--topic

going coming Iluageik finished to-drink they-came.

Jameke your-talk crooked after-you-said

I later I-said-it that-abstract.

FREE TRANSLATION:

1. 'About that, Orege's wife--you know her-- left her husband and went to Welesi, you know (translating 'I believe' as 'you know' in terms of discourse function). 2. After she went to Welesi, Orege together with two of his young men went and brought back a pig that belonged to what's-his-name--to Pililo, you know. 3. When they brought it, they of the other group came behind them, tracking their footprints, and were coming on the hill named Lu. 4. After the locals had brought it--they had come, but Pililo and his men grabbed the pig and wounded Orege with a spear thrust, you know. 5. After they wounded him with a spear thrust, they--after they wounded him, the locals carried the spear-wounded casualty down home here. 6. After they had come down here-- (7. Jameke, you ought to be telling that story. I don't like this. 8. I see my talk is crooked.) 9. After they wounded him with a spear-thrust, he came down home and died, you know. 10. After he died, they of the other side brought a message from Welesi that Kepalik had come into the forest to kill forest animals, and the locals went up there and wounded Kepalik's younger relative, Hemusok's son--you know him--with a spear thrust, you know. 11. As they were thrusting a spear into him, Kepalik--you know him--kept saying, "I'm your older brother and I'm with you!" As he said that and was about to jump out, they thrust him with one spear and intended to throw him down this way over the precipice, when a stone cracked his skull open and broke off inside, you know. 12. That stone went right in and broke off of itself, you know. 13. When it went in of itself, the locals, having clobbered them (with a connotation of carelessness and superiority), came down here, and then the next day they of the other group came there to get the bodies themselves and carry them off on poles, you know. 14. They slung them on poles and carried them off themselves. 15. After that development you know about now they stayed there some time, and they (came) and killed Kuage, who is what's-his-name's wife, Asukiek's wife, and also Inekiamulin's wife, with repeated spear thrusts. 16. Two women. 17. After they had killed two, then the locals of the Aso-tapo and Aso-lokopal and Aso-tipo confederacies arranged themselves for battle, and after they marshalled three fighting companies and arranged the front-line men up the valley from Esiset's home there, they went up the Etagei streambed, you know. 18. After they went up there, as they were surrounding the village cutting off all exit, right around the gutters under the house eaves, (there were) two women--they

killed one of them with a spear thrust as she was pounding pandanus air-roots. 19. They also killed another woman as she was digging sweet potatoes in the garden, you know. 20. After they killed her and said, "She's finished, she has already died", they said, "You, Pililo there, you make the ceremonial wealth payment of stones." 21. After they said that, he did make the payment. 22. Then after the locals had made ceremonial wealth payments of stones, they said, "It's finished. Come drink from the Iluageik salt pool", and that was the end of it; they came to drink from the Iluageik and are coming and going. 23. Jameke, you told it crooked before, so there I've told it again.'

NOTE:

The reader will note that many references to participants in this free translation reflect not noun phrases in the Dani text but markers of anticipation of the same subject or a different subject, as indicated in the code above the text. The phrases 'they of the other group' and 'the locals' in the translation are in every case English devices to represent the information carried in the Dani markers of anticipation of the same or a different subject.

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